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A STUDY OF THE CURRICULUM NEEDS OF MIDDLE MANAGERS IN  
THE OKLAHOMA CITY METROPOLITAN AREA

*The University of Oklahoma*

PH.D.

1979

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THE UNIVERSITY OF OKLAHOMA  
GRADUATE COLLEGE

A STUDY OF THE CURRICULUM NEEDS OF  
MIDDLE MANAGERS IN THE OKLAHOMA  
CITY METROPOLITAN AREA

A DISSERTATION  
SUBMITTED TO THE GRADUATE FACULTY  
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Norman, Oklahoma  
1979

A STUDY OF THE CURRICULUM NEEDS OF  
MIDDLE MANAGERS IN THE OKLAHOMA  
CITY METROPOLITAN AREA

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A STUDY OF THE CURRICULUM NEEDS OF  
MIDDLE MANAGERS IN THE OKLAHOMA  
CITY METROPOLITAN AREA

CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

The last few years have witnessed an increased emphasis in the development of middle managers. Many colleges and universities are offering courses to meet the needs of middle managers in our society. There is evidence that many of these courses lack relevancy for potential managers. Morse believed that as organizations developed training programs for their employees, and as graduates of traditional programs found that courses were inadequate for immediate job entry at the middle management level, a clear mandate for effective education and training became evident. He stated that it was not only students and business leaders who challenge the relevancy of current management education, but educators as well have become increasingly concerned with meeting the needs of the community.<sup>1</sup>

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<sup>1</sup>Gerry E. Morse, "Focus on the Individual: The Mandate for Effective Education and Training", August, 1971 (Keynote Address, American Management Association, 17th Annual Conference and Exposition on Education and Training, New York City).

Livingston asserted that most management training programs neglect to teach people what they must do in order to become effective managers. Livingston stated that most of these programs emphasize problem solving and decision making. He stated that this was "effective in developing analytical ability, but does not develop other capacities a manager will need."<sup>1</sup> There is an indication that classroom presentation does not make a complete program or adequately prepare a person for work. This viewpoint is supported by Davis and Smith in the following statement.

Designing a program in vocational education whose purpose is to prepare an individual for successful entry into the world of work is a difficult challenge for education. Factors commonly associated with educational planning and the implementation of such programming have been identified and discussed from a variety of viewpoints. Too often the development of a vocational curriculum or a program of studies is based on departmental or subject oriented limitations that reduce instructional impact and cripples its potential effectiveness in meeting a total commitment to providing all skills and competencies necessary for adequate employment preparation.<sup>2</sup>

Barlow suggested that the establishment of standards for curriculum development applicable at the local level is essential for career success. Furthermore, Barlow added:

Standards should be formulated immediately for the development of curriculum, broad in scope

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<sup>1</sup>I. Sterling Livingston, "The Myth of the Well Educated Manager", Harvard Business Review, Volume 49, No. 1, Jan.-Feb. 1971, pp. 79-89.

<sup>2</sup>Doyal G. Davis and Arthur William Smith, Jr., "An Occupational Analysis Procedure for Developing Curricula in Vocational Education", (Ed.D. dissertation, University of Southern California, 1973), pp. 31-32.

and covering basic factors, so as to permit a maximum of flexibility in meeting geographical, occupational, and technical variations throughout the fifty states.

Development of curriculum must be based upon occupational analysis and on preparation for entry into the labor market and/or successful advancement in employment on a career-ladder basis. Curriculums must be oriented to the individual needs of the diverse groups they serve and must provide for entry into employment at different occupational levels.

The curriculums must provide for the social and economic needs of the students as well as the necessary skills and related knowledge.

Subject content in curriculums must be determined by the demands of the occupation for which the training is provided and must be appropriate to the learners abilities and needs.<sup>1</sup>

Meek, in discussing the need for relevancy in education and training, said:

If curriculum developers are serious about producing relevant materials, people outside the vocational family must be involved in planning and implementing the curriculum. I believe our performance in this area is the weakest link in curriculum development and the management process.<sup>2</sup>

After an intensive study of management education, Mahler concluded that never has so much money been spent with so little evidence of value. He believed that although students set explicit expectations for their educational investment,

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<sup>1</sup>Dr. Melvin L. Barlow, A Guide for the Development of Curriculum in Vocational and Technical Education. Los Angeles: University of California at Los Angeles, 1969.

<sup>2</sup>Ronald Meek, "Outside Help for Curriculum Development in the United States", American Vocational Journal, November, 1973.

rarely does change occur. As a result of his research, Mahler suggested that in the future, executive education will:

1. Gain in popularity, as many organizations will budget to spend more money on executive education.
2. Students will exert influence on the design of the educational process.
3. Much greater attention will be given to adapting educational programs to the needs of a group of students.
4. Single educational experiences will give way to periodic participation in educational experiences pertinent to a given stage in an executive's career.
5. Educational institutes will be forced to provide a wide mixture of sophisticated courses. As a result, we will see much more homogeneity in the future.
6. Collaborative approaches will provide substantial financial support for the innovations which will overcome the historical reliance on cases and lectures.
7. More executives will be taught by other executives.
8. The educational process will become much more individualized. The students' need will heavily influence the educational process.<sup>1</sup>

#### Purpose of the Study

From the statements of Mahler, it appears that every business educator should be concerned with helping people in the middle management ranks become effective and achieving individuals. Higher levels of skills are required

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<sup>1</sup>Walter R. Mahler, "Educating the Executive in the Future", Training and Development Journal, 32, (July, 1978): 7, pp. 50-53.

in many industries as a result of a rapid advancement in the utilization of technology. Middle managers who possess these skills should be in demand today, as well as in the near future.

Industrial growth and the comparative demand for qualified personnel indicated that analysis of curriculum and employment needs of middle managers in industries was needed to determine what kind of curriculum would meet the needs of current and prospective middle managers in the Oklahoma City Standard Metropolitan Statistical Area.

It seemed apparent that there was a need for determining the curricular items needed for developing middle managers throughout the United States; therefore, a need should exist for studying middle management curricular needs for the Oklahoma City Standard Metropolitan Statistical Area. This could be accomplished effectively by consulting local business leaders to identify the competencies needed by middle managers. The competencies could then be translated into a curricular framework for a planned program for preparing middle managers.

One purpose for conducting this study was to develop a planned program curriculum in which individuals could develop and demonstrate competencies needed to perform as middle managers. A related purpose of this study was the determination of competencies needed by industrial middle managers in the Oklahoma City Standard Metropolitan Statistical Area as viewed by selected middle managers.



### Statement of the Problem

This descriptive study was designed to gather data regarding competencies needed by middle managers in industrial firms located in the Oklahoma City metropolitan area. Competencies needed by middle managers and firms in Oklahoma City were compared with curricular offerings in Oklahoma City Junior Colleges to determine if present curricula for preparing middle managers was meeting the needs of prospective middle managers. It was necessary to utilize the comparison of the reported competencies and the curricular offerings to obtain the essential knowledge for the development of a competency based curriculum for industrial middle managers in the Oklahoma City Standard Metropolitan Statistical Area.

The general question to be answered by this study was: What curriculum requirements are needed for a comprehensive middle management junior college program for industrial middle managers in the Oklahoma City Standard Metropolitan Statistical Area? Related specific questions to be answered were:

1. Is there a difference in competency based junior college curriculum requirements as perceived by responding industrial middle managers grouped according to the size of the firm in the Oklahoma City Standard Metropolitan Statistical Area?
2. Is there a difference in competency based junior college curriculum requirements as perceived by responding industrial middle managers grouped according to the educational level of the respondent in the Oklahoma City Standard Metropolitan Statistical Area?

3. Is there a difference in competency based junior college curriculum requirements as perceived by responding industrial middle managers grouped according to the age of the respondents in the Oklahoma City Standard Metropolitan Statistical Area?
4. Do catalogs from local junior colleges present course descriptions which delineate the competencies as reported by survey respondents?
5. Are present curricular offerings meeting the needs of prospective middle managers?

### Limitations

Limiting factors were those primarily involved with the restrictions upon the population in this study. The limitations were:

1. The study was limited to industrial firms employing one hundred (100) or more people. Many firms with less than one hundred (100) employees do not have a management structure that would include middle management personnel. Since the total population was to be surveyed, it was necessary that each firm have at least one middle manager in its organization.
2. Implications and findings should be generalized to the Oklahoma City Standard Metropolitan Statistical Area.
3. Implications and findings may only be applicable to industrial middle managers.

### Definition of Terms

The following is a list of operationally defined terms.

Middle managers: Middle managers were used in this research project to indicate those persons who are employed in industrial firms to implement the broad operating policies. This operational level was the first organizational step below the executive level.

Industrial firms: Industrial firms were used to represent those manufacturing companies in the Oklahoma City Standard Metropolitan Statistical Area with more than one hundred (100) employees.

Competency: Competency was used to indicate those skills, knowledges, work habits, work characteristics, attitudes, and performance proficiencies needed to function as a middle manager.

Competency based curriculum: Competency based curriculum was used to represent a "planned" junior college middle management program. Such programs are to assist individuals in developing competencies for possible employment in industrial firms.

### Research Design

The first step was a comprehensive study of the related literature.

The second step was to conduct nonstructured interviews with managers from education and industry to determine major categories to be considered when constructing the data collection instrument.

The third step consisted of constructing the data collection instrument.

The fourth step was a pilot study which resulted in an evaluation of the data collection instrument by an advisory group of experts selected from major industrial firms in Oklahoma City.

The fifth step was the finalization of the data collection instrument by using the results and comments of the pilot study.

The sixth step was to determine the population for the study.

The seventh step was to define a coding system to be used when punching the data on computer cards and select computer programs to be utilized in the analysis process.

The eighth step was to distribute the data collection instrument to eighty (80) industrial firms in the Oklahoma City Standard Metropolitan Statistical Area. (the population)

The ninth step was to punch on computer cards the responses from the returned questionnaire.

The tenth step was to implement the crosstab program from the Statistical Package for the Social Science.

The eleventh step was to study the middle management course descriptions from area junior colleges.

The twelfth step was to make a comparison of the competencies reported by the survey respondents with the published descriptions of the courses.

The final step was to formulate a report of all analysis, findings, and recommendations of this descriptive study.

### Significance of the Study

This study has provided knowledge of the competency needs of current and prospective middle managers. It will serve as a basis for obtaining assistance from business in planning, designing, implementing, and revising a competency based curriculum. The study provides the process for educators to evaluate present curricular offerings and develop a competency based curriculum for the geographic area they serve.

### Organization of the Report

Chapter I of the formal report includes the introduction, purpose of the study, statement of the problem, limitations, definition of terms, research design, and the significance of the study.

Chapter II contains a review of the related literature.

Chapter III explains the research design and procedures.

Chapter IV presents an analysis and interpretation of the data from industrial middle managers in the Oklahoma City Standard Metropolitan Statistical Area.

Chapter V presents a brief analysis of local junior college course descriptions and a comparison with the competencies analyzed. This information was used for the development of a middle management curriculum.

Chapter VI contains a summary of major findings and recommendations for further research.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Introduction

In the area of curriculum development for middle managers, authors who have contributed to current periodicals have called attention to the absence of formal research dealings with the development of business school curricula. There have been investigations reported as to the effect of rapid technological change on current and prospective managers and with problems managers must be able to solve.

According to Kerlinger, there were two reasons for including a review of related literature. The first of these reasons was to identify what research has been conducted on a problem, and second was to explain the theoretical base of a problem.<sup>1</sup>

To provide a thorough background and need for the study, the first part of this chapter contained reviews of all studies relating to middle management curriculum development. The second part synthesized the theory base for middle management

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<sup>1</sup>Fred N. Kerlinger, Foundations of Behavioral Research, 2nd ed., (New York: Holt, Rinehart & Winston, Inc., 1973), p. 696.

curriculum development as expressed by leading educators and industrial businessmen.

### Related Studies and Dissertations

Luter, in seeking commonalities in the middle management curriculum, surveyed one hundred fifty-eight (158) post-secondary institutions in nineteen (19) states. Sixty-one (61) schools who responded to the survey revealed several significant factors:

1. The variations in curriculum course offerings, program operations, and objectives were as numerous as the schools offering the programs.
2. No patterns of trend strength, or weaknesses could be identified.
3. Requirements, prerequisites, enrollments, recruiting practices, and scheduling were largely a matter of local regulations and convenience.
4. Work experience, job training, placement of students, and the responsibilities for training were as varied as the curriculum.
5. Responsibility for the curriculum, use of advisory committees, instructor recruitment, and qualifications were largely a matter of local policy and philosophy.
6. Physical facilities, equipment, and department identification were as varied as the curriculums and job training requirements.<sup>1</sup>

Luter's study also disclosed that twenty-one (21) colleges in ten (10) states offered middle management curriculum. He found the following significant factors.

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<sup>1</sup>Robert W. Luter, "Building DE Curriculum for the Junior College," American Vocational Journal, April, 1968, pp. 52-53.

For the first year:

- 100% of the programs required English
- 75% required introduction to business and physical education.
- 50% required basic selling, accounting, speech, business mathematics, marketing and psychology.
- 38% required on-the-job training.

For the second year:

- 95% required economics.
- 75% required management in some form.
- 50% required marketing, business communications, physical education, and accounting.
- 38% required on-the-job training.<sup>1</sup>

Based on these findings, the twenty-one (21) colleges proved to be in line with the thinking of executives in two hundred (200) leading companies, surveyed in a national study conducted by the American Marketing Association. The findings were:

- 127 voted economics essential.
- 111 voted selling essential.
- 107 voted human relations essential.
- 106 voted marketing essential.
- 99 voted management, psychology, mathematics, and computer science essential.
- 77 voted communications essential.<sup>2</sup>

Patton's study involved personal interviews with eighty (80) executives and middle managers in eight (8) major retail areas in Oklahoma. Her study identified twenty-two (22) curricular areas common to many general distributive middle management programs. Patton recommended that general middle management programs should be designed to meet pre-employment

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<sup>1</sup>Robert W. Luter, "Building DE Curriculum for the Junior College," American Vocational Journal, April, 1968, pp. 52-53.

<sup>2</sup>Ibid.



training needs. She believed that a specific program would limit enrollment in post-secondary distributive programs.<sup>1</sup>

Samson, with a population of one hundred twenty-three (123) middle managers, was able to determine, by using Q-sort cards, which characteristics of the retail department store middle manager should be acquired through formal education prior to entrance into the middle management position. These characteristics, according to Samson, would be developed through the following courses:

- Fundamental Legal Principles
- Oral and Written Communications
- Psychology of Business Writing
- Business Personality
- Role of Credit
- Principles of Economics
- Role of Advertising
- Business Organization and Management
- Principles of Retailing
- Introduction of Marketing
- Anthropology
- The Labor Market
- Introduction to Political Science
- Managerial Data Processing<sup>2</sup>

Carmichael's study of seven hundred one (701) middle managers employed in general merchandising, related to differences existing between middle management positions in several types of retail outlets. He further identified activities that were common to retail middle managers. Among

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<sup>1</sup>Lucille W. Patton, "An Analysis of Curriculum and Employment Needs in Post-Secondary Distributive Education in Oklahoma," (unpublished Ed.D. dissertation, Oklahoma State University, 1971).

<sup>2</sup>Harland Samson, The Nature and Characteristics of Middle Management in Retail Department Stores, (Madison, Wisconsin: University of Wisconsin, 1969), p. 8.

these activities, routine marketing and distribution activities were found more crucial to lower levels of management while the traditional planning, organizing, leading, and controlling were more important to higher levels of management.<sup>1</sup>

McQueen surveyed one hundred (100) executives and two hundred (200) middle managers in four (4) metropolitan areas of Tennessee, representing five (5) manufacturing classifications. The data, gathered through the use of a questionnaire, identified competencies needed by middle managers in industrial firms. McQueen determined that a part of every management curriculum should contain a core of courses. These courses should provide for development of competencies in both oral and written communications, basic managerial functions, human relations skills, and cost analysis and control. Further, the student should be given training in the logical expression of thought. McQueen stated that the overall nature of the curriculum should be designed so that the graduate emerged with a well-rounded education as opposed to a more technical type of training.<sup>2</sup>

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<sup>1</sup>John H. Carmichael, "An Analysis of Activities of Middle Management Personnel in the Retail Trade Industry with Implications for Curriculum Development in Post-Secondary Institutions," (unpublished Ph.D. thesis, Michigan State University, 1968).

<sup>2</sup>Harriett Jett McQueen, "Characteristics of Middle Management Positions in Selected Tennessee Industrial Firms," (unpublished Ph.D. dissertation, Oklahoma University, 1978).

Middle Manager Competencies  
In Industrial Firms

In a study by Fleishman, relating to an away-from-company course for supervisors, participants from companies where the established climate of leadership differed from the philosophy and techniques taught in the course performed less effectively after their return to the company environment.<sup>1</sup>

Argyris argued from similar premises in questioning the standards which dictate the formulation of training objectives; as was shown in the following statement:

The objectives of many executive development programs are defined primarily as a result of interviews with academics and top management representatives designed to ascertain what they desire an executive to acquire while attending the course. Such research has resulted in some very helpful information. However, some of the objectives often aimed at by academic and management people have recently come under careful scrutiny by the behavior scientists.<sup>2</sup>

Anshen's research revealed that to evaluate development programs, management must have the objectives clearly in mind. However, most companies do not have a clear idea of what they want university courses to do for their representatives. In an interview, most top managers felt that the programs should give their men a "company-wide" rather than a

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<sup>1</sup>E. A. Fleishman, E. F. Harris, H. E. Burt, "Leadership and Supervision in Industry: An Evaluation of a Supervisory Training Program," (Ohio State University: Bureau of Educational Research, 1955), No. 33.

<sup>2</sup>Chris Argyris, "Top Management Dilemma: Company Needs vs. Individual Development," Personnel, 1955, p. 129.

"divisional" outlook on management's problems. But the interviewer revealed this concept rarely, if ever, was closely related to any concrete executive requirements or skills.<sup>1</sup>

Robinson and Decarlo's data showed that the complexity and structure of an organization have some bearing on the type and kind of education and training needed by management. The rate of technological innovation was such that knowledge of a specific nature will no longer serve an individual through-out his life. In summary, Robinson and Decarlo stated:

The modern worker must have the mental ability and educational background that will make it possible for him to transfer his acquired knowledge to new work situations and to acquire new knowledge as the need presents itself. The demand for generalized educational training is becoming more persistent. The person who has received a well-rounded general education is in a better position to move within the company and to attain individual success.<sup>2</sup>

Jerkedal reported that a fundamental assumption of management courses was that every manager needed some type of training, and that a prescribed set of courses should satisfy these needs at least in part. It seemed that the ultimate goal of management training was a change in behavior that was profitable to the individual and the organization.<sup>3</sup>

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<sup>1</sup>Melvin Anshen, "Better Use of Executive Development Programs," Harvard Business Review, November-December, 1955, pp. 67-74.

<sup>2</sup>Ormsby W. Robinson and Charles H. DeCarlo, "Education in Business and Industry," Journal of Higher Education, 1966, p. 131.

<sup>3</sup>Ake Jerkedal, "Top Management Education, An Evaluation Study," Published by the Swedish Council for Personnel Administration, Stockholm, Sweden, 1967, pp. 15-17. Report No. R-50.

Morse suggested that to demonstrate responsibility, educators must be concerned with the need for relevance, not necessarily now, but 10, 20, 50 years ahead. The critical factor was the rate of change.

He further stated that unless training was clearly tied to the individual employee's job performance and career development it was not worth the time and money. Morse wrote: "What we need is some new cooperative linkage between education and work. Quite likely it will be off campus, and most of it individualized." Morse stated that the need for relevance in education was paralleled by an equally compelling need for relevance in training. Morse explained:

Unfortunately, all too many training people drift into offering a cafeteria assortment of neatly-packaged, standardized courses which they then peddle from department to department, or location to location. That such a training is so often not relevant is demonstrated by the speed with which the axe is wielded whenever top management faces budget problems or a need to cut costs.

Our most credible indicators predict a future of increasing complexity, diversity, and rate of change. To be relevant to such a life of greater and greater ranges of choice, both material and cultural or education and training must be clearly and sharply focused on the individual.<sup>1</sup>

In a research project designed to study organizations and managerial climate on one of the ten largest insurance companies, Alpander found that it was possible that all levels below top management can benefit from an educational experience

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<sup>1</sup>Gerry E. Morse, "Focus on the Individual: The Mandate for Effective Education and Training," August, 1971 (Keynote Address, American Management Association 17th Annual Conference and Exposition on Education and Training, New York City.).

designed to meet conceptual needs at different management levels. A training program should consider the various functions that were relevant for all managers. Upper management would be concerned with planning and organizing while lower managers would be interested in directing subordinates and organizing work flow.<sup>1</sup>

Wessman reported that the increasing complexity of today's business environment and the demand for managers both now and in the future who can cope with a variety of situations require that managers be trained in a wide variety of skills, as well as the knowledge of when to do what.

Wessman, in synthesizing these needs, stated:

In attempts to meet this need, many training and development specialists tend to fail more often than they succeed, because of the difficulty in defining what constitutes effective managerial behavior; a lack of understanding how organization climate interacts with managerial performance; and the impression of tools and techniques used to diagnose training and development needs.<sup>2</sup>

In summation, Wessman charged that in most companies the specific needs of individual managers were inadequately identified. Most training managers purchased the training package with the broadest appeal.<sup>3</sup>

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<sup>1</sup>Gunenc G. Alpander, "Planning Management Training Programs for Organizational Development," Personnel Journal, January, 1974, p. 17.

<sup>2</sup>Fred Wessman, "Determining the Training Needs of Managers," Personnel Journal, February, 1975, pp. 107-113.

<sup>3</sup>Ibid.

Tracey has stated that one of the greatest challenges to business today was to find and develop its managerial resources. Tracey listed the more common programs:

1. Presupervisory training programs that usually focus on the development of supervisory, human relations, and leadership skills. The content typically includes the role and responsibilities of a supervisor, work planning and scheduling, delegation, communication, interviewing, employee training, performance rating, safety, company policy, relations with unions and organized labor, grievance procedures, and practical psychology.
2. Middle management development programs that usually focus on management theory, decision making, and problem solving. They make use of such techniques as assessment centers, case problems, critical incidents, discussion, simulation, in-basket exercises, and business games. They may involve rotational job assignments, participation in committees and junior boards, and attendance at outside seminars and conferences. Study at colleges and universities may also be included.
3. Executive development programs that usually involve on-the-job development, mainly coaching. However, formal training may be a part of the program. In-house forms include participation in unstructured discussions, simulation, role playing, business games, and grid seminars. Attendance at out-of enterprise seminars, sensitivity-training sessions, and university courses may also be encouraged.<sup>1</sup>

According to Katz, every manager must possess varying degrees of three basic skills. Those skills were technical, human, and conceptual. Lower level managers need technical and human skills. Middle managers depend on human and

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<sup>1</sup>William R. Tracey, "Evaluating Training and Development Systems," (American Management Association: New York, 1975), p. 89.

conceptual skills and executive level managers were most concerned with conceptual skill development.

Katz emphasized that most performance problems are either training or capability problems. These assumptions often ignore other barriers to performance, which no amount of training could alter; restrictive work rules, unrealistic expectations or standards, an unwillingness on the part of upper management to delegate authority, or outmoded organization structure. Katz in discussing his objectives stated:

Before a valid definition of the developmental needs of a manager can be given, the training must answer two basic questions:

1. Is training in management or human relations skills needed?
2. If so, what would be the long term consequences of developing new behavior X in managers in this organization?

Effectiveness criteria for managers are much more subjective and situational than those applied to their trades and professions. This makes the task of identifying training needs more difficult and training models less useful. Instead of asking who will be effective, how may a person be effective, we may ask the broader, more complicated question: What are the varieties or combinations or organizational circumstances, personal characteristics and behavior patterns that are likely to be perceived as effective managing?<sup>1</sup>

Thorne and Marshall reported perceptions of the middle managers who wanted skill development training. They found that managers were self-directing adults who can best identify their own training needs. This same group was used as a

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<sup>1</sup>Robert L. Katz, "Skills of an Effective Administrator," Harvard Business Review on Management, 1st. ed., (Harper and Row, 1975), pp. 21-23.



resource for designing a program to meet these needs. It was believed that by participating in the design process, managers would receive greater benefit. By analyzing managers self-perceived needs, they were laying a firm foundation for building a successful program in that it must have the teaching of top management as well as those who would directly benefit from the program.<sup>1</sup>

Work groups met to define the top priorities. The four top priority needs were:

1. Motivation and communication
2. Career development
3. Work planning and performance appraisals
4. Compensation<sup>2</sup>

Each item was then given the task of designing a learning module which would meet one of these needs.<sup>3</sup>

Giblin offered a different point of view on employment needs of middle managers. He suggested that many companies are either unwilling or cannot afford large numbers of high achievers. Most middle management and professional employees appear to feel that they were underutilized by their organizations. Giblin made the following observations:

Surveys of this population often indicate that they don't feel their jobs demand enough of their energy or abilities, and analysis of their jobs tend to confirm their feelings. It has become evident

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<sup>1</sup>Edward H. Thorne and Jean L. Marshall, "Managerial Skills Development: An Experience in Program Design," Personnel Journal, January, 1976, pp. 16-17.

<sup>2</sup>Ibid.

<sup>3</sup>Ibid.

that a large portion of our middle management and professional group is over educated and has expectations that exceed the demands of their jobs.<sup>1</sup>

Burr reported that a successful management development program need not be a fixed curriculum. It may be as diverse in content as its participants. The content should be determined by the needs of the group at the time it was being offered. While there may be some core material, the overall content will vary from year to year. This would be developed through conferences with managers who were planning the development of their subordinates. Course material may range from elementary courses in English, Speech, or company orientation to seminars embodying complex scientific, economic, or philosophical theory. They would be very specialized or extremely broad encompassing all facets of business.<sup>2</sup>

In conclusion Burr wrote: ..

Business does not speak with the same voice, any more than do educators. Nor do businessmen practice what they preach. While some business leaders praise the virtues of a liberal education, operating supervisors on the firing line look for the technical training that will enable the young college graduate to earn immediately his very first salary check. Thus, the uncertainty within the business schools is compounded by the uncertainty which business itself feels.<sup>3</sup>

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<sup>1</sup>Edward J. Giblin, "Motivating Employees: A Closer Look," Personnel Journal, February, 1976, pp. 69-70.

<sup>2</sup>Robert B. Burr, "Management Development," in Training and Development Handbook, ed. Robert L. Craig, Lester R. Bittel (McGraw-Hill, 1976), p. 384.

<sup>3</sup>Ibid.

According to Newell, participants of training programs must see its relevance to their present or potential position if interest was to be maintained. Specific topic coverage may vary from company to company, but topics were essentially designed around a general format that could be used in most firms. Newell stated:

Although grouping is sometimes heterogeneous and could lead to a better understanding of each others problems, participants often feel that too much time is spent on material not relevant to their specific position.<sup>1</sup>

Newell also reported that reading assignments should be carefully selected to cover only that specific area that was to be discussed. The participants value their time and would read only that material that they felt was relevant to their job.<sup>2</sup>

Muller in an article about human resource development stressed that the array of corporate programs devoted to leadership development would always be second to on-the-job training as the most important source of attitude development. However, it was also assumed that on-campus programs would be used to supplement in-house facilities for leadership development, and that a good leader must also be a good trainer.<sup>3</sup>

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<sup>1</sup>Gale E. Newell, "How to Plan a Training Program," Personnel Journal, May, 1976, pp. 220-221.

<sup>2</sup>Ibid.

<sup>3</sup>David G. Muller, "A Model for Human Resources Development," Personnel Journal, May, 1976, pp. 238-243.

Turner suggested that one of the reasons for a decline in economic growth was the lesser contribution of education to the productivity of labor as the average educational level of the population increased. Furthermore, higher levels of skills were required in certain industries. Those with sophisticated skills would find a favorable market, others would be in trouble. The student with a degree in literature or history may have to compete with those just graduating from high school.<sup>1</sup>

English and Marchione described management development as an ongoing endeavor, essential to the continued growth and development of the firm. There should be an in-depth backup for every management position, as well as a constantly improving level of expertise.<sup>2</sup>

English and Marchione believed that development programs for middle managers must begin with executive level managers if they were to be effective. Only when these people acquire and implement new attitudes and skills would the organization be in a position to expand these programs to lower levels of management. English and Marchione wrote:

The breadth of experience, knowledge and skills of its managers should thereby keep pace with the challenge of business education.<sup>3</sup>

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<sup>1</sup>Robert C. Turner, "Enrollment Prospects for Collegiate Schools of Business," Business Horizons, October, 1976, pp. 56-57.

<sup>2</sup>Ion English and Anthony R. Marchione, "Nine Steps in Management Development," Business Horizons, June, 1977, p. 88.

<sup>3</sup>Ibid.

According to English and Marchione, management development was not just training, and simply asking a manager to take a course or read a book was not going to develop the needed skills. The training must be practical and related to organizational needs. Their suggestion was to combine course study with related work experience so the learning curve was pushed significantly higher. English and Marchione, in summarizing their own analysis, stated:

In any event, the program must be designed in the terms of the individuals present job as well as advancement potential. Commercially offered programs, widely promoted and attended by individuals from different organizations, can and do serve particular needs of the organization. But many are totally inappropriate; they lack relevancy to the unique characteristics of an organization, are not concerned with problems particular to the organization and, in general, do not address those dimensions important to the individuals being trained.<sup>1</sup>

Martin reported that in the future the traditional role of the middle manager would change drastically. Management by exception would be the rule. Managers would be responsible for promoting high levels of cooperation among technically trained personnel and providing them with a suitable work environment. This would require a manager who was broadly trained and sensitive to the needs of others. Martin wrote:

Managers will need to be more broadly and intensively educated in the future as work becomes increasingly intellectual and the level of education

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<sup>1</sup>Ion English and Anthony R. Marchione, "Nine Steps in Management Development," Business Horizons, June, 1977, p. 88.

in the general population increases. Managers will need an education that includes such disciplines as economics, quantitative methods, behavioral science and law.<sup>1</sup>

Martin had indicated that executive level managers will begin to focus more attention on development of organizational goals, long range planning and merging organizational interest with external environment. Most decisions in this type of organization would flow upward to the executive team. Martin stated:

Top managers of tomorrow can be expected to have a much broader view of the organization and its relation to society than the typical manager of today. Although they may be chosen partly on the basis of their technical skills, future top managers will likely have stronger backgrounds in the social sciences, world affairs, and humanities. Their abilities will reflect a trend toward the manager as statesman, sensitive to social, economic and political problems.<sup>2</sup>

Flaumenhaft in 1977 reported the absence of recent articles and research about the current curriculum in collegiate business programs. He further stated that many business schools were introducing programs in communications and public and private management as a reflection of business students desires to acquire marketable skills. There just do not seem to be enough professional level jobs to absorb the increasing supply of college graduates.<sup>3</sup>

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<sup>1</sup>G. Lowell Martin, "A View of Work Toward the Year 2000," Personnel Journal, October, 1977, p. 502.

<sup>2</sup>Ibid.

<sup>3</sup>Frank K. Flaumenhaft, "The Undergraduate Curriculum in Collegiate Business Education," Collegiate News and Views, Fall, 1977, p. 15-16.

Performance Standards and  
Skill Identification

In a study of university and college programs in Business Administration, Pierson found that even before 1900, the proportion of business leaders with a college education was well above the population as a whole. Since then, despite the rapid rise in the percentage of the population attending college, the disparity has increased. In 1900, about thirty-nine (39) percent of the older executives had attended college as compared to eighty (80) percent of the younger executives in 1950.<sup>1</sup>

Dressel and Mayhews' report to the American Council on Education, involving six intercollege committees on general education, revealed that opinions on training objectives may differ among the teachers who staff the same program. The report also indicated a tendency to associate only one or two of the objectives with the particular courses taught.<sup>2</sup>

Breech expressed the belief that one of the most widely debated subjects over the years has been the differing points of view about the personal qualities that contribute to the successful practice of supervision and management. Brech credits the "development" of management skills and

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<sup>1</sup>Frank C. Pierson, The Education of American Businessmen: A Study of University-College Programs in Business Administration, (New York: McGraw-Hill, 1959).

<sup>2</sup>P. L. Dressel and L. B. Mayhew, "Explorations in Evaluation," (Washington, D.C.: American Council on Education), p. 3.

attitudes to the guidance of the more competent senior managers. To this was added the acquisition of skills through the study of the practices and techniques of supervision and management. Regardless of what a manager learns from courses on management techniques he must still have the first-hand experience of responsibility in a managerial situation. Techniques can certainly help in promoting management competence, but they were rarely the key.<sup>1</sup>

Jerkedal's descriptive study of education for top management personnel consisted of one hundred forty (140) participants. A questionnaire was used for gathering data. The study described external courses on general management for top and next-to-the-top managers and specialists in companies and comparable organizations. He stated that the trend toward higher education will continue to be a requirement for middle and executive level managers.

Jerkedal wrote:

Methods of instruction have changed in corresponding degrees. To cope with new elements of subject matter there has been a need for new teaching methods and new findings of educational, psychological and sociological research related to learning, attitude formation and attitude change. Here we need only point to the research on group dynamics, which has had great bearing. Not only on sensitivity-oriented training, but also on the group discussion and role-playing techniques that are so widely employed in management education. Different types of courses vary

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<sup>1</sup>E. F. L. Brech, Management its Nature and Significance, 4th ed., (London: Sir Isaac Pitman and Sons, 1967), pp. 189-190.



greatly in the length of time they require, ranging from weeks to years, programs often show a high degree of similarity in their subject content and the instruction methods employed, but some major discrepancies can also be noted at the same time.<sup>1</sup>

In conclusion, Jerkedal claimed that the ultimate aim of management education was to improve middle management performance on the job. These improvements must also be related to overall training objectives.<sup>2</sup>

According to Livingston, managers should be taught problem finding and opportunity finding. He suggested that certain personal qualities of effective managers were almost impossible to reach. These qualities were:

1. The need to manage: Only those people who want to affect the performance of others and who derive satisfaction when they do so are likely to become effective managers.
2. The need for power: Good managers have a need to influence others. To do this they do not rely on the authority of their positions but on their superior knowledge and skill.
3. The capacity for empathy: The effective manager also needs the ability to understand and cope with the often unexpressed emotional reactions of others in the organization in order to win their cooperation.<sup>3</sup>

Martin, director of the Community College Unit of the U.S. Office of Education, reported that important changes

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<sup>1</sup>Ake Jerkedal, "Top Management Education, An Evaluation Study," Published by the Swedish Council for Personnel Administration, Stockholm, Sweden, 1967, pp. 15-17. Report No. R-50.

<sup>2</sup>Ibid.

<sup>3</sup>J. Sterling Livingston, "The Myth of the Well Educated Manager," Harvard Business Review, Jan.-Feb., 1971, pp. 79-89.

were coming in the philosophy of what curriculum was needed, and what group should be served by it. Martin also reported that the traditional student was being joined by older students, therefore, age itself was one difference. Older students have accounted for some of the heavier percentage increases in enrollment. Women are another group who must acquire skills rapidly as more and more middle management opportunities become available.<sup>1</sup>

According to Wessman, it was very difficult to define the training needs of managers. It has been assumed that what constitutes effective management could be behaviorally defined. Defining the training and development needs of managers would involve more than a rating of performance on basic management functions. Wessman also reported that the level of management and the norms, values, and structural aspects of the organization would significantly influence manager performance.<sup>2</sup>

According to Blai's two year research, at Harcum Junior College in Bryn Mawr, Pennsylvania, candid and anonymous evaluations from fifty-one (51) employers were used to measure overall education effectiveness among the various curricula. Each curriculum was geared to the development of skills having interfield and interoccupational transferability. As a result,

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<sup>1</sup>Marie Y. Martin, "Recent Trends in Community College Occupational Education," Community College Review, Winter, 1974- pp. 30-31.

<sup>2</sup>Fred Wessman, "Determining the Training Needs of Managers," Personnel Journal, February, 1975, pp. 113-125.

the college had designed into most programs a core of general education represented by course offerings in the three major areas of the behavioral sciences, the natural sciences, and the humanities. These programs were designed to develop competencies in mathematics, communications, and skills in interpersonal behavior. These competencies were important, in a wide variety of occupations, and provided flexibility for most graduates.<sup>1</sup>

Turner, in an address presented at the American Assembly of Collegiate Schools of Business at a meeting in Atlanta, Georgia, was concerned with adapting programs to needs. Turner said:

A majority of American schools of business are seriously obsolete in their undergraduate programs. Since the early 1960's, the market has changed greatly, but the inertia of college and university faculties is so heavy that they have not changed accordingly.<sup>2</sup>

In an article based on an interview with Dr. Harry Levinson, the editor of Management Review, John M. Roach reported that many businessmen were talking about being practical and hardnosed and less longhaired; however, the world was getting more and more complex. As this continues

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<sup>1</sup>Boris Blai, "Employer-Based Evaluations of Occupational Education Programs," Community College Review, Spring, 1976, p. 71.

<sup>2</sup>Robert C. Turner, "Enrollment Prospects for Collegiate Schools of Business," Business Horizons, October, 1976, pp. 56-57.

to happen, people capable of abstraction, and with a broader knowledge base must be trained.

Levinson stated:

The same is true with the greater complexity of business organizations. Managers are simply going to have to become more and more aware of the past and its complexities, recurrent social cycles, political history, socio-economic history.<sup>1</sup>

Levinson contended that managers receive a great deal of specialized training, but not enough education. Middle managers become more narrow, more specialized, and therefore, more obsolete.

Every executive should take three weeks a year in some kind of program for refreshment, for new knowledge, for various ways of keeping up with the world. Universities offer a variety of such courses, including some at commencement time; you take your spouse, read something, think about something, look at different parts of the world. The experience<sup>2</sup> will have an impact on you in one way or another.

Watson's follow-up study of the Gordon-Howell and Pierson reports focused on the curriculum of undergraduate business education. Watson based his recommended curriculum on the needs of businessmen, rather than on prevailing educational theory. He concluded that the curriculum should be based on the needs of businessmen and reported three basic qualities that every middle manager must possess. These skills were:

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<sup>1</sup>John M. Roach, "Managing Psychological Man," Management Review, June, 1977, pp. 27, 38, 39.

<sup>2</sup>Ibid.

1. The ability to communicate.
2. The possession of human relations skills.
3. The ability to solve problems.<sup>1</sup>

Watson felt that the development of competencies in these three basic areas would be the only feasible method of training potential business leaders. These qualities could be developed by having courses in English, specifically in communications, and utilization of the case method of decision making in the behavioral sciences.<sup>2</sup>

#### Competencies Delineated in the Literature

A synthesis of competencies from the reviewed literature revealed that there were three basic qualities that an effective middle manager must possess. They were: (1) human relations skills, (2) communication skills, and (3) the ability to effectively solve problems.

Within this framework a basis for a competency approach was evident. Skill characteristics included: (1) employee motivation, (2) work planning, (3) scheduling, (4) delegation of authority, (5) employee training, (6) affirmative action, (7) labor relations, (8) personnel and staffing, (9) cost control, (10) budgeting, and (11) practical psychology.

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<sup>1</sup>Frank Watson, An Analysis of the Business Curriculum, "cited by" Frank Flaumenhaft, "The Undergraduate Curriculum in Collegiate Business Education," Collegiate News and Views, Fall, 1977, p. 15.

### Summary

The research studies and articles reported were found after a thorough and extensive study of all sources available. It became clear that a comprehensive delineation of competencies for middle managers in industrial firms had not been produced prior to the study.

In this Chapter a synthesis of the literature relevant to this study has been included. In order to establish a theoretical base, relevant studies closely related to the development of competencies were investigated. Other studies were examined to determine the effectiveness of both teaching methods and the need for curriculum development for middle management in education and business. Skill characteristics of current and prospective middle managers were identified and categorized. These studies and reports were used to identify competencies needed by persons currently or prospectively entering the industrial middle management field in Oklahoma City.

As a result of this extensive review of the literature, a questionnaire was designed to categorize competencies according to the needs of middle managers in the Oklahoma City Standard Metropolitan Statistical Area. A copy of the questionnaire was included in Appendix A.

## CHAPTER III

### METHODOLOGY

#### Introduction

The primary purpose of this chapter was to delineate the research methods used to determine the training need competencies of middle managers in large industrial firms in the Oklahoma City Standard Metropolitan Statistical Area. Specifically, this chapter described the methods used in selection of the population, the procedure by which a sample of the population was selected, the design of the data gathering instrument, the method used for data collection, and the methods of data analysis utilized.

#### Population for the Study

The population for this study was selected from the publication entitled, Manufacturers in Oklahoma City, prepared by the Economic Development Division, Oklahoma City Chamber of Commerce.<sup>1</sup> Eighty (80) firms were identified as meeting the criteria, which were: (1) industries had to manufacture a consumer product, (2) industries must be located in the five (5) county Standard Metropolitan Statistical Area (the Oklahoma

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<sup>1</sup>Oklahoma City Chamber of Commerce, The Economic Development Division: Manufacturers in Oklahoma City Metropolitan Area, 1977.

City Standard Metropolitan Statistical Area includes Oklahoma, Canadian, Cleveland, McClain, and Pottawatomie counties), and (3) industries must have a minimum of one hundred (100) employees with the maximum number of employees being of no concern. The reasons for this third limiting factor was that firms with less than one hundred (100) employees may not have a management structure large enough to include middle management personnel.

Eighty (80) firms comprised the total population of manufacturing firms within the Standard Metropolitan Statistical Area. The eighty (80) firms in the population were grouped into four (4) different size classifications. There were forty-four (44) firms with one hundred (100) to two hundred and forty-nine (249) employees, nineteen (19) firms with two hundred and fifty (250) to four hundred and ninety-nine (499) employees, seven (7) firms with five hundred (500) to nine hundred and ninety-nine (999) employees, and ten (10) firms with one thousand (1000) or more employees. Because of the small number of firms which met the above three (3) criteria, no sampling procedure was used. The entire population was surveyed.

The identification of the population was necessary so that the data collected from middle managers employed by manufacturing firms would be representative of competencies utilized in similar organizational structures and in positions requiring similar performance criteria.



### Data Collection Instrument

Kerlinger believed that survey research was a valid method for obtaining information. Kerlinger wrote:

The social scientific nature of survey research is revealed by the nature of its variables, which can be classified as sociological facts and opinions and attitudes. Sociological facts are attributes of individuals that spring from their membership in social groups or sets: sex, income, political and religious affiliation, socio-economic status education, age, living expenses, occupation, race, and so on.<sup>1</sup>

The use of a questionnaire was determined to be a proper instrument for gathering data from industrial managers selected for this study. This instrument was structured using Likert's method of summated ratings. The Likert scale was primarily designed to determine an individual's degree of agreement or disagreement on each particular item. In this way, information could be obtained that would accurately reflect the attitudes of the surveyed respondents.<sup>2</sup>

The development of the instrument's content was developed in phases. One phase was a jury composed of management faculty from institutions of higher education in the Oklahoma City metropolitan area. The jury assisted in reviewing all items developed from the available literature, and offered suggestions for additional questions. The jury of experts

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<sup>1</sup>Fred N. Kerlinger, Foundations of Behavioral Research, 2nd. ed., (New York: Holt, Rinehart & Winston, Inc., 1965), pp. 335-396.

<sup>2</sup>Rensis Likert and Gardner Murphy, Public Opinion and the Individual, (New York: Harper and Brothers, 1938), pp. 14-66.

selected one hundred and seventy-seven (177) skills in fifteen (15) competency categories for the initial instrument (Shown in Appendix A).

The second phase was a pilot study composed of five (5) companies listed in the Oklahoma City Personnel Association Directory.<sup>1</sup> The jury of experts from these companies were selected because they were the officers responsible for training within their respective organizations and because they had worked in an advisory capacity with curriculum committees for higher education.

At the end of November, 1978, a copy of the instrument was sent to an officer from each of the five (5) companies with the instructions that they rank each question on a scale of one (1) to five (5) with one (1) being very important to a curriculum and, four (4) unimportant. A fifth category was available for a no opinion response. All five (5) of the respondents returned the questionnaire.

The average was calculated for each of the one hundred and seventy-seven (177) questions eliminating those with a rating of two (2) or greater from the survey form. This left the instrument with one hundred and nine (109) competencies in fourteen (14) categories. (See Appendix A for a copy of the operational questionnaire.) In order to group the questions into sections for easy analysis, fourteen (14) categories

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<sup>1</sup>Oklahoma City Personnel Association, 1978. One Sante Fe Plaza, Oklahoma City, Oklahoma, 73102.

normally expressed in the literature were utilized. Each of these categories has been expressed in the same or similar terminology as that reflected in the review of related literature.

### The Distribution

The instrument was distributed by mail to industrial personnel managers in the eighty (80) firms in the sample. The questionnaires were mailed with a cover letter (See Appendix A) and a self-addressed, stamped envelope. Each questionnaire was coded so that those who failed to return a questionnaire within three weeks could receive a follow-up mailing (Appendix A). Thirty-two (32) questionnaires were returned after the first mailing and twenty-three (23) after the second mailing. By March 3, 1979, a total of fifty-five (55) questionnaires were returned. Fifty-five (55) of eighty (80) represented a sixty-nine (69) percent response rate. This was considered to be an acceptable rate of return. The acceptability of the return rate was verified by the following statement by Erdoes:

While it is impossible to generalize about what constitutes an adequate return rate, it is also unwise to side-step the question or to hedge on it. In this author's opinion, a minimum standard can be established, which sets at least a negative limit: no mail survey can be considered reliable unless it has a minimum of 50 percent response, or unless it demonstrates with some form of verification that the nonrespondents are similar to the respondents.<sup>1</sup>

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<sup>1</sup>Paul L. Erdoes, Professional Mail Surveys, (New York: McGraw Hill, 1970), p. 144.

### Data Presentation

The data obtained from the fifty-five (55) questionnaires were audited and the responses were extended to the card code column at the right hand side of the questionnaire page. Data responses as coded in the card column were keypunched onto computer data cards. Data cards were proofread to verify accuracy of keypunching. A program for crosstabs<sup>1</sup> was written, run, and debugged to assure accuracy of analysis when used later with the data cards. The crosstabs<sup>2</sup> program was run with the verified data cards. The results presented 318 contingency tables, 109 of these were included in Appendix B.

The data in the tables contained a comparison of each competency with the selected demographic factor. One demographic factor selected was the size of the firms. The age of the respondent category, another of the demographic factors, which produced 109 tables was further analyzed to show the means for each mean. The educational level of the respondent category, another of the demographic factors, which also produced 109 tables was further analyzed to show the means for each mean.

The total population mean ratings were calculated for: each competency by firm size, each competency by the educational level of the respondent and each competency by the age of the respondent. Calculated means for

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<sup>1</sup>Nie, Norman H. et al. Statistical Package for the Social Sciences. New York: McGraw-Hill Book Company, 1970.

<sup>2</sup>Ibid, p. 245.

each of the competencies were used to determine which competencies could be considered in a planned industrial middle management curriculum.

Three tables were developed to present to the reader the results of analyzing and summarizing the competencies by each of the three demographic categories. The data in Table 122 contained the results of analysis by the size of the firm, the data in Table 123 contained the results of analysis by the educational level of the respondents, and the data in Table 124 contained the results of analysis by the age of the respondents. Tables 2, 3 and 4 were developed by synthesizing the data shown in Tables 122, 123 and 124.

The means as computed for each competency for the size of the firm, the educational level of the respondents, and the age of the respondents were combined with the population used in the study and presented in Table 1.

Official catalogs containing middle management programs were collected. Course descriptions were synthesized to illustrate which competencies were included in current course offerings. This information was presented in Exhibit 1.

The competencies that were selected by survey respondents were compared with current course offerings available in the Oklahoma City Metropolitan Area. The compared data were grouped into fourteen (14) categories of competencies. The results of the comparisons were presented in Table 5.

Competencies not included in present catalog listings were grouped into related areas and possible course titles were

suggested for each grouping. This information is shown in Table 6. Competencies for each grouping were extracted from the questionnaire. The competencies were sorted and summarized by each of the six (6) groups.

The competencies listed for each group were analyzed and synthesized into the content for suggested course descriptions. The grouped competencies and the suggested course descriptions were combined and presented into an individual table to represent each group. Each group represented the content for a proposed course for a planned industrial middle management curriculum. The data in Table 7 contained the proposed course for Organizational Behavior. The data in Table 8 contained the proposed course for Industrial Management Process. The data in Table 10 contained the proposed course for Industrial Accounting. The data in Table 11 contained the proposed course for Human Resource Development. The data in Table 12 contained the proposed course for Industrial Employee Relations. The proposed course descriptions as developed were combined and presented in Exhibit 2.

The categories for competencies were compared with competencies within each category by running a reliability analysis.<sup>1</sup> The results of this analysis were presented in Appendix E, Table 125.

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<sup>1</sup>Nie, Norman H. et al. Statistical Package for the Social Sciences. New York: McGraw-Hill Book Company, 1970.

## CHAPTER IV

### ANALYSIS AND INTERPRETATION

#### Introduction

The purpose of this study was to gather data from industrial middle managers to provide knowledge essential for developing a competency based curriculum for industrial middle managers in the Oklahoma City Standard Metropolitan Statistical Area. The purpose of this chapter was to present the data collected by a survey of industrial middle managers. These middle managers represented eighty (80) manufacturing firms in the Oklahoma City metropolitan area.

The data collection instrument contained one hundred and nine (109) questions in fourteen (14) categories. Using a Likert scale of summated ratings, each respondent was asked to select one of the following options on each of the one hundred and nine (109) questions: (1) very important, (2) moderately important, (3) slightly important, (4) unimportant, or (5) no opinion.

### Analysis of Data

The Statistical Package for the Social Sciences was used to crosstabulate the data.<sup>1</sup> Crosstabulation included the option for the chi-square ( $\chi^2$ ) test. The chi-square results were included in Appendix B.

The data were analyzed to find the mean ratings for each questionnaire item. Any questionnaire item for which a mean rating of two-point-five (2.5) or less was considered important for the development of a middle management curriculum.

### Principal Question

The question to be answered was, "Can curriculum requirements be identified for a comprehensive middle management program for industrial middle managers in the Oklahoma City Standard Metropolitan Statistical Area?"

The data presented in Table 1, page 46, shows the mean of each competency by the size of the firm, the educational level of the respondent, and the age of the respondent. The last column shows the mean for the total population.

The curriculum requirements for a comprehensive middle management program were developed from the data presented

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<sup>1</sup>Nie, Norman H. et al. Statistical Package for the Social Sciences, (New York: McGraw-Hill Book Company, 1970), pp. 223-224.



TABLE 1  
SUMMARY OF 109 COMPETENCIES BY AVERAGE  
RATINGS OF DEMOGRAPHIC FACTORS

Competencies	Size Mean	Educ. Mean	Age Mean	Population Mean
<u>Communication</u>	(55)	(55)	(55)	(55)
The ability to effectively write:				
a) letters	1.78	1.76	1.76	1.77
b) memos	1.70	1.69	1.69	1.69
c) reports	1.69	1.71	1.71	1.70
The ability to effectively communicate orally to:				
a) individuals	1.11	1.11	1.11	1.11
b) small groups	1.47	1.39	1.39	1.42
The ability to communicate:				
a) work plans	1.41	1.33	1.33	1.36
b) work schedule	1.56	1.46	1.46	1.49
c) orders	1.32	1.78	1.28	1.46
d) instructions	1.29	1.07	1.29	1.22
e) directions	1.43	1.44	1.44	1.44
<u>Motivation</u>				
An understanding of specific guidelines for effectively motivating subordinates	1.67	1.55	1.55	1.59
The ability to use interpersonal skills effectively	1.67	1.48	1.48	1.54
An understanding of how behavior is:				
a) energized	1.90	1.79	1.79	1.83
b) directed	1.85	1.69	1.75	1.76
c) sustained	1.96	1.78	1.79	1.84
An understanding of motivation as it relates to:				
a) interpersonal relations with supervision	1.70	1.71	1.71	1.71
b) interpersonal relations with peers	1.76	1.76	1.76	1.76
c) interpersonal relations with subordinates	1.56	1.51	1.51	1.53
<u>Electronic Data Processing</u>				
The ability to assimilate information for strategic planning (for upper management)	1.83	1.81	1.81	1.82
The ability to use detailed internal information for operational control	2.12	1.96	1.96	2.01
The ability to assimilate information for:				
a) operational control	2.12	1.77	1.78	1.89
b) departmental control	1.98	1.68	1.68	1.78
<u>Quantitative Methods</u>				
The ability to collect and analyze data for managerial decision making	1.90	1.83	1.83	1.85
The ability to utilize statistical computations for:				
a) cost effectiveness	1.81	1.77	1.78	1.79
b) cost projections	1.70	1.70	1.70	1.70
c) managerial decisions	1.81	1.77	1.78	1.79
The ability to apply statistics in the manufacturing process	2.29	2.00	2.00	2.10
<u>Organization</u>				
An understanding of organizational structure	1.76	1.75	1.75	1.75
A willingness to study, learn and apply	1.49	1.51	1.51	1.50

TABLE 1--Continued

Competencies	Size Mean	Educ. Mean	Age Mean	Population Mean
An understanding of the goals and objectives of the organization	(55) 1.36	(55) 1.33	(55) 1.33	(55) 1.34
The ability to establish departmental goals that are compatible with corporate goals	1.45	1.41	1.41	1.42
An understanding of the major components of organization:				
a) authority structure	1.98	1.85	1.85	1.89
b) division of labor	1.83	1.77	1.78	1.79
c) mechanisms of coordination (processes)	1.69	1.49	1.67	1.62
d) economic measures of performance	1.72	1.71	1.70	1.71
The ability to apply the organizational philosophy in all leadership functions	1.56	1.52	1.52	1.53
<u>Planning</u>				
The ability to decide:				
a) what future resources the organization will need	2.10	1.92	1.92	1.98
b) how these resources will be allocated	2.09	1.90	1.90	1.96
c) what alternative courses of action are available	1.98	1.75	1.75	1.83
An understanding of the establishment of:				
a) a set of goals	1.54	1.48	1.48	1.50
b) how far the organization is from these goals	1.78	1.74	1.74	1.75
c) a set of action to reach these goals	1.47	1.47	1.47	1.49
The ability to use existing resources to accomplish departmental goals	1.29	1.31	1.31	1.30
The ability to plan:				
a) short-range goals	1.41	1.40	1.40	1.40
b) long-range goals	1.54	1.51	1.51	1.52
<u>Organizing</u>				
The ability to organize people and:				
a) assign them specific tasks	1.43	1.37	1.37	1.39
b) assign specific responsibilities	1.27	1.29	1.24	1.27
c) insure that important jobs are done	1.30	1.31	1.31	1.31
d) insure that institutional goals are fulfilled	1.58	1.60	1.60	1.59
The ability to translate plans into a structure of tasks and authority (at department level)	1.47	1.48	1.48	1.48
The ability to integrate the objectives of the separate units of an organization in order to efficiently achieve stated goals	1.82	1.72	1.72	1.76
<u>Leading</u>				
The ability to deal effectively with:				
a) group goals	1.50	1.51	1.51	1.51
b) organizational goals	1.61	1.57	1.57	1.58
The ability to:				
a) delegate decision making	1.60	1.56	1.56	1.57
b) create a supportive work environment	1.41	1.42	1.42	1.42
c) persuade and motivate subordinates	1.50	1.51	1.51	1.51
The ability to assess the groups present feelings and future expectations about:				
a) rewards	1.74	1.75	1.75	1.75
b) tasks	1.58	1.56	1.56	1.57
An understanding of the process of directing and influencing the task-related activities of subordinates	1.63	1.62	1.69	1.65

TABLE 1--Continued

Competencies	Size Mean	Educ. Mean	Age Mean	Population Mean
An understanding of your role in relation to:	(55)	(55)	(55)	(55)
a) executive manager	1.85	1.75	1.75	1.78
b) peer group	2.03	1.80	1.80	1.88
c) goals of the organization	1.61	1.57	1.57	1.58
<u>Control</u>				
The ability in the control function to:				
a) measure progress toward a planned goal	1.61	1.46	1.46	1.51
b) detect deviations from a planned goal	1.56	1.47	1.47	1.50
c) take remedial action	1.56	1.40	1.40	1.45
d) assure that actual activities conform to planned activities	1.76	1.49	1.49	1.58
An understanding of the factors that make control necessary				
a) complexity of the organization	2.01	1.98	1.98	1.99
b) resources	1.87	1.74	1.74	1.78
c) delegation of authority	1.85	1.65	1.65	1.72
<u>Budget Control</u>				
The ability to plan future performance based upon:				
a) related expenditures	1.87	1.85	1.85	1.86
b) revenues	1.85	1.87	1.87	1.86
c) profits	1.94	1.98	1.98	1.97
An understanding of financial control methods including:				
a) break-even analysis	2.29	2.27	2.27	2.28
b) department cost effectiveness	1.98	1.96	1.96	1.97
The ability to use control systems to:				
a) monitor organizational functions	2.16	1.82	1.96	1.98
b) monitor organizational projects	2.14	1.94	1.94	2.01
The ability to develop guidelines for:				
a) developing managerial budgets	2.27	2.08	1.78	2.04
b) developing economic forecasts	2.56	2.32	2.32	2.40
<u>Accounting</u>				
The ability to systematically:				
a) summarize financial information	2.27	2.04	2.04	2.12
b) analyze financial information	2.14	1.84	1.94	1.94
The ability to interpret information about:				
a) assets	2.30	2.21	2.21	2.24
b) liabilities	2.36	2.26	2.26	2.29
c) equity	2.43	2.23	2.23	2.30
An understanding of records relating to:				
a) costs of materials acquired	1.61	1.56	1.64	1.60
b) labor costs incurred	1.43	1.50	1.45	1.46
c) operations cost (inventory cost)	1.67	1.54	1.69	1.63
An understanding of:				
a) manufacturing costs	1.83	1.73	1.74	1.77
b) materials cost	1.87	1.71	1.71	1.76
c) labor costs	1.81	1.52	1.52	1.62
d) factory overhead	1.75	1.77	1.77	1.76
An understanding of the annual report of a corporation	2.32	2.29	2.29	2.30
<u>Personnel and Staffing</u>				
An understanding of the management function of:				
a) placement	1.65	1.65	1.65	1.65
b) training	1.53	1.54	1.54	1.54
c) development of organizational members	1.69	1.69	1.69	1.69

TABLE 1--Continued

Competencies	Size Mean	Educ. Mean	Age Mean	Population Mean
The ability to understand the implement factors involved in staffing including:	(55)	(55)	(55)	(55)
a) employment	1.51	1.50	1.50	1.50
b) working conditions	1.46	1.46	1.46	1.46
c) training	1.49	1.49	1.49	1.49
d) industrial relations	1.65	1.64	1.65	1.66
The ability to analyze and submit plans for future personnel needs of the organization	1.68	1.65	1.65	1.66
<u>Labor Relations</u>				
An understanding of the management role during:				
a) negotiations	1.91	1.85	1.85	1.87
b) strikes	1.95	1.91	1.91	1.92
c) relations with union representatives	1.97	1.93	1.93	1.94
An understanding of the major problems that confront the collective bargaining process	1.89	1.88	1.88	1.88
<u>Affirmative Action</u>				
The ability to establish and implement an affirmative action program	1.74	1.74	1.74	1.74
An understanding of the rights of previously denied groups of employees including:				
a) employment	1.65	1.65	1.65	1.65
b) promotion	1.56	1.58	1.58	1.57
c) termination	1.61	1.63	1.63	1.62
The ability to develop policy statements	2.22	2.22	2.22	2.22

in Table 1. The following fourteen (14) competency categories provide an analysis of these categories by population mean scores. The areas by each of the fourteen (14) competency categories were as follows: Communication, Motivation, Electronic Data Processing, Quantitative Methods, Organization, Planning, Organizing, Leading, Control, Budget Control, Accounting, Personnel and Staffing, Labor Relations, and Affirmative Action.

### Communication

Questions two (2) through eleven (11) of the competency items in the survey instrument (Appendix A) related directly to the communication category. These questions were designed to provide feedback on the importance of oral and written communication to a curriculum for industrial middle managers. Each item (2 through 11) in this category received a population mean score of 1.77 or less (Shown in Table 1). These means indicated that all items should be included in a planned middle management curriculum.

### Motivation

Eight (8) items (12 through 19) were included in the survey instrument (Appendix A) to solicit responses concerning the importance of motivation in middle management curriculum. These questions related to interpersonal skills and an understanding of behavior in an organization. Population mean scores ranged from a high of 1.84 to a low of 1.53 (Shown in Table 1). Each item in this category was determined to be important for inclusion in a planned middle management curriculum.

### Electronic Data Processing

Questions twenty (20) through twenty-three (23) of the competency items in the survey instrument (Appendix A) related directly to the electronic data processing category. These questions were designed to provide feedback on the

importance of assimilation of information for planning and control purposes. Each item (20 through 23) in this category received a population mean score of 2.01 or less (Shown in Table 1). These means indicated that all items should be included in a planned middle management curriculum.

#### Quantitative Methods

Five (5) items (24 through 28) were included in the survey instrument (Appendix A) to solicit responses concerning the importance of quantitative methods in middle management curriculum. These questions were concerned with the ability to apply statistics in the manufacturing process and cost projections in an organization. Population mean scores ranged from a high of 2.10 to a low of 1.70 (Shown in Table 1). Each item in this category was determined to be important for inclusion in a planned middle management curriculum.

#### Organization

Questions twenty-nine (29) through thirty-seven (37) of the competency items in the survey instrument (Appendix A) related directly to the organization category. These questions were designed to provide feedback on the importance of the ability to apply organizational philosophy in most leadership functions. Each item (29 through 37) in this category received a population mean score of 1.89 or less (Shown in Table 1). The means indicated that all items should be included in a planned middle management curriculum.

### Planning

Nine (9) items (28 through 46) were included in the survey instrument (Appendix A) to solicit responses concerning the importance of planning in middle management curriculum. These questions related to understanding and establishing the goals and objectives of an organization. Population mean scores ranged from a high of 1.98 to a low of 1.30 (Shown in Table 1). Each item in this category was determined to be important for inclusion in a planned middle management curriculum.

### Organizing

Questions forty-seven (47) through fifty-two (52) of the competency items in the survey instrument (Appendix A) related directly to the organizing category. These questions were designed to provide feedback on the importance of translating plans into structure for an industrial middle management curriculum. Each item (47 through 52) in this category received a population mean score of 1.76 or less (Shown in Table 1). The means indicated that all items should be included in a planned middle management curriculum.

### Leading

Eleven (11) items (53 through 63) were included in the survey instrument (Appendix A) to solicit responses concerning the importance of leadership in middle management curriculum. The questions related to directing and influencing

the activities of subordinates. Population mean scores ranged from a high of 1.88 to a low of 1.42 (Shown in Table 1). Each item in this category was determined to be important for inclusion in a planned middle management curriculum.

### Control

Questions sixty-four (64) through seventy (70) of the competency items in the survey instrument (Appendix A) related directly to the control category. These questions were designed to provide feedback on the importance of controlling an organization's progress toward a planned goal. Each item (64 through 70) in this category received a population mean score of 1.99 or less (Shown in Table 1). The means indicated that all items should be included in a planned middle management curriculum.

### Budget Control

Nine (9) items (71 through 79) were included in the survey instrument (Appendix A) to solicit responses concerning the importance of budget control in middle management curriculum. These questions related to financial control systems within an organization. Population mean scores ranged from a high of 2.40 to a low of 1.86 (Shown in Table 1). Each item in this category was determined to be important for inclusion in a planned middle management curriculum.



### Accounting

Questions eighty (80) through ninety-three (93) of the competency items in the survey instrument (Appendix A) related directly to the accounting category. These questions were designed to provide feedback on the importance of analyzing and summarizing financial information. Each item (80 through 93) in this category received a population mean score of 2.30 or less (Shown in Table 1). The means indicated that all items should be included in a planned middle management curriculum.

### Personnel and Staffing

Eight (8) items (94 through 101) were included in the survey instrument (Appendix A) to solicit responses concerning the importance of motivation in middle management curriculum. These questions related to an understanding of the factors involved in staffing an organization. Population mean scores ranged from a high of 1.69 to a low of 1.46 (Shown in Table 1). Each item in this category was determined to be important for inclusion in a planned middle management curriculum.

### Labor Relations

Questions one hundred and two (102) through one hundred and five (105) of the competency items in the survey instrument (Appendix A) related directly to the labor relations category. These questions were designed to provide feedback on the importance of the bargaining process to a curriculum for

industrial middle managers. Each item (102 through 105) in this category received a population mean score of 1.94 or less (Shown in Table 1). The means indicated that all items should be included in a planned middle management curriculum.

#### Affirmative Action

Five (5) items (106 through 110) were included in the survey instrument (Appendix A) to solicit responses concerning the importance of affirmative action in middle management curriculum. These questions related to the rights of employees within an organization. Population mean scores ranged from a high of 2.22 to a low of 1.57 (Shown in Table 1). Each item in this category was determined to be important for inclusion in a planned middle management curriculum.

#### Question I

The question to be answered was, "Is there a difference in competency based junior college curriculum requirements as perceived by responding industrial middle managers grouped according to the size of the firm in the Oklahoma City Standard Metropolitan Statistical Area?"

In order to answer this question, it was necessary to analyze the means of average ratings by firm size classifications (Shown in Table 1). The majority of the questions in the data collection instrument received a very important or a moderately important response with all items (competencies) having received mean ratings of two-point-five (2.5) or less.

The data indicated that each item (competency) should be included in a planned middle management curriculum.

The category of competency headings were used in Table 2, page 57, to succinctly present the responses by the size of the firm. Although mean scores indicated differences existed, these differences were not significant enough to warrant a change in course descriptions according to the size of the firm.

### Question II

The question to be answered was, "Is there a difference in competency based junior college curriculum requirements as perceived by responding industrial middle managers grouped according to the educational level of the respondent in the Oklahoma City Standard Metropolitan Statistical Area?"

In order to answer this question, it was necessary to analyze the means of average ratings by the educational level of the respondent (Shown in Table 1). The majority of the questions in the data collection instrument received a very important or moderately important response with all items (competencies) having received mean ratings of two-point-five (2.5) or less. The data indicated that each item (competency) should be included in a planned middle management curriculum.

The category of competency headings were used in Table 3, page 58, to succinctly present the responses by the educational level of the respondent. Although mean scores indicated differences existed, these differences were not

TABLE 2

## COMPETENCIES BY THE SIZE OF THE FIRM

Size	Small Firms	Medium Firms	Large Firms	Mean
<u>Categories of Competency</u>				
Communication	1.45	1.53	1.55	1.51
Motivation	1.78	1.77	1.50	1.68
Electronic Data Processing	2.11	1.72	2.25	2.03
Quantitative Methods	1.96	1.66	2.00	1.87
Organization	1.70	1.55	1.78	1.68
Planning	1.78	1.48	1.67	1.64
Organizing	1.48	1.53	1.42	1.48
Leading	1.69	1.50	1.77	1.65
Control	1.85	1.63	1.57	1.68
Budget Control	2.24	1.86	2.17	2.09
Accounting	2.08	1.75	2.14	1.99
Personnel	1.68	1.48	1.86	1.67
Labor Relations	2.01	1.73	2.25	2.00
Affirmative Action	1.93	1.51	1.50	1.65

TABLE 3

COMPETENCIES BY THE EDUCATIONAL  
LEVEL OF THE RESPONDENT

Education	High Sch. Grad.	Some College	College Degree	Adv. Degree	Mean
<u>Categories of Competency</u>					
Communication	1.43	1.45	1.46	1.44	1.45
Motivation	1.18	1.59	1.80	1.72	1.57
Electronic Data Processing	1.57	1.83	1.84	1.81	1.76
Quantitative Methods	1.59	1.85	1.88	1.85	1.79
Organization	1.33	1.52	1.75	1.69	1.57
Planning	1.41	1.57	1.79	1.42	1.55
Organizing	1.44	1.38	1.65	1.26	1.43
Leading	1.48	1.51	1.67	1.49	1.54
Control	1.44	1.51	1.67	1.47	1.52
Budget Control	1.82	1.98	2.23	1.98	2.00
Accounting	1.63	1.94	1.86	1.88	1.83
Personnel	1.35	1.44	1.76	1.53	1.52
Labor Relations	1.80	1.69	2.00	2.15	1.91
Affirmative Action	1.31	1.61	2.07	1.78	1.69

significant enough to warrant a change in course descriptions according to the educational level of the respondent.

### Question III

The question to be answered was, "Is there a difference in competency based junior college curriculum requirements as perceived by responding industrial middle managers grouped according to the age of the respondent in the Oklahoma City Standard Metropolitan Statistical Area?"

In order to answer this question, it was necessary to analyze the means of average ratings by the age of the respondent (Shown in Table 1). The majority of the questions in the data collection instrument received a very important or moderately important response with all items (competencies) having received mean ratings of two-point-five (2.5) or less. The data indicated that each item (competency) should be included in a planned middle management curriculum.

The category of competency headings were used in Table 4, page 60, to succinctly present the responses by the age of the respondent. Although mean scores indicated differences existed, these differences were not significant enough to warrant a change in course descriptions according to the age of the respondent.

### Question IV

The question to be answered was, "Do catalogs from local junior colleges present course descriptions which could

TABLE 4

## COMPETENCIES BY THE AGE OF THE RESPONDENT

Age	19 to 24	25 to 34	35 to 44	Over 45	Mean
<u>Categories of Competency</u>					
Communication	1.33	1.46	1.45	1.37	1.40
Motivation	1.10	1.80	1.56	1.76	1.56
Electronic Data Processing	1.46	1.83	1.96	1.42	1.67
Quantitative Methods	1.53	2.05	1.72	1.55	1.71
Organization	1.55	1.73	1.51	1.66	1.61
Planning	1.52	1.63	1.53	1.63	1.58
Organizing	1.50	1.56	1.42	1.47	1.49
Leading	1.48	1.69	1.46	1.80	1.61
Control	1.57	1.63	1.52	1.77	1.62
Budget Control	1.85	2.12	1.98	2.03	2.00
Accounting	1.59	1.86	1.81	1.93	1.80
Personnel	1.52	1.56	1.45	1.84	1.59
Labor Relations	1.08	1.82	1.83	2.37	1.78
Affirmative Action	.84	1.92	1.73	1.76	1.56

TABLE 4A  
PEARSON CORRELATION COEFFICIENTS OF COMPETENCY CATEGORIES

Categories	Communication	Motivation	Electronic Data Processing	Quantitative Methods	Organization	Planning	Organizing	Leading	Control	Budget Control	Personnel	Labor Relations	Accounting	Affirmative Action
Alpha	0.75502	0.01811	0.71786	0.76952	0.76766	0.71696	0.50236	0.03147	0.85625	0.85625	0.08065	0.91485	0.03075	0.96233
Communication	1.0000	-0.0882	0.0263	0.7501	0.3050	0.3026	0.2715	0.2511	0.2212	0.0715	0.2289	-0.1277	0.1988	-0.0376
Motivation	-0.0882	1.0000	0.0518	-0.0996	0.6183	0.1886	0.4063	0.6087	0.4067	0.0065	0.4797	-0.1699	-0.2559	0.2610
Electronic Data Processing	0.0263	0.0518	1.0000	0.2619	0.0522	0.1748	-0.1528	0.2191	0.2678	0.3690	0.0677	0.0769	0.1112	0.3199
Quantitative Methods	0.7501	-0.0996	0.2619	1.0000	0.1289	0.5282	0.0850	0.2925	0.0569	0.5185	0.0890	0.2032	0.4758	0.2955
Organization	0.3050	0.6183	0.0522	0.1289	1.0000	0.4432	0.5801	0.6764	0.5816	0.0961	0.5621	-0.2021	-0.1371	0.2280
Planning	0.3026	0.1886	0.1748	0.5282	0.4432	1.0000	0.3936	0.5757	0.3667	0.5182	0.5567	0.0663	0.3017	0.5112
Organizing	0.2715	0.4063	-0.1528	0.0850	0.5801	0.3936	1.0000	1.0000	0.3687	0.1889	0.4719	0.0926	0.0138	0.2365
Leading	0.2511	0.6087	0.2191	0.2925	0.6764	0.5757	0.4350	1.0000	0.6703	0.2516	-0.0640	-0.0207	0.5175	0.2955
Control	0.2212	0.4067	0.2678	0.0569	0.5816	0.3667	0.3687	0.6703	1.0000	0.2056	0.6860	-0.0131	-0.0402	0.4638
Budget Control	0.0715	0.0065	0.3690	0.5185	0.0961	0.5182	0.1889	0.2516	0.2056	1.0000	0.2988	0.4762	0.7261	0.5361
Personnel	0.2289	0.4797	0.0677	0.0890	0.5621	0.5567	0.4719	0.6799	0.6860	0.2988	1.0000	0.0736	0.0912	0.5060
Labor Relations	-0.1277	-0.1699	0.0769	-0.2032	-0.2021	0.0663	0.0926	-0.0640	-0.0131	0.4762	0.2988	1.0000	0.2719	0.3199
Accounting	0.1988	-0.2559	0.1112	0.4758	-0.1371	0.3017	0.0138	-0.0207	-0.0402	0.7261	0.0912	0.0912	1.0000	0.2608
Affirmative Action	-0.0376	0.2610	0.3199	0.2955	0.2280	0.5112	0.2365	0.5175	0.4638	0.5361	0.5060	0.3199	0.2608	1.0000



implement the competency based materials as perceived by survey respondents?"

The course descriptions found in the official catalogs for the junior colleges located in the Oklahoma City metropolitan area, did not implement the competency based materials as perceived by survey respondents. Some course descriptions included competencies demanded by survey respondents. These synthesized course descriptions were listed in Exhibit 1, page 65. The data in Table 5, page 75, provided a list of those competencies that were not included in current course offerings.

In order to verify the reliability of competency categories, each category was compared with all other competency categories (shown in Table 4A). By comparing Pearson Correlation Coefficients for each competency category with alpha scores for each competency category a matrix was developed to show the degree of relationship or correlation.

### Summary

This Chapter has provided an analysis and interpretation of the data needed for identification of curriculum requirements for a planned curriculum for an industrial middle management program. These competencies were identified by using a computer program designed to crosstabulate each questionnaire response (Shown in Appendix B). Each item (competency) on the questionnaire that received a population mean rating below two-point-five (2.5) should be included in a planned middle management curriculum.

The data in Table 1, page 46, identified curriculum requirements for a comprehensive industrial middle management program in the Oklahoma City metropolitan area. This information was then presented in fourteen (14) competency categories. The data in Table 2, page 57, offered a succinct presentation of survey responses according to the size of the firm. The data in Table 3, page 58, offered a succinct presentation of survey responses according to the educational level of the respondent. The data in Table 4, page 60, offered a succinct presentation of survey responses according to the educational level of the respondent. The data in Table 4, page 60, offered a succinct presentation of survey responses according to the age of the respondent.

According to the data in Tables 1, 2, 3, and 4, each mean represented the mean of scores for all items included in each category. The means for categories were used to answer the four questions. The major results of this analysis was presented in the following chapter. Also included in Chapter V was the development of a proposed middle management curriculum.

## CHAPTER V

### ANALYSIS OF COMPETENCY DATA AND DEVELOPMENT OF MIDDLE MANAGEMENT CURRICULUM

#### Introduction

In this study, data has been collected from industrial middle managers to provide knowledge essential for developing a competency based curriculum for industrial middle managers in the Oklahoma City Standard Metropolitan Statistical Area. In this chapter, the competency data obtained from industrial middle managers will be used to develop a competency based curriculum for use at the junior college level in the Oklahoma City metropolitan area.

#### Analysis of Catalog Data

Official catalogs containing middle management courses were collected from the junior colleges in the Oklahoma City metropolitan area. A thorough study was made of the middle management course descriptions found in these official catalogs. An analysis was made of the course descriptions to determine which competencies were included in current course offerings. A complete list of all metropolitan area middle management programs and course descriptions can be found in Appendix D. At the time the analysis was being made, a course description was prepared

for each course which contained all of the factors found in the official catalogs. These course titles and descriptions were presented in Exhibit 1. The descriptions in Exhibit 1 make it clear that all competencies needed by industrial middle managers in the Oklahoma City area were not included in these courses.

Comparison of Course Descriptions  
and Competency Data

The next step in the process of comparing course descriptions with the competencies analyzed from the questionnaire completed and returned by the respondents was to explain the competencies in each of the fourteen (14) categories. In the explanation for each category, statements were presented to explain which competencies were included in present course offerings, which competencies were not included, and which competencies were given cursory treatment.

The fourteen (14) categories used to group competencies were: Communications, Motivation, Electronic Data Processing, Quantitative Methods, Organization, Planning, Organizing, Leading, Control, Budget Control, Accounting, Personnel Staffing, Labor Relations, and Affirmative Action. Following the explanation for each of the fourteen (14) categories, Table 5 was included which graphically presented in summary format the competencies included and not included in present course offerings.

## EXHIBIT 1

SYNTHESIZED COURSE DESCRIPTIONS FROM OFFICIAL  
JUNIOR COLLEGE CATALOGS IN THE OKLAHOMA CITY  
STANDARD METROPOLITAN STATISTICAL AREA

---

Business Communications

This course was designed to aid students in developing proficiency in business writing. The student will be able to effectively write letters, memos, and reports.

Mid-Management Seminar

This course was designed to use projects and discussion to integrate classroom training with work experience. The student develops problem solving skills by using case problems and group simulations.

Supervisory Training

This course utilizes role playing and video taping exercises to help the student deal effectively with situations that may be encountered in the work place.

Principles of Management

This course examines the development of sound management systems. These systems were developed from the basic management functions including planning, organizing, leading, and controlling.

Accounting I

This course was designed to help the student develop a basic understanding of double entry bookkeeping, the ability to work with journals and ledgers, and an understanding of the balance sheet and income statement.

Accounting II

This course was designed to develop the ability to utilize accounting concepts for partnerships and corporation accounting. The student will also develop a basic understanding of cash flow and tax accounting.

Personnel Management

This course was designed to study the principles and techniques of management in the development of personnel. The course surveys the procurement, development, compensation, intergration and maintenance of personnel.

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### Communications

There were 10 items under the Communication Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered 5 through 11 were not included in the content of the current course offerings. Table 5 contains the results of this comparison for the communication category. This analysis indicated a need for additional course content in the communications category.

Competencies numbered 2, 3 and 4 were given survey treatment as part of the Business Communications course (Exhibit 1).

### Motivation

There were nine (9) items under the Motivation Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered twelve (12) through sixteen (16) were not included in the content of the current course offerings.

TABLE 5

## COMPETENCIES INCLUDED/NOT INCLUDED IN CURRENT COURSES

Category for Competency	Names of Courses Listed in Catalogs	Items Included in Current Course Offerings		No Reference of Treatment In Catalog Course
		Part of Course (Survey Treatment)	Separate Course (Indepth Treatment)	
Communication	Business Communications	2,3,4		5,6,7,8,9, 10,11
	Mid-Management Service	13,17,18,19		12,13,14,15, 16
Motivation	Supervisory Training	17,18,19		12,13,14,15, 16
Electronic Data Processing				20,21,22,23
Quantitative Methods				24,25,26,27, 28
	Principles of Management	29,30		31,32,33,34, 35,36,37
Organization	Mid-Management Seminar	29,30,31		32,33,34,35, 36,37
	Supervisory Training	29,30,31		32,33,34,35, 36,39
Planning	Principles of Management	41,42,43		38,39,40,44 45,46

TABLE 5--Continued

Category For Competency	Names of Courses Listed in Catalogs	Items Included in Current Course Offerings		No Reference of Treatment In Catalog Course
		Part of Course (Survey Treatment)	Separate Course (Indepth Treatment)	
Organizing	Principles of Management	47,48,49		50,51,52
Leading	Mid-Management Seminar	60,61,62,63		53,54,55,56, 57,58,59
	Principles of Management	60,61,62,63		53,54,55,56, 57,58,59
Control	Principles of Management	68,69		64,65,66,67, 70
Budget Control				71,72,73,74, 75,76,77,78,79
Accounting	Accounting I	80,81,82,83,84,85, 86,87,88		89,90,91,92, 93
	Accounting II	80,81,82,83,84,85, 86,87,88		89,90,91,92, 93
Personnel Staffing	Personnel Management	94,95,96		97,98,99,100, 101
Labor Relations	Introduction To Industrial Management			102,103,104, 105
Affirmative Action				106,107,108, 109,110



Table 5 contained the results of the comparison for the motivation category. This analysis indicated a need for additional course content in the motivation category.

Competencies numbered seventeen (17), eighteen (18) and nineteen (19) were given survey treatment as part of the Supervisory Training Course. Competencies numbered thirteen (13), seventeen (17), eighteen (18) and nineteen (19) were given survey treatment as part of the Mid-Management Seminar (Exhibit 1).

#### Electronic Data Processing

There were four (4) items under the Electronic Data Processing Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered twenty (20) through twenty-three (23) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Electronic Data Processing Category. This analysis indicated a need for additional course content in the Electronic Data Processing category.

#### Quantitative Methods

There were five (5) items under the Quantitative Methods Category on the data collection instrument which the

respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered twenty-four (24) through twenty-eight (28) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Quantitative Methods category. This analysis indicated a need for additional course content in the Quantitative Methods Category.

#### Organizational

There were nine (9) items under the Organizational Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered thirty-two (32) through thirty-seven (37) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Organizational category. This analysis indicated a need for additional course content in the Organizational Category.

Competencies numbered twenty-nine (29), thirty (30), and thirty-one (31) were given survey treatment as part of the mid-management seminar, and the supervisory training course. Competencies numbered twenty-nine (29) and thirty (30) were given survey treatment as part of the Principles of Management course.

### Planning

There were nine (9) items under the Planning Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered thirty-eight (38), thirty-nine (39) and forty (40) through forty-four (44), forty-five (45) and forty-six (46) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Planning Category. This analysis indicated a need for additional course content in the planning category.

Competencies numbered forty-one (41), forty-two (42) and forty-three (43) were given survey treatment as part of the Principles of Management course.

### Organizing

There were six (6) items under the Organizing Category on the data collection instrument which the respondents were

asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered fifty (50), fifty-one (51) and fifty-two (52) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Organizing Category. This analysis indicated a need for additional course content in the Organizing Category.

Competencies numbered forty-seven (47), forty-eight (48) and forty-nine (49) were given survey treatment as part of the Principles of Management course (Exhibit 1).

### Leading

There were eleven (11) items under the Leading Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered fifty-three (53) through fifty-nine (59) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Leading Category. This analysis indicated a need for additional course content in the Leading Category.

Competencies numbered sixty (60) through sixty-three (63) were given survey treatment as part of the mid-management seminar course and the Principles of Management course (Exhibit 1).

### Control

There were seven (7) items under the Control Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered sixty-four (64) through sixty-seven (67) and seventy (70) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Control Category. This analysis indicated a need for additional course content in the Control Category.

Competencies numbered sixty-eight (68) and sixty-nine (69) were given survey treatment as part of the Principles of Management course (Exhibit 1).

### Budget Control

There were nine (9) items under the Budget Control Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered seventy-one (71) through seventy-nine (79) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the budget control category. This analysis indicated a need for additional course content in the Budget Control Category.

#### Accounting

There were fourteen (14) items under the Accounting Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The results of the comparisons indicated that the competencies numbered eighty-nine (89) through ninety-three (93) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Accounting Category. This analysis indicated a need for additional course content in the Accounting Category.

Competencies numbered eighty (80) through eighty-eight (88) were given survey treatment as part of the Accounting I and Accounting II courses.

### Personnel Management

There were eight (8) items under the Personnel Management Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered ninety-seven (97) through one hundred one (101) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Personnel Management Category. This analysis indicated a need for additional course content in the Personnel Management Category.

Competencies numbered ninety-four (94), ninety-five (95) and ninety-six (96) were given survey treatment as part of the Personnel Management course (Exhibit 1).

### Labor Relations

There were four (4) items under the Labor Relations Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondent were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered one hundred two (102) through one

hundred five (105) were not included in the content of the current course offerings. Table 5 contains the results of this comparison for the Labor Relations Category. This analysis indicated a need for additional course content in the Labor Relations Category.

#### Affirmative Action

There were 5 items under the Affirmative Action Category on the data collection instrument which the respondents were asked to rate according to their relative value for a middle manager.

The competencies demanded by the survey respondents were compared with the items listed in the course descriptions. (See Exhibit 1.) The result of the comparisons indicated that the competencies numbered one hundred six (106) through one hundred ten (110) were not included in the content of the current course offerings. Table 5 contained the results of this comparison for the Affirmative Action Category. This analysis indicated a need for additional course content in the Affirmative Action Category.

#### Summary of Competencies

To assist the reader in making references regarding individual competencies and whether or not the individual competencies were included in present course offerings, Table 5 was prepared. In Table 5, columns were headed which include categories of competencies, course titles, competencies given treatment in present course offerings, and competencies not included in present course offerings.



### Courses Needed

As this research project has progressed since the data were collected from the industrial managers, evidence has been developed and presented which indicated a lag or discrepancy existed between present course offerings and the competencies needed by prospective industrial middle managers. It was necessary, therefore, to take another step in the analysis of needed competencies and course offerings and develop a model offering a solution for the discrepancy between offered competencies and needed competencies. There was no evidence to support courses for each competency or each category of competencies.

It was necessary in the development of the projected courses to group related categories and the competencies included therein in order to keep to a minimum the number of proposed courses. Categories were grouped as follows:

1. Communication, Organization, and Motivation, were combined to be included in an area called Organizational Behavior.
2. Electronic Data Processing and Quantitative Methods were combined to be included in an area called Industrial Quantitative Tools.
3. Planning, Organizing, Leading and Control were combined in an area which was labeled Industrial Management Processes.
4. Budget Control and Accounting were combined to form the area called Industrial Accounting.
5. Personnel and Staffing were combined to form the area Human Resources Development.

6. Affirmative Action and Labor Relations were combined to form an area entitled Industrial Employee Relations.

The rationale for the utilization of the categories was found in the relationship of materials explained in the review of related literature. A synthesis of these categories with related competencies and the proposed course titles were included in Table 6.

TABLE 6  
SUGGESTED ADDITIONAL COURSES FOR  
OKLAHOMA CITY AREA JUNIOR COLLEGES

Categories for Competencies	Competencies Not Included in Current Course Offerings	Proposed Course Title
Communications Motivation Organization	5,6,7,8,9,10,11, 12,14,15,16,31, 32,33,34,35,36,37	Organizational Behavior
Electronic Data Processing Quantitative Methods	20,21,22,23,24, 25,26,27,28	Industrial Quantative Tools
Planning Organizing Leading Control	38,39,40,44,45, 46,50,51,52,53, 54,55,56,57,58, 59,64,65,66,67, 70	Industrial Management Process
Budget Control Accounting	71,72,73,74,75, 76,77,78,79,89, 90,91,92,93	Industrial Accounting
Personnel & Staffing	97,98,99,100,101	Human Resources Development
Affirmative Action Labor Relations	102,103,104,105, 106,107,108,109, 110	Industrial Employee Relations

Competencies Included in Proposed Courses

To assist the reader in understanding the proposed courses and their relationship to the data collected in this research project, six tables were prepared and presented. A table was prepared for each proposed course with the following types of information: Name of the proposed course; competencies the respondents rated as important to the development of industrial middle managers; and the proposed description. These tables illustrate that the proposed courses would satisfy the requirements not satisfied in present course offerings.

TABLE 7

## PROPOSED COURSE FOR ORGANIZATIONAL BEHAVIOR

<u>Competencies to be included were:</u>		<u>Competency Number</u>
The ability to effectively communicate orally to:		
a. individuals		5
b. small groups		6
The ability to communicate:		
a. work plans		7
b. work schedule		8
c. orders		9
d. instructions		10
e. directions		11
An understanding of specific guidelines for effectively motivating subordinates		12
The ability to use interpersonal skills effectively		13
An understanding of how behavior is:		
a. energized		14
b. directed		15
c. sustained		16
An understanding of the goals and objectives of the organization		31
The ability to establish departmental goals that are compatible with corporate goals		32
An understanding of the major components of organization:		
a. authority structure		33
b. division of labor		34
c. mechanisms of coordination (processes)		35
d. economic measures of performance		36
The ability to apply the organizational philosophy in all leadership functions		37
<u>Organizational Behavior</u>		

This course was designed to provide an in-depth treatment of communication, motivation and organization processes. Emphasis will involve organizational development, techniques necessary to develop individuals, small group goal settings, decision making and work autonomy. Organizational and leadership styles will be developed and applied to furnish the student with skills necessary to synthesize individual and organizational goals.

TABLE 8

## PROPOSED COURSE FOR INDUSTRIAL QUANTITATIVE TOOLS

<u>Competencies to be included were:</u>		<u>Competency Number</u>
The ability to assimilate information for strategic planning (for upper management)		20
The ability to use detailed internal information for operational control		21
The ability to assimilate information for:		
a. operational control		22
b. departmental control		23
<u>Quantitative Methods</u>		
The ability to collect and analyze data for managerial decision making		24
The ability to utilize statistical computations for:		
a. cost effectiveness		25
b. cost projections		26
c. managerial decisions		27
The ability to apply statistics in the manufacturing process		28
<u>Industrial Quantitative Tools</u>		
This course will provide the student with sufficient knowledge of data gathering techniques to assimilate information for managerial decision making.		

TABLE 9

## PROPOSED COURSE FOR INDUSTRIAL MANAGEMENT PROCESS

<u>Competencies to be included were:</u>	<u>Competency Number</u>
The ability to decide:	
a. what future resources the organization will need	38
b. how these resources will be allocated	39
c. what alternative courses of action are available	40
The ability to use existing resources to accomplish departmental goals	44
The ability to plan:	
a. short-range goals	45
b. long-range goals	46
The ability to organize people and insure that institutional goals are fulfilled	50
The ability to translate plans into a structure of tasks and authority (at the department level)	51
The ability to integrate the objectives of the separate units of an organization in order to efficiently achieve stated goals	52
The ability to deal effectively with:	
a. group goals	53
b. organizational goals	54
The ability to:	
a. delegate decision making	55
b. create a supportive work environment	56
c. Persuade and motivate subordinates	57
The ability to assess the groups present feelings and future expectations about:	
a. rewards	58
b. tasks	59
The ability in the control function to:	
a. measure progress toward a planned goal	64
b. detect deviations from a planned goal	65
c. take remedial action	66
d. assure that actual activities conform to planned activities	67

TABLE 9--Continued

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<u>Competencies to be included were:</u>	<u>Competency Number</u>
An understanding of the factors that make control necessary; including delegation of authority	70

---

Industrial Management Process

This course is designed to apply relationships to the management functions of planning, organizing, leading and control. Emphasis will be placed on a system approach, enabling students to apply the functions for efficient utilization of physical and human resources.

---

TABLE 10

## PROPOSED COURSE FOR INDUSTRIAL ACCOUNTING

<u>Competencies to be included were:</u>	<u>Competency Number</u>
The ability to plan future performance based upon:	
a. related expenditures	71
b. revenues	72
c. profits	73
An understanding of financial control methods including:	
a. break-even analysis	74
b. departmental cost effectiveness	75
The ability to use control systems to:	
a. monitor organizational functions	76
b. monitor organizational projects	77
The ability to develop guidelines for:	
a. developing managerial budgets	78
b. developing economic forecasts	79
An understanding of:	
a. manufacturing costs	89
b. materials cost	90
c. labor costs	91
d. factory overhead	92
An understanding of the annual report of a corporation	93

Industrial Accounting

This course is designed to provide an in-depth treatment of organizational budgets. Emphasis will be placed on the development of departmental forecasts, cost effectiveness and plant and equipment overhead. Treatment will be given to manufacturing accounting, enabling the student to analyze and interpret corporation financial reports.



TABLE 11

## PROPOSED COURSE FOR HUMAN RESOURCE DEVELOPMENT

---

Competencies to be included were:	Competency Number
The ability to understand and implement factors involved in staffing including:	
a. employment	97
b. working conditions	98
c. training	99
d. industrial relations	100
The ability to analyze and submit plans for future personnel needs of the organization	101

---

Human Resource Development

This course is designed to provide the student with personnel development techniques. Emphasis will be placed on present and future subordinate characteristics in personnel research and development.

---

TABLE 12

## PROPOSED COURSE FOR INDUSTRIAL EMPLOYEE RELATIONS

---



---

Competencies to be included were:	Competency Number
<u>Labor Relations</u>	
An understanding of the management role during:	
a. negotiations	102
b. strikes	103
c. relations with union representatives	104
An understanding of the major problems that confront the collective bargaining process	105
<u>Affirmative Action</u>	
The ability to establish and implement an affirmative action program	106
An understanding of the rights of previously denied groups of employees including:	
a. employment	107
b. promotion	108
c. termination	109
The ability to develop policy statements	110
<u>Industrial Employee Relations</u>	
<p>This course will provide the student with an overview of the management role with regards to the industrial relations process. Emphasis will be placed on collective bargaining and planning programs of action involving employee termination and promotion.</p>	

---

Composite of Course Descriptions Containing  
Competencies Demanded by Survey Respondents

Prepared course descriptions were developed utilizing the responses by industrial middle managers to competencies listed on the questionnaire. These proposed course descriptions contain the competencies not included in current course offerings. The composite of proposed course descriptions were presented in Exhibit 2.

Summary

This chapter has provided a comparison of competency data for the development of a proposed middle management curriculum. Exhibit 1 contained course descriptions that were developed by synthesizing the course descriptions found in junior college bulletins within the Oklahoma City metropolitan area.

The next step was a comparison of synthesized course descriptions with competencies demanded by survey respondents. This information is graphically presented in Table 5. Competencies not included in current catalog listings were grouped into related areas. (See Table 6.)

Courses needed were developed from information supplied by survey respondents. Those competencies not included in current course offerings were listed in Tables 7 through 12. These competencies were developed into course descriptions for an industrial middle management curriculum.

The major results and conclusions of this analysis were presented in the following chapter. Also included in Chapter VI was a summary of major findings, conclusions and recommendations for further research.

## EXHIBIT 2

SUMMARY OF PROPOSED COURSES AND DESCRIPTIONS

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Organizational Behavior

This course is designed to provide an in-depth treatment of communication, motivation and organization processes. Emphasis will involve organizational development, techniques necessary to develop individuals, small group goal settings, decision making and work autonomy. Organizational and leadership styles will be developed and applied to furnish the student with skills necessary to synthesize individual and organizational goals.

Industrial Quantitative Tools

This course will provide the student with sufficient knowledge of data gathering techniques to assimilate information for managerial decision making.

Industrial Management Process

This course is designed to apply relationships to the management functions of planning, organizing, leading and control. Emphasis will be placed on a system approach, enabling students to apply the functions for efficient utilization of physical and human resources.

Industrial Accounting

This course is designed to provide an in-depth treatment of organizational budgets. Emphasis will be placed on the development of departmental forecasts, cost effectiveness and plant and equipment overhead. Treatment will be given to manufacturing accounting, enabling the student to analyze and interpret corporation financial reports.

Human Resource Development

This course is designed to provide the student with personnel development techniques. Emphasis will be placed on present and future subordinate characteristics in personnel research and development.

Industrial Employee Relations

This course will provide the student with an overview of the management role with regards to the industrial relations process. Emphasis will be placed on collective bargaining and planning programs of action involving employee termination and promotion.

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## CHAPTER VI

### SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

#### Introduction

This study was conducted to determine the competencies for middle managers as perceived by middle managers in industrial firms within the Oklahoma City Standard Metropolitan Statistical Area. This was accomplished by (1) determining the competencies necessary for success as a middle manager, (2) determining the effect of the company size on the competencies necessary for success as a middle manager, (3) determining the effect the educational level of the respondent has on the competencies necessary for success as a middle manager, (4) determining the effect the age of the respondent has on the competencies necessary for success as a middle manager.

An analysis of information from a review of the literature produced data relating to existing programs in middle management training. This review revealed a large number of variations in curriculum courses and programs. Although many reports concerned themselves with the effect of rapid technological change on current and prospective managers, none offered positive solutions.

The procedure in the study included the development of an instrument which provided a framework for determining the competencies necessary for success as a middle manager in the Oklahoma City Standard Metropolitan Statistical Area.

Eighty (80) firms with four (4) different size classifications were used as the population of this study. These firms were chosen because they were the total population of manufacturing industries in the five (5) counties within the Oklahoma City Standard Metropolitan Statistical Area, with a minimum of one hundred (100) employees. The firms were stratified according to the size of the firm to determine possible differences in curriculum needs of middle managers in the Oklahoma City area junior colleges.

The questionnaire utilized as the major data collection instrument was arranged by categories and used the Likert method of summated ratings. The data collection instrument was distributed to eighty (80) industrial firms by mail. A total of fifty-five (55) completed questionnaires were returned which represented a sixty-nine percent (69%) response.

Analysis and interpretation of the data collected was through the use of mean ratings for each question. Any question which received a mean rating of the respondents of two-point-five (2.5) or more was considered to be unimportant for the development of a planned industrial middle management curriculum.

Curriculum requirements were identified from the information collected from survey respondents. This information was used to develop a comprehensive industrial middle management program in the Oklahoma City metropolitan area. This information was then arranged in fourteen (14) categories.

### Findings

Tabulations of the data were prepared to give the mean of the average ratings by the size of the firm, the mean of the average ratings by the educational level of the respondent, and the mean of the average ratings by the age of the respondent, identified curriculum requirements for a planned industrial middle management curriculum for the Oklahoma City Standard Metropolitan Statistical Area. Of the 109 questions on the survey instrument, 100 percent has a mean below a two-point-five (2.5). According to selection criteria, each competency should be a part of the planned industrial middle management curriculum.

Presentations of survey responses according to the size of the firm, and the age and educational level of the respondents were given to show the competencies necessary for success as a middle manager.

Course descriptions were developed for each course being offered in Oklahoma City area junior colleges. These course descriptions were analyzed according to the competencies demanded by survey respondents. Proposed course descriptions were developed using the information from respondents. These



proposed course descriptions were prepared from responses to survey instrument items. Each course description contained pertinent competencies as recommended by survey respondents. Therefore, the composite of the courses recommended for the industrial middle management program included all competencies rated as important by survey respondents.

The findings of this study have led to the following:

1. Junior college courses designed for middle managers in the Oklahoma City metropolitan area lack relevancy for current and prospective middle managers.
2. Additional courses should be designed that are applicable to the geographic area studied. Courses should include competencies demanded by management of the industrial organizations in the geographic area served.
3. Survey respondents were cognizant of their curriculum needs, and showed a willingness to cooperate with educators by identifying criteria needs in the development of an industrial middle management curriculum.
4. Middle Management competencies may vary according to the size of the firm. This should have a bearing on planning a curriculum for the geographic area involved.

#### Recommendations for Further Research

The suggestions for further research were:

1. Studies should be conducted to assess the curricular needs of junior college middle management programs in other metropolitan areas.
2. Follow-up studies of former students who are identified as industrial middle managers should be conducted so that an effective evaluation can be made of the curricular offerings.

3. A study of governmental middle management curricular offerings should be undertaken using as many of the pertinent competencies from this study as possible.
4. Design and implement a longitudinal study of middle management personnel in order to evaluate curricular offerings at Oklahoma City area junior colleges.
5. Conduct a study to determine if there are special curricular needs for women who plan to enter industrial middle management.

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## APPENDICES

APPENDIX A  
DATA COLLECTION MATERIALS



Exhibit 1

7777 South May Avenue  
Oklahoma City, OK 73159  
January 24, 1979

Dear Sir:

An important research study is presently being conducted in the Oklahoma City Metropolitan area. This study is designed to determine the "competencies" needed by middle-managers. Your business has been selected as one of the larger manufacturing plants to participate in this study.

The need for this research study has been brought about by the need for updating and improving the curriculum in area junior colleges. It is an attempt to gain input from leaders in industry.

I am sure there will be some questions for which you will not have available information, but I will be grateful for any information you may send me. Please complete the enclosed questionnaire and return it in the enclosed stamped envelope as soon as possible.

Sincerely,

Charles Clark

Enclosure: Questionnaire

## QUESTIONNAIRE - CURRICULUM RESEARCH

This column for  
analysis only  
1. \_\_\_\_\_

Background Information

( ) Executive Manager ( ) Middle Manager

Educational Background of Respondent:

High School Graduate ( )      Advanced Degree ( )  
 Attended College but did not      Specialized training at Institution  
 graduate ( )      other than College ( )  
 College Graduate ( )      None of these ( )

Age of Respondent: 19 - 24 ( )      45 - 54 ( )  
                          25 - 34 ( )      55 and over ( )  
                          35 - 44 ( )

Present number of middle management personnel \_\_\_\_\_.

Projected need for middle management personnel by 1985 \_\_\_\_\_.

NOTE: All questions should be interpreted according to the role of an effective manager in your organization.

Evaluate the importance of each competency item according to the needs of an efficient middle-manager within your organization. Use the following scale when making your analysis.

COMPETENCIES TO BE DEVELOPED THROUGH THE FORMAL EDUCATIONAL PROCESS

Please circle one number for each question as follows: If the particular competency is very important, circle the 1; moderately important, circle 2; slightly important, circle 3; unimportant, circle 4; if you feel that the skill should be developed on the job, circle 5.

Communication

The ability to effectively write:

a) letters	1 2 3 4 5	2. _____
b) memos	1 2 3 4 5	3. _____
c) reports	1 2 3 4 5	4. _____

The ability to effectively communicate orally to:

a) individuals	1 2 3 4 5	5. _____
b) small groups	1 2 3 4 5	6. _____
c) large groups	1 2 3 4 5	7. _____

The ability to communicate:

a) work plans	1 2 3 4 5	8. _____
b) work schedule	1 2 3 4 5	9. _____
c) orders	1 2 3 4 5	10. _____
d) instructions	1 2 3 4 5	11. _____

- e) directions 1 2 3 4 5 12. \_\_\_\_\_
- The ability to transmit information:
- a) manually 1 2 3 4 5 13. \_\_\_\_\_
- b) electronically 1 2 3 4 5 14. \_\_\_\_\_
- c) distributed processing 1 2 3 4 5 15. \_\_\_\_\_

### Motivation

An understanding of specific guidelines for effectively motivating subordinates. 1 2 3 4 5 16. \_\_\_\_\_

The ability to use interpersonal skills effectively. 1 2 3 4 5 17. \_\_\_\_\_

An understanding of the needs and goals of subordinates as motivational factors. 1 2 3 4 5 18. \_\_\_\_\_

An understanding of organizational variables:

- a) implications of job design 1 2 3 4 5 19. \_\_\_\_\_
- b) group interpersonal affiliation 1 2 3 4 5 20. \_\_\_\_\_
- c) job change created by technology 1 2 3 4 5 21. \_\_\_\_\_
- d) factors influencing motivation 1 2 3 4 5 22. \_\_\_\_\_

An understanding of psychological variables:

- a) perception 1 2 3 4 5 23. \_\_\_\_\_
- b) attitudes 1 2 3 4 5 24. \_\_\_\_\_
- c) personality 1 2 3 4 5 25. \_\_\_\_\_
- d) learning 1 2 3 4 5 26. \_\_\_\_\_

An understanding of how behavior is:

- a) energized 1 2 3 4 5 27. \_\_\_\_\_
- b) directed 1 2 3 4 5 28. \_\_\_\_\_
- c) sustained 1 2 3 4 5 29. \_\_\_\_\_
- d) stopped 1 2 3 4 5 30. \_\_\_\_\_

An understanding of motivation as it relates to:

- a) interpersonal relations with supervision 1 2 3 4 5 31. \_\_\_\_\_
- b) interpersonal relations with peers 1 2 3 4 5 32. \_\_\_\_\_
- c) interpersonal relations with subordinates 1 2 3 4 5 33. \_\_\_\_\_

### Electronic Data Processing

The ability to assimilate information for strategic planning (for upper management). 1 2 3 4 5 34. \_\_\_\_\_

The ability to use detailed internal information for operational control. 1 2 3 4 5 35. \_\_\_\_\_

The ability to assimilate information for:

- |                         |           |           |
|-------------------------|-----------|-----------|
| a) operational control  | 1 2 3 4 5 | 36. _____ |
| b) departmental control | 1 2 3 4 5 | 37. _____ |

### Quantitative Methods

The ability to collect and analyze data for managerial decision making.

1 2 3 4 5 38. \_\_\_\_\_

The ability to utilize statistical computations for:

- |                         |           |           |
|-------------------------|-----------|-----------|
| a) cost effectiveness   | 1 2 3 4 5 | 39. _____ |
| b) cost projections     | 1 2 3 4 5 | 40. _____ |
| c) managerial decisions | 1 2 3 4 5 | 41. _____ |

The ability to apply statistics in the manufacturing process.

1 2 3 4 5 42. \_\_\_\_\_

### Organization

An understanding of organizational structure. 1 2 3 4 5 43. \_\_\_\_\_

A willingness to study, learn & apply. 1 2 3 4 5 44. \_\_\_\_\_

An understanding of the goals and objectives of the organization. 1 2 3 4 5 45. \_\_\_\_\_

The ability to establish departmental goals that are compatible with corporate goals. 1 2 3 4 5 46. \_\_\_\_\_

An understanding of the major components of organization:

- |   |           |           |
|---|-----------|-----------|
| a) authority structure                    | 1 2 3 4 5 | 47. _____ |
| b) division of labor                      | 1 2 3 4 5 | 48. _____ |
| c) mechanisms of coordination (processes) | 1 2 3 4 5 | 49. _____ |
| d) behavior                               | 1 2 3 4 5 | 50. _____ |
| e) economic measures of performance       | 1 2 3 4 5 | 51. _____ |

The ability to apply the organizational philosophy in all leadership functions.

1 2 3 4 5 52. \_\_\_\_\_

### Planning

The ability to decide:

- |  |           |           |
|--|-----------|-----------|
| a) what future resources the organization will need. | 1 2 3 4 5 | 53. _____ |
| b) how these resources will be allocated.            | 1 2 3 4 5 | 54. _____ |
| c) what the major goals of the organization will be. | 1 2 3 4 5 | 55. _____ |
| d) how far the organization is from its goal.        | 1 2 3 4 5 | 56. _____ |
| e) what alternative courses of action                |           |           |

are available.	1 2 3 4 5	57. _____
An understanding of the establishment of:		
a) a set of goals	1 2 3 4 5	58. _____
b) how far the organization is from these goals.	1 2 3 4 5	59. _____
c) predicting favorable or unfavorable barriers to these goals.	1 2 3 4 5	60. _____
d) a set of actions to reach these goals.	1 2 3 4 5	61. _____
The ability to use existing resources to accomplish departmental goals.	1 2 3 4 5	62. _____
The ability to decide what the major goals of the organization will be.	1 2 3 4 5	63. _____
The ability to plan:		
a) short-range goals	1 2 3 4 5	64. _____
b) long-range goals	1 2 3 4 5	65. _____

#### Organizing

The ability to organize people and:		
a) assign them specific tasks	1 2 3 4 5	66. _____
b) provide needed resources	1 2 3 4 5	67. _____
c) assign specific responsibilities	1 2 3 4 5	68. _____
d) insure that important jobs are done	1 2 3 4 5	69. _____
e) insure that institutional goals are fulfilled.	1 2 3 4 5	70. _____
The ability to translate plans into a structure of tasks and authority. (at the department level?)	1 2 3 4 5	71. _____
The ability to integrate the objectives of the separate units of an organization in order to efficiently achieve stated goals.	1 2 3 4 5	72. _____

#### Leading

The ability to deal effectively with:		
a) individual goals	1 2 3 4 5	73. _____
b) group goals	1 2 3 4 5	74. _____
c) organizational goals	1 2 3 4 5	75. _____
The ability to:		
a) delegate decision making	1 2 3 4 5	76. _____
b) satisfying the needs of subordinates	1 2 3 4 5	77. _____
c) create a supportive work environment	1 2 3 4 5	78. _____
d) persuade and motivate subordinates	1 2 3 4 5	79. _____

The ability to assess the groups present feelings and future expectations about:

- |                     |           |           |
|---------------------|-----------|-----------|
| a) rewards          | 1 2 3 4 5 | 80. _____ |
| b) tasks            | 1 2 3 4 5 | 81. _____ |
| c) managerial style | 1 2 3 4 5 | 82. _____ |

An understanding of the process of directing and influencing the tasks-related activities of subordinates.

1 2 3 4 5 83. \_\_\_\_\_

An understanding of your role in relation to:

- |                              |           |           |
|------------------------------|-----------|-----------|
| a) executive manager         | 1 2 3 4 5 | 84. _____ |
| b) peer group                | 1 2 3 4 5 | 85. _____ |
| c) goals of the organization | 1 2 3 4 5 | 86. _____ |
| d) organizational climate    | 1 2 3 4 5 | 87. _____ |

### Control

The ability to in the control function such as:

- |  |           |           |
|--|-----------|-----------|
| a) measure progress toward a planned goal.                     | 1 2 3 4 5 | 88. _____ |
| b) detect deviations from a planned goal.                      | 1 2 3 4 5 | 89. _____ |
| c) take remedial action  | 1 2 3 4 5 | 90. _____ |
| d) assure that actual activities conform to planned activities | 1 2 3 4 5 | 91. _____ |

An understanding of the factors that make control necessary.

- |                                   |           |           |
|-----------------------------------|-----------|-----------|
| a) complexity of the organization | 1 2 3 4 5 | 92. _____ |
| b) resources                      | 1 2 3 4 5 | 93. _____ |
| c) human error                    | 1 2 3 4 5 | 94. _____ |
| d) delegation of authority        | 1 2 3 4 5 | 95. _____ |

### Budget Control

The ability to plan future performance based upon:

- |                         |           |           |
|-------------------------|-----------|-----------|
| a) related expenditures | 1 2 3 4 5 | 96. _____ |
| b) revenues             | 1 2 3 4 5 | 97. _____ |
| c) profits              | 1 2 3 4 5 | 98. _____ |

An understanding of financial control methods including:

- |                                    |           |            |
|------------------------------------|-----------|------------|
| a) financial statements            | 1 2 3 4 5 | 99. _____  |
| b) ratio analysis                  | 1 2 3 4 5 | 100. _____ |
| c) break-even analysis             | 1 2 3 4 5 | 101. _____ |
| d) departmental cost effectiveness | 1 2 3 4 5 | 102. _____ |

The ability to use control systems to:

- |                                     |           |            |
|-------------------------------------|-----------|------------|
| a) monitor organizational functions | 1 2 3 4 5 | 103. _____ |
| b) monitor organizational projects  | 1 2 3 4 5 | 104. _____ |

The ability to develop guidelines for:

- |                                    |           |            |
|------------------------------------|-----------|------------|
| a) developing managerial budgets   | 1 2 3 4 5 | 105. _____ |
| b) developing economic forecasts   | 1 2 3 4 5 | 106. _____ |
| c) departmental cost effectiveness | 1 2 3 4 5 | 107. _____ |

AccountingThe ability to systematically:

- |                                    |           |            |
|------------------------------------|-----------|------------|
| a) record financial information    | 1 2 3 4 5 | 108. _____ |
| b) process financial information   | 1 2 3 4 5 | 109. _____ |
| c) summarize financial information | 1 2 3 4 5 | 110. _____ |
| d) analyze financial information   | 1 2 3 4 5 | 111. _____ |

The ability to interpret information about:

- |                |           |            |
|----------------|-----------|------------|
| a) assets      | 1 2 3 4 5 | 112. _____ |
| b) liabilities | 1 2 3 4 5 | 113. _____ |
| c) equity      | 1 2 3 4 5 | 114. _____ |

An understanding of records relating to:

- |                                     |           |            |
|-------------------------------------|-----------|------------|
| a) costs of materials acquired      | 1 2 3 4 5 | 115. _____ |
| b) labor costs incurred             | 1 2 3 4 5 | 116. _____ |
| c) operations cost (inventory cost) | 1 2 3 4 5 | 117. _____ |
| d) cost of goods sold               | 1 2 3 4 5 | 118. _____ |

An understanding of:

- |                        |           |            |
|------------------------|-----------|------------|
| a) manufacturing costs | 1 2 3 4 5 | 119. _____ |
| b) materials cost      | 1 2 3 4 5 | 120. _____ |
| c) labor costs         | 1 2 3 4 5 | 121. _____ |
| d) factory overhead    | 1 2 3 4 5 | 122. _____ |

An understanding of the annual report of a corporation including:

- |   |           |            |
|---|-----------|------------|
| a) income statement                           | 1 2 3 4 5 | 123. _____ |
| b) balance sheet                              | 1 2 3 4 5 | 124. _____ |
| c) statement of changes in financial position | 1 2 3 4 5 | 125. _____ |

Personnel and StaffingAn understanding of the management function of:

- |  |           |            |
|--|-----------|------------|
| a) recruitment                           | 1 2 3 4 5 | 126. _____ |
| b) placement                             | 1 2 3 4 5 | 127. _____ |
| c) training                              | 1 2 3 4 5 | 128. _____ |
| d) development of organizational members | 1 2 3 4 5 | 129. _____ |

The ability to understand and implement factors involved in staffing including:

- |                       |           |            |
|-----------------------|-----------|------------|
| a) employment         | 1 2 3 4 5 | 130. _____ |
| b) remuneration       | 1 2 3 4 5 | 131. _____ |
| c) working conditions | 1 2 3 4 5 | 132. _____ |
| d) training           | 1 2 3 4 5 | 133. _____ |
| e) employee services  | 1 2 3 4 5 | 134. _____ |

- f) industrial relations 1 2 3 4 5 135. \_\_\_\_\_
- The ability to analyze and submit plans for future personnel needs of the organization. 1 2 3 4 5 136. \_\_\_\_\_

### Labor Relations

- An understanding of the management role during:
- a) negotiations 1 2 3 4 5 137. \_\_\_\_\_
  - b) strikes 1 2 3 4 5 138. \_\_\_\_\_
  - c) relations with union representatives 1 2 3 4 5 139. \_\_\_\_\_
- An understanding of the major weapons of labor-management negotiations:
- a) strike 1 2 3 4 5 140. \_\_\_\_\_
  - b) picketing 1 2 3 4 5 141. \_\_\_\_\_
  - c) boycotts 1 2 3 4 5 142. \_\_\_\_\_
  - d) lockout 1 2 3 4 5 143. \_\_\_\_\_
  - e) elapsing of time 1 2 3 4 5 144. \_\_\_\_\_
- An understanding of the major problems that confront the collective bargaining process:
- a) legal problems 1 2 3 4 5 145. \_\_\_\_\_
  - b) social problems 1 2 3 4 5 146. \_\_\_\_\_
  - c) economic problems 1 2 3 4 5 147. \_\_\_\_\_

### Affirmative Action

- The ability to establish and implement an affirmative action program. 1 2 3 4 5 148. \_\_\_\_\_
- An understanding of the rights of previously denied groups of employees including:
- a) employment 1 2 3 4 5 149. \_\_\_\_\_
  - b) promotion 1 2 3 4 5 150. \_\_\_\_\_
  - c) termination 1 2 3 4 5 151. \_\_\_\_\_
  - d) training 1 2 3 4 5 152. \_\_\_\_\_
- The ability to:
- a) develop policy statements 1 2 3 4 5 153. \_\_\_\_\_
  - b) a written affirmative action program 1 2 3 4 5 154. \_\_\_\_\_
  - c) internal communications procedures 1 2 3 4 5 155. \_\_\_\_\_
  - d) external communication procedures 1 2 3 4 5 156. \_\_\_\_\_
  - e) meet government requirements 1 2 3 4 5 157. \_\_\_\_\_
- The ability to:
- a) collect and analyze employment data 1 2 3 4 5 158. \_\_\_\_\_
  - b) identify problem areas 1 2 3 4 5 159. \_\_\_\_\_



- |  |           |            |
|--|-----------|------------|
| c) set goals and timetables                  | 1 2 3 4 5 | 160. _____ |
| d) develop programs to achieve stated goals. | 1 2 3 4 5 | 161. _____ |

### Manufacturing Cost Control

An understanding of the need for cooperation and communication between:

- |                       |           |            |
|-----------------------|-----------|------------|
| a) sales              | 1 2 3 4 5 | 162. _____ |
| b) operators          | 1 2 3 4 5 | 163. _____ |
| c) traffic            | 1 2 3 4 5 | 164. _____ |
| d) inventory          | 1 2 3 4 5 | 165. _____ |
| e) production control | 1 2 3 4 5 | 166. _____ |

An understanding of cost factors that can be controlled:

- |                         |           |            |
|-------------------------|-----------|------------|
| a) carrying costs       | 1 2 3 4 5 | 167. _____ |
| b) storage costs        | 1 2 3 4 5 | 168. _____ |
| c) transportation costs | 1 2 3 4 5 | 169. _____ |
| d) product availability | 1 2 3 4 5 | 170. _____ |

The ability to provide guidelines for controlling:

- |                             |           |            |
|-----------------------------|-----------|------------|
| a) labor costs              | 1 2 3 4 5 | 171. _____ |
| b) inventory carrying costs | 1 2 3 4 5 | 172. _____ |
| c) materials cost           | 1 2 3 4 5 | 173. _____ |

The ability to control:

- |  |           |            |
|--|-----------|------------|
| a) the amount of raw materials stored                                | 1 2 3 4 5 | 174. _____ |
| b) the size of the work-in-progress inventory                        | 1 2 3 4 5 | 175. _____ |
| c) the elapsed time from final production stage to customer shipment | 1 2 3 4 5 | 176. _____ |

An understanding of the flow of information, materials, and people from order receipt to order shipment.

- |           |            |
|-----------|------------|
| 1 2 3 4 5 | 177. _____ |
|-----------|------------|

Exhibit 2

7777 South May Avenue  
Oklahoma City, OK 73159  
January 25, 1979

Dear Sir:

On January 24, 1979, you were mailed a questionnaire requesting information for curriculum development. Your response to this questionnaire is of the utmost importance, without it the study will be difficult to complete.

Please find time during your busy schedule to complete this questionnaire and return it as soon as possible. Your reply will be held in strict confidence, and I will be grateful for your help.

If you have already responded, please accept my sincere gratitude for your assistance.

Sincerely,

Charles Clark

Enclosure: Questionnaire

## QUESTIONNAIRE - CURRICULUM RESEARCH

Background InformationThis column for  
analysis only

1. \_\_\_\_\_

Educational Background of Respondent:

High School Graduate	( )	Advanced Degree	( )
Attended College but did not graduate	( )	Specialized training at Institution other than College	( )
College Graduate	( )	None of these	( )

Age of Respondent:

19-24	( )	35-44	( )	55 and over	( )
25-34	( )	45-54	( )		

Years of management experience \_\_\_\_\_.

Present number of middle management personnel \_\_\_\_\_.

Projected need for middle management personnel by 1985 \_\_\_\_\_.

NOTE: All questions should be interpreted according to the role of an effective manager in your organization.

Evaluate the importance of each competency item according to the needs of an efficient middle-manager within your organization. Use the following scale when making your analysis.

SCALE: Very Important, circle (1)  
 Moderately Important, circle (2)  
 Slightly Important, circle (3)  
 Unimportant, circle (4)  
 No Opinion, circle (5)

COMPETENCIES TO BE DEVELOPED THROUGH THE FORMAL EDUCATIONAL PROCESSCommunication

The ability to effectively write:

a) letters	1 2 3 4 5	2. _____
b) memos	1 2 3 4 5	3. _____
c) reports	1 2 3 4 5	4. _____

The ability to effectively communicate orally to:

a) individuals	1 2 3 4 5	5. _____
b) small groups	1 2 3 4 5	6. _____

SCALE: Very Important, circle (1)  
 Moderately Important, circle (2)  
 Slightly Important, circle (3)  
 Unimportant, circle (4)  
 No Opinion, circle (5)

---

The ability to communicate:

a) work plans	1 2 3 4 5	7. _____
b) work schedule	1 2 3 4 5	8. _____
c) orders	1 2 3 4 5	9. _____
d) instructions	1 2 3 4 5	10. _____
e) directions	1 2 3 4 5	11. _____

Motivation

An understanding of specific guidelines for effectively motivating subordinates. 1 2 3 4 5 12. \_\_\_\_\_

The ability to use interpersonal skills effectively. 1 2 3 4 5 13. \_\_\_\_\_

An understanding of how behavior is:

a) energized	1 2 3 4 5	14. _____
b) directed	1 2 3 4 5	15. _____
c) sustained	1 2 3 4 5	16. _____

An understanding of motivation as it relates to:

a) interpersonal relations with supervision	1 2 3 4 5	17. _____
b) interpersonal relations with peers	1 2 3 4 5	18. _____
c) interpersonal relations with subordinates	1 2 3 4 5	19. _____

Electronic Data Processing

The ability to assimilate information for strategic planning (for upper management). 1 2 3 4 5 20. \_\_\_\_\_

The ability to use detailed internal information for operational control. 1 2 3 4 5 21. \_\_\_\_\_

The ability to assimilate information for:

a) operational control	1 2 3 4 5	22. _____
b) departmental control	1 2 3 4 5	23. _____

Quantitative Methods

The ability to collect and analyze data for managerial decision making. 1 2 3 4 5 24. \_\_\_\_\_

SCALE: Very Important, circle (1)  
 Moderately Important, circle (2)  
 Slightly Important, circle (3)  
 Unimportant, circle (4)  
 No Opinion, circle (5)

---

The ability to utilize statistical computations for:

- |                         |           |           |
|-------------------------|-----------|-----------|
| a) cost effectiveness   | 1 2 3 4 5 | 25. _____ |
| b) cost projections     | 1 2 3 4 5 | 26. _____ |
| c) managerial decisions | 1 2 3 4 5 | 27. _____ |

The ability to apply statistics in the manufacturing process.

1 2 3 4 5 28. \_\_\_\_\_

#### Organization

An understanding of organizational structure.

1 2 3 4 5 29. \_\_\_\_\_

A willingness to study, learn and apply.

1 2 3 4 5 30. \_\_\_\_\_

An understanding of the goals and objectives of the organization.

1 2 3 4 5 31. \_\_\_\_\_

The ability to establish departmental goals that are compatible with corporate goals.

1 2 3 4 5 32. \_\_\_\_\_

An understanding of the major components of organization:

- |   |           |           |
|---|-----------|-----------|
| a) authority structure                    | 1 2 3 4 5 | 33. _____ |
| b) division of labor                      | 1 2 3 4 5 | 34. _____ |
| c) mechanisms of coordination (processes) | 1 2 3 4 5 | 35. _____ |
| d) economic measures of performance       | 1 2 3 4 5 | 36. _____ |

The ability to apply the organizational philosophy in all leadership functions.

1 2 3 4 5 37. \_\_\_\_\_

#### Planning

The ability to decide:

- |  |           |           |
|--|-----------|-----------|
| a) what future resources the organization will need. | 1 2 3 4 5 | 38. _____ |
| b) how these resources will be allocated.            | 1 2 3 4 5 | 39. _____ |
| c) what alternative courses of action are available  | 1 2 3 4 5 | 40. _____ |

An understanding of the establishment of:

- |  |           |           |
|--|-----------|-----------|
| a) a set of goals                                | 1 2 3 4 5 | 41. _____ |
| b) how far the organization is from these goals. | 1 2 3 4 5 | 42. _____ |
| c) a set of actions to reach these goals.        | 1 2 3 4 5 | 43. _____ |

SCALE: Very Important, circle (1)  
 Moderately Important, circle (2)  
 Slightly Important, circle (3)  
 Unimportant, circle (4)  
 No Opinion, circle (5)

---

The ability to use existing resources to accomplish departmental goals.	1 2 3 4 5	44. _____
---	-----------	-----------

The ability to plan:		
a) short-range goals	1 2 3 4 5	45. _____
b) long-range goals	1 2 3 4 5	46. _____

#### Organizing

The ability to organize people and:		
a) assign them specific tasks	1 2 3 4 5	47. _____
b) assign specific responsibilities	1 2 3 4 5	48. _____
c) insure that important jobs are done	1 2 3 4 5	49. _____
d) insure that institutional goals are fulfilled.	1 2 3 4 5	50. _____

The ability to translate plans into a structure of tasks and authority. (at the department level)	1 2 3 4 5	51. _____
---	-----------	-----------

The ability to integrate the objectives of the separate units of an organization in order to efficiently achieve stated goals.	1 2 3 4 5	52. _____
--	-----------	-----------

#### Leading

The ability to deal effectively with:		
a) group goals	1 2 3 4 5	53. _____
b) organizational goals	1 2 3 4 5	54. _____

The ability to:		
a) delegate decision making	1 2 3 4 5	55. _____
b) create a supportive work environment	1 2 3 4 5	56. _____
c) Persuade and motivate subordinates	1 2 3 4 5	57. _____

The ability to assess the groups present feelings and future expectations about:		
a) rewards	1 2 3 4 5	58. _____
b) tasks	1 2 3 4 5	59. _____

An understanding of the process of directing and influencing the tasks-related activities of subordinates.	1 2 3 4 5	60. _____
--	-----------	-----------

SCALE: Very Important, circle (1)  
 Moderately Important, circle (2)  
 Slightly Important, circle (3)  
 Unimportant, circle (4)  
 No Opinion, circle (5)

An understanding of your role in relation to:

- |                              |           |           |
|------------------------------|-----------|-----------|
| a) executive manager         | 1 2 3 4 5 | 61. _____ |
| b) peer group                | 1 2 3 4 5 | 62. _____ |
| c) goals of the organization | 1 2 3 4 5 | 63. _____ |

#### Control

The ability in the control function to:

- |  |           |           |
|--|-----------|-----------|
| a) measure progress toward a planned goal.                     | 1 2 3 4 5 | 64. _____ |
| b) detect deviations from a planned goal.                      | 1 2 3 4 5 | 65. _____ |
| c) take remedial action  | 1 2 3 4 5 | 66. _____ |
| d) assure that actual activities conform to planned activities | 1 2 3 4 5 | 67. _____ |

An understanding of the factors that make control necessary.

- |                                   |           |           |
|-----------------------------------|-----------|-----------|
| a) complexity of the organization | 1 2 3 4 5 | 68. _____ |
| b) resources                      | 1 2 3 4 5 | 69. _____ |
| c) delegation of authority        | 1 2 3 4 5 | 70. _____ |

#### Budget Control

The ability to plan future performance based upon:

- |                         |           |           |
|-------------------------|-----------|-----------|
| a) related expenditures | 1 2 3 4 5 | 71. _____ |
| b) revenues             | 1 2 3 4 5 | 72. _____ |
| c) profits              | 1 2 3 4 5 | 73. _____ |

An understanding of financial control methods including:

- |                                    |           |           |
|------------------------------------|-----------|-----------|
| a) break-even analysis             | 1 2 3 4 5 | 74. _____ |
| b) departmental cost effectiveness | 1 2 3 4 5 | 75. _____ |

The ability to use control systems to:

- |                                     |           |           |
|-------------------------------------|-----------|-----------|
| a) monitor organizational functions | 1 2 3 4 5 | 76. _____ |
| b) monitor organizational projects  | 1 2 3 4 5 | 77. _____ |

The ability to develop guidelines for:

- |                                  |           |           |
|----------------------------------|-----------|-----------|
| a) developing managerial budgets | 1 2 3 4 5 | 78. _____ |
| b) developing economic forecasts | 1 2 3 4 5 | 79. _____ |

#### Accounting

The ability to systematically:

- |                                    |           |           |
|------------------------------------|-----------|-----------|
| a) summarize financial information | 1 2 3 4 5 | 80. _____ |
| b) analyze financial information   | 1 2 3 4 5 | 81. _____ |

SCALE: Very Important, circle (1)  
 Moderately Important, circle (2)  
 Slightly Important, circle (3)  
 Unimportant, circle (4)  
 No Opinion, circle (5)

---

The ability to interpret information about:			
a) assets	1 2 3 4 5	82.	_____
b) liabilities	1 2 3 4 5	83.	_____
c) equity	1 2 3 4 5	84.	_____
An understanding of records relating to:			
a) costs of materials acquired	1 2 3 4 5	85.	_____
b) labor costs incurred	1 2 3 4 5	86.	_____
c) operations cost (inventory cost)	1 2 3 4 5	87.	_____
d) cost of goods sold	1 2 3 4 5	88.	_____
An understanding of:			
a) manufacturing costs	1 2 3 4 5	89.	_____
b) materials cost	1 2 3 4 5	90.	_____
c) labor costs	1 2 3 4 5	91.	_____
d) factory overhead	1 2 3 4 5	92.	_____
An understanding of the annual report of a corporation:			
	1 2 3 4 5	93.	_____
<u>Personnel and Staffing</u>			
An understanding of the management function of:			
a) placement	1 2 3 4 5	94.	_____
b) training	1 2 3 4 5	95.	_____
c) development of organizational members	1 2 3 4 5	96.	_____
The ability to understand and implement factors involved in staffing including:			
a) employment	1 2 3 4 5	97.	_____
b) working conditions	1 2 3 4 5	98.	_____
c) training	1 2 3 4 5	99.	_____
d) industrial relations	1 2 3 4 5	100.	_____
The ability to analyze and submit plans for future personnel needs of the organization.			
	1 2 3 4 5	101.	_____



SCALE: Very Important, circle (1)  
 Moderately Important, circle (2)  
 Slightly Important, circle (3)  
 Unimportant, circle (4)  
 No Opinion, circle (5)

### Labor Relations

An understanding of the management role during:

- |   |           |            |
|---|-----------|------------|
| a) negotiations                         | 1 2 3 4 5 | 102. _____ |
| b) strikes                              | 1 2 3 4 5 | 103. _____ |
| c) relations with union representatives | 1 2 3 4 5 | 104. _____ |

An understanding of the major problems that confront the collective bargaining process.

1 2 3 4 5 105. \_\_\_\_\_

### Affirmative Action

The ability to establish and implement an affirmative action program.

1 2 3 4 5 106. \_\_\_\_\_

An understanding of the rights of previously denied groups of employees including:

- |                |           |            |
|----------------|-----------|------------|
| a) employment  | 1 2 3 4 5 | 107. _____ |
| b) promotion   | 1 2 3 4 5 | 108. _____ |
| c) termination | 1 2 3 4 5 | 109. _____ |

The ability to develop policy statements. 1 2 3 4 5 110. \_\_\_\_\_

APPENDIX B  
ANALYSIS OF RESPONSES TO 109 COMPETENCIES  
BY FIRM SIZE

TABLE 13

## ANALYSIS OF RESPONSES CONCERNING ABILITY TO EFFECTIVELY WRITE LETTERS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	14 41.2	12 35.3	8 23.5			34 61.8
250 to 499	8 61.5	5 38.5	0 0.0			13 23.6
500 to 999	1 25.0	2 50.0	1 25.0			4 7.3
1000 or more	0 0.0	2 50.0	2 50.0			4 7.3

Column Total            23            21            11            55  
                              41.8            38.2            20.0            100.0

Chi Square = 8.18449 with 6 Degrees of Freedom  
 Contingency Coefficient = 0.35991

Significance = 0.2249

TABLE 14

## ANALYSIS OF RESPONSES CONCERNING ABILITY TO EFFECTIVELY WRITE MEMOS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	15 44.1	14 41.2	3 8.3	2 5.9		34 61.9
250 to 499	7 53.8	5 38.5	1 7.7	0 0.0		13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3
1000 or more	0 0.0	4 100.0	0 0.0	0 0.0		4 7.3

Column Total            24            25            4            2            55  
                              43.6            45.5            7.3            3.6            100.0

Chi Square = 6.94074 with 9 Degrees of Freedom  
 Contingency Coefficient = 0.33475

Significance = 0.6433

TABLE 15  
ANALYSIS OF RESPONSES CONCERNING ABILITY TO EFFECTIVELY WRITE REPORTS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	19 55.9	10 29.4	3 8.8	2 5.9		34 61.8
250 to 499	6 46.2	6 46.2	1 7.7	0 0.0		13 23.6
500 to 999	1 25.0	0 0.0	3 75.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3

Column Total	28 50.9	18 32.7	7 12.7	2 3.6		55 100.0
--------------	------------	------------	-----------	----------	--	-------------

Chi Square = 17.85307 with 9 Degrees of Freedom      Significance = 0.0369  
Contingency Coefficient = 0.49503

TABLE 16  
ANALYSIS OF RESPONSES CONCERNING ABILITY  
TO EFFECTIVELY COMMUNICATE ORALLY TO INDIVIDUALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	32 94.1	5 5.9				34 61.8
250 to 499	10 76.9	3 23.1				13 23.6
500 to 999	3 75.0	1 25.0				4 7.3
1000 or more	4 100.0	0 0.0				4 7.3

Column Total	49 89.1	6 10.9				55 100.0
--------------	------------	-----------	--	--	--	-------------

Chi Square = 4.17130 with 3 Degrees of Freedom      Significance = 0.2436  
Contingency Coefficient = 0.27539

TABLE 17

ANALYSIS OF RESPONSES CONCERNING ABILITY  
TO EFFECTIVELY COMMUNICATE ORALLY TO SMALL GROUPS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	22 64.7	9 26.5	2 5.9		1 2.9	34 61.8
250 to 499	8 61.5	5 38.5	0 0.0		0 0.0	13 23.6
500 to 999	3 75.0	0 0.0	1 25.0		0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total	35 63.6	16 29.1	3 5.5		1 1.8	55 100.0
--------------	------------	------------	----------	--	----------	-------------

Chi Square = 5.80841 with 9 Degrees of Freedom  
Contingency Coefficient = 0.33189

Significance = 0.6571

TABLE 18

## ANALYSIS OF RESPONSES CONCERNING ABILITY TO COMMUNICATE WORK PLANS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	27 79.4	5 14.7	1 2.9		1 2.9	34 61.3
250 to 499	7 53.8	6 46.2	0 0.0		0 0.0	13 23.6
500 to 999	2 50.0	0 0.0	2 50.0		0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total	38 69.1	13 23.6	3 5.5		1 1.8	55 100.0
--------------	------------	------------	----------	--	----------	-------------

Chi Square = 23.93121 with 9 Degrees of Freedom  
Contingency Coefficient = 0.55063

Significance = 0.0044

TABLE 19  
ANALYSIS OF RESPONSES CONCERNING ABILITY TO COMMUNICATE WORK SCHEDULE

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	21 61.8	12 35.3	0 0.0	0 0.0	1 2.9	34 61.8
250 to 499	7 53.8	6 46.2	0 0.0	0 0.0	0 0.0	13 23.6
500 to 999	2 50.0	0 0.0	1 25.0	1 25.0	0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	2 50.0	0 0.0	0 0.0	4 7.3

Column Total      32      18      2      1      1      55  
58.2      32.7      5.5      1.8      1.8      100.0

Chi Square = 36.89604 with 12 Degrees of Freedom      Significance = 0.0002  
Contingency Coefficient = 0.63364

TABLE 20  
ANALYSIS OF RESPONSES CONCERNING ABILITY TO COMMUNICATE ORDERS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	24 70.6	9 26.5	0 0.0	0 0.0	1 2.9	34 61.8
250 to 499	10 76.9	3 23.1	0 0.0	0 0.0	0 0.0	13 23.6
500 to 999	3 75.0	0 0.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total      41      12      1      0      1      55  
74.5      21.8      1.8      0.0      1.3      100.0

Chi Square = 15.88890 with 9 Degrees of Freedom      Significance = 0.0692  
Contingency Coefficient = 0.47343

TABLE 21  
ANALYSIS OF RESPONSES CONCERNING ABILITY TO COMMUNICATE INSTRUCTIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	27 79.4	6 17.6	1 2.9			34 61.8
250 to 499	8 61.5	5 38.5	0 0.0			13 23.6
500 to 999	2 50.0	1 25.0	1 25.0			4 7.3
1000 or more	4 100.0	0 0.0	0 0.0			4 7.3
Column Total	41 74.5	12 21.8	2 3.6			55 100.0

Chi Square = 9.57070 with 6 Degrees of Freedom  
Contingency Coefficient = 0.38499

Significance = 0.1439

TABLE 22  
ANALYSIS OF RESPONSES CONCERNING ABILITY TO COMMUNICATE DIRECTIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	24 70.6	8 23.5	0 0.0	2 5.9		34 61.3
250 to 499	8 61.5	5 38.5	0 0.0	0 0.0		13 23.6
500 to 999	2 50.0	1 25.0	1 25.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3
Column Total	36 65.5	16 29.1	1 1.8	2 3.6		55 100.0

Chi Square = 15.92261 with 9 Degrees of Freedom  
Contingency Coefficient = 0.47256

Significance = 0.0707

TABLE 23  
ANALYSIS OF RESPONSES CONCERNING  
ABILITY TO EFFECTIVELY MOTIVATE SUBORDINATES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	12 35.3	3 8.8		1 2.9	34 61.3
250 to 499	5 38.5	6 46.2	1 7.7		1 2.9	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total	28 50.9	21 38.2	4 7.3		2 3.6	55 100.0
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Chi Square = 3.12049 with 9 Degrees of Freedom  
Contingency Coefficient = 0.23171

Significance = 0.9593

TABLE 24  
ANALYSIS OF RESPONSES CONCERNING ABILITY  
TO EFFECTIVELY USE INTERPERSONAL SKILLS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	17 50.0	11 32.4	3 8.8		3 8.8	34 61.3
250 to 499	8 61.5	5 38.5	0 0.0		0 0.0	13 23.6
500 to 999	2 50.0	1 25.0	1 25.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total	31 56.4	17 30.9	4 7.3		3 5.5	55 100.0
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Chi Square = 8.16063 with 9 Degrees of Freedom  
Contingency Coefficient = 0.35945

Significance = 0.5180



TABLE 25  
ANALYSIS OF RESPONSES CONCERNING THE  
UNDERSTANDING OF HOW BEHAVIOR IS ENERGIZED

Firm Size	Responses					
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	Row Total
100 to 249	11 32.4	18 52.9	5 14.7		0 0.0	34 61.3
250 to 499	4 30.8	6 46.2	1 7.7		2 15.4	13 23.6
500 to 999	1 25.0	2 50.0	1 25.0		0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total      18      28      7           2      55  
                          32.7      50.9      12.7           3.6      100.0

Chi Square = 8.34845 with 9 Degrees of Freedom  
 Contingency Coefficient = 0.36302

Significance = 0.4994

TABLE 26  
ANALYSIS OF RESPONSES CONCERNING THE  
UNDERSTANDING OF HOW BEHAVIOR IS DIRECTED

Firm Size	Responses					
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	Row Total
100 to 249	13 38.2	15 44.1	6 17.6		0 0.0	34 61.3
250 to 499	4 30.8	6 46.2	0 0.0		3 23.1	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total      23      23      6           3      55  
                          41.3      41.3      10.9           5.5      100.0

Chi Square = 19.02219 with 9 Degrees of Freedom  
 Contingency Coefficient = 0.50693

Significance = 0.0250

TABLE 27  
ANALYSIS OF RESPONSES CONCERNING THE  
UNDERSTANDING OF HOW BEHAVIOR IS SUSTAINED

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	13 38.2	15 44.1	6 17.6		0 0.0	34 61.3
250 to 499	3 23.1	5 38.5	2 15.4		3 23.1	13 23.6
500 to 999	1 25.0	3 75.0	0 0.0		0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total      19      25      8      3      55  
34.5      45.5      14.5      5.5      100.0

Chi Square = 13.033770 with 9 Degrees of Freedom      Significance = 0.1609  
Contingency Coefficient = 0.43775

TABLE 28  
ANALYSIS OF RESPONSES CONCERNING MOTIVATION  
AS IT RELATES TO INTERPERSONAL RELATIONS WITH SUPERVISION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	6 17.6	10 29.4			34 61.3
250 to 499	10 76.9	2 15.4	1 7.7			13 23.6
500 to 999	1 25.0	3 75.0	0 0.0			4 7.3
1000 or more	0 0.0	2 50.0	2 50.0			4 7.3

Column Total      29      13      13      55  
52.7      23.6      23.6      100.0

Chi Square = 14.66708 with 6 Degrees of Freedom      Significance = 0.0230  
Contingency Coefficient = 0.45884

TABLE 29  
ANALYSIS OF RESPONSES CONCERNING MOTIVATION  
AS IT RELATES TO INTERPERSONAL RELATIONS WITH PEERS

Firm Size	Responses					
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	Row Total
100 to 249	16 47.1	10 29.4	8 23.5			34 61.8
250 to 499	6 46.2	6 26.2	1 7.7			13 23.6
500 to 999	1 25.0	2 50.0	1 25.0			4 7.3
1000 or more	0 0.0	4 100.0	0 0.0			4 7.3

Column Total            23            22            10            55  
                             41.8            40.0            18.2            100.0

Chi Square = 9.15205 with 6 Degrees of Freedom  
Contingency Coefficient = 0.28844

Significance = 0.1652

TABLE 30  
ANALYSIS OF RESPONSES CONCERNING MOTIVATION  
AS IT RELATES TO INTERPERSONAL RELATIONS WITH SUBORDINATES

Firm Size	Responses					
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	Row Total
100 to 249	18 52.9	8 23.5	7 20.6		1 2.9	34 61.8
250 to 499	11 84.6	2 15.4	0 0.0		0 0.0	13 23.6
500 to 999	1 25.0	3 75.0	0 0.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total            34            13            7            1            55  
                             61.8            23.6            12.7            1.8            100.0

Chi Square = 14.07276 with 9 Degrees of Freedom  
Contingency Coefficient = 0.45137

Significance = 0.1198

TABLE 31  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
ASSIMILATE INFORMATION FOR STRATEGIC PLANNING FOR UPPER MANAGEMENT

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	12 35.3	13 38.2	8 23.5		1 2.9	34 61.8
250 to 499	6 46.2	6 46.2	1 7.7		0 0.0	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	2 50.0		0 0.0	4 7.3

Column Total            23            20            11            1            55  
                             41.8          36.4          20.0          1.3          100.0

Chi Square = 7.90771 with 9 Degrees of Freedom  
Contingency Coefficient = 0.35455

Significance = 0.5435

TABLE 32  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
USE DETAILED INTERNAL INFORMATION FOR OPERATIONAL CONTROL

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	7 20.6	14 41.2	11 32.4		2 5.9	34 61.3
250 to 499	6 46.2	6 46.2	0 0.0		1 7.7	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	2 50.0	2 50.0		0 0.0	4 7.3

Column Total            15            24            13            3            55  
                             27.3          43.6          23.6          5.5          100.0

Chi Square = 11.09954 with 9 Degrees of Freedom  
Contingency Coefficient = 0.40978

Significance = .2589

TABLE 33

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO ASSIMILATE INFORMATION FOR OPERATIONAL CONTROL

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	8 23.5	18 52.9	3 8.8		5 14.7	34 61.8
250 to 499	8 61.5	3 23.1	1 7.7		1 7.7	13 23.6
500 to 999	1 25.0	3 75.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	2 50.0	2 50.0		0 0.0	4 7.3

Column Total      17      26      6      6      55  
                          30.9      47.3      10.9      10.9      100.0

Chi Square = 16.06783 with 9 Degrees of Freedom      Significance = 0.0655  
 Contingency Coefficient = 0.47549

TABLE 34

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO ASSIMILATE INFORMATION FOR DEPARTMENTAL CONTROL

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	12 35.3	18 52.9	2 5.9		2 5.9	34 61.3
250 to 499	6 46.2	4 30.8	0 0.0		3 23.1	13 23.6
500 to 999	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3

Column Total      18      30      2      5      55  
                          32.7      54.5      3.6      9.1      100.0

Chi Square = 12.94117 with 9 Degrees of Freedom      Significance = 0.1653  
 Contingency Coefficient = 0.43644

TABLE 35  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO COLLECT AND ANALYZE DATA FOR MANAGERIAL DECISION MAKING

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	11 32.4	16 47.1	6 17.6	1 2.9	0 0.0	34 61.8
250 to 499	7 53.8	5 38.5	0 0.0	0 0.0	1 7.7	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	0 0.0	4 100.0	0 0.0	0 0.0	4 7.3

Column Total            20            23            10            1            1            55  
                             36.4        41.8        18.2        1.8        1.8        100.0

Chi Square = 26.56915 with 12 Degrees of Freedom      Significance = 0.0089  
Contingency Coefficient = 0.57072

TABLE 36  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO UTILIZE STATISTICAL COMPUTATIONS FOR COST EFFECTIVENESS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	13 38.2	15 44.1	5 14.7	1 2.9	0 0.0	34 61.3
250 to 499	4 30.8	7 53.8	1 7.7	0 0.0	1 7.7	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            21            26            6            1            1            55  
                             38.2        47.3        10.9        1.8        1.8        100.0

Chi Square = 5.97649 with 12 Degrees of Freedom      Significance = 0.9173  
Contingency Coefficient = 0.31307

TABLE 37  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO UTILIZE STATISTICAL COMPUTATIONS FOR COST PROJECTIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	15 44.1	14 41.2	4 11.8	1 2.9		34 61.3
250 to 499	3 23.1	9 69.2	1 7.7	0 0.0		13 23.6
500 to 999	3 75.0	1 25.0	0 0.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3

Column Total            23            25            5            1            55  
                             41.8          47.3          9.1          1.8          100.0

Chi Square = 5.91161 with 9 Degrees of Freedom            Significance = 0.7487  
Contingency Coefficient = 0.31153

TABLE 38  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO UTILIZE STATISTICAL COMPUTATIONS FOR MANAGERIAL DECISIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	16 47.1	9 26.5	6 17.6	2 5.9	1 2.9	34 61.3
250 to 499	5 38.5	6 46.2	2 15.4	0 0.0	0 0.0	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            25            19            8            2            1            55  
                             45.5          34.5          14.5          3.6          1.3          100.0

Chi Square = 5.14516 with 12 Degrees of Freedom            Significance = 0.9530  
Contingency Coefficient = 0.29248

TABLE 39  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO APPLY STATISTICS IN THE MANUFACTURING PROCESS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	10 29.4	9 26.5	9 26.5	2 5.9	4 11.8	34 61.8
250 to 499	5 38.5	5 38.5	1 7.7	1 7.7	1 7.7	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	2 50.0	2 50.0	0 0.0	0 0.0	4 7.3

Column Total      17      18      12      3      5      55  
                      30.9      32.7      21.8      5.5      9.1      100.0

Chi Square = 8.68392 with 12 Degrees of Freedom      Significance = 0.7297  
 Contingency Coefficient = 0.36927

TABLE 40  
ANALYSIS OF RESPONSES CONCERNING THE  
UNDERSTANDING OF ORGANIZATIONAL STRUCTURE

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	16 47.1	12 35.3	6 17.6			34 61.8
250 to 499	4 30.8	8 61.5	1 7.7			13 23.6
500 to 999	0 0.0	4 100.0	0 0.0			4 7.3
1000 or more	2 50.0	0 0.0	2 50.0			4 7.3

Column Total      22      24      9                55  
                      40.0      43.6      15.4                100.0

Chi Square = 12.50683 with 5 Degrees of Freedom      Significance = 0.0497  
 Contingency Coefficient = 0.43182



TABLE 41

ANALYSIS OF RESPONSES CONCERNING A WILLINGNESS TO STUDY, LEARN AND APPLY

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	23 67.6	7 20.6	4 11.8			34 61.8
250 to 499	7 53.8	5 38.5	1 7.7			13 23.6
500 to 999	3 75.0	1 25.0	0 0.0			4 7.3
1000 or more	0 0.0	4 100.0	0 0.0			4 7.3

Column Total	33 60.0	17 30.9	5 9.1			55 100.0
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Chi Square = 11.62039 with 6 Degrees of Freedom  
Contingency Coefficient = 0.41764

Significance = 0.0710

TABLE 42

ANALYSIS OF RESPONSES CONCERNING THE GOALS AND OBJECTIVES OF THE ORGANIZATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	22 64.7	10 29.4	1 2.9		1 2.9	34 61.8
250 to 499	9 69.2	4 30.8	0 0.0		0 0.0	13 23.6
500 to 999	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total	39 70.9	14 25.5	1 1.8		1 1.8	55 100.0
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Chi Square = 4.76953 with 9 Degrees of Freedom  
Contingency Coefficient = 0.28249

Significance = 0.3539

TABLE 43

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
ESTABLISH DEPARTMENTAL GOALS THAT ARE COMPATIBLE WITH CORPORATE GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	19 55.9	14 41.2			1 2.9	34 61.3
250 to 499	9 69.2	4 30.8			0 0.0	13 23.6
500 to 999	3 75.0	1 25.0			0 0.0	4 7.3
1000 or more	2 50.0	2 50.0			0 0.0	4 7.3

Column Total	33 60.0	21 38.2			1 1.8	55 100.0
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Chi Square = 1.71030 with 6 Degrees of Freedom  
Contingency Coefficient = 0.17366

Significance = 0.9443

TABLE 44

ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING  
OF THE MAJOR COMPONENTS OF ORGANIZATIONAL AUTHORITY STRUCTURE

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	12 35.3	12 35.3	9 25.5		1 2.9	34 61.3
250 to 499	8 61.5	3 23.1	2 15.4		0 0.0	13 23.6
500 to 999	0 0.0	3 75.0	0 0.0		1 25.0	4 7.3
1000 or more	0 0.0	2 50.0	2 50.0		0 0.0	4 7.3

Column Total	20 36.4	20 36.4	13 23.6		2 3.6	55 100.0
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Chi Square = 15.96947 with 9 Degrees of Freedom  
Contingency Coefficient = 0.47436

Significance = 0.0675

TABLE 45  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING  
OF THE MAJOR COMPONENTS OF ORGANIZATIONAL DIVISION OF LABOR

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	11 32.4	16 47.1	6 17.6		1 2.9	34 61.8
250 to 499	8 61.5	4 30.3	1 7.7		0 0.0	13 23.6
500 to 999	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3

Column Total	19 34.5	28 50.9	7 12.7		1 1.8	55 100.0
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Chi Square = 13.01602 with 9 Degrees of Freedom  
Contingency Coefficient = 0.43746

Significance = 0.1619

TABLE 46  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING  
OF THE MAJOR COMPONENTS OF ORGANIZATIONAL MECHANISMS OF COORDINATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	12 35.3	18 52.9	4 11.8			34 61.9
250 to 499	3 61.5	5 38.5	0 0.0			13 23.6
500 to 999	3 75.0	1 25.0	0 0.0			4 7.3
1000 or more	0 0.0	2 50.0	2 50.0			4 7.3

Column Total	23 41.8	26 47.3	6 10.9			55 100.0
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Chi Square = 12.63192 with 6 Degrees of Freedom  
Contingency Coefficient = 0.43217

Significance = 0.0493

TABLE 47  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING OF  
THE MAJOR COMPONENTS OF ORGANIZATIONAL ECONOMIC MEASURES OF PERFORMANCE

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	14 41.2	14 41.2	4 11.8	1 2.9	1 2.9	34 61.8
250 to 499	6 46.2	6 46.2	1 7.7	0 0.0	0 0.0	13 23.6
500 to 999	1 25.0	3 75.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total      25      23      5      1      1      55  
45.5      41.8      9.1      1.8      1.8      100.0

Chi Square = 8.17025 with 12 Degrees of Freedom      Significance = 0.7717  
Contingency Coefficient = 0.35963

TABLE 48  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO APPLY  
THE ORGANIZATIONAL PHILOSOPHY IN ALL LEADERSHIP FUNCTIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	19 55.9	11 32.4	3 8.8		1 2.9	34 61.8
250 to 499	7 53.8	5 38.5	1 7.7		0 0.0	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total      31      19      4           1      55  
56.4      34.5      7.3           1.8      100.0

Chi Square = 2.09336 with 9 Degrees of Freedom      Significance = 0.9899  
Contingency Coefficient = 0.19148

TABLE 49

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO DECIDE WHAT FUTURE RESOURCES THE ORGANIZATION WILL NEED

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	8 23.5	15 44.1	8 23.5		3 8.8	34 61.3
250 to 499	4 30.8	7 53.8	2 15.4		0 0.0	13 23.6
500 to 999	2 50.0	1 25.0	1 25.0		0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	2 50.0		0 0.0	4 7.3

Column Total            16            23            13            3            55  
                              29.1          41.8          23.6          5.5          100.0

Chi Square = 7.41934 with 9 Degrees of Freedom  
 Contingency Coefficient = 0.34476

Significance = 0.5935

TABLE 50

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO DECIDE HOW THESE RESOURCES WILL BE ALLOCATED

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	7 20.6	17 50.0	7 20.6		3 8.8	34 61.3
250 to 499	3 23.1	8 61.5	2 15.4		0 0.0	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	2 50.0		0 0.0	4 7.3

Column Total            15            26            11            3            55  
                              27.3          47.3          20.0          5.5          100.0

Chi Square = 12.26053 with 9 Degrees of Freedom  
 Contingency Coefficient = 0.42695

Significance = 0.1990

TABLE 51  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO DECIDE WHAT ALTERNATIVE COURSES OF ACTION ARE AVAILABLE

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	12 35.3	11 32.4	6 17.6	1 2.9	4 11.8	34 61.8
250 to 499	7 53.8	5 38.5	1 7.7	0 0.0	0 0.0	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	2 50.0	0 0.0	0 0.0	4 7.3

Column Total      24      17      9      1      4      55  
43.6      30.9      16.4      1.8      7.3      100.0

Chi Square = 10.47602 with 12 Degrees of Freedom      Significance = 0.5743  
Contingency Coefficient = 0.40000

TABLE 52  
ANALYSIS OF RESPONSES CONCERNING THE ESTABLISHMENT OF GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	16 47.1	16 47.1	2 5.9		0 0.0	34 61.8
250 to 499	9 69.2	4 30.8	0 0.0		0 0.0	13 23.6
500 to 999	3 75.0	0 0.0	0 0.0		1 25.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total      30      22      2      1      55  
54.5      40.0      3.6      1.8      100.0

Chi Square = 17.57103 with 9 Degrees of Freedom      Significance = 0.0405  
Contingency Coefficient = 0.49206

TABLE 53  
ANALYSIS OF RESPONSES CONCERNING AN  
UNDERSTANDING HOW FAR THE ORGANIZATION IS FROM GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	9 26.5	19 55.9	6 17.6		0 0.0	34 61.8
250 to 499	7 53.8	6 46.2	0 0.0		0 0.0	13 23.6
500 to 999	3 75.0	0 0.0	0 0.0		1 25.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total            21            27            6            1            55  
                             38.2          49.1          10.9          1.8          100.0

Chi Square = 22.38565 with 9 Degrees of Freedom      Significance = 0.0077  
Contingency Coefficient = 0.53784

TABLE 54  
ANALYSIS OF RESPONSES CONCERNING AN  
UNDERSTANDING OF A SET OF ACTIONS TO REACH GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	15 44.1	17 50.0	2 5.9			34 61.8
250 to 499	8 61.5	5 38.5	0 0.0			13 23.6
500 to 999	4 100.0	0 0.0	0 0.0			4 7.3
1000 or more	4 100.0	0 0.0	0 0.0			4 7.3

Column Total            31            22            2            55  
                             56.4          40.0          3.6          100.0

Chi Square = 8.96201 with 6 Degrees of Freedom      Significance = 0.1757  
Contingency Coefficient = 0.37432

TABLE 55  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO USE EXISTING RESOURCES TO ACCOMPLISH DEPARTMENTAL GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	23 67.6	11 32.4				34 61.8
250 to 499	8 61.5	5 38.5				13 23.6
500 to 999	4 100.0	0 0.0				4 7.3
1000 or more	4 100.0	0 0.0				4 7.3

Column Total            39            16            55  
                             70.9        29.1        100.0

Chi Square = 4.01081 with 3 Degrees of Freedom      Significance = 0.2503  
Contingency Coefficient = 0.26071

TABLE 56  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO PLAN SHORT-RANGE GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	24 70.6	9 26.5	1 2.9			34 61.8
250 to 499	6 46.2	5 38.5	2 15.4			13 23.6
500 to 999	4 100.0	0 0.0	0 0.0			4 7.3
1000 or more	2 50.0	2 50.0	0 0.0			4 7.3

Column Total            36            16            3            55  
                             65.5        29.1        5.5        100.0

Chi Square = 7.16966 with 6 Degrees of Freedom      Significance = 0.3054  
Contingency Coefficient = 0.33959



TABLE 57

## ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO PLAN LONG-RANGE GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	21 61.8	10 29.4	3 8.8			34 61.3
250 to 499	6 46.2	7 53.8	0 0.0			13 23.6
500 to 999	3 75.0	1 25.0	0 0.0			4 7.3
1000 or more	0 0.0	2 50.0	2 50.0			4 7.3

Column Total      30      20      5      55  
                          54.5      36.4      9.1      100.0

Chi Square = 13.78421 with 6 Degrees of Freedom      Significance = 0.0321  
 Contingency Coefficient = 0.44766

TABLE 58

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO ORGANIZE PEOPLE AND ASSIGN THEM SPECIFIC TASKS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	28 82.4	4 11.8	1 2.9		1 2.9	34 61.8
250 to 499	5 38.5	8 61.5	0 0.0		0 0.0	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3

Column Total      35      18      1      1      55  
                          63.6      32.7      1.8      1.3      100.0

Chi Square = 20.92240 with 9 Degrees of Freedom      Significance = 0.0135  
 Contingency Coefficient = 0.52404

TABLE 59  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO ORGANIZE PEOPLE AND ASSIGN SPECIFIC RESPONSIBILITIES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	27 79.4	6 17.6	1 2.9			34 61.3
250 to 499	7 53.8	6 46.2	0 0.0			13 23.6
500 to 999	3 75.0	1 25.0	0 0.0			4 7.3
1000 or more	4 100.0	0 0.0	0 0.0			4 7.3

Column Total            41            13            1            55  
                             74.5          23.6          1.8          100.0

Chi Square = 6.07394 with 6 Degrees of Freedom      Significance = 0.4150  
Contingency Coefficient = 0.31536

TABLE 60  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO ORGANIZE PEOPLE AND INSURE THAT IMPORTANT JOBS ARE DONE

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	27 79.4	5 14.7	1 2.9	1 2.9		34 61.3
250 to 499	8 61.5	5 38.5	0 0.0	0 0.0		13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0		4 7.3

Column Total            41            12            1            1            55  
                             74.5          21.8          1.8          1.8          100.0

Chi Square = 7.07682 with 9 Degrees of Freedom      Significance = 0.6291  
Contingency Coefficient = 0.33764

TABLE 61  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO ORGANIZE PEOPLE AND INSURE THAT INSTITUTIONAL GOALS ARE FULFILLED

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	13 38.2	2 5.9	1 2.9		34 61.8
250 to 499	4 30.8	9 69.2	0 0.0	0 0.0		13 23.6
500 to 999	1 25.0	3 75.0	0 0.0	0 0.0		4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0		4 7.3

Column Total            27            25            2            1            55  
                             49.1          45.5          3.6          1.8           100.0

Chi Square = 10.02222 with 9 Degrees of Freedom      Significance = 0.3487  
Contingency Coefficient = 0.39260

TABLE 62  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
TRANSLATE PLANS INTO A STRUCTURE OF TASKS AND AUTHORITY

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	25 73.5	3 8.8	5 14.7		1 2.9	34 61.8
250 to 499	4 30.8	9 69.2	0 0.0		0 0.0	13 23.6
500 to 999	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3

Column Total            33            16            5            1            55  
                             60.0          29.1          9.1          1.8           100.0

Chi Square = 30.13924 with 9 Degrees of Freedom      Significance = 0.0004  
Contingency Coefficient = 0.59498

TABLE 63

ANALYSIS OF RESPONSES CONCERNING THE  
ABILITY TO INTEGRATE THE OBJECTIVES OF SEPERATE UNITS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	17 50.0	6 17.6	8 23.5	1 2.9	2 5.9	34 61.8
250 to 499	7 53.8	5 38.5	1 7.7	0 0.0	0 0.0	13 23.6
500 to 999	0 0.0	4 100.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total      26      17      9      1      2      55  
                      47.3      30.9      16.4      1.8      3.6      100.0

Chi Square = 15.71961 with 12 Degrees of Freedom      Significance = 0.2044  
 Contingency Coefficient = 0.47147

TABLE 64

ANALYSIS OF RESPONSES CONCERNING THE  
ABILITY TO DEAL EFFECTIVELY WITH GROUP GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	22 64.7	6 17.6	6 17.6			34 61.3
250 to 499	8 61.5	5 38.5	0 0.0			13 23.6
500 to 999	2 50.0	1 25.0	1 25.0			4 7.3
1000 or more	2 50.0	2 50.0	0 0.0			4 7.3

Column Total      34      14      7                55  
                      61.3      25.5      12.7                100.0

Chi Square = 6.13571 with 6 Degrees of Freedom      Significance = 0.4082  
 Contingency Coefficient = 0.31680

TABLE 65  
ANALYSIS OF RESPONSES CONCERNING THE  
ABILITY TO DEAL EFFECTIVELY WITH ORGANIZATIONAL GOALS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	9 26.5	6 17.6		1 2.9	34 61.8
250 to 499	7 53.8	6 46.2	0 0.0		0 0.0	13 23.6
500 to 999	2 50.0	1 25.0	1 25.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total      31      16      7      1      55  
56.4      29.1      12.7      1.8      100.0

Chi Square = 7.93453 with 9 Degrees of Freedom      Significance = 0.5408  
Contingency Coefficient = 0.35507

TABLE 66  
ANALYSIS OF RESPONSES CONCERNING  
THE ABILITY TO DELEGATE DECISION MAKING

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	20 58.8	11 32.4	2 5.9		1 2.9	34 61.8
250 to 499	8 61.5	4 30.8	1 7.7		0 0.0	13 23.6
500 to 999	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3

Column Total      28      23      3      1      55  
50.9      41.3      5.5      1.8      100.0

Chi Square = 13.54815 with 9 Degrees of Freedom      Significance = 0.1393  
Contingency Coefficient = 0.44457

TABLE 67

ANALYSIS OF RESPONSES CONCERNING THE  
ABILITY TO CREATE A SUPPORTIVE WORK ENVIRONMENT

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	20 58.8	12 35.3	2 5.9			34 61.3
250 to 499	8 61.5	5 38.5	0 0.0			13 23.6
500 to 999	4 100.0	0 0.0	0 0.0			4 7.3
1000 or more	2 50.0	2 50.0	0 0.0			4 7.3

Column Total	34 61.8	19 34.5	2 3.6			55 100.0
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Chi Square = 4.04007 with 5 Degrees of Freedom  
Contingency Coefficient = 0.26159

Significance = 0.6713

TABLE 68

ANALYSIS OF RESPONSES CONCERNING THE  
ABILITY TO PERSUADE AND MOTIVATE SUBORDINATES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	20 58.8	12 35.3	2 5.9			34 61.3
250 to 499	5 38.5	7 53.8	1 7.7			13 23.6
500 to 999	3 75.0	1 25.0	0 0.0			4 7.3
1000 or more	2 50.0	2 50.0	0 0.0			4 7.3

Column Total	30 54.5	22 40.0	3 5.5			55 100.0
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Chi Square = 2.75603 with 6 Degrees of Freedom  
Contingency Coefficient = 0.21945

Significance = 0.6388

TABLE 69

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
ASSESS THE GROUPS PRESENT AND FUTURE EXPECTATIONS ABOUT REWARDS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	16 47.1	9 26.5	7 20.6	2 5.9		34 61.8
250 to 499	5 38.5	7 53.8	1 7.7	0 0.0		13 23.6
500 to 999	3 75.0	1 25.0	0 0.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3

Column Total	26 47.3	19 34.5	8 14.5	2 3.6		55 100.0
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Chi Square = 6.96851 with 9 Degrees of Freedom  
Contingency Coefficient = 0.33534

Significance = 0.6404

TABLE 70

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
ASSESS THE GROUPS PRESENT AND FUTURE EXPECTATIONS ABOUT TASKS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	20 58.8	7 20.6	5 14.7	2 5.9		34 61.8
250 to 499	8 61.5	4 30.8	1 7.7	0 0.0		13 23.6
500 to 999	3 75.0	1 25.0	0 0.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3

Column Total	33 60.0	14 25.5	6 10.9	2 3.6		55 100.0
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Chi Square = 4.31789 with 9 Degrees of Freedom  
Contingency Coefficient = 0.26980

Significance = 0.8893

TABLE 71

ANALYSIS OF RESPONSES CONCERNING THE PROCESS OF  
DIRECTING AND INFLUENCING TASK-RELATED ACTIVITIES OF SUBORDINATES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	12 35.3	3 8.8	1 2.9		34 61.8
250 to 499	10 76.9	1 7.7	2 15.4	0 0.0		13 23.6
500 to 999	3 75.0	1 25.0	0 0.0	0 0.0		4 7.3
1000 or more	0 0.0	0 0.0	4 100.0	0 0.0		4 7.3

Column Total      31      14      9      1      55  
                          56.4      25.5      16.4      1.8      100.0

Chi Square = 27.02965 with 9 Degrees of Freedom      Significance = 0.0014  
 Contingency Coefficient = 0.57403

TABLE 72

ANALYSIS OF RESPONSES CONCERNING  
YOUR ROLE IN RELATION TO THE EXECUTIVE MANAGER

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	15 44.1	10 29.4	8 23.5		1 2.9	34 61.8
250 to 499	5 38.5	5 38.5	2 15.4		1 7.7	13 23.6
500 to 999	3 75.0	0 0.0	1 25.0		0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total      25      17      11      2      55  
                          45.5      30.9      20.0      3.6      100.0

Chi Square = 5.03661 with 9 Degrees of Freedom      Significance = 0.3311  
 Contingency Coefficient = 0.23964



TABLE 73  
ANALYSIS OF RESPONSES CONCERNING  
YOUR ROLE IN RELATION TO PEER GROUP

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	10 29.4	16 47.1	5 14.7		3 8.8	34 61.8
250 to 499	5 38.5	6 46.2	1 7.7		1 7.7	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	2 50.0	2 50.0		0 0.0	4 7.3

Column Total      18      25      8      4      55  
                          32.7      45.5      14.5      7.3      100.0

Chi Square = 9.30139 with 9 Degrees of Freedom      Significance = 0.4099  
 Contingency Coefficient = 0.23743

TABLE 74  
ANALYSIS OF RESPONSES CONCERNING YOUR  
ROLE IN RELATION TO GOALS OF THE ORGANIZATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	19 55.9	11 32.4	3 8.8		1 2.9	34 61.8
250 to 499	6 46.2	6 46.2	1 7.7		0 0.0	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0		0 0.0	4 7.3

Column Total      28      22      4      1      55  
                          50.9      40.0      7.3      1.3      100.0

Chi Square = 8.47548 with 9 Degrees of Freedom      Significance = 0.4870  
 Contingency Coefficient = 0.36541

TABLE 75

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
IN THE CONTROL FUNCTION TO MEASURE PROGRESS TOWARD A PLANNED GOAL

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	17 50.0	13 38.2	2 5.9		2 5.9	34 61.8
250 to 499	9 69.2	2 15.4	1 7.7		1 7.7	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total      33      16      3           3      55  
60.0      29.1      5.5           5.5      100.0

Chi Square = 6.10564 with 9 Degrees of Freedom      Significance = 0.7293  
Contingency Coefficient = 0.31610

TABLE 76

ANALYSIS OF RESPONSES CONCERNING THE ABILITY IN  
THE CONTROL FUNCTION TO DETECT DEVIATIONS FROM A PLANNED GOAL

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	19 55.9	10 29.4	3 8.8		2 5.9	34 61.3
250 to 499	7 53.8	6 46.2	0 0.0		0 0.0	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total      33      17      3           2      55  
60.0      30.9      5.5           3.6      100.0

Chi Square = 6.76670 with 9 Degrees of Freedom      Significance = 0.6614  
Contingency Coefficient = 0.33099

TABLE 77  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
IN THE CONTROL FUNCTION TO TAKE REMEDIAL ACTION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	20 58.8	9 26.5	2 5.9		3 8.8	34 61.3
250 to 499	9 69.2	4 30.8	0 0.0		0 0.0	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total	35 63.6	15 27.3	2 3.6		3 5.5	55 100.0
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Chi Square = 6.13876 with 9 Degrees of Freedom      Significance = 0.7260  
Contingency Coefficient = 0.31687

TABLE 78  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY IN THE CONTROL  
FUNCTION TO ASSURE THAT ACTUAL ACTIVITIES CONFORM TO PLANNED ACTIVITIES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	9 26.5	1 2.9	2 5.9	4 11.3	34 61.3
250 to 499	8 61.5	5 38.5	0 0.0	0 0.0	0 0.0	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total	30 54.5	18 32.7	1 1.8	2 3.6	4 7.3	55 100.0
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Chi Square = 5.75301 with 12 Degrees of Freedom      Significance = 0.9290  
Contingency Coefficient = 0.30773

TABLE 79  
ANALYSIS OF RESPONSES THAT MAKE CONTROL NECESSARY  
IN THE UNDERSTANDING OF THE COMPLEXITY OF THE ORGANIZATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	13 38.2	12 35.3	6 17.6	3 8.8		34 61.8
250 to 499	3 23.1	10 76.9	0 0.0	0 0.0		13 23.6
500 to 999	0 0.0	3 75.0	1 25.0	0 0.0		4 7.3
1000 or more	0 0.0	0 0.0	4 100.0	0 0.0		4 7.3

Column Total            16            25            11            3            55  
                             29.1          45.5          20.0          5.5          100.0

Chi Square = 27.05396 with 9 Degrees of Freedom      Significance = 0.0014  
Contingency Coefficient = 0.57420

TABLE 80  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING  
OF THE FACTORS THAT MAKE CONTROL NECESSARY INVOLVING RESOURCES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	16 47.1	11 32.4	4 11.8	1 2.9	2 5.9	34 61.3
250 to 499	4 30.8	8 61.5	1 7.7	0 0.0	0 0.0	13 23.6
500 to 999	0 0.0	4 100.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            20            27            5            1            2            55  
                             36.4          49.1          9.1          1.8          3.5          100.0

Chi Square = 13.54030 with 12 Degrees of Freedom      Significance = 0.3310  
Contingency Coefficient = 0.44447

TABLE 81

ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING OF THE  
FACTORS THAT MAKE CONTROL NECESSARY INVOLVING DELEGATION OF AUTHORITY

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	15 44.1	13 38.2	2 5.9	1 2.9	3 8.8	34 61.8
250 to 499	5 38.5	7 53.8	1 7.7	0 0.0	0 0.0	13 23.6
500 to 999	0 0.0	4 100.0	0 0.0	0 0.0	9 0.0	4 7.3
1000 or more	2 50.0	5 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total	22 40.0	26 47.3	3 5.5	1 1.8	3 5.5	55 100.0
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Chi Square = 7.95451 with 12 Degrees of Freedom  
Contingency Coefficient = 0.35546

Significance = 0.7887

TABLE 82

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
PLAN FUTURE PERFORMANCE BASED UPON RELATED EXPENDITURES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	10 29.4	14 41.2	9 26.5	1 2.9		34 61.8
250 to 499	10 76.9	2 15.4	1 7.7	0 0.0		13 23.6
500 to 999	1 25.0	3 75.0	0 0.0	0 0.0		4 7.3
1000 or more	0 0.0	2 50.0	2 50.0	0 0.0		4 7.3

Column Total	21 38.2	21 38.2	12 21.8	1 1.8		55 100.0
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Chi Square = 15.39282 with 9 Degrees of Freedom  
Contingency Coefficient = 0.46762

Significance = 0.0807

TABLE 83

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO PLAN FUTURE PERFORMANCE BASED UPON REVENUES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	10 29.4	14 41.2	9 26.5	1 2.9		34 61.8
250 to 499	9 69.2	3 23.1	1 7.7	0 0.0		13 23.6
500 to 999	0 0.0	3 75.0	1 25.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3

Column Total            21            22            11            1            55  
                             38.2          40.0          20.0          1.8          100.0

Chi Square = 11.07237 with 9 Degrees of Freedom      Significance = 0.2708  
Contingency Coefficient = 0.40936

TABLE 84

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO PLAN FUTURE PERFORMANCE BASED UPON PROFITS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	10 29.4	12 35.3	9 25.5	3 8.3		34 61.3
250 to 499	6 46.2	6 46.2	1 7.7	0 0.0		13 23.6
500 to 999	0 0.0	3 75.0	1 25.0	0 0.0		4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0		4 7.3

Column Total            20            21            11            3            55  
                             36.4          38.2          20.0          5.5          100.0

Chi Square = 14.34098 with 9 Degrees of Freedom      Significance = 0.1107  
Contingency Coefficient = 0.45477

TABLE 85  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING  
OF FINANCIAL CONTROL METHODS INCLUDING BREAK-EVEN ANALYSIS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	9 26.5	8 23.5	14 41.2	3 8.8		34 61.3
250 to 499	4 30.8	5 38.5	4 30.8	0 0.0		13 23.6
500 to 999	0 0.0	3 75.0	1 25.0	0 0.0		4 7.3
1000 or more	0 0.0	0 0.0	4 100.0	0 0.0		4 7.3

Column Total            13            16            23            3            55  
                             23.6          29.1          41.8          5.5          100.0

Chi Square = 12.84612 with 9 Degrees of Freedom      Significance = 0.1697  
Contingency Coefficient = 0.43513

TABLE 86  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING OF  
FINANCIAL CONTROL METHODS INCLUDING DEPARTMENTAL COST EFFECTIVENESS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	10 29.4	12 35.3	11 32.4	1 2.9		34 61.3
250 to 499	4 30.8	9 69.2	0 0.0	0 0.0		13 23.6
500 to 999	0 0.0	4 100.0	0 0.0	0 0.0		4 7.3
1000 or more	2 50.0	0 0.0	2 50.0	0 0.0		4 7.3

Column Total            16            25            13            1            55  
                             29.1          45.5          23.5          1.8          100.0

Chi Square = 15.50887 with 9 Degrees of Freedom      Significance = 0.0779  
Contingency Coefficient = 0.46900

TABLE 37

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO USE  
CONTROL SYSTEMS TO MONITOR ORGANIZATIONAL FUNCTIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	8 23.5	12 35.3	9 26.5	1 2.9	4 11.8	34 61.8
250 to 499	6 46.2	6 46.2	1 7.7	0 0.0	0 0.0	13 23.6
500 to 999	1 25.0	3 75.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            15            25            10            1            4            55  
                              27.3            45.5            18.2            1.8            7.3            100.0

Chi Square = 13.74668 with 12 Degrees of Freedom      Significance = 0.3172  
 Contingency Coefficient = 0.44717

TABLE 38

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
USE CONTROL SYSTEMS TO MONITOR ORGANIZATIONAL PROJECTS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	8 23.5	12 35.3	9 26.5	1 2.9	4 11.8	34 61.8
250 to 499	6 46.2	6 46.2	1 7.7	0 0.0	0 0.0	13 23.6
500 to 999	0 0.0	4 100.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            16            24            10            1            4            55  
                              29.1            43.6            18.2            1.8            7.3            100.0

Chi Square = 13.55194 with 12 Degrees of Freedom      Significance = 0.3302  
 Contingency Coefficient = 0.44462



TABLE 89  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
DEVELOP GUIDELINES FOR DEVELOPING MANAGERIAL BUDGETS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	7 20.6	11 32.4	13 38.2	0 0.0	3 8.8	34 61.8
250 to 499	5 38.5	5 38.5	1 7.7	1 7.7	1 7.7	13 23.6
500 to 999	1 25.0	3 75.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	4 100.0	0 0.0	0 0.0	0 0.0	4 7.3
Column Total	13 23.6	23 41.8	14 25.5	1 1.8	4 7.3	55 100.0

Chi Square = 17.10327 with 12 Degrees of Freedom      Significance = 0.1458  
Contingency Coefficient = 0.48704

TABLE 90  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO  
DEVELOP GUIDELINES FOR DEVELOPING ECONOMIC FORECASTS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	7 20.6	6 17.6	17 50.0	1 2.9	3 8.8	34 61.8
250 to 499	5 38.5	2 15.4	5 38.5	1 7.7	0 0.0	13 23.6
500 to 999	1 25.0	2 50.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	0 0.0	2 50.0	0 0.0	2 50.0	4 7.3
Column Total	13 23.6	10 18.2	25 45.5	2 3.6	5 9.1	55 100.0

Chi Square = 15.82364 with 12 Degrees of Freedom      Significance = 0.1994  
Contingency Coefficient = 0.47268

TABLE 91

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO SYSTEMATICALLY SUMMARIZE FINANCIAL INFORMATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	9 26.5	10 29.4	10 29.4	3 8.8	2 5.9	34 61.8
250 to 499	7 53.8	4 30.8	2 15.4	0 0.0	0 0.0	13 23.6
500 to 999	2 50.0	1 25.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	0 0.0	2 50.0	0 0.0	2 50.0	4 7.3

Column Total	18 32.7	15 27.3	15 27.3	3 5.5	4 7.3	55 100.0
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Chi Square = 19.78227 with 12 Degrees of Freedom      Significance = 0.0713  
Contingency Coefficient = 0.51433

TABLE 92

ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO SYSTEMATICALLY ANALYZE FINANCIAL INFORMATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	16 47.1	5 14.7	8 23.5	3 8.8	2 5.9	34 61.8
250 to 499	6 46.2	4 30.8	2 15.4	0 0.0	1 7.7	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	0 0.0	2 50.0	0 0.0	2 50.0	4 7.3

Column Total	25 45.5	10 18.2	12 21.8	3 5.5	5 9.1	55 100.0
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Chi Square = 17.40959 with 12 Degrees of Freedom      Significance = 0.1348  
Contingency Coefficient = 0.49034

TABLE 93  
ANALYSIS OF RESPONSES CONCERNING THE  
ABILITY TO INTERPRET INFORMATION ABOUT ASSETS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	12 35.3	4 11.8	11 32.4	5 14.7	2 5.9	34 61.3
250 to 499	6 46.2	2 15.4	5 38.5	0 0.0	0 0.0	13 23.6
500 to 999	3 75.0	0 0.0	0 0.0	1 25.0	0 0.0	4 7.3
1000 or more	0 0.0	0 0.0	4 100.0	0 0.0	0 0.0	4 7.3

Column Total	21 38.2	6 10.9	20 36.4	6 10.9	2 3.6	55 100.0
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Chi Square = 14.71466 with 12 Degrees of Freedom      Significance = 0.2574  
Contingency Coefficient = 0.45942

TABLE 94  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY  
TO INTERPRET INFORMATION ABOUT LIABILITIES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	12 35.3	2 5.9	13 38.2	5 14.7	2 5.9	34 61.3
250 to 499	5 38.5	3 23.1	5 38.5	0 0.0	0 0.0	13 23.6
500 to 999	3 75.0	0 0.0	0 0.0	1 25.0	0 0.0	4 7.3
1000 or more	0 0.0	0 0.0	4 100.0	0 0.0	0 0.0	4 7.3

Column Total	20 36.4	5 9.1	22 40.0	6 10.9	2 3.6	55 100.0
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Chi Square = 16.53383 with 12 Degrees of Freedom      Significance = 0.1680  
Contingency Coefficient = 0.48076

TABLE 95  
ANALYSIS OF RESPONSES CONCERNING THE  
ABILITY TO INTERPRET INFORMATION ABOUT EQUITY

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	1 32.4	4 11.8	12 35.3	4 11.8	3 8.8	34 61.8
250 to 499	6 46.2	2 15.4	5 38.5	0 0.0	0 0.0	13 23.6
500 to 999	3 75.0	0 0.0	0 0.0	1 25.0	0 0.0	4 7.3
1000 or more	0 0.0	0 0.0	2 50.0	2 50.0	0 0.0	4 7.3

Column Total      20      6      19      7      3      55  
36.4      10.9      34.5      12.7      5.5      100.0

Chi Square = 14.81733 with 12 Degrees of Freedom      Significance = 0.2516  
Contingency Coefficient = 0.46068

TABLE 96  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING  
OF RECORDS RELATING TO COSTS OF MATERIALS ACQUIRED

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	10 29.4	4 11.8	2 5.9		34 61.3
250 to 499	7 53.8	6 46.2	0 0.0	0 0.0		13 23.6
500 to 999	3 75.0	0 0.0	1 25.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3

Column Total      30      18      5      2      55  
54.5      32.7      9.1      3.6      100.0

Chi Square = 7.00496 with 9 Degrees of Freedom      Significance = 0.6366  
Contingency Coefficient = 0.33612

TABLE 97  
ANALYSIS OF RESPONSES CONCERNING AN  
UNDERSTANDING OF RECORDS RELATING TO LABOR COSTS INCURRED

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	20 58.8	10 29.4	4 11.8			34 61.8
250 to 499	7 53.8	6 46.2	0 0.0			13 23.6
500 to 999	4 100.0	0 0.0	0 0.0			4 7.3
1000 or more	4 100.0	0 0.0	0 0.0			4 7.3

Column Total            35            16            4            55  
                             63.6          29.1          7.3          100.0

Chi Square = 8.08201 with 6 Degrees of Freedom  
Contingency Coefficient = 0.35794

Significance = 0.2322

TABLE 98  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING  
OF RECORDS RELATING TO OPERATIONS COST (INVENTORY COST)

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	17 50.0	9 26.5	6 17.6	2 5.9		34 61.8
250 to 499	6 46.2	7 53.8	0 0.0	0 0.0		13 23.6
500 to 999	2 50.0	1 25.0	1 25.0	0 0.0		4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0		4 7.3

Column Total            29            17            7            2            55  
                             52.7          30.9          12.7          3.6          100.0

Chi Square = 10.08534 with 9 Degrees of Freedom  
Contingency Coefficient = 0.39364

Significance = 0.3436

TABLE 99  
ANALYSIS OF RESPONSES CONCERNING AN  
UNDERSTANDING OF RECORDS RELATING TO COST OF GOODS SOLD

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	19 55.9	5 14.7	7 20.6	3 8.8		34 61.8
250 to 499	4 30.8	8 61.5	1 7.7	0 0.0		13 23.6
500 to 999	3 75.0	0 0.0	0 0.0	1 25.0		4 7.3
1000 or more	0 0.0	4 100.0	0 0.0	0 0.0		4 7.3

Column Total            26            17            8            4            55  
                             47.3          30.9          14.5          7.3          100.0

Chi Square = 23.58536 with 9 Degrees of Freedom      Significance = 0.0050  
Contingency Coefficient = 0.54784

TABLE 100  
ANALYSIS OF RESPONSES CONCERNING AN  
UNDERSTANDING OF MANUFACTURING COSTS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	7 20.6	4 11.8	3 8.8	2 5.9	34 61.8
250 to 499	5 38.5	7 53.8	0 0.0	1 7.7	0 0.0	13 23.6
500 to 999	2 50.0	1 25.0	0 0.0	1 25.0	0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            29            15            4            5            2            55  
                             52.7          27.3          7.3          9.1          3.6          100.0

Chi Square = 12.43828 with 12 Degrees of Freedom      Significance = 0.4112  
Contingency Coefficient = 0.42946

TABLE 101  
ANALYSIS OF RESPONSES CONCERNING  
AN UNDERSTANDING OF MATERIALS COST

Firm Size	Responses					
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	Row Total
100 to 249	16 47.1	14 41.2	0 0.0	2 5.9	2 5.9	34 61.8
250 to 499	2 15.4	9 69.2	1 -7.7	0 0.0	1 7.7	13 23.6
500 to 999	2 50.0	1 25.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            22            26            2            2            3            55  
                             40.0          47.3          3.6          3.6          5.5        100.0

Chi Square = 13.40482 with 12 Degrees of Freedom      Significance = 0.3403  
Contingency Coefficient = 0.44268

TABLE 102  
ANALYSIS OF RESPONSES CONCERNING  
AN UNDERSTANDING OF LABOR COSTS

Firm Size	Responses					
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	Row Total
100 to 249	15 44.1	15 44.1	1 2.9		3 8.8	34 61.8
250 to 499	3 23.1	8 61.5	0 0.0		2 15.4	13 23.6
500 to 999	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0		0 0.0	4 7.3

Column Total            25            23            1            5            55  
                             47.3          41.8          1.8          9.1        100.0

Chi Square = 12.89785 with 9 Degrees of Freedom      Significance = 0.1673  
Contingency Coefficient = 0.43584

TABLE 103  
ANALYSIS OF RESPONSES CONCERNING  
AN UNDERSTANDING OF FACTORY OVERHEAD

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	13 38.2	13 38.2	4 11.8	2 5.9	2 5.9	34 61.8
250 to 499	5 38.5	6 46.2	0 0.0	1 7.7	1 7.7	13 23.6
500 to 999	3 75.0	0 0.0	0 0.0	1 25.0	0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            25            19            4            4            3            55  
                              45.5           34.5           7.3           7.3           5.5          100.0

Chi Square = 12.47134 with 12 Degrees of Freedom      Significance = 0.4086  
 Contingency Coefficient = 0.42993

TABLE 104  
ANALYSIS OF RESPONSES CONCERNING AN  
UNDERSTANDING OF THE ANNUAL REPORT OF A CORPORATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	8 23.5	5 14.7	11 32.4	7 20.6	3 8.8	34 61.8
250 to 499	5 38.5	6 46.2	2 15.4	0 0.0	0 0.0	13 23.6
500 to 999	0 0.0	3 75.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	0 0.0	2 50.0	2 50.0	0 0.0	0 0.0	4 7.3

Column Total            13            16            16            7            3            55  
                              23.6           29.1           29.1          12.7           5.5          100.0

Chi Square = 18.08302 with 12 Degrees of Freedom      Significance = 0.1132  
 Contingency Coefficient = 0.49742



TABLE 105  
ANALYSIS OF RESPONSES CONCERNING AN  
UNDERSTANDING OF THE MANAGEMENT FUNCTION OF PLACEMENT

Firm Size	Responses					
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	Row Total
100 to 249	17 50.0	8 23.5	9 26.5			34 61.3
250 to 499	9 69.2	4 30.8	0 0.0			13 23.6
500 to 999	2 50.0	2 50.0	0 0.0			4 7.3
1000 or more	0 0.0	4 100.0	0 0.0			4 7.3

Column Total            28            18            9            55  
                             50.9            32.7            16.4            100.0

Chi Square = 15.24864 with 6 Degrees of Freedom      Significance = 0.0184  
Contingency Coefficient = 0.37232

TABLE 106  
ANALYSIS OF RESPONSES CONCERNING AN  
UNDERSTANDING OF THE MANAGEMENT FUNCTION OF TRAINING

Firm Size	Responses					
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	Row Total
100 to 249	20 58.8	6 17.6	8 23.5		0 0.0	34 61.3
250 to 499	8 61.5	4 30.8	0 0.0		1 7.7	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0		0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0		0 0.0	4 7.3

Column Total            33            13            8            1            55  
                             60.0            23.6            14.5            1.8            100.0

Chi Square = 10.37678 with 9 Degrees of Freedom      Significance = 0.3209  
Contingency Coefficient = 0.39840

TABLE 107  
ANALYSIS OF RESPONSES CONCERNING AN UNDERSTANDING OF THE  
MANAGEMENT FUNCTION OF DEVELOPMENT OF ORGANIZATIONAL MEMBERS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	16 47.1	9 26.5	9 26.5			34 61.8
250 to 499	5 38.5	8 61.5	0 0.0			13 23.6
500 to 999	3 75.0	1 25.0	0 0.0			4 7.3
1000 or more	2 50.0	2 50.0	0 0.0			4 7.3

Column Total      26      20      9      55  
47.3      36.4      16.4      100.0

Chi Square = 9.95690 with 6 Degrees of Freedom      Significance = 0.1265  
Contingency Coefficient = 0.39152

TABLE 108  
ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO UNDERSTAND  
AND IMPLEMENT FACTORS INVOLVED IN STAFFING INCLUDING EMPLOYMENT

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	19 55.9	9 26.5	5 14.7	1 2.9	0 0.0	34 61.8
250 to 499	10 76.9	2 15.4	0 0.0	0 0.0	1 7.7	13 23.6
500 to 999	3 75.0	0 0.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total      34      13      6      1      1      55  
61.8      23.6      10.9      1.8      1.8      100.0

Chi Square = 10.36840 with 12 Degrees of Freedom      Significance = 0.5837  
Contingency Coefficient = 0.39826

TABLE 109

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO UNDERSTAND  
AND IMPLEMENT FACTORS INVOLVED IN STAFFING INCLUDING WORKING CONDITIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	19 55.9	9 26.5	4 11.8	1 2.9	1 2.9	34 61.3
250 to 499	10 76.9	3 23.1	0 0.0	0 0.0	0 0.0	13 23.6
500 to 999	4 100.0	0 0.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total. 35 14 4 1 1 55  
63.6 25.5 7.3 1.8 1.8 100.0

Chi Square = 7.34340 with 12 Degrees of Freedom Significance = 0.8341  
Contingency Coefficient = 0.34320

TABLE 110

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO UNDERSTAND  
AND IMPLEMENT FACTORS INVOLVED IN STAFFING INCLUDING TRAINING

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	18 52.9	12 35.3	3 8.8	1 2.9		34 61.3
250 to 499	9 69.2	4 30.8	0 0.0	0 0.0		13 23.6
500 to 999	4 100.0	0 0.0	0 0.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3

Column Total. 33 18 3 1 55  
60.0 32.7 5.5 1.8 100.0

Chi Square = 5.82830 with 9 Degrees of Freedom Significance = 0.7570  
Contingency Coefficient = 0.30954

TABLE 111

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO UNDERSTAND AND  
IMPLEMENT FACTORS INVOLVED IN STAFFING INCLUDING INDUSTRIAL RELATIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	13 38.2	15 44.1	5 14.7	1 2.9		34 61.8
250 to 499	8 61.5	5 38.5	0 0.0	0 0.0		13 23.6
500 to 999	3 75.0	1 25.0	0 0.0	0 0.0		4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0		4 7.3

Column Total	26 47.3	23 41.8	5 9.1	1 1.8		55 100.0
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Chi Square = 5.92238 with 9 Degrees of Freedom  
Contingency Coefficient = 0.31179

Significance = 0.7477

TABLE 112

ANALYSIS OF RESPONSES CONCERNING THE ABILITY TO ANALYZE AND  
SUBMIT PLANS FOR FUTURE PERSONNEL NEEDS OF THE ORGANIZATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	15 44.1	12 35.3	6 17.6	1 2.9	0 0.0	34 61.8
250 to 499	7 53.8	5 38.5	0 0.0	0 0.0	1 7.7	13 23.6
500 to 999	3 75.0	1 25.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	2 50.0	0 0.0	0 0.0	4 7.3

Column Total	27 49.1	18 32.7	8 14.5	1 1.8	1 1.8	55 100.0
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Chi Square = 12.36273 with 12 Degrees of Freedom  
Contingency Coefficient = 0.42840

Significance = 0.4170

TABLE 113  
ANALYSIS OF THE RESPONSES CONCERNING AN  
UNDERSTANDING OF THE MANAGEMENT ROLE DURING NEGOTIATIONS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	10 29.4	12 35.3	4 11.8	3 8.8	5 14.7	34 61.8
250 to 499	6 46.2	3 23.1	2 15.4	0 0.0	2 15.4	13 23.6
500 to 999	3 75.0	0 0.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	0 0.0	2 50.0	0 0.0	4 7.3

Column Total            21            15            7            5            7            55  
                             38.2           27.3           12.7           9.1           12.7          100.0

Chi Square = 16.72157 with 12 Degrees of Freedom .      Significance = 0.1604  
Contingency Coefficient = 0.48285

TABLE 114  
ANALYSIS OF THE RESPONSES CONCERNING AN  
UNDERSTANDING OF THE MANAGEMENT ROLE DURING STRIKES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	11 32.4	8 23.5	5 14.7	4 11.3	6 17.6	34 61.8
250 to 499	4 30.8	5 38.5	1 7.7	0 0.0	3 23.1	13 23.6
500 to 999	1 25.0	3 75.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	2 50.0	0 0.0	0 0.0	4 7.3

Column Total            18            16            8            4            9            55  
                             32.7           29.1           14.5           7.3           16.4          100.0

Chi Square = 13.90078 with 12 Degrees of Freedom      Significance = 0.3071  
Contingency Coefficient = 0.44917

TABLE 115  
ANALYSIS OF THE RESPONSES CONCERNING AN UNDERSTANDING OF  
THE MANAGEMENT ROLE DURING RELATIONS WITH UNION REPRESENTATIVES

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	10 29.4	10 29.4	4 11.8	3 8.8	7 20.6	34 61.8
250 to 499	5 28.5	5 38.5	1 7.7	0 0.0	2 15.4	13 23.6
500 to 999	0 0.0	3 75.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	0 0.0	2 50.0	0 0.0	4 7.3

Column Total      17      18      6      5      9      55  
30.9      32.7      10.9      9.1      16.4      100.0

Chi Square = 17.62038 with 12 Degrees of Freedom      Significance = 0.1277  
Contingency Coefficient = 0.49258

TABLE 116  
ANALYSIS OF THE RESPONSES CONCERNING AN UNDERSTANDING  
OF THE MAJOR PROBLEMS THAT CONFRONT THE COLLECTIVE BARGAINING PROCESS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	11 32.4	11 32.4	4 11.8	3 8.8	5 14.7	34 61.3
250 to 499	6 46.2	4 30.8	2 15.4	0 0.0	1 7.7	13 23.6
500 to 999	1 25.0	2 50.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	0 0.0	2 50.0	0 0.0	0 0.0	4 7.3

Column Total      20      17      9      3      6      55  
36.4      30.9      16.4      5.5      10.9      100.0

Chi Square = 9.25399 with 12 Degrees of Freedom      Significance = 0.5602  
Contingency Coefficient = 0.37968

TABLE 117

ANALYSIS OF THE RESPONSES CONCERNING THE ABILITY TO  
ESTABLISH AND IMPLEMENT AN AFFIRMATIVE ACTION PROGRAM

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	14 41.2	9 26.5	4 11.8	2 5.9	5 14.7	34 61.3
250 to 499	9 69.2	1 7.7	2 15.4	1 7.7	0 0.0	13 23.6
500 to 999	1 25.0	2 50.0	1 25.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column	26	14	7	3	5	55
Total	47.3	25.5	12.7	5.5	9.1	100.0

Chi Square = 10.27255 with 12 Degrees of Freedom      Significance = 0.5921  
Contingency Coefficient = 0.39671

TABLE 118

ANALYSIS OF THE RESPONSES CONCERNING AN UNDERSTANDING OF THE  
RIGHTS OF PREVIOUSLY DENIED GROUPS OF EMPLOYEES INCLUDING EMPLOYMENT

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	13 38.2	8 23.5	5 14.7	2 5.9	6 17.6	34 61.3
250 to 499	9 69.2	4 30.8	0 0.0	0 0.0	0 0.0	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3

Column	26	16	5	2	6	55
Total	47.3	29.1	9.1	3.6	10.9	100.0

Chi Square = 11.53171 with 12 Degrees of Freedom      Significance = 0.4840  
Contingency Coefficient = 0.41632

TABLE 119

ANALYSIS OF THE RESPONSES CONCERNING AN UNDERSTANDING OF THE  
RIGHTS OF PREVIOUSLY DENIED GROUPS OF EMPLOYEES INCLUDING PROMOTION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	15 44.1	6 17.6	5 14.7	2 5.9	6 17.6	34 61.8
250 to 499	9 69.2	3 23.1	0 0.0	0 0.0	1 7.7	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            30            11            5            2            7            55  
                              54.5          20.0          0.1          3.6          12.7       100.0

Chi Square = 11.72499 with 12 Degrees of Freedom      Significance = 0.4680  
 Contingency Coefficient = 0.41919

TABLE 120

ANALYSIS OF THE RESPONSES CONCERNING AN UNDERSTANDING OF THE  
RIGHTS OF PREVIOUSLY DENIED GROUPS OF EMPLOYEES INCLUDING TERMINATION

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	14 41.2	6 17.6	6 17.6	2 5.9	6 17.6	34 61.3
250 to 499	7 53.8	6 46.2	0 0.0	0 0.0	0 0.0	13 23.6
500 to 999	4 100.0	0 0.0	0 0.0	0 0.0	0 0.0	4 7.3
1000 or more	4 100.0	0 0.0	0 0.0	0 0.0	0 0.0	4 7.3

Column Total            29            12            6            2            6            55  
                              52.7          21.8          10.9          3.6          10.9       100.0

Chi Square = 18.44629 with 12 Degrees of Freedom      Significance = 0.1028  
 Contingency Coefficient = 0.50115



TABLE 121  
ANALYSIS OF THE RESPONSES CONCERNING  
THE ABILITY TO DEVELOP POLICY STATEMENTS

Firm Size	Responses					Row Total
	Very Important	Moderately Important	Slightly Important	Unimportant	No Opinion	
100 to 249	7 20.6	9 26.5	8 23.5	5 14.7	5 14.7	34 61.8
250 to 499	5 38.5	3 23.1	5 38.5	0 0.0	0 0.0	13 23.6
500 to 999	2 50.0	2 50.0	0 0.0	0 0.0	0 0.0	2 7.3
1000 or more	0 0.0	2 50.0	2 50.0	0 0.0	0 0.0	2 7.3
Column Total	14 25.5	16 29.1	15 27.3	5 9.1	5 9.1	55 100.0

Chi Square = 13.38580 with 12 Degrees of Freedom  
Contingency Coefficient = 0.44242

Significance = 0.3416

APPENDIX C  
AVERAGE RATINGS OF 109 COMPETENCIES  
BY DEMOGRAPHIC FACTORS

TABLE 122

AVERAGE RATING	Size				
	(34) 100 to 249	(13) 250 to 499	(4) 500 to 999	(4) Over 999	(55) Total
<u>Communication</u>					
The ability to effectively write:					
a) letters	1.32	1.38	2.00	2.50	1.78
b) memos	1.76	1.54	1.50	2.00	1.70
c) reports	1.65	1.61	2.50	1.50	1.69
The ability to effectively communi- cate orally to:					
a) individuals	1.06	1.23	1.25	1.00	1.11
b) small groups	1.39	1.39	1.50	1.50	1.47
The ability to communicate:					
a) work plans	1.32	1.46	2.00	1.50	1.41
b) work schedule	1.47	1.46	2.25	2.00	1.56
c) orders	1.38	1.23	1.50	1.00	1.32
d) instructions	1.24	1.38	1.75	1.00	1.29
e) directions	1.41	1.38	1.75	1.50	1.40
<u>Motivation</u>					
An understanding of specific guide- lines for effectively motivating subordinates.	1.65	1.92	1.25	1.50	1.67
The ability to use interpersonal skills effectively.	1.35	1.39	1.75	1.00	1.67
An understanding of how behavior is:					
a) energized	1.82	2.23	2.00	1.50	1.90
b) directed	1.79	2.38	1.50	1.00	1.85
c) sustained	1.79	2.62	1.75	1.50	1.96
An understanding of motivation as it relates to:					
a) interpersonal relations with supervision	1.77	1.31	1.75	2.50	1.70
b) interpersonal relations with peers	1.77	1.62	2.00	2.00	1.76
c) interpersonal relations with subordinates	1.77	1.15	1.75	1.00	1.56

TABLE 122--Continued

<u>AVERAGE RATING</u>	Size				
	(34) 100 to 249	(13) 250 to 499	(4) 500 to 999	(4) Over 999	(55) Total
<u>Electronic Data Processing</u>					
The ability to assimilate information for strategic planning (for upper management).	1.97	1.62	1.25	2.00	1.83
The ability to use detailed internal information for operational control.	2.29	1.69	1.50	2.50	2.12
The ability to assimilate information for:					
a) operational control	2.29	1.69	1.75	2.50	2.12
b) departmental control	1.88	2.23	2.00	2.00	1.98
<u>Quantitative Methods</u>					
The ability to collect and analyze data for managerial decision making.	1.91	1.69	1.50	3.00	1.90
The ability to utilize statistical computations for:					
a) cost effectiveness	1.82	2.00	1.50	1.50	1.81
b) cost projections	1.74	1.35	1.25	1.50	1.70
c) managerial decisions	1.91	1.77	1.50	1.50	1.81
The ability to apply statistics in the manufacturing process.	2.44	2.08	1.50	2.50	2.29
<u>Organization</u>					
An understanding of organizational structure.	1.71	1.77	2.00	2.00	1.76
A willingness to study, learn and apply.	1.44	1.54	1.25	2.00	1.49
An understanding of the goals and objectives of the organization.	1.47	1.31	1.00	1.00	1.36
The ability to establish departmental goals that are compatible with corporate goals.	1.53	1.31	1.25	1.50	1.45

TABLE 122--Continued

AVERAGE RATING	Size				
	(34) 100 to 249	(13) 250 to 499	(4) 500 to 999	(4) Over 999	(55) Total
An understanding of the major components of organization:					
a) authority structure	2.00	1.54	2.75	2.50	1.98
b) division of labor	1.94	1.46	2.00	2.00	1.83
c) mechanisms of coordination (processes)	1.76	1.39	1.25	2.50	1.69
d) economic measures of performance	1.85	1.62	1.75	1.00	1.72
The ability to apply the organizational philosophy in all leadership functions.	1.62	1.54	1.25	1.50	1.56
<u>Planning</u>					
The ability to decide:					
a) what future resources the organization will need.	2.27	1.35	1.75	2.00	2.10
b) how these resources will be allocated.	2.27	1.92	1.25	2.00	2.09
c) what alternative courses of action are available.	2.24	1.54	1.25	2.00	1.98
An understanding of the establishment of:					
a) a set of goals	1.59	1.31	2.00	1.50	1.54
b) how far the organization is from these goals.	1.91	1.46	2.00	1.50	1.78
c) a set of actions to reach these goals.	1.62	1.39	1.00	1.00	1.47
The ability to use existing resources to accomplish departmental goals.	1.32	1.39	1.00	1.00	1.29
The ability to plan:					
a) short-range goals	1.32	1.69	1.00	1.50	1.41
b) long-range goals	1.47	1.54	1.25	2.50	1.54
<u>Organizing</u>					
The ability to organize people and:					
a) assign them specific tasks	1.29	1.62	1.50	2.00	1.43
b) assign specific responsibilities	1.24	1.46	1.25	1.00	1.27
c) insure that important jobs are done	1.29	1.39	1.50	1.00	1.30
d) insure that institutional goals are fulfilled.	1.59	1.69	1.75	1.00	1.58

TABLE 122--Continued

<u>AVERAGE RATING</u>	Size				(55) Total
	(34) 100 to 249	(13) 250 to 499	(4) 500 to 999	(4) Over 999	
The ability to translate plans into a structure of tasks and authority. (at the department level)	1.50	1.69	1.00	2.00	1.47
The ability to integrate the objectives of the separate units of an organization in order to efficiently achieve stated goals.	1.97	1.54	2.00	1.50	1.83
<u>Leading</u>					
The ability to deal effectively with:					
a) group goals	1.53	1.39	1.75	1.50	1.50
b) organizational goals	1.74	1.46	1.75	1.00	1.61
The ability to:					
a) delegate decision making	1.56	1.46	2.00	2.00	1.60
b) create a supportive work environment	1.47	1.39	1.00	1.50	1.41
c) persuade and motivate subordinates	1.47	1.69	1.25	1.50	1.50
The ability to assess the groups present feelings and future expectations about:					
a) rewards	1.85	1.69	1.25	1.50	1.74
b) tasks	1.68	1.46	1.25	1.50	1.58
An understanding of the process of directing and influencing the tasks-related activities of subordinates.	1.62	1.39	1.25	3.00	1.63
An understanding of your role in relation to:					
a) executive manager	1.38	2.00	1.50	1.50	1.85
b) peer group	2.12	1.92	1.25	2.50	2.03
c) goals of the organization	1.62	1.62	1.25	2.00	1.61
<u>Control</u>					
The ability in the control function to:					
a) measure progress toward a planned goal.	1.74	1.62	1.25	1.00	1.61
b) detect deviations from a planned goal.	1.71	1.46	1.25	1.00	1.56
c) take remedial action	1.74	1.31	1.50	1.00	1.56
d) assure that actual activities conform to planned activities.	1.97	1.39	1.50	1.50	1.76

TABLE 122--Continued

AVERAGE RATING	Size				
	(34) 100 to 249	(13) 250 to 499	(4) 500 to 999	(4) Over 999	(55) Total
An understanding of the factors that make control necessary.					
a) complexity of the organization	1.97	1.77	2.25	3.00	2.01
b) resources	1.88	1.77	2.00	2.00	1.87
c) delegation of authority	1.94	1.69	2.00	1.50	1.85
<u>Budget Control</u>					
The ability to plan future performance based upon:					
a) related expenditures	2.03	1.31	1.75	2.50	1.87
b) revenues	2.03	1.39	2.25	1.50	1.85
c) profits	2.15	1.62	2.25	1.00	1.94
An understanding of financial control methods including:					
a) break-even analysis	2.32	2.00	2.25	3.00	2.29
b) department cost effectiveness	2.09	1.69	2.00	2.00	1.98
The ability to use control systems to:					
a) monitor organizational functions	2.44	1.62	1.75	2.00	2.16
b) monitor organizational projects	2.47	1.62	2.00	1.50	2.14
The ability to develop guidelines for:					
a) developing managerial budgets	2.06	2.08	1.75	2.00	2.27
b) developing economic forecasts	2.62	2.15	2.00	4.00	2.56
<u>Accounting</u>					
The ability to systematically:					
a) summarize financial information	2.38	1.62	1.75	4.00	2.27
b) analyze financial information	2.12	1.92	1.25	4.00	2.14
The ability to interpret information about:					
a) assets	2.44	1.92	1.75	3.00	2.30
b) liabilities	2.50	2.00	1.75	3.00	2.36
c) equity	2.53	1.92	1.75	3.50	2.43

TABLE 122--Continued

<u>AVERAGE RATING</u>	Size				
	(34) 100 to 249	(13) 250 to 499	(4) 500 to 999	(4) Over 999	(53) Total
An understanding of records relating to:					
a) costs of materials acquired	1.71	1.46	1.50	1.50	1.61
b) labor costs incurred	1.83	1.46	1.00	1.00	1.43
c) operations cost (inventory cost)	1.79	1.54	1.75	1.00	1.67
d) cost of goods sold	1.82	1.76	1.75	2.00	1.81
An understanding of:					
a) manufacturing costs	1.94	1.77	2.00	1.00	1.83
b) materials cost	1.82	2.15	1.75	1.50	1.87
c) labor costs	1.85	1.73	1.00	1.00	1.81
d) factory overhead	1.84	1.75	3.00	1.00	1.75
An understanding of the annual report of a corporation:	2.54	1.76	2.25	2.50	2.32
<u>Personnel and Staffing</u>					
An understanding of the management function of:					
a) placement	1.50	1.30	1.50	2.00	1.65
b) training	1.69	1.33	1.25	1.50	1.53
c) development of organizational members	1.79	1.61	1.25	1.50	1.69
The ability to understand and implement factors involved in staffing including:					
a) employment	1.64	1.16	1.50	1.50	1.51
b) working conditions	1.60	1.23	1.00	1.50	1.46
c) training	1.51	1.30	1.00	1.50	1.49
d) industrial relations	1.32	1.38	1.25	1.50	1.65
The ability to analyze and submit plans for future personnel needs of the organization.	1.79	1.41	1.25	2.00	1.68
<u>Labor Relations</u>					
An understanding of the management role during:					
a) negotiations	2.00	1.63	1.50	2.50	1.91
b) strikes	2.07	1.70	1.50	2.00	1.95
c) relations with union representatives	2.00	1.63	2.25	2.50	1.97



TABLE 122--Continued

<u>AVERAGE RATING</u>	Size				(55) Total
	(34) 100 to 249	(13) 250 to 499	(4) 500 to 999	(4) Over 999	
An understanding of the major problems that confront the collective bargaining process.	1.96	1.66	2.00	2.00	1.89
<u>Affirmative Action</u>					
The ability to establish and implement an affirmative action program.	1.79	1.61	2.00	1.30	1.74
An understanding of the rights of previously denied groups of employees including:					
a) employment	1.85	1.30	1.50	1.30	1.65
b) promotion	1.73	1.25	1.50	1.00	1.56
c) termination	1.85	1.46	1.00	1.00	1.61
The ability to develop policy statements.	2.37	2.00	1.50	2.30	2.22

TABLE 123

AVERAGE RATING	Educational Background				
	(34)	(13)	(4)	(4)	(55)
	H.Sch. Grad.	Some Coll.	Coll. Deg.	Adv. Deg.	Total
<u>Communication</u>					
The ability to effectively write:					
a) letters	1.83	1.77	1.53	1.88	1.76
b) memos	1.83	1.68	1.53	1.88	1.69
c) reports	1.67	1.73	1.76	1.75	1.71
The ability to effectively communicate orally to:					
a) individuals	1.17	1.14	1.12	1.00	1.11
b) small groups	1.50	1.19	1.65	1.38	1.39
The ability to communicate:					
a) work plans	1.40	1.32	1.35	1.38	1.33
b) work schedule	1.20	1.50	1.47	1.63	1.46
c) orders	1.17	1.33	1.35	1.13	1.78
d) instructions	1.33	1.32	1.35	1.13	1.07
e) directions	1.17	1.55	1.53	1.25	1.44
<u>Motivation</u>					
An understanding of specific guidelines for effectively motivating subordinates.	1.40	1.36	1.69	1.75	1.55
The ability to use interpersonal skills effectively.	1.20	1.50	1.59	1.38	1.48
An understanding of how behavior is:					
a) energized	1.00	1.77	2.07	1.98	1.79
b) directed	1.00	1.71	1.92	1.63	1.69
c) sustained	1.17	1.86	1.93	1.75	1.78
An understanding of motivation as it relates to:					
a) interpersonal relations with supervision	1.17	1.55	1.82	2.00	1.71
b) interpersonal relations with peers	1.50	1.57	1.88	1.88	1.76
c) interpersonal relations with subordinates	1.00	1.43	1.53	1.50	1.51

TABLE 123--Continued

<u>AVERAGE RATING</u>	<u>Educational Background</u>				
	(34) H.Sch. Grad.	(13) Some Coll.	(4) Coll. Deg.	(4) Adv. Deg.	(55) Total
<u>Electronic Data Processing</u>					
The ability to assimilate information for strategic planning (for upper management).	1.50	1.86	1.94	1.88	1.81
The ability to use detailed internal information for operational control.	1.83	1.95	1.94	2.13	1.96
The ability to assimilate information for:					
a) operational control	1.60	1.81	1.73	1.38	1.77
b) departmental control	1.33	1.71	1.73	1.75	1.66
<u>Quantitative Methods</u>					
The ability to collect and analyze data for managerial decision making.	1.66	1.86	1.76	2.00	.83
The ability to utilize statistical computations for:					
a) cost effectiveness	2.00	1.80	1.82	1.62	1.77
b) cost projections	1.66	1.66	1.82	1.75	1.70
c) managerial decisions	1.40	1.95	1.88	1.50	1.77
The ability to apply statistics in the manufacturing process.	1.25	2.00	2.13	2.38	2.00
<u>Organization</u>					
An understanding of organizational structure.	1.17	1.50	2.12	2.00	1.75
A willingness to study, learn and apply.	1.50	1.36	1.59	1.63	1.51
An understanding of the goals and objectives of the organization.	1.17	1.27	1.59	1.00	1.33
The ability to establish departmental goals that are compatible with corporate goals.	1.20	1.45	1.41	1.25	1.41

TABLE 123--Continued

AVERAGE RATING	Educational Background				
	(34)	(13)	(4)	(4)	(55)
	H.Sch. Grad.	Some Coll.	Coll. Deg.	Adv. Deg.	Total
An understanding of the major components of organization:					
a) authority structure	2.00	1.59	1.81	2.25	1.85
b) division of labor	1.00	1.82	1.88	2.00	1.77
c) mechanisms of coordination (processes)	1.00	1.59	1.82	2.00	1.49
d) economic measures of performance	1.80	1.68	1.76	1.50	1.71
The ability to apply the organizational philosophy in all leadership functions.	1.17	1.45	1.76	1.57	1.52
<u>Planning</u>					
The ability to decide:					
a) what future resources the organization will need.	2.00	1.90	2.12	1.50	1.92
b) how these resources will be allocated.	1.00	1.86	2.18	1.75	1.90
c) what alternative courses of action are available.	1.67	1.71	2.00	1.50	1.75
An understanding of the establishment of:					
a) a set of goals	1.17	1.36	1.75	1.38	1.48
b) how far the organization is from these goals.	1.50	1.73	1.88	1.38	1.74
c) a set of actions to reach these goals.	1.33	1.50	1.59	1.13	1.47
The ability to use existing resources to accomplish departmental goals.	1.33	1.23	1.53	1.13	1.31
The ability to plan:					
a) short-range goals	1.33	1.41	1.53	1.25	1.40
b) long-range goals	1.33	1.41	1.53	1.75	1.51
<u>Organizing</u>					
The ability to organize people and:					
a) assign them specific tasks	1.00	1.27	1.53	1.25	1.37
b) assign specific responsibilities	1.50	1.27	1.29	1.00	1.29
c) insure that important jobs are done	1.50	1.23	1.47	1.13	1.31
d) insure that institutional goals are fulfilled.	1.33	1.55	1.88	1.50	1.60

TABLE 123--Continued

AVERAGE RATING	Educational Background				
	(34) H.Sch. Grad.	(13) Some Coll.	(4) Coll. Deg.	(4) Adv. Deg.	(55) Total
The ability to translate plans into a structure of tasks and authority. (at the department level)	1.50	1.41	1.65	1.25	1.48
The ability to integrate the objectives of the separate units of an organization in order to efficiently achieve stated goals.	1.83	1.57	2.05	1.43	1.72
<u>Leading</u>					
The ability to deal effectively with:					
a) group goals	1.00	1.41	1.76	1.25	1.51
b) organizational goals	1.00	1.50	2.00	1.25	1.57
The ability to:					
a) delegate decision making	1.40	1.55	1.53	1.63	1.56
b) create a supportive work environment	1.17	1.36	1.41	1.33	1.42
c) persuade and motivate subordinates	1.67	1.41	1.59	1.33	1.51
The ability to assess the groups present feelings and future expectations about:					
a) rewards	2.17	1.64	1.59	1.50	1.75
b) tasks	1.67	1.45	1.53	1.25	1.56
An understanding of the process of directing and influencing the tasks-related activities of subordinates.	1.67	1.59	1.59	1.63	1.62
An understanding of your role in relation to:					
a) executive manager	1.40	1.62	1.88	1.75	1.75
b) peer group	1.60	1.63	1.82	1.88	1.80
c) goals of the organization	1.30	1.43	1.76	1.50	1.57
<u>Control</u>					
The ability in the control function to:					
a) measure progress toward a planned goal.	1.50	1.10	1.13	1.25	1.46
b) detect deviations from a planned goal.	1.17	1.55	1.60	1.13	1.47
c) take remedial action	1.60	1.52	1.40	1.00	1.40
d) assure that actual activities conform to planned activities.	1.17	1.64	1.53	1.25	1.49

TABLE 123--Continued

	Educational Background				
	(34) H.Sch. Grad.	(13) Some Coll.	(4) Coll. Deg.	(4) Adv. Deg.	(55) Total
<u>AVERAGE RATING</u>					
An understanding of the factors that make control necessary.					
a) complexity of the organization	1.67	1.77	2.06	2.13	1.98
b) resources	1.17	1.54	2.12	1.75	1.74
c) delegation of authority	1.80	1.45	1.82	1.75	1.65
<u>Budget Control</u>					
The ability to plan future performance based upon:					
a) related expenditures	2.00	1.77	2.00	1.88	1.85
b) revenues	1.83	1.91	2.00	1.75	1.87
c) profits	1.83	2.00	2.18	1.63	1.98
An understanding of financial control methods including:					
a) break-even analysis	2.33	2.23	2.35	2.50	2.27
b) department cost effectiveness	2.17	1.82	2.18	2.00	1.96
The ability to use control systems to:					
a) monitor organizational functions	1.60	1.36	2.24	1.88	1.32
b) monitor organizational projects	1.40	1.86	2.29	1.75	1.94
The ability to develop guidelines for:					
a) developing managerial budgets	1.20	2.16	2.29	2.00	2.08
b) developing economic forecasts	2.00	2.31	2.53	2.43	2.32
<u>Accounting</u>					
The ability to systematically:					
a) summarize financial information	1.40	2.20	2.18	1.75	2.04
b) analyze financial information	1.40	2.11	1.88	1.57	1.84
The ability to interpret information about:					
a) assets	2.20	2.38	2.18	2.13	2.21
b) liabilities	2.00	2.33	2.35	2.38	2.26
c) equity	1.75	2.24	2.41	2.38	2.25

TABLE 123--Continued

AVERAGE RATING	Educational Background				
	(34) H. Sch. Grad.	(13) Some Coll.	(4) Coll. Deg.	(4) Adv. Deg.	(35) Total
An understanding of records relating to:					
a) costs of materials acquired	1.17	1.77	1.76	1.50	1.56
b) labor costs incurred	1.50	1.57	1.36	1.70	1.50
c) operations cost (inventory cost)	1.67	1.57	1.46	1.50	1.54
d) cost of goods sold	1.67	1.29	1.52	2.20	1.69
An understanding of:					
a) manufacturing costs	1.80	1.85	1.76	1.50	1.73
b) materials cost	1.80	1.90	1.70	1.50	1.71
c) labor costs	1.33	1.55	1.85	1.37	1.52
d) factory overhead	1.80	1.95	1.85	1.75	1.77
An understanding of the annual report of a corporation.	1.50	2.40	2.12	3.00	2.29
<u>Personnel and Staffing</u>					
An understanding of the management function of:					
a) placement	1.00	1.59	1.82	1.62	1.65
b) training	1.33	1.38	1.65	1.50	1.54
c) development of organizational members	1.33	1.54	1.38	1.62	1.69
The ability to understand and implement factors involved in staffing including:					
a) employment	1.60	1.41	1.53	1.50	1.50
b) working conditions	1.50	1.27	1.69	1.38	1.46
c) training	1.67	1.27	1.71	1.38	1.49
d) industrial relations	1.17	1.59	1.82	1.63	1.64
The ability to analyze and submit plans for future personnel needs of the organization.	1.17	1.48	2.00	1.63	1.65
<u>Labor Relations</u>					
An understanding of the management role during:					
a) negotiations	1.60	1.78	1.88	2.16	1.85
b) strikes	2.00	1.53	2.11	2.00	1.91
c) relations with union representatives	1.80	1.82	2.00	2.16	1.93

TABLE 123--Continued

	Educational Background				
	(34) H.Sch. Grad.	(13) Some Coll.	(4) Coll. Deg.	(4) Adv. Deg.	(55) Total
<u>AVERAGE RATING</u>					
An understanding of the major problems that confront the collective bargaining process.	1.80	1.61	2.00	2.29	1.88
<u>Affirmative Action</u>					
The ability to establish and implement an affirmative action program.	1.00	1.60	2.19	1.63	1.74
An understanding of the rights of previously denied groups of employees including:					
a) employment	1.40	1.50	1.94	1.63	1.65
b) promotion	1.20	1.47	1.58	1.50	1.58
c) termination	1.60	1.50	1.38	1.50	1.63
The ability to develop policy statement.	1.33	2.00	2.47	2.63	2.22



TABLE 124

AVERAGE RATING	Age of Respondent				
	(34) 19 to 24	(13) 25 to 34	(4) 35 to 44	(4) Over 45	(55) Total
<u>Communication</u>					
The ability to effectively write:					
a) letters	1.67	1.43	1.88	2.00	1.76
b) memos	1.67	2.07	1.44	1.30	1.89
c) reports	2.67	1.64	1.64	1.40	1.71
The ability to effectively communi- cate orally to:					
a) individuals	1.00	1.07	1.16	1.00	1.11
b) small groups	1.33	1.46	1.36	1.20	1.39
The ability to communicate:					
a) work plans	.67	1.36	1.40	1.20	1.33
b) work schedule	.67	1.43	1.52	1.40	1.46
c) orders	1.00	1.36	1.36	1.11	1.28
d) instructions	1.33	1.36	1.28	1.20	1.29
e) directions	1.33	1.43	1.44	1.40	1.44
<u>Motivation</u>					
An understanding of specific guide- lines for effectively motivating subordinates.	1.50	1.85	1.48	1.30	1.55
The ability to use interpersonal skills effectively.	.67	1.57	1.44	1.50	1.48
An understanding of how behavior is:					
a) energized	1.33	1.35	1.79	1.30	1.79
b) directed	1.00	1.83	1.57	1.90	1.75
c) sustained	1.33	1.83	1.71	2.00	1.79
An understanding of motivation as it relates to:					
a) interpersonal relations with supervision	1.33	1.79	1.56	2.00	1.71
b) interpersonal relations with peers	1.00	1.93	1.58	1.90	1.76
c) interpersonal relations with subordinates	.67	1.71	1.38	1.70	1.51

TABLE 124--Continued

	Age of Respondent				
	(34) 19 to 24	(13) 25 to 34	(4) 35 to 44	(4) Over 45	(55) Total
<u>AVERAGE RATING</u>					
<u>Electronic Data Processing</u>					
The ability to assimilate information for strategic planning (for upper management).	1.67	1.69	2.08	1.30	1.81
The ability to use detailed internal information for operational control.	1.33	2.14	2.00	1.63	1.96
The ability to assimilate information for:					
a) operational control	1.50	1.36	1.36	1.50	1.78
b) departmental control	1.33	1.62	1.91	1.25	1.68
<u>Quantitative Methods</u>					
The ability to collect and analyze data for managerial decision making.	1.67	1.93	1.98	1.60	1.93
The ability to utilize statistical computations for:					
a) cost effectiveness	1.67	1.36	1.67	1.70	1.78
b) cost projections	1.67	1.79	1.56	1.50	1.70
c) managerial decisions	1.33	2.23	1.64	1.40	1.78
The ability to apply statistics in the manufacturing process.	1.33	2.46	1.36	1.56	2.00
<u>Organization</u>					
An understanding of organizational structure.	1.33	1.86	1.64	1.30	1.75
A willingness to study, learn and apply.	1.33	1.50	1.56	1.40	1.51
An understanding of the goals and objectives of the organization.	1.33	1.50	1.20	1.33	1.33
The ability to establish departmental goals that are compatible with corporate goals.	1.00	1.43	1.32	1.50	1.41

TABLE 124--Continued

	Age of Respondent				
	(34) 19 to 24	(13) 25 to 34	(4) 35 to 44	(4) Over 45	(55) Total
<u>AVERAGE RATING</u>					
An understanding of the major components of organization:					
a) authority structure	3.00	2.00	1.63	2.00	1.95
b) division of labor	1.33	2.00	1.63	1.73	1.78
c) mechanisms of coordination (processes)	1.33	1.64	1.56	2.00	1.67
d) economic measures of performance	2.00	1.79	1.56	1.80	1.70
The ability to apply the organizational philosophy in all leadership functions.	1.33	1.85	1.44	1.30	1.52
<u>Planning</u>					
The ability to decide:					
a) what future resources the organization will need.	1.33	2.07	1.33	1.80	1.92
b) how these resources will be allocated.	1.67	1.92	1.33	2.00	1.90
c) what alternative courses of action are available.	1.33	1.69	1.61	1.60	1.75
An understanding of the establishment of:					
a) a set of goals	1.67	1.43	1.46	1.50	1.48
b) how far the organization is from these goals.	2.00	1.71	1.58	2.10	1.74
c) a set of actions to reach these goals.	1.67	1.57	1.44	1.30	1.47
The ability to use existing resources to accomplish departmental goals.	1.67	1.36	1.28	1.20	1.31
The ability to plan:					
a) short-range goals	1.00	1.43	1.40	1.40	1.40
b) long-range goals	1.33	1.50	1.36	1.80	1.51
<u>Organizing</u>					
The ability to organize people and:					
a) assign them specific tasks	1.50	1.36	1.44	1.30	1.37
b) assign specific responsibilities	1.67	1.43	1.20	1.30	1.24
c) insure that important jobs are done	1.67	1.36	1.20	1.50	1.31
d) insure that institutional goals are fulfilled.	1.33	1.79	1.48	1.80	1.60

TABLE 124--Continued

	Age of Respondent				
	(34) 19 to 24	(13) 25 to 34	(4) 35 to 44	(4) Over 45	(55) Total
<u>AVERAGE RATING</u>					
The ability to translate plans into a structure of tasks and authority. (at the department level)	1.50	1.64	1.56	1.20	1.48
The ability to integrate the objectives of the separate units of an organization in order to efficiently achieve stated goals.	1.33	1.79	1.65	1.70	1.72
<u>Leading</u>					
The ability to deal effectively with:					
a) group goals	1.33	1.50	1.44	1.60	1.51
b) organizational goals	1.00	1.57	1.54	1.70	1.57
The ability to:					
a) delegate decision making	1.00	1.54	1.48	1.70	1.56
b) create a supportive work environment	1.33	1.36	1.36	1.60	1.42
c) persuade and motivate subordinates	2.00	1.57	1.36	1.70	1.51
The ability to assess the groups present feelings and future expectations about:					
a) rewards	2.00	1.93	1.48	2.00	1.75
b) tasks	1.00	1.57	1.32	2.00	1.56
An understanding of the process of directing and influencing the tasks-related activities of subordinates.	1.33	1.71	1.56	1.70	1.69
An understanding of your role in relation to:					
a) executive manager	1.33	2.15	1.50	2.20	1.75
b) peer group	2.00	1.92	1.67	2.10	1.80
c) goals of the organization	2.00	1.79	1.48	1.50	1.57
<u>Control</u>					
The ability in the control function to:					
a) measure progress toward a planned goal	1.67	1.46	1.43	1.50	1.46
b) detect deviations from a planned goal.	1.33	1.54	1.46	1.60	1.47
c) take remedial action	1.33	1.42	1.42	1.40	1.40
d) assure that actual activities conform to planned activities.	1.67	1.38	1.42	1.88	1.49

TABLE 124--Continued

	Age of Respondent				
	(34) 19 to 24	(13) 25 to 34	(4) 35 to 44	(4) Over 45	(55) Total
<u>AVERAGE RATING</u>					
An understanding of the factors that make control necessary.					
a) complexity of the organization	1.67	2.07	1.76	2.50	1.98
b) resources	1.33	1.86	1.64	1.88	1.74
c) delegation of authority	2.00	1.71	1.52	1.63	1.65
<u>Budget Control</u>					
The ability to plan future performance based upon:					
a) related expenditures	1.67	1.93	1.80	1.80	1.85
b) revenues	1.33	1.93	1.92	1.80	1.87
c) profits	2.00	2.00	1.92	2.10	1.98
An understanding of financial control methods including:					
a) break-even analysis	2.33	2.43	2.24	2.30	2.27
b) department cost effectiveness	2.33	1.93	2.00	1.90	1.96
The ability to use control systems to:					
a) monitor organizational functions	2.00	2.00	1.80	1.88	1.96
b) monitor organizational projects	1.67	2.00	1.91	2.00	1.94
The ability to develop guidelines for:					
a) developing managerial budgets	1.67	2.15	2.05	2.10	1.78
b) developing economic forecasts	1.67	2.69	2.14	2.40	2.32
<u>Accounting</u>					
The ability to systematically:					
a) summarize financial information	1.67	1.83	2.00	2.30	2.04
b) analyze financial information	1.67	1.75	1.82	1.80	1.84
The ability to interpret information about:					
a) assets	2.33	2.36	2.13	2.00	2.21
b) liabilities	2.33	2.36	2.17	2.20	2.26
c) equity	2.00	2.14	2.13	2.50	2.23

TABLE 124--Continued

	Age of Respondent				
	(34) 19 to 24	(13) 25 to 34	(4) 35 to 44	(4) Over 45	(55) Total
<u>AVERAGE RATING</u>					
An understanding of records relating to:					
a) costs of materials acquired	1.00	1.50	1.40	1.80	1.64
b) labor costs incurred	1.33	1.43	1.52	1.30	1.45
c) operations cost (inventory cost)	1.33	1.50	1.68	1.20	1.69
d) cost of goods sold	1.33	1.64	1.76	2.20	1.81
An understanding of:					
a) manufacturing costs	1.67	1.79	1.65	2.00	1.74
b) materials cost	1.00	1.71	1.73	1.80	1.71
c) labor costs	2.00	1.57	1.50	1.50	1.52
d) factory overhead	1.33	2.07	1.64	1.90	1.77
An understanding of the annual report of a corporation.	1.33	2.38	2.22	2.50	2.29
<u>Personnel and Staffing</u>					
An understanding of the management function of:					
a) placement	1.33	1.50	1.60	2.00	1.65
b) training	1.67	1.57	1.46	1.60	1.54
c) development of organizational members	1.67	1.29	1.52	2.20	1.69
The ability to understand and implement factors involved in staffing including:					
a) employment	1.50	1.57	1.36	1.70	1.50
b) working conditions	1.33	1.71	1.33	1.50	1.46
c) training	1.33	1.79	1.36	1.50	1.49
d) industrial relations	1.66	1.57	1.52	2.10	1.64
The ability to analyze and submit plans for future personnel needs of the organization.	1.66	1.50	1.42	2.10	1.65
<u>Labor Relations</u>					
An understanding of the management role during:					
a) negotiations	1.33	1.93	1.72	2.30	1.85
b) strikes	1.00	1.86	1.76	2.50	1.91
c) relations with union representatives	1.00	1.79	1.89	2.56	1.93

TABLE 124--Continued

	Age of Respondent				
	(34) 19 to 24	(13) 25 to 34	(4) 34 to 44	(4) Over 45	(55) Total
<u>AVERAGE RATING</u>					
An understanding of the major problems that confront the collective bargaining process.	1.00	1.71	1.95	2.10	1.38
<u>Affirmative Action</u>					
The ability to establish and implement an affirmative action program.	.67	1.86	1.78	1.75	1.74
An understanding of the rights of previously denied groups of employees including:					
a) employment	.67	1.79	1.65	1.57	1.65
b) promotion	.67	1.79	1.59	1.29	1.58
c) termination	1.50	1.79	1.52	1.71	1.63
The ability to develop policy statements.	.67	2.36	2.09	2.50	2.22

APPENDIX D  
MIDDLE MANAGEMENT PROGRAMS IN OKLAHOMA  
CITY AREA JUNIOR COLLEGES



## MIDDLE MANAGEMENT PROGRAMS

El Reno Junior College

I.	General Education Requirements	12 hrs
ENGL	1113 and 1123 English Composition	
	OR	
ENGL	1313 and 1323 Applied Comp/Speech	
POLS	1113 U.S. Government	
HIST	1483 U.S. History	
	OR	
HIST	1493 U.S. History	
II.	Program Requirements	37 hrs
BUS	1053 Business Math	
BUS	1103 Introduction to Business	
BUS	2163 Business Law	
ACCT	2173 Principles of Accounting I	
ECON	2193 Principles of Economics (Macro)	
MGMT*	1302 Management Training	
MGMT	1312 Management Seminar (Supervisor)	
MGMT	1322 Management Seminar (Personnel)	
MGMT	1332 Management Seminar (Motivation)	
MGMT	1342 Management Seminar (Decision-Making)	
MGMT	1133 Introduction to Management	
MGMT	2363 Personnel Management	
* Must be taken 4 times for a total of 8 hours		
III.	Recommended Program Electives	12 hrs
BUS	1093 Business Communications	
ECON	1353 Personal Finance	
ECON	2203 Principles of Economics (Micro)	
PSY	1113 Elements of Psychology	
PSY	1033 Human Relations	
MGMT	1313 Salesmanship	
MGMT	1323 Principles of Marketing	
MGMT	1333 Principles of Advertising	
MGMT	2353 Small Business Management	
BUS	2313 Introduction to Data Processing	
ACCT	2183 Principles of Accounting	
IV.	Electives	3 hrs
TOTAL		64 hrs

## MIDDLE MANAGEMENT PROGRAMS

Oklahoma City Southwestern College

I.	General Education Requirements		21 hrs
	ENGL	1113 English I	
	ENGL	1213 English II	
	SPCH	1113 Principles of Speech	
	PLTSC	1113 American Government	
	HIST	1483 OR	
		1493 American History	
	BIBLE	1413 Old Testament History & Literature	
	BIBLE	1423 New Testament History & Literature	
II.	General Business		21 hrs
	GBUSN	1013 Introduction to Business	
	GBUSN	2113 Business Communications	
	GBUSN	1053 Business Math	
	GBUSN	2213 Business Law	
	MGMT	2013 Principles of Management	
	ECON	2113 Economics I	
	ACCT	2103 Accounting I	
III.	Mid-Management		22 hrs
	MGMT	2023	
	MGMT	2213 Small Business Management	
	MGMT	2313 Personnel Management	
	GBUSN	2413 Administrative Office Management	
	GBUSN	2433 Business Finance	
	GBUSN	2743 Credits and Collections	
IV.	Electives		4 hrs
	ACCT; GBUSN; MGMT; MKTG: (May include partnership)		
	TOTAL		64 hrs

## MIDDLE MANAGEMENT PROGRAMS

Seminole Junior College

I. First Year-Fall Semester			17 hrs
COOP	1111	Career/Personal Planning	
ENGL	1113	English Composition I	
BA	1101	Mid-Management Seminar I	
MATH	1213	Introduction to Business	
BA	1123	Introduction to Business	
BA	2113	Micro Economics	
		American History/Government	
II. Spring Semester			16 hrs
ENGL	1313	Technical Report Writing	
BA	1211	Mid-Management Seminar II	
BA	1103	Business Relations	
BA	1113	Principles of Advertising	
BA	2213	Micro Economics	
		American History/Government	
III. Second Year-Fall Semester			16 hrs
ACCT	2103	Accounting Principles I	
BA	2401	Mid-Management Seminar III	
BA	2403	Principles of Business & Management	
BA	2513	Marketing	
BA	2233	Business Communications	
		Approved Elective	
IV. Spring Semester			16 hrs
ACCT	2203	Accounting Principles II	
BA	2223	Business Finance	
BA	1233	Retail Selling	
BA	2413	Business Law	
BA	2411	Mid-Management Seminar IV	
		Approved Elective	
TOTAL			65 hrs

## MIDDLE MANAGEMENT PROGRAMS

Oscar Rose Junior College

I. General Education Requirements			23-24 hrs
ENGL	1313	English Composition	
ENGL	1403	Communications	
		OR	
ENGL	1323		
HIST	1213	United States History to 1877	
		OR	
HIST	1223		
POLS	2303	American National Government	
BA	1103	Business Math	
MATH/ SCIENCE		(3 to 4 hours of math or science)	
PSY	1203	Personal Development	
		OR	
PSY	2203	General Psychology	
PE		(2 hours of PE - May be Activity or other PE Course)	
II. Program Requirements			15 hrs
ACCT	2103	Principles of Accounting I	
BA	2503	Business Communications	
MM	1303	Principles of Marketing	
MM	2103	Principles of Management	
MM	2203	Personnel Management	
III. Business Electives - Must be chosen from the following Business Courses:			23-24 hrs
ACCT	2203	Principles of Accounting II	
BA	1503	Salesmanship	
ECON	2303	Economics I (Micro)	
ECON	2403	Economics II (Macro)	
MM	1202	Merchandising Technology	
MM	2102	Mid-Management Seminar	
MM	2105	Introduction to Logistics	
MM	2302	Credits and Collections	
MM*	2402	Supervised Internship	
MM	2603	Introduction to Industrial Management	
MM	2703	Small Business Management	

\* Must be taken simultaneously with Management Seminar, MM 2102. MM2102 and MM2402 may each be repeated for up to 6 hours credit.

TOTAL 61-63 hrs

## MIDDLE MANAGEMENT PROGRAMS

South Oklahoma City Junior College

## I. 15 hrs

COM	1113	Oral and Written Composition
MATH	1323	Math for Business Careers
BUS	1013	Introduction to American Business
HIST	1483	American History to the Civil War OR
HIST	1493	American History from the Civil War to Present
ECON	2113	Principles of Economics I

## II. 15 hrs

COM	1123	Interpersonal Communications
COM	1213	Composition and Literature
PS	1113	American Federal Government
BUS	2053	Principles of Management
BUS	2043	Principles of Marketing

## III. 15 hrs

BUS	2113	Business Communications
ACCT	2103	Accounting I
BUS	2450	Mid-Management Seminar
BUS	2550	Directed Occupational Experience Career Electives

## IV. 15 hrs

ACCT	2203	Accounting II
BUS	2063	Business Law
BUS	2450	Mid-Management Seminar
BUS	2550	Directed Occupational Experience *Career Electives

\* To be selected with advisor's approval

TOTAL 60 hrs

APPENDIX E

RELIABILITY ANALYSIS OF

CATEGORIES FOR COMPETENCIES

Table 125

RELIABILITY ANALYSIS OF CATEGORIES  
FOR COMPETENCIES

Categories for Competencies	Reliability Coefficients
Communication	Alpha = 0.75502
Motivation	Alpha = 0.76623 Alpha = 0.82622
Electronic Data Processing	Alpha = 0.73784
Quantitative Methods	Alpha = 0.76952
Organization	Alpha = 0.76764
Planning	Alpha = 0.71494
Organizing	Alpha = 0.50236
Leading	Alpha = 0.80050 Alpha = 0.62030
Control	Alpha = 0.85625
Budget Control	Alpha = 0.85625
Accounting	Alpha = 0.83075
Personnel and Staffing	Alpha = 0.88045
Labor Relations	Alpha = 0.91485
Affirmative Action	Alpha = 0.94233