5-5-1995

First Line Supervisor Perceptions: The Effectiveness of Specific Safety Training Materials

Cynthia Houlson
University of Northern Iowa

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Abstract

The problem of this study was to determine whether first line supervisors, who have been exposed specifically to Safety Focus Topics, perceived them as an effective tool in filling their role as a safety trainer.

FIRST LINE SUPERVISOR PERCEPTIONS: THE EFFECTIVENESS OF SPECIFIC SAFETY TRAINING MATERIALS

A Research Paper for Presentation
to the Graduate Faculty
of the Department of Industrial
Technology
University of Northern Iowa

In Partial Fulfillment of the Requirements for
the Non-Thesis Master of Arts Degree

by
Cynthia Houlson
Date 5-5-95

Approved by:

_____	5-5-95
(Name) Advisor	Date
	May 10, 1995
(Name) Graduate Faculty Member	Date

ACKNOWLEDGEMENTS

The writer would like to thank the John Deere Waterloo Works Safety Department for its encouragement during the development of the Safety Focus Topics. Without managers who believe in and implement empowerment opportunities, many industrial employees would not take the risk to pursue new fields of endeavor. It was an exciting adventure and challenge to address a deficiency that currently exists in safety. The writer is grateful for the latitude that was given in allowing a solution to the problem to be developed, implemented and finally tested.

Another person who deserves thanks is Dr. Johnson. He put excitement back into the writer's vision and served as the catalyst for the energy and drive to complete this project. Scholarly endeavors can be rigorous and just as in sports a good coach knows when to challenge and when to encourage. Dr. Johnson did just that, he challenged the imagination and helped the writer to see that this research project was doable and not just a dream.

Professors who go beyond the call of duty are sometimes hard to find. In the Industrial Technology Department at the University of Northern Iowa they seem to be plentiful. Research is the keystone of graduate work, and the writer appreciates Dr. Betts' and Dr. White's efforts to reinforce the necessity for striving for excellence. The writer now understands the importance of doing research. The ancient Zen statement , how you do anything is how you do everything, has never been more true.

TABLE OF CONTENTS

	Page
LIST OF TABLES	v
Chapter	
I. Introduction	1
Background	1
Statement of the Problem	2
Purpose of the Study	2
Statement of the Need	4
Research Questions	7
Delimitations	7
Assumptions	8
Definition of Terms	8
II. Reveiw of Literature	9
OSHA Requirements	9
Necessity for Training	11
III. Research Method	13
Target Population	13
Survey Construction	13
Data Collection	14
Analysis Criteria	15
IV. Presentation of Findings	18
Analysis of the Data	18
Supervisor's Preference	19
Response to Research Questions	21

Chapter Page

V. Summary, Discussion and Recommendations..... 25
Summary..... 25
Discussion and Recommendations..... 26

REFERENCES..... 28

APPENDICES..... 30
A. Safety Focus Topic..... 30
B. Questionnaire..... 35
C. Questionnaire Cover Letter..... 38
D. Survey Response Data..... 40
Questions 1-8
E. Mystat Statistical Manipulation..... 42
F. Written Comments..... 55
G. Survey Response Data..... 60
Questions 9-17

LIST OF TABLES

Table		Page
1.	Bench Mark Chart for Questions 9-17, and Overall Grand Mean	24

CHAPTER I

Introduction

Background

In the historical development of what we have come to know as Occupational Safety and Health Act (OSHA) regulations, employee training was left out. As Earl Heath and Ted Perry state, "the Occupational Safety and Health Act of 1970 (public Law 91-596) does not specifically address the responsibility of employers to provide safety and health information and instruction to employees" (1990, p. 5). Although training is not addressed separately in a section by itself, requirements for training are included in over 100 of the standards that are currently included in the act.

In section 5(a)(2) of the OSHA regulations there is a requirement that is very important to safety training, which states each employer must, "comply with occupational safety and health standards promulgated under this Act" (91st Congress, 1970, p. 4). This mandates that an employer must provide the training that the specific standards require.

John Deere is a leader in meeting its responsibilities in the field of safety and

related training. Several years ago, it was strongly suggested that safety be included in the departmental meetings that are ongoing events facilitated by the first line supervisor.

Departmental supervisors were given the responsibility of developing their own safety component, but were not held accountable or given any guidelines for what was considered good performance. As a result of noted deficiencies, John Deere contracted with the writer to develop Safety Focus Topics to give supervisors a method or example of good safety training to model.

Statement of the Problem

The problem of this study was to determine whether first line supervisors, who have been exposed specifically to Safety Focus Topics, perceived them as an effective tool in filling their role as a safety trainer.

Purpose of the Study

In the field of safety management, creating a motivating environment that makes or encourages people to want to safely perform tasks is the ultimate goal. In their book, Positive Management Practices, Arthur Beck and Ellis Hillmar state, " A manager needs to be clear with employees about their roles and responsibilities and

the results expected in order for them to know what they will be held accountable for" (1987, p. 90). Safety performance is an area where this type of information is needed for the worker to perform their tasks in accordance with the safety standards that are being enforced.

The ultimate goal in safety management is to motivate employees to act in a safe manner. Without holding management accountable for safety training, that motivating environment cannot be achieved. Beck and Hillmar state, "the manager must be accountable to them for support" (1987, p. 90). This accountability link should also be applied to the safety department.

The safety department at the John Deere Waterloo Works is accountable for making sure the employer is meeting the requirements that OSHA mandates. It is also accountable for keeping current with changes occurring in the OSHA regulations, for setting the guidelines for safety performance and for providing materials or support for the first line supervisors who have been designated to provide ongoing safety training.

One type of training material that the safety department has been using is the Safety Focus Topics. These materials were developed by the writer specifically for the John Deere facility, but had not been tracked or documented as to the degree of

effectiveness that they provided the first line supervisor. If they were not useful for the first line supervisor, then the safety department was not meeting its responsibility in providing safety training materials or support for the supervisor who was doing the ongoing safety training. It would then be impossible to hold the supervisor accountable for performance, and ultimately it would be the workers who suffer from the lack of appropriate information to perform their tasks safely.

The purpose of this study was to collect the data and to utilize it to evaluate the previously developed safety training materials. If the materials were measured and evaluated as successful in meeting the goal of providing useful and usable information, then the safety department was meeting its responsibility for providing support for the first line supervisor.

Statement of Need

In 1990, the Manufacturing and Engineering Systems Safety Committee at the John Deere Westfield Site began to take note of a discrepancy between the written safety programs and the applications on the shop floor. The composition of this safety committee was unique since it was a combined effort of salaried and wage employees. Because each member worked in a different area, actual observations

were able to be noted and the differences pinpointed. This was a new level of fact finding for the safety department because it was collected from the shop floor, not from literature or statistics.

The lack of information and the missing communication link from the safety department to the first line supervisor was targeted as the problem. Follow up interviews with a group of supervisors reinforced and verified that there was a lack of safety information being provided to workers on the shop floor. That seemed to result from the inability of the supervisors to put together effective safety training which should have been delivered to the employees at departmental meetings. They did not know where to get current information, did not have the time to plan the presentation, and even when they embraced the fact that safety training was important they still could not do an adequate job.

During this time, the committee was also exposed to The Dan Petersen Safety Management Series (Petersen, 1989). The important role that the first line supervisor has in creating a safe work place or culture was the focus of this book. The committee determined that safety training was a necessity and an effort was undertaken to provide monthly safety training packets to the first line supervisors. Supervisors were identified and they began to receive the safety awareness

information.

Materials that were available on the market were tried first. They consisted of tool box topics or little pamphlets that generically addressed different aspects of industry and several off-the-job activities. It was determined after a few months that these were deficient. They made excellent handouts but did not address all the concerns that the supervisors had pointed out in the interviews. The lack of time for planning a presentation had not been considered.

It was then determined that site specific materials would be developed. These materials, developed by the writer, provided current information in a pre-packaged format. Supervisors could then present the safety topic using the talk sheets with little preparation or previewing. These monthly materials targeted specific topics that addressed both on-the-job and off-the-job concerns. This format allowed the updating of operational procedures that new regulations affected, the ability to address actual site specific accidents or near misses, and facilitated the need to heighten safety awareness. Currently, these are made available to over 200 supervisors at the John Deere Waterloo Works.

The materials were developed in an effort to strengthen the communication link from the safety department to the worker via the first line supervisor. The specific

safety training materials have been used for two years and have continued to be refined in an effort to be more user friendly. It was decided to determine if they were effective and whether they actually made a difference. Feedback was also needed to pinpoint how these materials could be improved in order to better fill the needs of the first line supervisor.

Research Questions

1. Did supervisors perceive their success in providing safety training as having increased because of using the Safety Focus Topics?
2. Which design characteristics of the Safety Focus Topics were perceived as being useful by the supervisor?
3. Which design characteristics of the Safety Focus Topics should be changed to increase personal success experienced by the supervisor in implementing the training?
4. How should the identified deficiencies in the training materials be changed?

Delimitations

1. This study was delimited specifically to the John Deere Waterloo Works located in Waterloo, Iowa.

2. The results cannot be generalized beyond the population surveyed because the specific training materials were developed for first line supervisors at the John Deere Tractor Works.

Assumptions

1. The first line supervisors in all departments were given the responsibility of holding departmental meetings.
2. First line supervisors were aware of their responsibility to provide a safety component in the departmental meetings.

Definition of Terms

Effectiveness	defined and determined by how often the supervisors do safety training.
First line supervisor	departmental supervisors both in the office and on the shop floor.
Specific safety training materials	packets that include a three to four page trainer talk sheet called Safety Focus Topics published by Houlson and Associates.

CHAPTER II

Literature Review

OSHA Requirements

On December 29, 1970 the Occupational Health and Safety Act became law. The regulations contained in this document pinpointed conditions that had historically been attributed to the causal factors in the accidents that resulted in multiple injuries or in fatalities. S. 2193 initially defines its purpose by opening with this statement, "An Act to assure safe and healthful working condition for working men and women" (Public Law 91-596, 84 Stat. 1590, p. 1).

The Act also specifically addressed the many functions of the newly established agency including enforcement of statutes and assisting or encouraging compliance. The last defined function is, "providing for research, information, education, and training in the field of occupational safety and health" (Public Law 91-596, 84 Stat. 1590, p. 1).

Although record keeping prior to this date had not been mandated, many of the major companies had been voluntarily organized under the National Safety Council which did track records from as early as 1912. Many authors such as Hammer (1976), Steinmetz (1986), Todd (1986) and Petersen (1989) make reference to this

organization and its efforts to provide critical information that helped keep safety professionals abreast of the rapid technological changes that did occur, and continue to evolve, in the workplace.

This group not only kept records and provided statistical facts about how industry was doing, it also was committed to providing training for safety professionals. Although their mission statement was not published until 1983, it reflects their commitment that were a part of their goals from 1912.

> The mission of the National Safety Council is to educate and influence society to adopt safety and health policies, practices, and procedures that prevent and mitigate human and economic losses arising from accidental causes and adverse occupational and environmental health exposures
> (National Safety Council, 1988, p. 57).

Many other resources for facts, figures and training materials are available today. Safety professionals are continually challenged to keep astride of the changes and stay on the cutting edge of their field. OSHA publishes enormous amounts of materials each year in its efforts to keep those responsible for safety up to date on the regulations and ways to implement their programs. At the Iowa Governor's Safety Conference in 1993, OSHA trainers continue to acknowledge, " the importance of groups such as American National Standards Institute, American

Society of Mechanical Engineers, National Safety Council, and many other professional associations for providing them information that ultimately results in the changes that take place in the regulations" (OSHA, 1993, p. 3).

Necessity for Training

Training and the importance of a commitment to continue to learn by those in the safety profession seems to be an integral part of establishing and maintaining a successful written safety program at any industrial site. Although a successful written safety program alone does not ensure a safe work place. There is a critical communication linkage that has to be in place to facilitate getting the information to the workers on the shop floor.

If the critical information is not disseminated to the workers in an efficient, effective manner; then, even the most successful written plan will not be effective. Although it is crucial for the safety professional to remain current in this field of knowledge it is imperative that he or she share this information with the first line supervisors who assure the information is provided for the workers. In their book on first line management, Steinmetz and Todd (1986) state, "One of the most important supervisory functions is related to assuring employee safety" (p. 401).

Accidents that are the result of human error could be the result of lack of training or knowledge and it is the first line supervisor who can impart safety information and reinforce safe working procedures.

In the 1970's and 80's, safety and training were high priorities when discussing different approaches and functions of managers and supervisors. Petersen (1989), Hammer (1976), Bedeian (1986) and many others were pointing out and defining areas of expertise that supervisors needed to possess to be successful in their profession. They all agreed that the first line supervisor is the person who ultimately gets the responsibility to assure information is in the hands of the workers and that the worker can perform the job safely. The first line supervisor can elect to provide the critical link in providing information that promotes safety, or by his or her inaction break the communication link and limit access to critical information. They are a critical component to the success any safety program can achieve.

CHAPTER III

Research Method

Target Population

This research project was a descriptive study which attempted to quantify whether certain safety training materials were effective. The total population was composed of 210 first line supervisors who had received the Safety Focus Topics for the past year. These first line supervisors were departmental supervisors who worked at the John Deere Waterloo Works during the study which was conducted in February, 1995.

A random sample of 100 first line supervisors were sent a copy of the questionnaire. Survey respondents were anonymous, as there was no attempt to specifically identify them. The questionnaires were mailed to the attention of the department supervisor.

Survey Construction

The initial questionnaire was developed by the researcher after consulting several resources. The information attained from Sproul (1988), Marks (1982), Petersen (1989) and other sources explained, through examples, the process of

developing questions that result in useful and relevant information. A questionnaire survey was then developed primarily to determine whether first line supervisors perceived the Safety Focus Topics as a useful tool in filling their role as a safety trainer. A copy of a recent Safety Focus Topic was included as a reference for the purpose of answering the questions (See Appendix A). The survey was limited to one page that would require minimal time to answer.

That questionnaire was peer reviewed by three supervisors. They pointed out the ambiguous wording and gave good ideas for rewording statements. This process was necessary to validate the instrument, and the questionnaire was improved due to their input (See Appendix B).

Data Collection

On February 27, 1995 the survey was sent in the factory mail to those departments listed in the random sampling. This list consisted of 100 supervisors who had been receiving the materials throughout the year. By using the total identified population of 210 departments, every other one on the mailing list was sent a copy until 100 were addressed. No names were used, instead department mailing addresses were highlighted and a generic label directed the questionnaire to

the departmental supervisor.

The cover letter contained a request to respond by March 8, 1995 (See Appendix C). At the end of the waiting period, a total of 42 (42%) of the original 100 had been returned. With additional follow up phone calls to department offices, another 25 were received. A total of 67 questionnaires were returned and all have been included as data for this study.

Analysis Criteria

Questions 1 through 8 were compiled using a Windows program called PFS:WindowWorks. The program includes a chart editor which allows for the graphing of the specific yes or no responses. Simple percentages were calculated and used to determine the level of usage and the supervisor's level of satisfaction with the materials (See Appendix D).

The collected data for questions 9 through 17 were fed into a DOS statistical application program called Mystat which was developed by Robert Hale (1992). The program performed the sorting, ranking and other basic functions that resulted in the specific histograms and means for each question (See Appendix E). That resulting mean for each specific question was then used to determine whether the

Safety Focus Topic was adequate or not in that specific component of the training materials.

A figure was arbitrarily set at 2.5 which was considered the bench mark figure. Because the Likert scale ranged from 1 being a positive response and 5 being a negative response, any means that fell between 1 and 2.5 were considered adequate for the purpose of this study. If the mean was between 2.6 and 5.0, then it was considered as showing a deficiency in the training materials and was noted as inadequate.

An overall figure was also calculated by using the individual means as new data for the computer program. The same figure of 2.5 was used as the bench mark figure. If the overall figure fell between 1 and 2.5, then it could be determined the initial goal, to provide useful safety training materials to the first line supervisor in an attempt to allow them to experience more success in providing safety training to their employees, was achieved.

The comments that were given in Section V, questions 18 through 21, were optional and asked for the respondent's help. They were recorded and used only as reinforcements for the arguments that influenced the recommendations. Critical criticisms and comments supported the data that indicated that there were areas of

deficiency, and other answers provided further justification that many supervisors were satisfied with the materials and did find them useful in filling their needs. All comments were recorded as written and categorized by the number of the question (See Appendix F).

CHAPTER IV

Presentation of Findings

Analysis of the Data

The significance of this chapter is to analyze the data obtained from the questionnaires concerning the usefulness of the specific safety training materials (Safety Focus Topics) to the first line supervisor in fulfilling their role as safety trainer. There was an initial response rate of 42 % within the first four days after the survey was mailed. Following phone calls, another 25 were returned. A total of 67 of the 100 (67%) questionnaires were returned. Sixty of the 67 (90%) respondents were departmental supervisors. The remaining seven were not departmental supervisors which would indicate the supervisor delegates the safety training function to someone else in his or her department.

The respondents were asked to indicate whether they actually used the Safety Focus Topics as a resource for safety training. A total of 56 of the 67 respondents (84%) use the materials. The remaining 11 do not currently use the materials.

Then the respondents were asked to provide feedback as to why they chose not to use the materials. Four had not previously received the materials and another 3 did not have time to use the materials. Two believed they were too long. One

respondent suggested the materials should be distributed electronically, and another one believed they were too elementary and too step by step.

Section II of the questionnaire asked specific questions about the use of equipment referenced in the Safety Focus Topics. Thirty-five do use overheads, while 32 do not. That would indicate a small majority of the 67 (52%) who responded do use an overhead projector. Thirteen respondents do use a flip chart, while the remaining 54 (81%) indicated they do not use one. Seven respondents use a white board, while 60 (90%) do not use a white board. When asked if they use a handout, 48 (72%) responded they do use one and the remaining 19 do not.

Supervisor's Preference

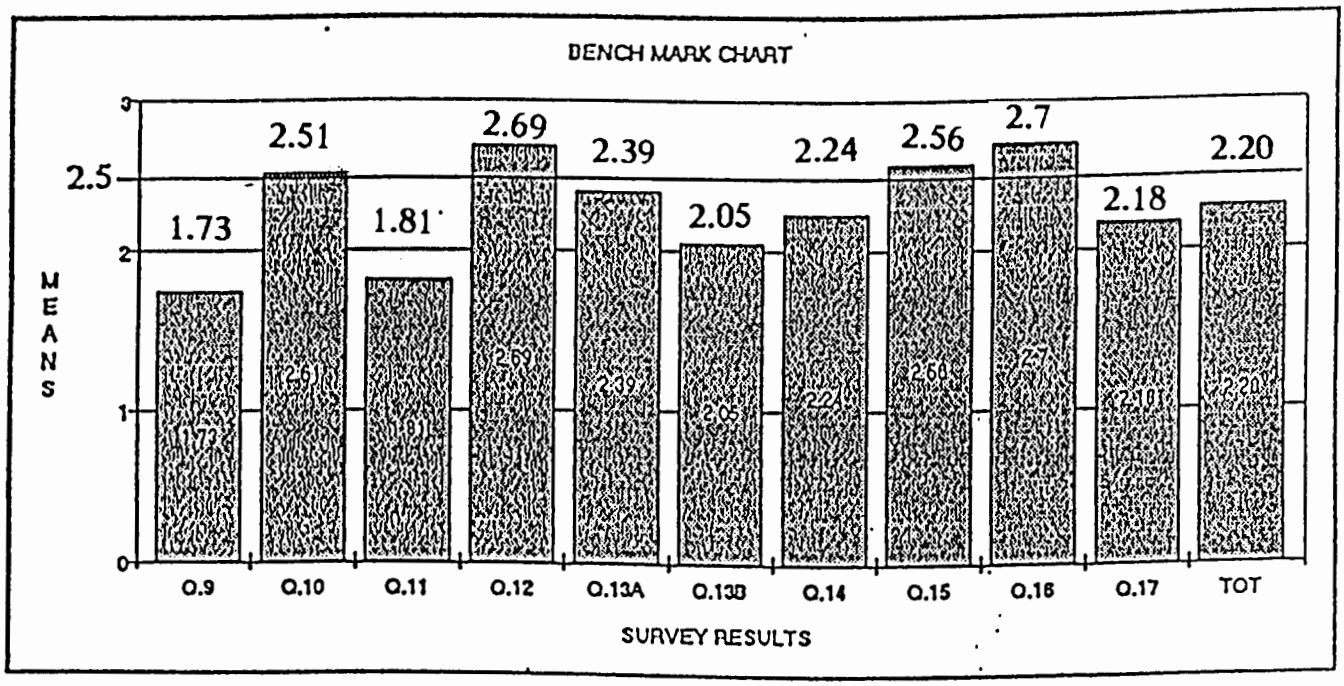
Without being mandated from top management, any new innovation in training materials must be perceived as acceptable and useful before the first line supervisor will take the time to present the information at their departmental meetings. By incorporating a Likert scale for Section III and IV on the questionnaire, the respondent was able to indicate his/her perception for the materials. The use of the Likert scale also made it possible to perform basic statistical operations. Each answer to questions 9 through 17 was entered into the Mystat statistical analysis

program. As a result, the tables of frequency were graphed, and the mean determined (See Appendix G).

The resulting mean for each question was used for the benchmarking. A predetermined number of 2.5 was selected as the level of acceptable performance. This bench mark figure was used to compare the mean for each question, and for the overall grand mean. Any mean that was over 2.5 was considered deficient in terms of providing useful training materials to the supervisor. Any resulting mean that ranged between 1 and 2.5 was considered adequate for the purpose of this study. The overall grand mean was labeled as the Total which represented or indicated the overall perception of the safety training materials (See Figure 1).

Figure 1

Bench Mark Chart for Questions 9-17, and Overall Grand Mean



The overall or grand mean, 2.20, did meet the bench mark test. This was a significant finding because it indicated that overall the materials were meeting the original intent of providing useful safety training materials to the first line supervisor. Six of the means for the specific questions fell within the 1 to 2.5 range. They were determined to have met the bench mark test and for the purpose of this study they were considered as adequately filling the needs of the supervisor.

Four specific questions (10, 12, 15 ,16) failed by having a mean that fell above the the 2.5 bench mark. Question 10 asked whether the supervisor perceived the Safety Focus Topics as pertaining to their employees and resulted in a mean of 2.51. Question 12 asked if the materials met the appropriate time allotment and its mean was 2.69. Question 15 asked if the materials served as a catalyst for discussion and the resulting mean was 2.56. Question 16 asked if using a white board/flip chart increased training success. Its mean was the highest at 2.7. These were deficiencies that would indicate a need to review and possibly revise the materials.

Response to Research Questions

The research questions were answered by utilizing the means that were developed for each specific survey question. The first research question asked if

supervisors perceive their success in providing safety training as having increased because of using the Safety Focus Topics. By utilizing the combined mean from the responses for questions 9, 10, 13b and 17; a grand mean of 2.12 was attained. This did achieve the predetermined bench mark figure of 2.5 and was supported as adequate. The materials were perceived as increasing the success first line supervisors were having in providing safety training.

The second research question asked which design characteristics of the Safety Focus Topics were perceived as being useful by the supervisor. The questionnaire was designed to attain a result by reviewing the answers to items 9, 10, 11, 12, 13a, 14, 16, and the answers for items 5-8. The questions that used the Likert Scale reflect that half of the design characteristics are perceived as useful to first line supervisors. The perceptions that met the bench mark test were:

* Objectives were clear
* Outline format was easy to use
* Media materials were easy to use
* Materials were user friendly
* Overheads increased trainer's success
* Information did increase employees safety awareness

All of these items were supported by falling between the 1 and 2.5 range in the bench mark test. They reflected a positive perception or response.

The third research question asked which characteristics should be changed. Any of the questionnaire items that did not achieve the 2.5 bench mark figure should be reviewed and reconsidered in designing the Safety Focus Topics. The only items that did not pass the bench mark test were items 10, 12, 15 and 16.

Question 10 asked if the topic pertained to the employees in the department. Because it had a mean of 2.51, it was determined not to be an item of significant concern for this study. Question 12 asked if the time allotment for the training was appropriate. This was significantly off the bench mark figure and the 2.69 does indicate that further research may be required to determine whether it is the training skills of the supervisor, lack of commitment to do safety training, or actually a design flaw that is triggering this response. Question 16 asked if the use of a white board/flip chart increased training success and it had a mean of 2.7. The data for questions 5-8 that appear in Appendix D also reinforce that flip charts, black board and white boards were not used by supervisors. More research would be necessary to determine the exact reason that this type of equipment was not used .

Questionnaire item 15 is also important for answering the third research question. Developing a discussion was in all of the previously designed Safety Focus Topics. If a discussion did not develop, then either the specific trainer

ignored the outline or the design of the training materials needs to be restructured.

The last research question asked how should the identified deficiencies in the training materials be changed. Two deficiencies, the usage of the white board and the usage of the flip chart, should be eliminated as options in the training materials. Their high means indicate that these items are not perceived as useful tools by the supervisors, and based on comments that were received for questions 18-21 there is enough data to support eliminating them from the materials (see Appendix F). It cannot be determined at this time how to change the other deficiencies that were identified because of a lack of sufficient data. There needs to be further research and documentation before any definitive solutions can be proposed.

CHAPTER V

Summary, Discussion and Recommendations

Summary

The purpose of this study was to collect data in order to analyze and evaluate the effectiveness of the previously developed safety training materials. The materials, Safety Focus Topics, were developed by the writer in an attempt to fill a documented need that first line supervisors had in fulfilling their role as a safety trainer.

The research began with a synthesis of historical information and of safety training practices as it applies to industry. A questionnaire was then developed and sent to 100 first line supervisors working at the John Deere Waterloo Works located in Waterloo, Iowa. They were randomly selected from the total population of 210 supervisors who had been identified as having previously received the safety training materials.

The researcher sought to ascertain the effectiveness of the materials overall, as well as evaluate the specific design elements that were incorporated into the materials. A bench mark figure was established and it was used to compare the means for the survey questions that utilized a Likert scale.

Four of the questions did not pass the bench mark test, and were determined to show deficiencies. Six questions met the bench mark and were determined to show that the safety content was adequate. The grand mean for all questions also met the bench mark figure. This was a significant finding and indicated that the materials overall were adequately meeting the needs of the first line supervisor and overall were perceived as a useful resource.

Discussion and Recommendations

After reviewing the overall bench mark figures, the recommendation is to concentrate on the specific items that did not achieve the 2.5 bench mark figure. None of the means were drastically deficient, but the four items that failed should be given priority in terms of reviewing with the option for redesigning the safety training materials. The writer assumed the availability of certain equipment for training and should have targeted these deficiencies in the initial needs analysis that took place prior to beginning the development of the training materials. This problem is easy to correct by eliminating activities that utilize these pieces of equipment.

Another option would be for Deere to make this type of equipment available to

all departments. Training in the effective use of the equipment should also be included for those supervisors who are not comfortable using it. A follow up survey may need to be developed to assure the deficiency was in the availability of the equipment and not because the supervisor is electing not to use the items.

Overall, the materials did test positive and were meeting the needs of the supervisors. More attention to the selection of topics is needed. Many respondents indicated their preference that the topics be more job related and immediate in covering incidents that occur in the factory.

Without commitment from top management to establish accountability within the first line supervisors annual review that measures whether they are providing safety training to their employees, the ultimate success afforded by effective safety training will not be achieved. Providing safety training materials is critical within industry as it continues to evolve technologically. Keeping workers safe is an ongoing process. Ongoing training tries to keep everyone current with any changes taking place. As the safety training materials continue to evolve in their development, further study will be necessary to assure that they are successfully meeting the needs for which they are designed.

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APPENDIX A

Safety Focus Topic

SAFETY FOCUS TOPIC
LADDER SAFETY
Supervisor's Talk Sheet

TIME : Approximately 15 - 20 minutes.

PURPOSE : 1. The employee will be aware of safety tips for using ladders off or on the job.
2. The employee will be offered another self-inspection list for inspecting ladders at home.

REQUIRED: * Handouts for participants who request a new copy of the IOSH ladder self-inspection check list . (after discussion make copies)

I. Develop interest in topic
A. Share facts
1. National Safety Council states " An estimated 300 to 400 persons are killed and about 30,000 to 40,000 suffer disabling injuries each year in the U.S. in ladder accidents."
2. In another study of ladder accidents, 20 percent of the injuries involved stepladders. Of 23 cases studied, 12 persons were injured off the job, and 11 on the job.

B. Have any of you heard this before? Last year we shared the same information and to date the numbers pretty much have stayed the same?
(let responses develop)

C. Have any of you had an accident that involved a ladder?
(last year one person was killed when his metal ladder touched a power line, he was only carrying it when it accidentally touched. Always check the area out for hazards before you begin any job that involves ladders)

II. Explain purpose of Focus Topic
A. Last time we focused on ladder safety and the self-inspection check list that IOSH publishes to cover portable ladder inspections. Have any of you had the opportunity to use the check list?
(if someone needs another copy of the check list, a copy is attached to make copies available to employees)

B. This time we are going to review ladder safety tips that we may be taking for granted.

C. Remember no ladder is safe if it is weathered, damaged, or has insufficient load capacity for the job.

III. Fact Sharing: Ladder Safety Tips

(as you read these tips invite comments at any point, and add your own experiences that will make the tip more memorable!)

A. Read all labels and literature that comes with your ladder.

B. Choose a good quality ladder that is strong enough to do the job.

C. Inspect ladders before each use, and please repair damage or replace the ladder before you begin the job.

D. Secure light metal ladders to prevent them from slipping while you are working.

E. Check the weather out before you begin the job, do not use a high ladder if there is a chance of lightening or high winds.

F. Use your head not your back, and get help before you carry a heavy or extra long ladder.

G. Clean your shoes off before you begin to climb, greasy soles can create slip hazards which cause many serious falls.

H. Set the ladder on level, firm surfaces. If ground is soft, reinforce surfaces with boards or planks to give ladder a solid base.

I. Wooden or non-conductive ladders are the only ones to use near power lines.

J. Do not over reach the ladder, set it so you do not have to stretch, lean, reach or tempt gravity!

K. If you place your ladder in front of a door, lock it or barricade it so no one can open it and knock you and the ladder over.

L. Always use the 4 to 1 ratio when setting an extension ladder, and extend it 3 feet beyond the roof line if you plan to climb on the roof.

M. Face the ladder when climbing up or down the ladder and use both hands to grasp the rails or rungs. If you need to carry tools or supplies, use a tool pouch, bag on your back , or bucket on a rope to lower the supplies.

N. Do not leave an erected ladder unattended, children can and do attempt to climb them and often times suffer serious injuries as a result.

O. There are many other tips that may apply, do you have any others to add? (let the employees add their own tips for using a ladder off the job, or on the job)

IV. Final Discussion

A. If you follow these simple tips, your ladder can be the tool or resource it was meant to be.

B. Another item to remember with stepladders is to never climb the top two rungs, if you need to get higher - get a taller ladder.

C. If you find a faulty ladder, what should you do?
(tell your supervisor, who in turn will call maintenance so that it can be fixed or destroyed. Absolutely do not use it! And at home practice preventative maintenance and repair or replace a ladder if it is damaged.)

D. By taking good care of your ladders, you can have many years of climbing free from accidents.

E. Are there any questions? If not, then that is all for the safety topic for today.

SELF-INSPECTION CHECK LISTS

Portable Ladders

1. Are all ladders maintained in good condition, joints between steps and side rails tight, all hardware and fittings securely attached and moveable parts operating freely without binding or undue play?

2. Are non-slip safety feet provided on each ladder?

3. Are non-slip safely feet provided on each metal or rung ladder?

4. Are ladder rungs and steps free of grease and oil?

5. Is it prohibited to place a ladder in front of doors opening toward the ladder except when the door is blocked open, locked or guarded?

6. Is it prohibited to place ladders on boxes, barrels, or other unstable bases to obtain additional height?

7. Are employees instructed to face the ladder when ascending or descending?

8. Are employees prohibited from using ladders that have broken, missing steps, rungs, or cleats, broken side rails or other faulty equipment?

9. Are employees instructed not to use the top step of ordinary stepladders as a step?

10. When portable rung ladders are used to gain access to elevated platforms roofs, etc., does the ladder always extend at least 3 feet above the elevated surface?

11. Is it required that when portable rung or cleat type ladders are used, the base is so placed that slipping will not occur, or it is lashed or otherwise held in place?

12. Are portable metal ladders legibly marked with signs reading "CAUTION - DO NOT USE AROUND ELECTRICAL EQUIPMENT," or equivalent wording?

13. Are employees prohibited from using ladders as guys, braces, skids, gin poles, for other than their intended purposes?

14. Are employees instructed to only adjust extension ladders while standing at a base (not while standing on the ladder or from a position above the ladder)?

15. Are metal ladders inspected for damage?

16. Are the rungs of ladders uniformly spaced at 12 inches, center to center?

APPENDIX B

Questionnaire

All answers are confidential and used exclusively as research data

Section I: Please circle the answer that best applies.

1. Are you a departmental supervisor?
   a. yes b. no

2. Do you use the Safety Focus Topics as a resource for safety training in your departmental meetings?
   a. yes b. no

3. If you do not use the materials, is it a result of:

   a. not receiving a copy of the Safety Focus Topics
   b. not seeing the benefit of using the materials
   c. not having time to use them
   d. not believing safety is a priority topic for departmental meetings
   e. other (please state)_____

Section II: Please circle the answer that best applies.
IF MATERIALS ARE DELEGATED FOR PRESENTATION HAVE THIS PERSON COMPLETE THE SURVEY.

5. In your safety training do you use overheads? a. yes b. no

6. In your safety training do you use a flip chart? a. yes b. no

7. In your safety training do you use a white or black board?
   a. yes b. no

8. In your safety training do you use handouts? a. yes b. no

Section III: Using the Safety Focus Topic that is attached (Ladder Safety), please rate the statements by placing a number in the blank at the left of each item.

1 = strongly agree
2 = agree
3 = neutral
4 = disagree
5 = strongly disagree

_____ 9. The objectives are clearly stated and easy to understand.

_____10. The topic pertains to employees in my department.

_____11. The outline is easy to read and follow.

_____12. The time allotted is appropriate.

_____13. The required media materials (overhead projectors, white board, flip charts) are easy to obtain/or use.

Section IV: If you have previously used Safety Focus Topics, please rate the questions by placing a number in the blank at the left of each item.

1 = strongly agree
2 = agree
3 = neutral
4 = disagree
5 = strongly disagree

_____13. The materials are user friendly

_____14. The use of overheads increased training success.

_____15. Discussion did develop as a result from using the materials.

_____16. The use of a white board/flip chart increased training success.

_____17. Information included in the materials has resulted in a better awareness of safety practices in the plant or outside at home.

Section V: Please provide comments to help in evaluating the Safety Focus Topics.

18. What is the best way to present this material?

19. What changes would you like to see in the Safety Focus Topics?

20. Is there a need for special training to use these materials?

21. Any other comments or suggestions for the Safety Focus Topics:

APPENDIX C

Questionnaire Cover Letter

February 27, 1995

To: Departmental Supervisors

I am asking your help in evaluating the Safety Focus Topic training materials that I began to develop in 1992. Feedback from the customer targets the need for improvements in tractors, and the same applies to guaranteeing quality safety training materials. You are the customer and are the only ones who can determine if these materials are successful in fulfilling your needs.

These packets were developed as the result of informal information gathering that indicated many of you needed materials that offered you options in providing the safety component in your departmental meetings. The question that now needs to be answered is how well do these materials meet your needs, and where do the deficiencies exist?

I also am in my last semester of graduate school at UNI, and am using this information to complete a requirement of a research paper. All information will be handled as confidential and no names are requested so that I can guarantee each of you that all comments and answers will be used strictly as research data. Feedback will be available after May 1, please give me a call if you would like to receive a copy. My phone number is 277-8358.

Time is a critical factor in this project. I am requesting that you complete the questions and **mail the survey sheet back no later than March 8.** The survey is only one page, front and back. I am estimating that it will only take 5 to 10 minutes to complete. It was designed to be completed by you or whoever uses the materials in presenting the safety training. I have also attached a Safety Focus Topic (Ladder Safety) to use as an example or reference if your materials are not handy.

Thank you for your help in my project. With your feedback, Safety Focus Topics will continue to improve, and be able to better meet the original goal to provide effective safety training materials to supervisors.

All I need back is the survey. After you have completed the questions, just fold the survey over, highlight my name and address, and place in the mail.

Cindy Houlson

APPENDIX D

Survey Response Data
Questions 1-8

Survey Results for Section I and II

Results are enclosed in parantheses ( ) after item choice.

Section I: Please circle the answer that best applies.

1. Are you a departmental supervisor?
   a. yes (60 or 90%) b. no (7 or 10%)

2. Do you use the Safety Focus Topics as a resource for safety training in your departmental meetings?
   a. yes (56 or 84%) b. no (11 or 16%)

3. If you do not use the materials, is it a result of:

   a. not receiving a copy of the Safety Focus Topics (4 or 6%)
   b. not seeing the benefit of using the materials (0)
   c. not having time to use them (3 or 4%)
   d. not believing safety is a priority topic for departmental meetings (0)
   e. other (please state) (2 or 3% - format too long, and 1st graded step by step along with not electronically distributed)

Section II: Please circle the answer that best applies.
IF MATERIALS ARE DELEGATED FOR PRESENTATION HAVE THIS PERSON COMPLETE THE SURVEY.

5. In your safety training do you use overheads?
   a. yes (35 or 52%) b. no (32 or 48%)

6. In your safety training do you use a flip chart?
   a. yes (13 or 19%) b. no (54 or 81%)

7. In your safety training do you use a white or black board?
   a. yes (7 or 10%) b. no (60 or 90%)

8. In your safety training do you use handouts?
   a. yes (48 or 72%) b. no (19 or 28%)

APPENDIX E

Mystat Statistical Manipulation

Section III: Using the Safety Focus Topic that is attached (Ladder Safety), please rate the statements by placing a number in the blank at the left of each item.

1 = strongly agree
2 = agree
3 = neutral
4 = disagree
5 = strongly disagree

_____ 9. The objectives are clearly stated and easy to understand.

_____10. The topic pertains to employees in my department.

_____11. The outline is easy to read and follow.

_____12. The time allotted is appropriate.

_____13. The required media materials (overhead projectors, white board, flip charts) are easy to obtain/or use.

Section IV: If you have previously used Safety Focus Topics, please rate the questions by placing a number in the blank at the left of each item.

1 = strongly agree
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_____13. The materials are user friendly

_____14. The use of overheads increased training success.

_____15. Discussion did develop as a result from using the materials.

_____16. The use of a white board/flip chart increased training success.

_____17. Information included in the materials has resulted in a better awareness of safety practices in the plant or outside at home.

TAL OBSERVATIONS: 67

	QUES9	QUES10	QUES11	QUES12	QUES13A
N OF CASES	67	67	67	67	67
MINIMUM	1.000	1.000	1.000	1.000	0.000
MAXIMUM	3.000	5.000	3.000	5.000	5.000
MEAN	1.731	2.507	1.806	2.687	2.388
STANDARD DEV	0.566	1.106	0.584	1.144	1.141

	QUES13B	QUES14	QUES15	QUES16	QUES17
N OF CASES	67	67	67	67	67
MINIMUM	0.000	0.000	0.000	0.000	0.000
MAXIMUM	5.000	5.000	4.000	5.000	5.000
MEAN	2.045	2.239	2.552	2.701	2.179
STANDARD DEV	0.767	1.031	0.958	1.206	0.833

TABLE OF VALUES FOR QUES9
FREQUENCIES

1.000	2.000	3.000	TOTAL
3 22	41	4 3	67

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI-SQUARE	30.657	2	.000
LIKELIHOOD RATIO CHI-SQUARE	35.394	2	.000

TABLE OF VALUES FOR QUES10
FREQUENCIES

1.000	2.000	3.000	4.000	5.000	TOTAL
3 11	27	18	6	5 3	67

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI-SQUARE	25.164	4	.000
LIKELIHOOD RATIO CHI-SQUARE	24.614	4	.000

TABLE OF VALUES FOR QUES11
FREQUENCIES
[Enter]

3 19	42	6 3	67	

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI-SQUARE	29.761	2	.000
LIKELIHOOD RATIO CHI-SQUARE	31.139	2	.000

TABLE OF VALUES FOR QUES12
FREQUENCIES

1.000	2.000	3.000	4.000	5.000	TOTAL
3 6	32	13	9	7 3	67

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI-SQUARE	34.418	4	.000
LIKELIHOOD RATIO CHI-SQUARE	29.026	4	.000

TABLE OF VALUES FOR QUES13A
FREQUENCIES

0.000	1.000	2.000	3.000	4.000	5.000
3 2	10	29	17	4	5 3

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI-SQUARE	47.179	5	.000
LIKELIHOOD RATIO CHI-SQUARE	44.308	5	.000

TABLE OF VALUES FOR QUES13B

FREQUENCIES

0.000	1.000	2.000	3.000	4.000	5.000
3	1	10	45	8	2

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI-SQUARE	129.567	5	.000
LIKELIHOOD RATIO CHI-SQUARE	101.362	5	.000

TABLE OF VALUES FOR QUES14

FREQUENCIES

0.000	1.000	2.000	3.000	4.000	5.000
3	3	13	22	24	4

PEARSON CHI-SQUARE	45.388	5	.000
LIKELIHOOD RATIO CHI-SQUARE	49.590	5	.000

TABLE OF VALUES FOR QUES15

FREQUENCIES

0.000	1.000	2.000	3.000	4.000	TOTAL
3	3	2	28	23	11 3 67

TEST STATISTIC	VALUE	DF	PROB
PEARSON CHI-SQUARE	40.985	4	.000
LIKELIHOOD RATIO CHI-SQUARE	45.190	4	.000

TABLE OF VALUES FOR QUES16

FREQUENCIES

0.000	1.000	2.000	3.000	4.000	5.000
3	7	2	12	30	15 1 3

```
[EST STATISTIC                              VALUE          DF            PROB
  PEARSON CHI-SQUARE                        51.478          5            .000
  LIKELIHOOD RATIO CHI-SQUARE               51.633          5            .000
nter]

  PEARSON CHI-SQUARE                        40.985          4            .000
  LIKELIHOOD RATIO CHI-SQUARE               45.190          4            .000
ABLE OF VALUES FOR   QUES16
'REQUENCIES
            0.000     1.000     2.000     3.000     4.000     5.000
         ZDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD?
         3    7         2         12        30        15         1  3
         @DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDY

:EST STATISTIC                              VALUE          DF            PROB
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  LIKELIHOOD RATIO CHI-SQUARE               51.633          5            .000
TABLE OF VALUES FOR   QUES17
FREQUENCIES
            0.000     1.000     2.000     3.000     4.000     5.000
         ZDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD?
         3    1         8         41        14         1         2  3
         @DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDY

TEST STATISTIC                              VALUE          DF            PROB
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  LIKELIHOOD RATIO CHI-SQUARE               91.117          5            .000
Press ENTER DY or RETURN
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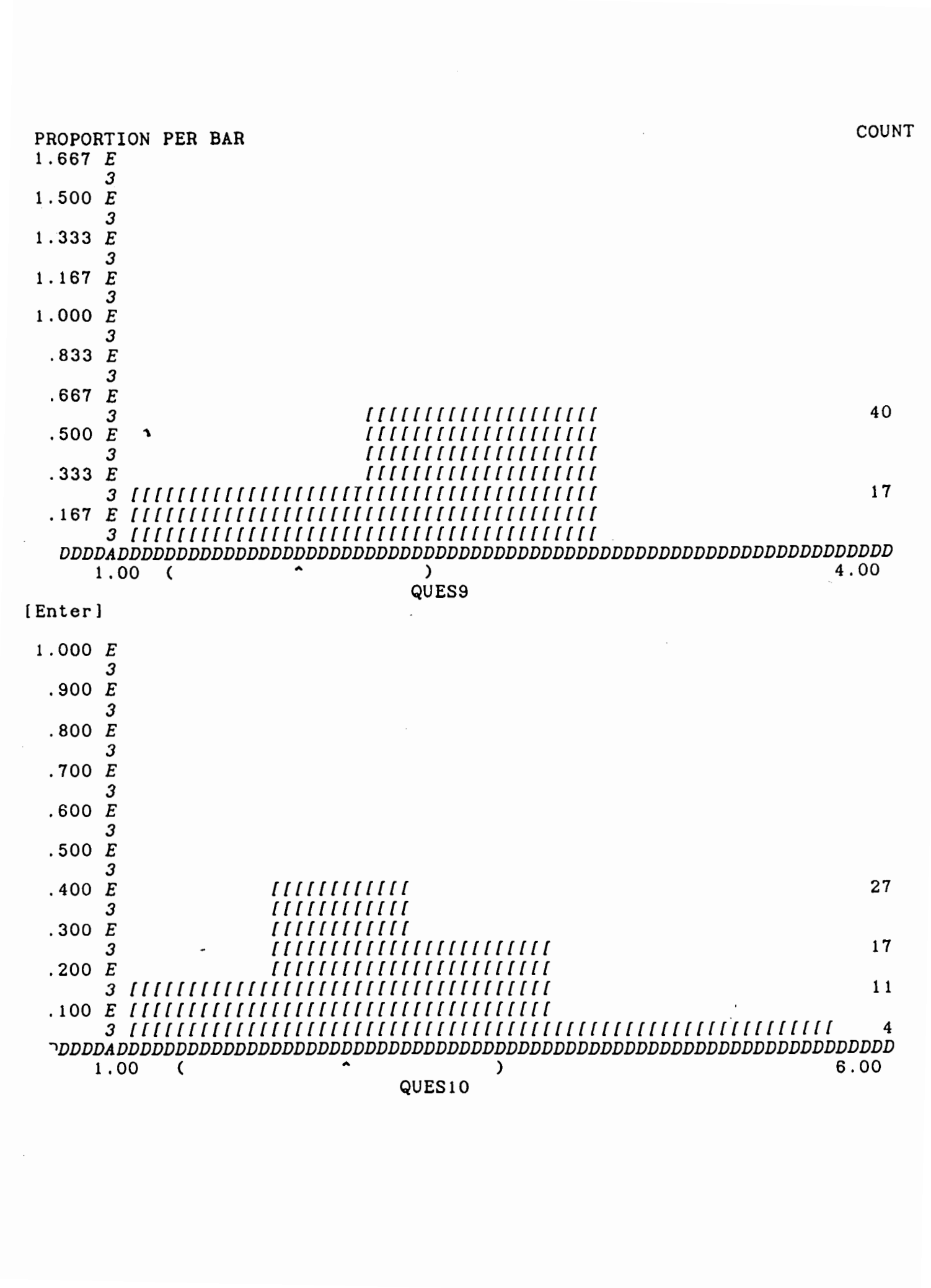
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1.167
1.000
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.667
.500
.333
.167
40
17
1.00
4.00
QUES9
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1.000
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.800
.700
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.500
.400
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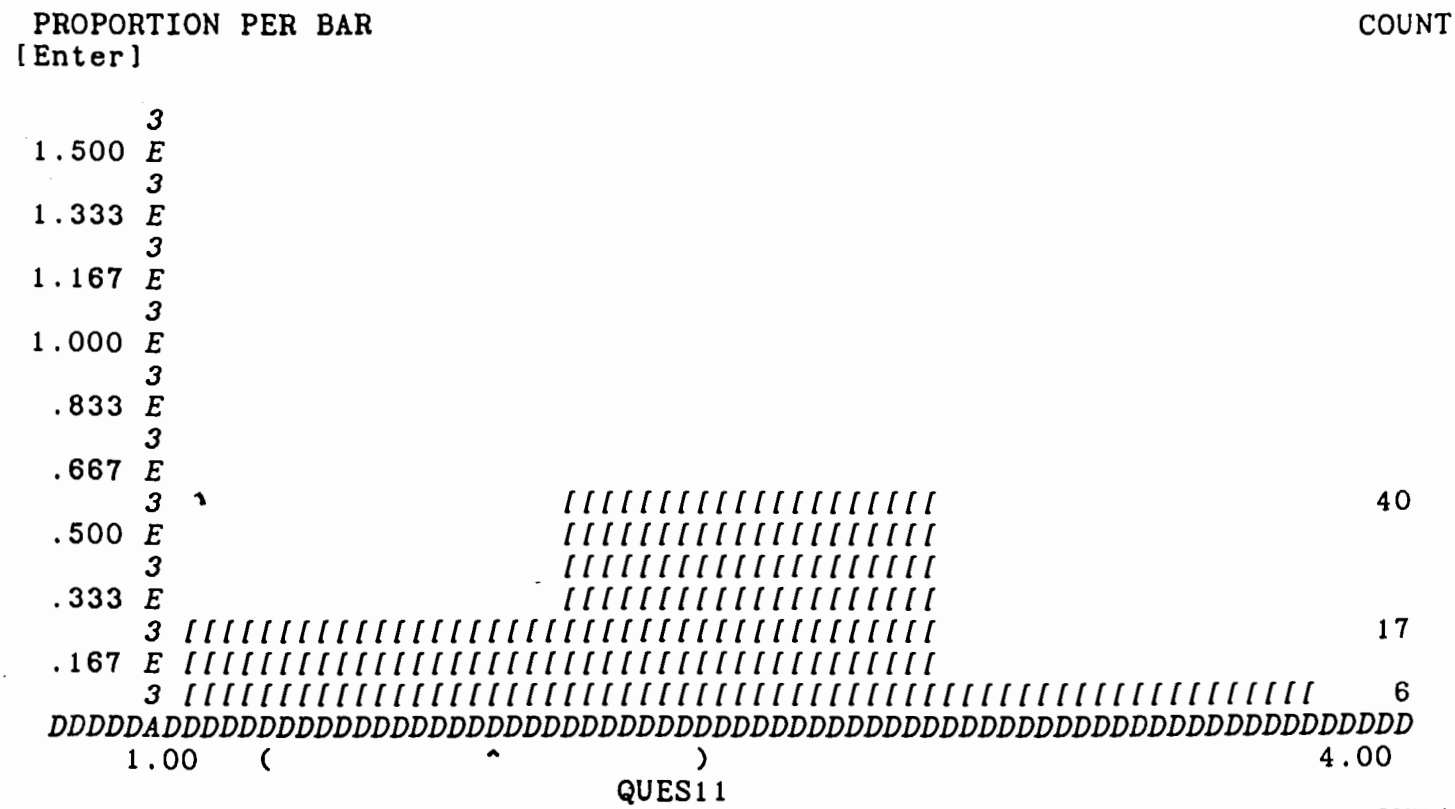
.200
.100
27
17
11
4
1.00
6.00
QUES10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.333
.167
40
17
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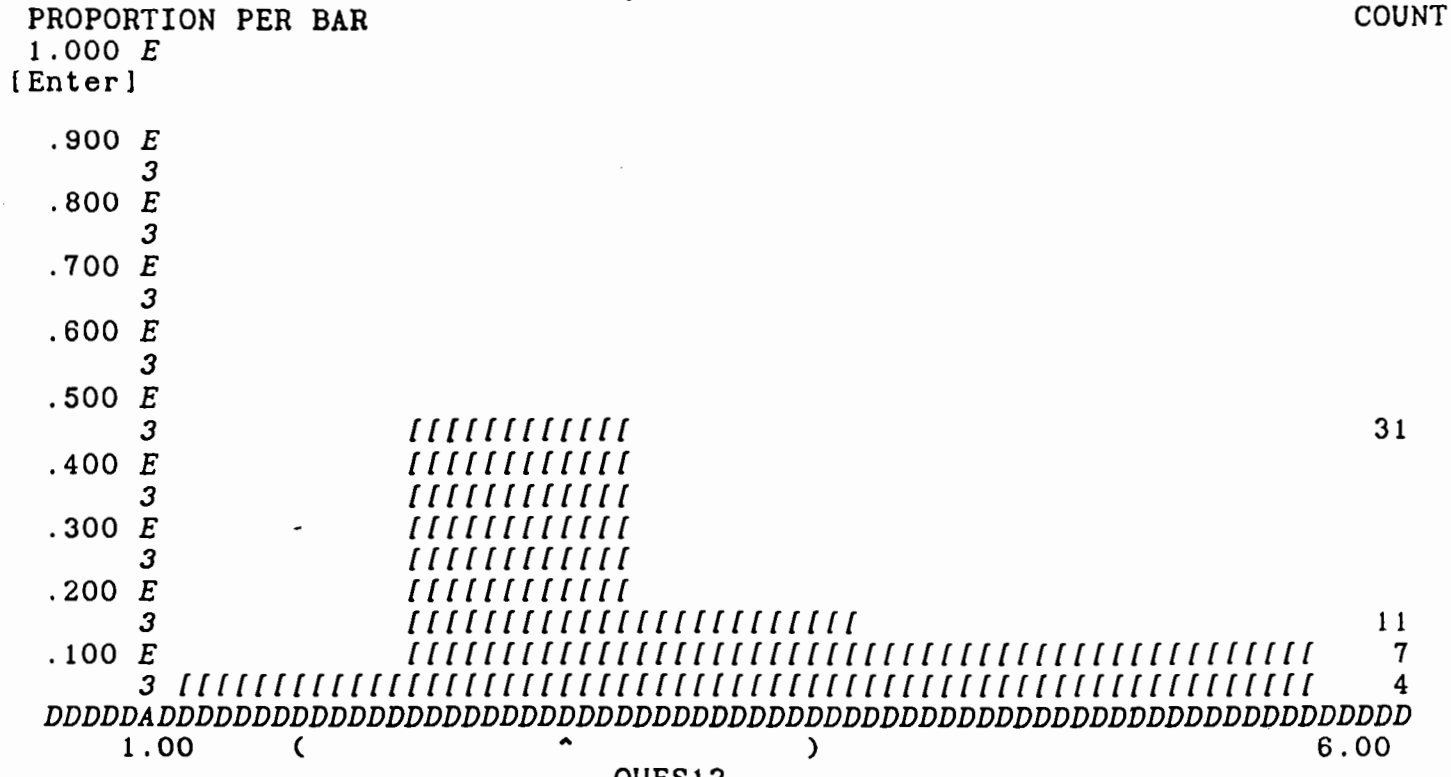
1.00
4.00
QUES11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11
7
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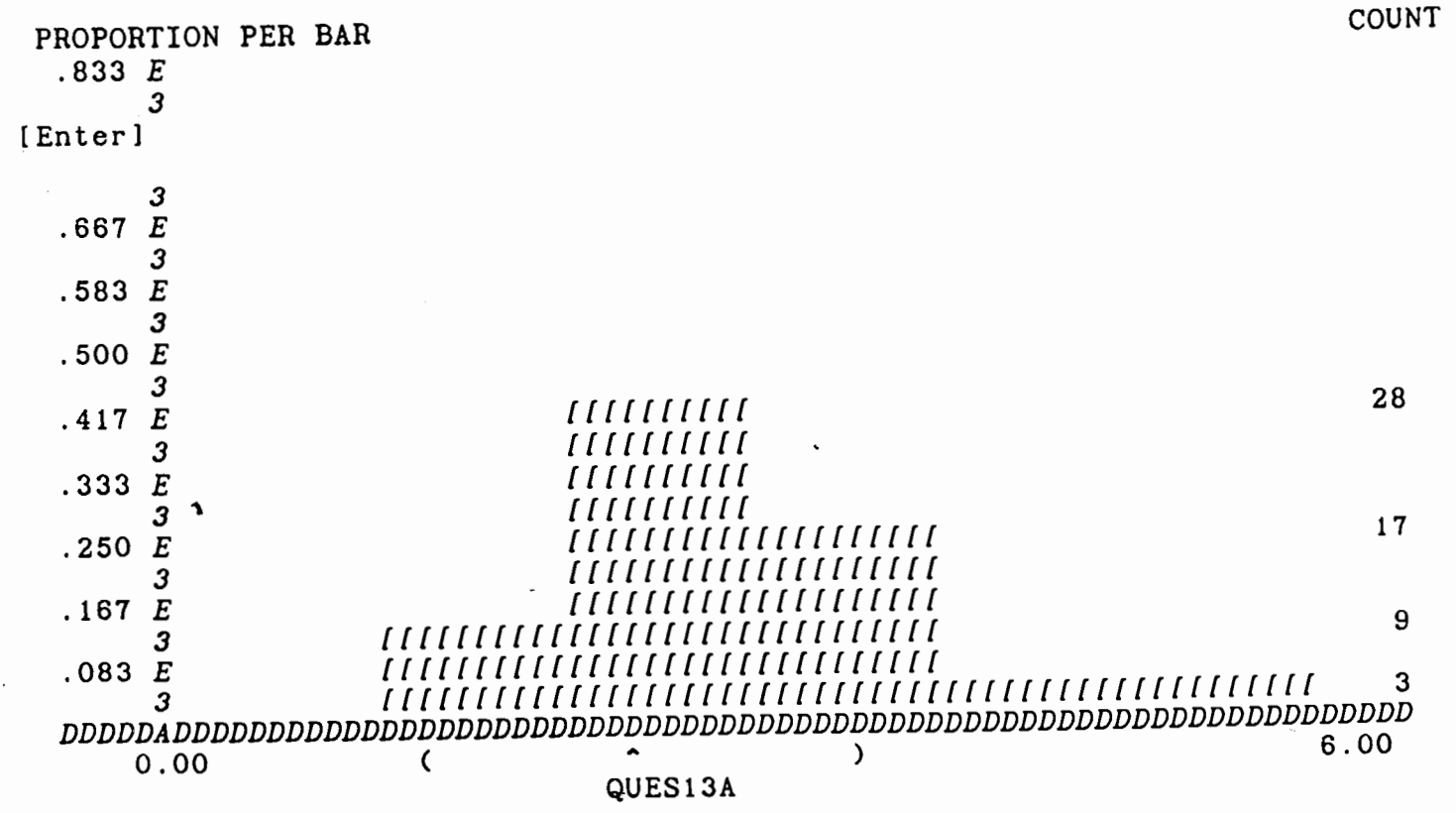
1.00
6.00
QUES12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.167 E
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.083 E
3
28
17
9
3
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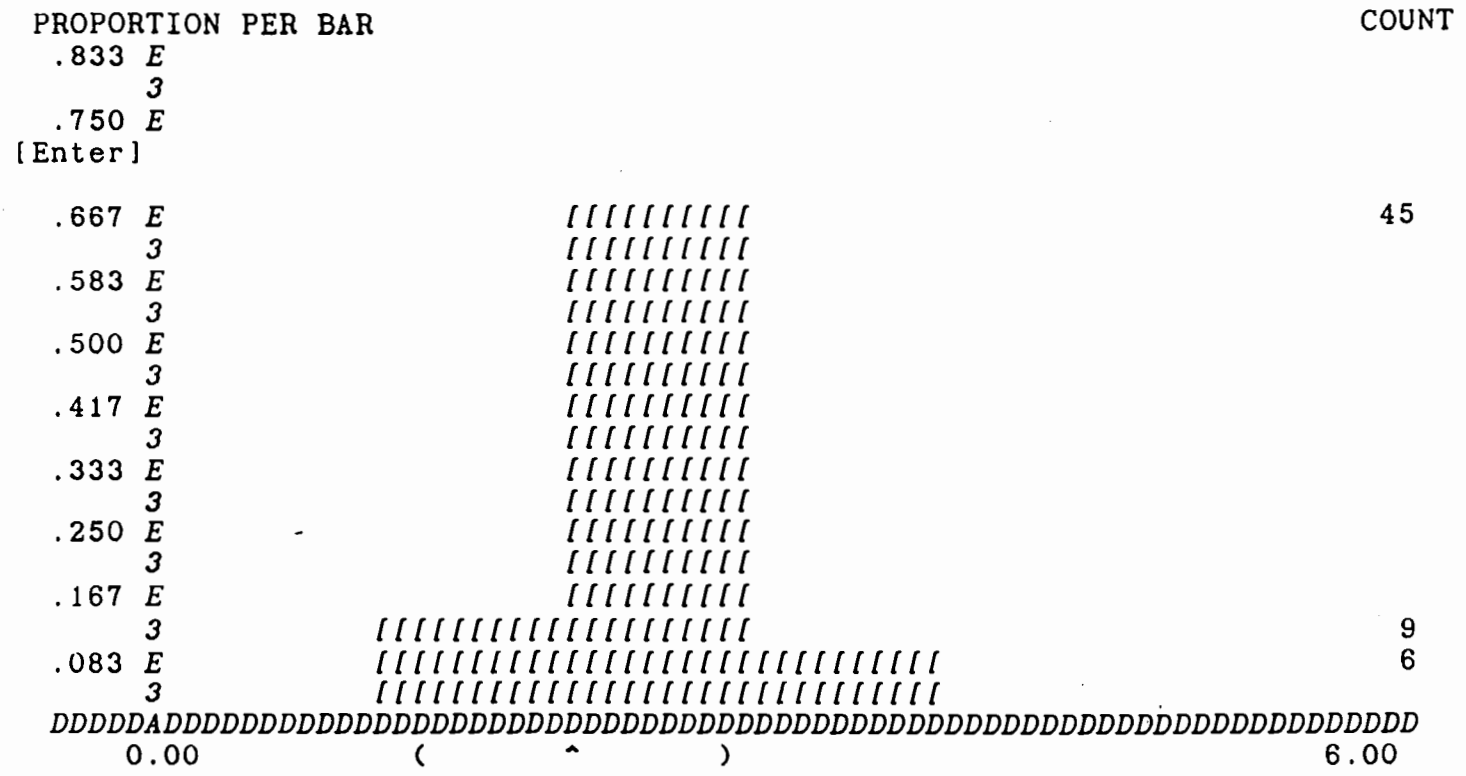
6.00
QUES13A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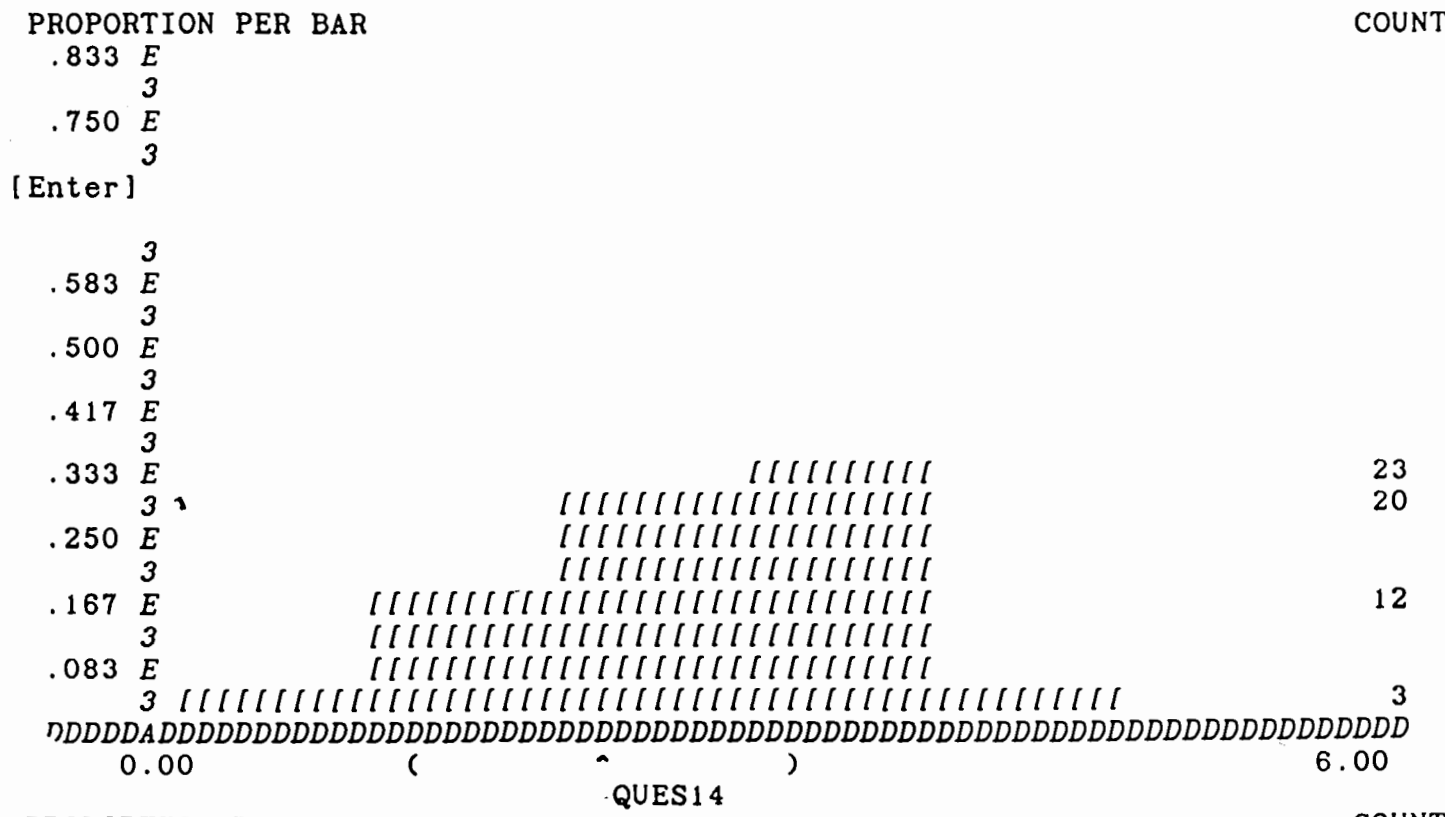
6.00
QUES13B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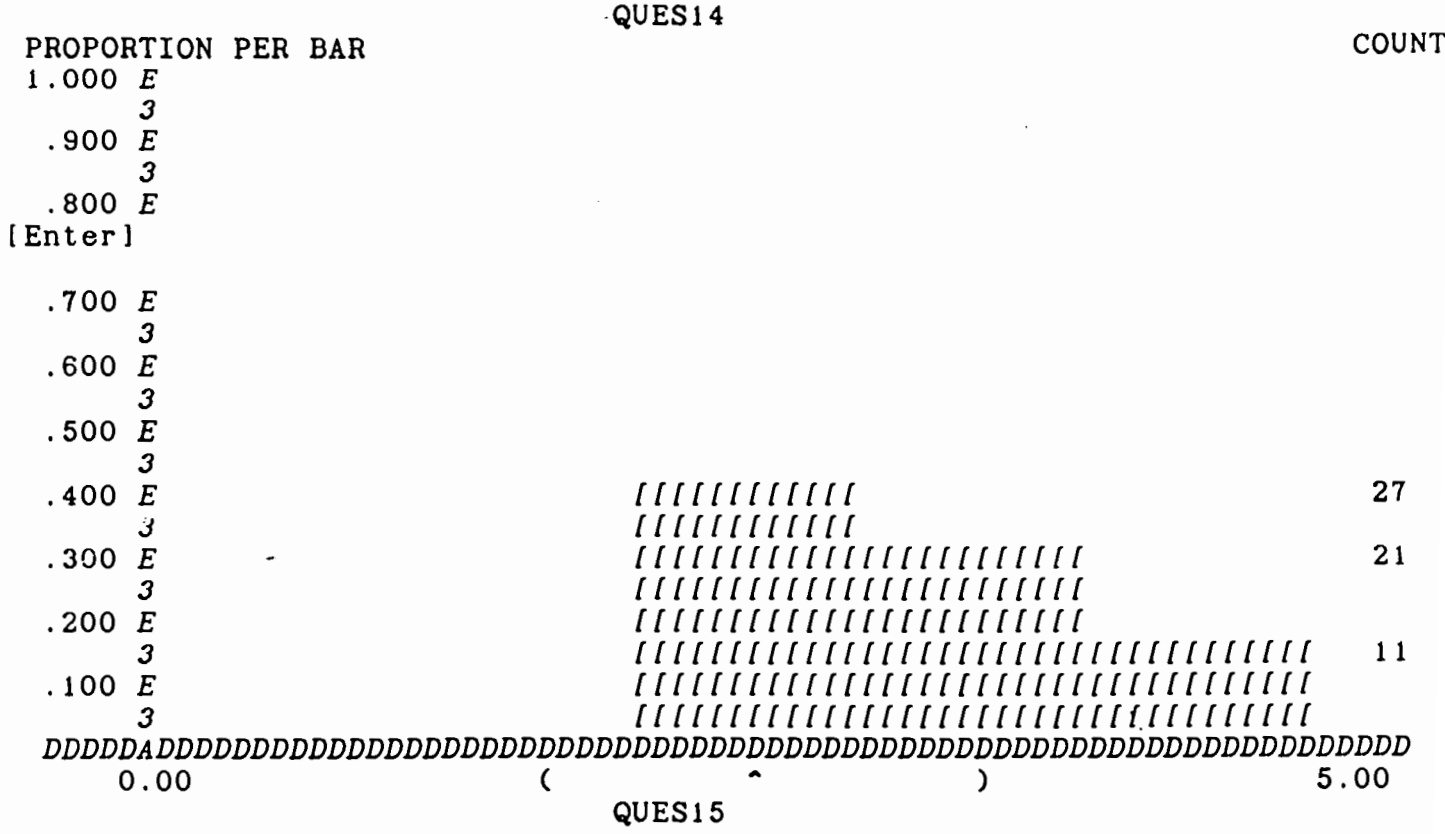
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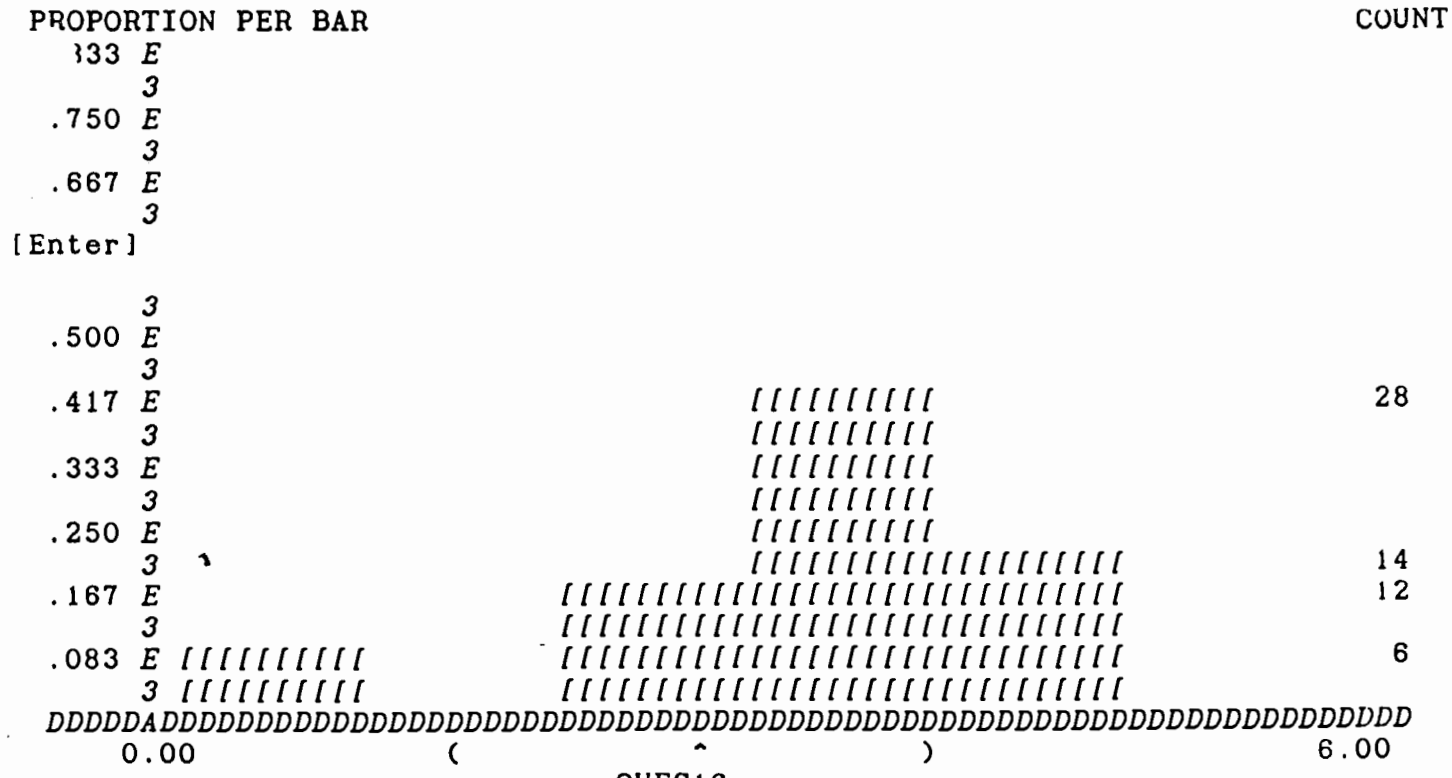
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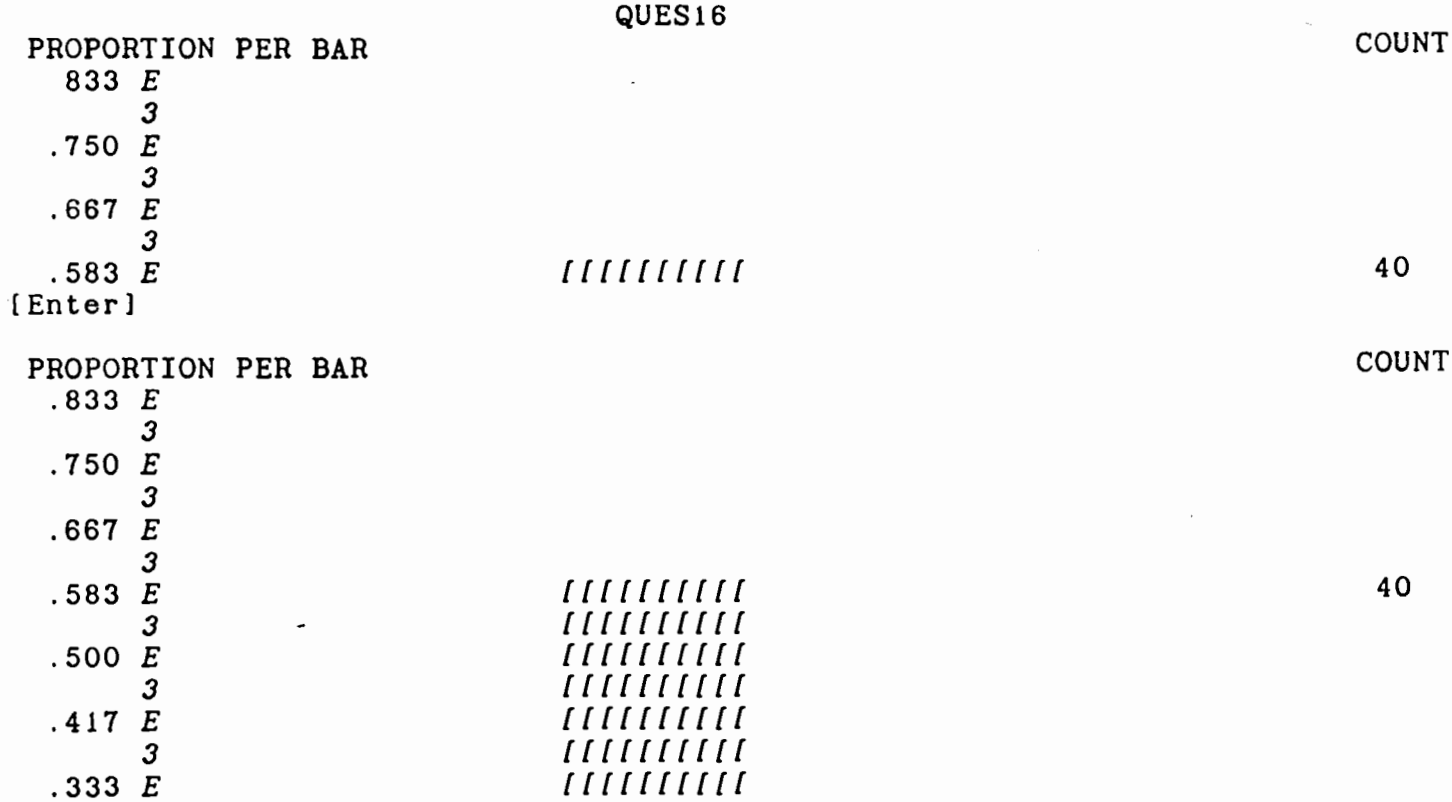
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PROPORTION PER BAR
COUNT
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.500
.417
.333
.250
14
167
.083
6
0.00
6.00
QUES17

TWO-SIDED PROBABILITIES FOR EACH PAIR OF VARIABLES

	QUES9	QUES10	QUES11	QUES12	QUES13A
QUES9	1.000				
QUES10	.000	1.000			
QUES11	.263	.000	1.000		
QUES12	.000	.532	.000	1.000	
QUES13A	.000	.671	.003	.212	1.000
QUES13B	.003	.006	.096	.000	.030
QUES14	.001	.470	.050	.005	1.000
QUES15	.000	1.000	.000	.643	.280
QUES16	.000	.243	.000	.885	.003

[Enter]

TWO-SIDED PROBABILITIES FOR EACH PAIR OF VARIABLES

	QUES9	QUES10	QUES11	QUES12	QUES13A
QUES9	1.000				
QUES10	.000	1.000			
QUES11	.263	.000	1.000		
QUES12	.000	.532	.000	1.000	
QUES13A	.000	.671	.003	.212	1.000
QUES13B	.003	.006	.096	.000	.030
QUES14	.001	.470	.050	.005	1.000
QUES15	.000	1.000	.000	.643	.280
QUES16	.000	.243	.000	.885	.003
QUES17	.000	.043	.008	.018	.607

	QUES13B	QUES14	QUES15	QUES16	QUES17
QUES13B	1.000				
QUES14	.109	1.000			
QUES15	.000	.025	1.000		
QUES16	.000	.000	.052	1.000	
QUES17	.151	.643	.000	.000	1.000

ɔN TEST RESULTS

COUNTS OF DIFFERENCES (ROW VARIABLE GREATER THAN COLUMN)

	QUES9	QUES10	QUES11	QUES12	QUES13A
QUES9	0	8	7	2	7
QUES10	41	0	34	18	27
QUES11	13	6	0	2	11
QUES12	39	23	36	0	25
QUES13A	34	23	31	16	0
QUES13B	23	12	13	5	11
QUES14	32	21	29	15	18
QUES15	44	20	38	19	25
QUES16	54	28	50	25	33
QUES17	35	11	24	10	15

	QUES13B	QUES14	QUES15	QUES16	QUES17
QUES9	6	10	6	11	10

[Enter]

QUES11	5	15	5	7	8
QUES12	33	36	23	23	25
QUES13A	25	19	17	12	19
QUES13B	0	14	7	6	11
QUES14	25	0	12	6	23
QUES15	33	27	0	10	29
QUES16	46	32	22	0	38
QUES17	20	19	6	8	0

FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE RESULTS FOR 67 CASES

VARIABLE	RANK SUM
QUES9	244.500
QUES10	412.500
QUES11	273.500
QUES12	444.000
QUES13A	380.500
QUES13B	307.500
QUES14	359.500
QUES15	432.500
QUES16	481.500
QUES17	349.000

ɔIEDMAN TEST STATISTIC = 86.668
ʌENDALL COEFFICIENT OF CONCORDANCE = .144

PROBABILITY IS .000 ASSUMING CHI-SQUARE DISTRIBUTION WITH 9 DF

APPENDIX F

Written Comments

Written Comments

Section V: Please provide comments to help in evaluating the Safety Focus Topics.

18. What is the best way to present this material?

*Department Safety Meetings.

*Handouts / open discussions from material presented.

*My opinion, using overheads and handing out copies of "Things to remember" such as the self inspection check list fro ladders to each employee.

*Take time to study material, then lay plan your method of presentation.

*Department Safety Meetings.

*I usually just read the information to the employees.

*A variety is always best.

*Handouts - some will show at home.

*Without a lot of overheads and excess material.

*Most of the materials I have received, have been very basic. Due to time constraints, the highlights are covered with little discussion or participation.

*Small groups, with overheads and flipcharts. It is also effective to have one of the other wage employees present the material. This requires that the material be well organized to minimize the preparation or research work.

*For all salary depts - handout and short discussion.

*Department meeting at our convience presented by the supervisor.

*The packet gives many options - says it all!

*Send or MS mail so people can read when they have time.

*Video or overhead.

*Graphs/charts - material for bulletin boards and handouts.

*Department Safety Meetings by supervisor.

*Handouts and overheads.

*One on One.

*Overheads.

*Monthly meetings.

*Overheads along with a handout.

*Since many people travel, routing the material covers everyone.

*Orally review.

*Discussion during a departmental meeting.

*In departmental meetings - providing they are held.

19. What changes would you like to see in the Safety Focus Topics?

*Include child safety materials.

*Evaluate the topics for relevance to all salary areas. Some topics like fork truck safety are hard for office people to relate to.

*More facts.

*(2) None.

*Less games - more how to improve actual safety when doing somethin. You can talk about safety until no one will listen. Make it intersting.

*Basically they are good. We usually tailor them to the time we have available.

*Shorter - 5-10 minutes maximum. Less detail.

*This ladder safety talk sheet is pretty good. Some of the other ones need more information. The statements are short and need somethin added but I do not have examples or stories to add.

*Focus on the real/accidents that are prevelant with Deere employees at work and outside work. How much does Deere spend for lost time non-work related accidents?

*Shorter and more direct.

*Tell us where to send a list of attendees.

*Don't treat adult workers like children.

*An 8 1/2 x 11 "poster" sign along with the message would be helpful.

*If used in a departmental meeting where other subjects are covered, the Safety Focus Topics is generally too long to adequately cover!

*Work place violence was timely (RNSTON) and generated a lot of discussion. Chemical, HAZMAT in your area, bloodborne pathogens, may be subjects needed by the plant populace.

*Made shorter.

*More TV Breaks - Lunch - Start of shift and end.

*Is there any information available regarding the causes of our accidents - maybe a better question is, "What are the contributing factors - age, time on job, time of day etc." should be some statistics on this.

*Too long.

*Have it dropped.

*Some of the Safety Focus Topics have been on subject material that gizzled old men are not very interest in.

*Fairly good comments with employee interest.

*A video to go with Safety Topic.

*Just keep the material coming and the material should be topics that we see and use both on the job and at home on a regular basis.

*I like it as is.

*Packet of overheads to building.

20. Is there a need for special training to use these materials?

*As someone who has never had a desire to teach, some help in further developing interest in topic and presentation.

*(21) No.

*Yes.

*None.

*No, although it is helpful to have some background knowledge or related experience.

*Basic presentation skills would be beneficial.

21. Any other comments or suggestions for the Safety Focus Topics:

*Regular (monthly) departmental meeting should be mandated by senior management to provide a forum to present safety issues and awareness.

*Shorten. No one wants to listen to 20 minutes of ladder safety. Most of the subject matter is too facts and figures, use more examples rather than percents and numbers.

*(2) No.

*Chemicals around home.

*As an off-shift supervisor, I sometimes have trouble getting the info on time from 1st shift supervisor. Should supervisor on off-shifts have them mailed direct or placed on E-Mail?

*You have some good material, but shorten up.

*This is the first Safety Focus Topics I gotten this year 94 or 95.

*Select topics that are more appropriate for an old workforce of men.

*Have a short lite (or a little humor) video on the safety focus topic. Keep them coming!

*Drop it and let supervisors pick their own topic to deal with safety issues in the department.

*Keep them coming and about topics relative.

APPENDIX G

Survey Response Data
Questions 9-17

Section III: Using the Safety Focus Topic that is attached (Ladder Safety), please rate the statements by placing a number in the blank at the left of each item.

1 = strongly agree
2 = agree
3 = neutral
4 = disagree
5 = strongly disagree

_____ 9. The objectives are clearly stated and easy to understand.

_____10. The topic pertains to employees in my department.

_____11. The outline is easy to read and follow.

_____12. The time allotted is appropriate.

_____13. The required media materials (overhead projectors, white board, flip charts) are easy to obtain/or use.

Section IV: If you have previously used Safety Focus Topics, please rate the questions by placing a number in the blank at the left of each item.

1 = strongly agree
2 = agree
3 = neutral
4 = disagree
5 = strongly disagree

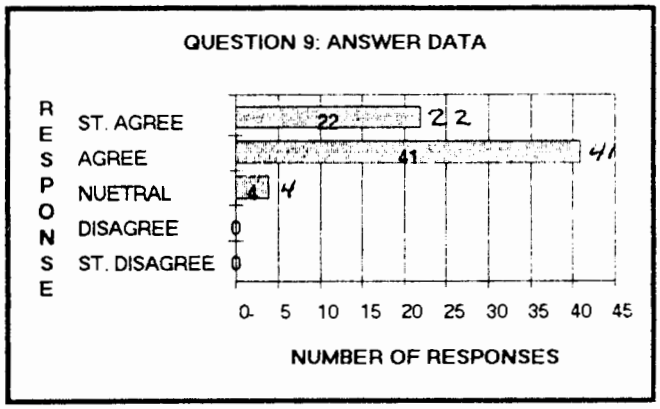
_____13. The materials are user friendly

_____14. The use of overheads increased training success.

_____15. Discussion did develop as a result from using the materials.

_____16. The use of a white board/flip chart increased training success.

_____17. Information included in the materials has resulted in a better awareness of safety practices in the plant or outside at home.


QUESTION 9: ANSWER DATA
RESPONSE
ST. AGREE
AGREE
NUETRAL
DISAGREE
ST. DISAGREE
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41
4
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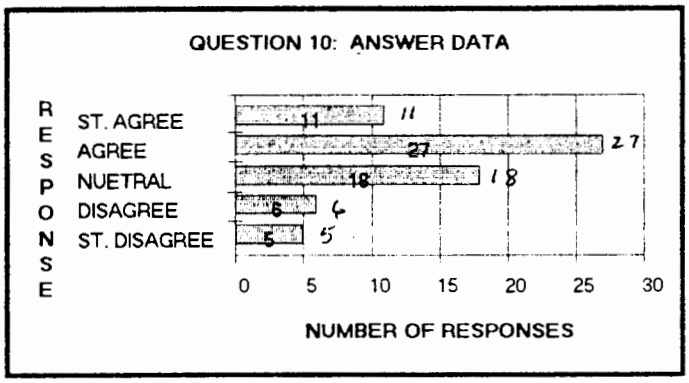
0 5 10 15 20 25 30 35 40 45
NUMBER OF RESPONSES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RESPONSE
ST. AGREE
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NUETRAL
DISAGREE
ST. DISAGREE
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6
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0 5 10 15 20 25 30
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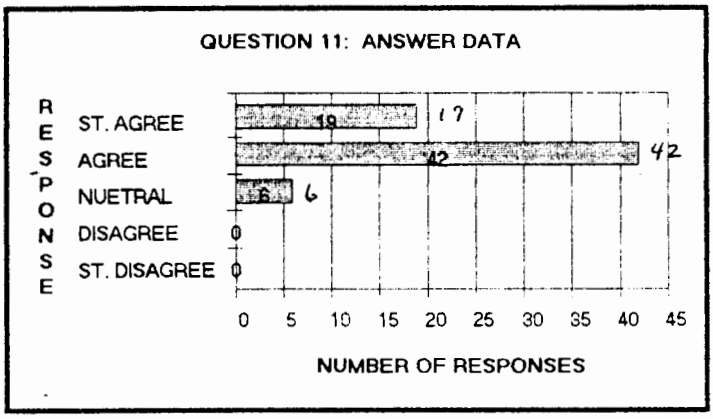
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DISAGREE
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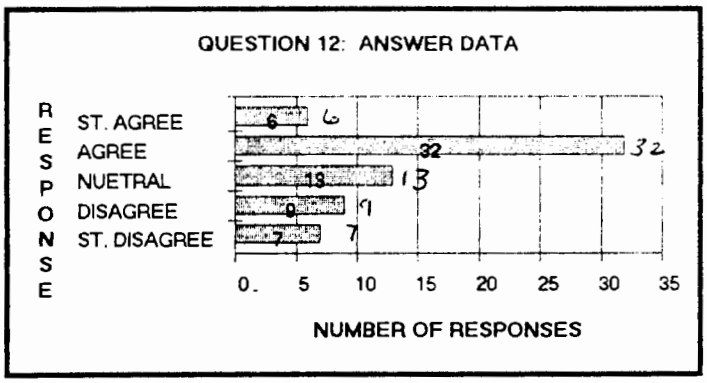
NUMBER OF RESPONSES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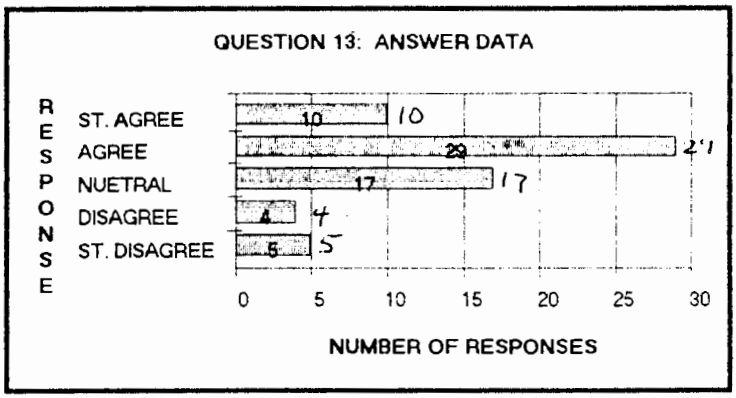
15
20
25
30
35
NUMBER OF RESPONSES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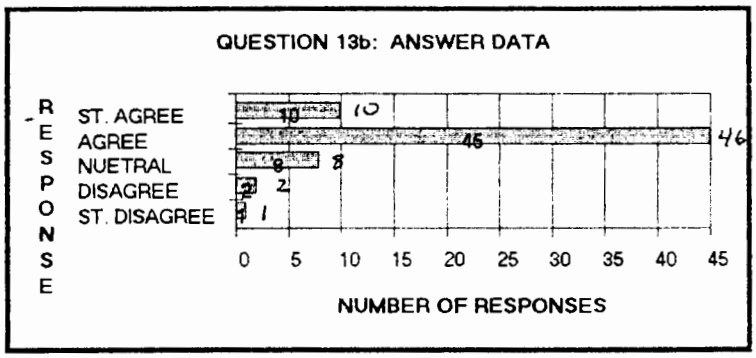
20
25
30
NUMBER OF RESPONSES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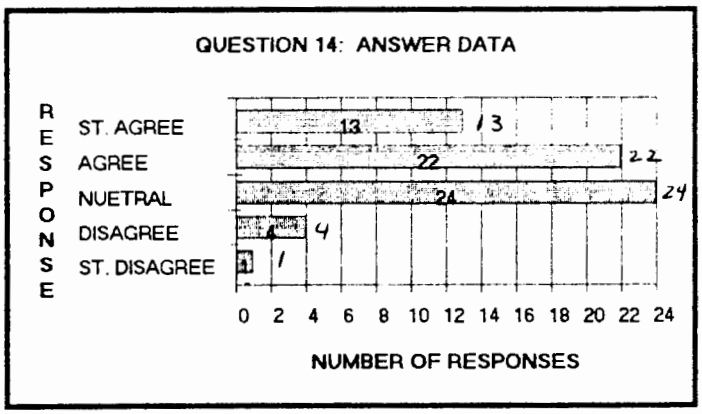
35
40
45
NUMBER OF RESPONSES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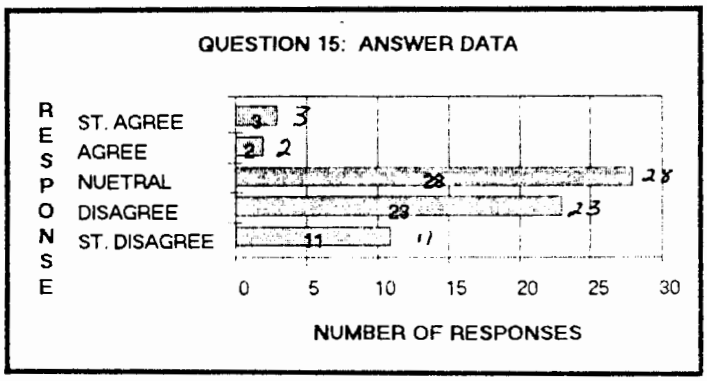
NUMBER OF RESPONSES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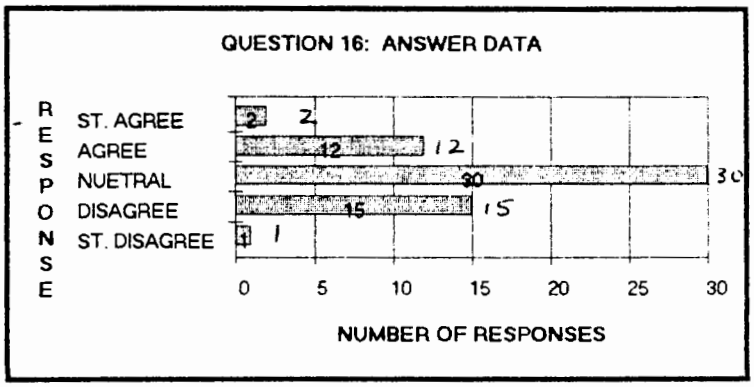
0 5 10 15 20 25 30
NUMBER OF RESPONSES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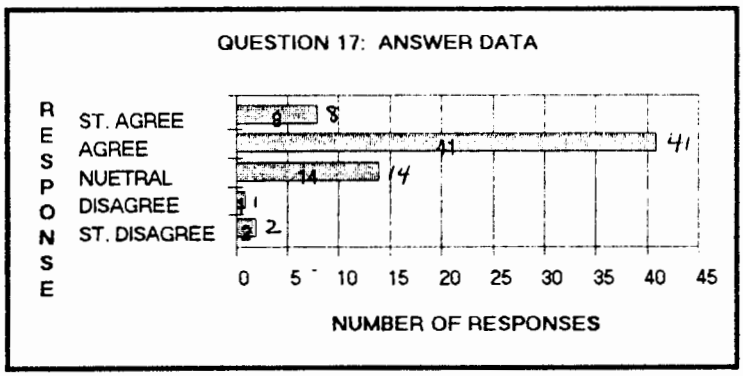
NUMBER OF RESPONSES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ST. AGREE
AGREE
NUETRAL
DISAGREE
ST. DISAGREE
8
41
14
1
2
0 5 10 15 20 25 30 35 40 45
NUMBER OF RESPONSES

The University of Northern Iowa

February 3, 1995

Cynthia Houlson

Cedar Falls, IA 50613

Dear Cynthia Houlson:

Your project, "The Effects of Specific Training Materials on First Line Supervisors' Perception of Their Role As A Safety Trainer", which you submitted for human subjects review on January 31, 1995, has been determined to be exempt from further review under the guidelines stated in the UNI Human Subjects Handbook. You may commence participation of human research subjects in your project.

Your project need not be submitted for continuing review unless you alter it in a way that increases the risk to the participants. If you make any such changes in your project, you should notify the Graduate College Office.

If you decide to seek federal funds for this project, it would be wise not to claim exemption from human subjects review on your application. Should the agency to which you submit the application decide that your project is not exempt from review, you might not be able to submit the project for review by the UNI Institutional Review Board within the federal agency's time limit (30 days after application). As a precaution against applicants' being caught in such a time bind, the Board will review any projects for which federal funds are sought. If you do seek federal funds for this project, please submit the project for human subjects review no later than the time you submit your funding application.

If you have any further questions about the Human Subjects Review System, please contact me. Best wishes for your project.

Cordially,

David A. Walker, PhD
Associate Dean/Human Subjects Coordinator

cc: Dr. Norris M. Durham
Chair, Institutional Review Board
Dr. Roger Betts
Dr. Charles Johnson