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# An Analysis of the Methods Utilized in Business and Industrial Organizations by West Virginia Training Professionals to Identify Organizational Training Needs and Evaluate Training Effectiveness

Jody L. Christian

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An Analysis of the Methods Utilized in Business and Industrial Organizations  
by West Virginia Training Professionals to Identify Organizational Training Needs  
and Evaluate Training Effectiveness

A Master's Thesis  
submitted to  
the Graduate College of  
Marshall University

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science in Adult and Technical Education

by  
Jody L. Christian  
December 2001

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS .....	iii
LIST OF TABLES .....	vii
LIST OF FIGURES .....	viii
Organizational Needs Analysis .....	viii
Individual Needs Analysis .....	viii
Satisfaction Evaluation .....	ix
Learning Evaluation .....	ix
Behavior Evaluation .....	ix
Results Evaluation .....	x
ABSTRACT .....	xi
CHAPTER 1 .....	1
Introduction .....	1
Statement of the Problem .....	1
Justification for the Study .....	2
Assumptions .....	3
Research Questions .....	3
Limitations to the Study .....	4
Definition of Terms .....	4
Organization of the Study .....	8
CHAPTER 2 .....	9
Review of Related Literature .....	9

Adult Learners .....	9
Training Needs Analysis.....	9
Training Evaluation .....	10
Training Needs Analysis Methods.....	13
Training Evaluation Methods .....	13
Summary.....	14
CHAPTER 3 .....	15
Procedures.....	15
Research Design.....	15
Population and Sample .....	16
Instrumentation .....	17
Procedural Details.....	17
Data Analysis .....	18
Summary.....	18
CHAPTER 4 .....	19
Analysis.....	19
Sample Returns .....	19
Demographic Data .....	20
Frequency of Usage by Organizational Needs Analysis.....	25
Frequency of Usage by Individual Needs Analysis.....	31
Frequency of Usage by Satisfaction Evaluation .....	37
Frequency of Usage by Learning Evaluation.....	40
Frequency of Usage by Behavior Evaluation .....	45

Frequency of Usage by Results Evaluation .....	53
Frequency of Usage by Training Needs Analysis.....	56
Frequency of Usage by Training Evaluation Level .....	56
Analysis of Relationships Utilizing Two-Dimensional Chi-Square Test.....	57
Summary .....	58
CHAPTER 5 .....	59
Findings, Conclusions, and Recommendations .....	59
Discussion of Findings.....	59
Training Needs Analysis Methods.....	60
Evaluation Methods .....	61
Qualitative Data .....	64
Conclusions.....	68
Recommendations.....	70
REFERENCES .....	71
APPENDIX.....	73
Initial Cover Letter for Training Leader .....	74
Second Cover Letter for Training Leader.....	75
Survey .....	76

## LIST OF TABLES

Table	Page
1. Demographic Distribution of Respondents.....	21
2. Demographic Data on Organizations.....	23
3. Frequency professional trainers in West Virginia use training needs analysis.....	56
4. Frequency professional trainers in West Virginia use evaluation methods.....	56
5. Distribution of Education Level and On-the-Job Observation Method.....	57
6. Distribution of Years in Current Position and Electronic Survey of Peers Method.....	57



## LIST OF FIGURES

Figure	Page
<b>Organizational Needs Analysis</b>	
1. Frequency of usage of supervisor suggestions.....	25
2. Frequency of usage of surveying employees .....	26
3. Frequency of usage of testing employees .....	26
4. Frequency of usage of observing employees .....	27
5. Frequency of usage of interviewing employees.....	27
6. Frequency of usage of interviewing employee subordinates .....	28
7. Frequency of usage of interviewing employee peers.....	28
8. Frequency of usage of interviewing employee customers .....	29
9. Frequency of usage of focus group feedback .....	29
10. Frequency of usage of analyzing documents .....	30
<b>Individual Needs Analysis</b>	
11. Frequency of usage of supervisor suggestions.....	31
12. Frequency of usage of surveying employees .....	32
13. Frequency of usage of testing employees .....	32
14. Frequency of usage of observing employees .....	33
15. Frequency of usage of interviewing employees.....	33
16. Frequency of usage of interviewing employee subordinates .....	34
17. Frequency of usage of interviewing employee peers.....	34
18. Frequency of usage of interviewing employee customers .....	35
19. Frequency of usage of focus group feedback .....	35

Figure	Page
20.	Frequency of usage of analyzing documents .....36

### Satisfaction Evaluation

21.	Frequency of usage of survey – paper/pencil .....37
22.	Frequency of usage of survey – electronic .....38
23.	Frequency of usage of patterned interview – personal .....38
24.	Frequency of usage of patterned interview – telephone .....39

### Learning Evaluation

25.	Frequency of usage of post-test – paper/pencil.....40
26.	Frequency of usage of pre-test – paper/pencil .....41
27.	Frequency of usage of post-test – electronic.....41
28.	Frequency of usage of pre-test – electronic .....42
29.	Frequency of usage of patterned interview – personal .....42
30.	Frequency of usage of patterned interview – telephone .....43
31.	Frequency of usage of on-the-job observation.....43
32.	Frequency of usage of final project .....44
33.	Frequency of usage of document analysis .....44

### Behavior Evaluation

34.	Frequency of usage of paper/pencil survey – trainee.....45
35.	Frequency of usage of paper/pencil survey – supervisors .....46
36.	Frequency of usage of paper/pencil survey – subordinates .....46
37.	Frequency of usage of paper/pencil survey – peers .....47

Figure	Page
38. Frequency of usage of paper/pencil survey – customers .....	47
39. Frequency of usage of electronic survey – trainee.....	48
40. Frequency of usage of electronic survey – supervisors .....	48
41. Frequency of usage of electronic survey – subordinates .....	49
42. Frequency of usage of electronic survey – peers .....	49
43. Frequency of usage of electronic survey – customers .....	50
44. Frequency of usage of classroom observation .....	50
45. Frequency of usage of check-off sheet for supervisor .....	51
46. Frequency of usage of on-the-job observation.....	51
47. Frequency of usage of document analysis .....	52

## Results Evaluation

48. Frequency of usage of comparison with control group .....	53
49. Frequency of usage of comparison with figures .....	54
50. Frequency of usage of comparison with surveys .....	54
51. Frequency of usage of comparison with performance review forms.....	55

## ABSTRACT

As technology advances and job requirements change, how do business and industrial organizations know if the training they provide is actually the training their employees need? With limited training dollars, are organizations effectively targeting their training needs? How do organizations know that the training program is producing value to the organization? What methods do business and industrial organizations use to assess the training's value? Additionally, are these organizations evaluating their training courses to determine whether they are effectively meeting the needs of their employees? This research project has addressed these types of issues and identified various methods used to conduct training needs analysis along with numerous evaluation tools utilized in business and industrial organizations by training professionals in the state of West Virginia. Results and actions taken by companies that are directly related to the use of training needs analysis and training evaluation are also included in this study.

## CHAPTER 1

# Introduction

It is the goal of Human Resource departments to build the organization's talent pool through recruitment and hiring efforts. Hiring the best-qualified candidate who can perform the duties of the job is imperative; however, during times of organizational change, recruitment is not enough. As job duties are modified and/or the minimum level of performance is increased, organizations must change their focus from recruitment to building and sustaining competencies needed to achieve high performance of mission and goals.

Determining organizational training needs and knowing whether or not training met those needs is a question that has plagued many organizations from the very top of the organizational chart down to the human resource personnel who provide the training. As more and more business and industrial organizations re-organize, downsize, and expand, the need arises for new training and/or retraining of adult workers. As training dollars become scarce, ensuring that all employees can proficiently perform the duties of their current job and/or future positions in the workplace has become a crucial challenge.

### *Statement of the Problem*

As technology advances and job requirements change, how do business and industrial organizations know if the training they provide is actually the training their employees need? With limited training dollars, are organizations effectively targeting their organizational and individual training needs?

How do organizations know that the training program is producing value to the organization? What methods do business and industrial organizations use to assess the training's value? Additionally, are these organizations evaluating their training courses to determine whether they are effectively meeting the needs of their employees?

This study has identified the extent training professionals in the state of West Virginia are using training needs analysis and evaluation methods; as well as, how the use of such tools has aided these organizations in providing effective training programs.

### *Justification for the Study*

If employees are trained to perform duties and tasks unrelated to the responsibilities of their position, training dollars are being wasted. If employees were able to proficiently perform the duties and tasks before attending the training course, training dollars are being wasted. If the training facility is not adequate, the instructor is unable to relate the new information in ways that would increase the trainee's knowledge, or if employees do not use their new knowledge on the job when they return from attending the training course, training dollars are not being expended at the maximum level of efficiency.

This research project has addressed these types of issues and identified various methods used to conduct training needs analysis along with numerous evaluation tools utilized in business and industrial organizations by training professionals in the state of West Virginia. Results and actions taken by companies that are directly related to the use of training needs analysis and

training evaluation are also included in this study. Results obtained from this research project provide an insight companies can use in their effort to employ efficient and effective training programs in the state of West Virginia.

### *Assumptions*

It is assumed in the study that 1) since the surveys will be completed by individuals in charge of company training programs, all the questions asked will be understandable; 2) since the subjects are all working in the state of West Virginia, the geographical area is similar for all subjects; and 3) Since subjects will participate anonymously, all data obtained is given in an honest manner.

### *Research Questions*

1. What methods do business and industrial organizations use to determine what organizational training is needed?
2. What methods do trainers use to determine individual training needs prior to conducting the training?
3. How do trainers evaluate the effectiveness of their training programs?
4. What actions have business and industrial organizations taken as a result of the training evaluation analysis?
5. What results have business and industrial organizations noted as being directly related to the use of training needs analysis?
6. What results have business and industrial organizations noted as being directly related to the use of training evaluations?

### *Limitations to the Study*

The findings and conclusions reached in the study are limited by 1) the descriptive design of the study, and 2) to training programs in the state of West Virginia.

### *Definition of Terms*

The following terms were defined for use in the study:

1. *Analyzing Documents*: To examine methodically written or printed-paper that bears the original, official, or legal form of something for the purpose of identifying training needs.
2. *Behavior Change*: A conspicuous difference of the trainee's use of a specific skill, knowledge, or attitude after training attendance.
3. *Check-off Sheet for Supervisors*: A document having a pre-set list of questions/actions that a supervisor answers/checks-off as each pertain to the employee.
4. *Classroom Observation*: The act of noting and recording pertinent information with instruments based on an inference or a judgment.
5. *Comparison with Control Group*: 1. The act of comparing; an examination of two or more groups of employees with the view of discovering the resemblances or differences after the training was presented to one group. 2. An experiment that isolates the effect of training on one group by holding constant all variables but training with a second group during observation.
6. *Comparison with Figures*: An experiment that examines hard data (output, time, quality, cost, etc.) related to the training course in the organization before and after training with the view of discovering the resemblances or differences after the training was presented to employees.



7. *Comparison with Performance Review Forms:* An experiment that examines supervisor's appraisal of employees in the organization before and after training with the view of discovering the resemblances or differences after the training was presented to employees.
8. *Comparison with Surveys:* An experiment that examines soft data (customer satisfaction, efficient use of human resources, etc.) related to the training course in the organization before and after training with the view of discovering the resemblances or differences after the training was presented to employees.
9. *Competency Gap:* A conspicuous difference or imbalance of a specific range of skill, knowledge, or attitude.
10. *Contract Training:* To enter into or make an agreement, to acquire training from a source other than the organization for which you are associated.
11. *Document Analysis:* The act of reviewing employee outputs in the form of documents to identify areas in which performance gaps occur.
12. *Evaluation:* The process of examining training or training components to determine the extent to which specified properties are present. A procedure for solving a problem that involves collection of data, processing, and presentation of results.
13. *Final Project:* An extensive task undertaken by a trainee or group of trainees to apply, illustrate, or supplement classroom lessons.
14. *Focus Group Feedback:* The responses of a small group selected from a wider population and sampled, as by open discussion, for its members' opinions about a particular subject or area.

15. *Individual Needs Assessment*: The act of determining a conspicuous difference or imbalance of a specific range of skills, knowledge, or attitudes relating to the individual.
16. *Individual Training Needs*: A lack of skill, knowledge, or attitude required or desired for an individual.
17. *In-house Training*: To acquire training from a source within the organization for which you are associated.
18. *Interviewing*: A conversation, such as one conducted by a reporter, in which facts or statements are elicited from a selected individual affected by the behaviors of the employee.
19. *Learning*: 1. To gain knowledge, information, comprehension, skill, or mastery of through experience or study. 2. The skill, knowledge or attitude conveyed by instruction or study.
20. *Observing Employees*: To watch attentively for the purpose of finding out specific behaviors of the employee.
21. *On-the-job Observation*: To watch attentively for the purpose of finding out specific behaviors displayed by employees on the job.
22. *Organizational Needs Assessment*: The act of determining a conspicuous difference or imbalance of a specific range of skills, knowledge, or attitudes relating to the organization as a whole.
23. *Organizational Training Needs*: A lack of skill, knowledge, or attitude required or desired for the organization as a whole.
24. *Patterned Interview*: A document having a pre-set list of questions that remain the same and are asked to a selected individual.

25. *Performance Management System* – A process that tracks and reports the organizations act of performing; the carrying into execution or action; execution; achievement; accomplishment; representation by action.
26. *Post-test*: A series of questions or problems designed to identify the trainee's gained knowledge, skill, and/or attitude, completed by the trainee after attending the training course.
27. *Pre-test*: A series of questions or problems designed to identify the trainee's knowledge, skill, or attitude, completed by the trainee before s/he attends the training course.
28. *Results*: The organizational benefit or consequence of a training course; an outcome.
29. *Supervisor Suggestions*: A proposal, declaration of a plan for something by one who makes decisions or exercises authority.
30. *Survey*: Multiple choice or short answer questions distributed to one individual or a particular group of individuals for the purpose of examining specific components in a comprehensive way.
31. *Trainee Satisfaction*: The measurement of how trainee's feel about one or more of the following: the facilities; the schedule; the methods of instruction; the instructor's ability; visual aids; handouts; the value trainees place on individual aspects of the training program.
32. *Training Analysis*: The separation of training as a whole into its constituent parts for individual study.
33. *Training Needs Analysis Methods*: Ways in which to accomplish the act of determining a conspicuous difference or imbalance of a specific range of skills, knowledge, or attitudes relating to individuals within the organization or the organization as a whole.

34. *Training Needs Analysis*: The act of determining a conspicuous difference or imbalance of a specific range of skills, knowledge, or attitudes relating to the individuals within the organization or the organization as a whole.

### *Organization of the Study*

The study was organized into five chapters:

Chapter 1 contains the introduction, statement of the problem, purpose of the problem, research questions, significance of the study, limitations, basic assumptions, definition of terms, and organization of the study.

Chapter 2 contains a review of related literature on methods of training needs analysis and evaluation methods used in business and industrial organizations.

Chapter 3 contains the procedures and design of the research, which include research population and sample, research design, and instrumentation.

Chapter 4 contains the findings of the research and analysis of the obtained data.

Chapter 5 contains conclusions of the study, recommendations of the study, and suggestions for further research.

## CHAPTER 2

### Review of Related Literature

This review begins with an overview of adult learning, training needs analysis, and training program evaluation. A variety of methods to analyze training needs and conduct training program evaluations in business and industrial organizations are then reviewed.

#### *Adult Learners*

“People are assets whose value can be enhanced through investment” (GAO, 2000). Organizations often make investments in education, training, and other developmental opportunities to help their employees build necessary competencies. It should be noted, “learning is a self-activity” (Broadwell, 1977). Therefore, the “voluntary nature of participation by adult learners also means that such participation can easily be withdrawn if learners feel that the activity does not meet their needs, does not make any particular sense, or is conducted at a level that is incomprehensible to them” (Brookfield, 1986).

#### *Training Needs Analysis*

“Wasteful spending on unnecessary courses” was a major problem faced by the Department of Energy who spent “close to \$300 more per employee on training than major private sector companies” (Saldarini, 1999). Specific identification of training needs is a fundamental feature of conducting a training needs analysis. The product of the training needs analysis will “link improved performance with the organization’s goals” (Swist, 2001). Employing a training needs analysis process will identify what knowledge, skills, and attitudes

are relevant to organizational and individual success, determine organizational and individual competency gaps, and recommend an appropriate solution for closing the identified performance gap. Such a process identifies the objectives for the training program (Carlisle, 1986) and provides baseline data that can be used during the evaluation process to determine if training had an impact on the organization.

According to Sparhawk (1994), training needs analysis ensures you know “where the target is.” One can determine what the cause of the problem is by gathering data and analyzing the information about the situation. By conducting such a training needs analysis, not only do you “find out where the target is, but how large the target is, how far away the target is, what kind of arrows to use for the target, who should shoot the arrows, when you should shoot the arrows, along with warnings about crosscurrents.” Sparhawk also states, “The most important reason for doing a needs analysis is to assure that your training addresses your situation.”

### *Training Evaluation*

Many organizations spend considerable time and money on the presentation of training information, but give little attention to evaluating the training’s overall effectiveness. “Historically, evaluation often stops after determining what the participants felt about the training” (Wade, 1998). This type of evaluation asks the following types of questions: 1) Did you (trainee) find the facilitator knowledgeable, helpful, and motivating, and/or 2) Did you (trainee) find the program design and learning materials appropriate, interesting, and usable? (Wade, 1998). However, to effectively evaluate training programs, trainers must reach beyond this superficial layer of trainee satisfaction.

According to Kirkpatrick (1998), there are four levels of evaluation that must be built into your training plan during the development stage. Kirkpatrick (1998) coins the following terms for these levels in his book Evaluating Training Programs:

Level 1 – Reaction

Level 2 – Learning

Level 3 – Behavior

Level 4 – Results

Level 1 evaluates the trainee's immediate reaction to the course, instructor, and the training environment. Level 2 indicate whether or not learning occurred as a result of the training program. Level 3 seeks to determine if the trainee's behavior has changed on the job as a result of the training program. And level 4 analyzes the overall results of the training program, seeking to reveal how the training program impacted the organization.

Kirkpatrick (1998) argues that evaluation is not complete without all four levels. He states, "Each level is important and has an impact on the next level. As you move from one level to the next, the process becomes more difficult and time-consuming, but it also provides more valuable information."

Wade (1998) also advocates four different and distinct measurements similar in nature to Kirkpatrick's theory in her book Measuring The Impact Of Training. Wade (1998) combines the measurement of Level 1 and 2 into one measurement called Program Response. This

measurement looks at two types of responses: *response to*, and *response from*. *Response to* evaluates the participant's reaction to the training program itself. *Response from* is an evaluation of participant learning. Wade measures On-the-Job Action next; which is similar to Kirkpatrick's Level 3. This assessment seeks to find out what action the trainees are taking as a result of the training.

Wade's (1998) third and fourth measurements, Business Focused Results and Organizational Impact, are similar to Kirkpatrick's Level evaluation when combined. Business-Focused Results can be placed in either hard or soft measurement categories. For example, the hard category includes time, output, quality, cost, etc.; while the soft category includes work practices, team skills, initiative, culture, and so on. This evaluation provides the link between training and business-focused results. Organizational Impact, however, examines broader impacts such as customer satisfaction, efficient use of human resources, and financial impact. Each level, or type, of evaluation provides separate and distinct benefits. When these benefits are combined, they produce an efficient and effective training program.

“No one would open a new office, roll out a new application or even hire a new employee without knowing—not thinking, not guessing, not wishing and hoping, but knowing—they were getting something back. To do otherwise would be bad business. But in the area of IT training, it happens all the time,” according to Worthen (2001) in the article Measuring the ROI of training. Information technology training can be used synonymously with any training program offered by business and industrial organizations. Worthen (2001) describes five steps in determining the return on investment of training programs. The first two steps include measuring initial reaction



and analyzing learning. The third step occurs over a longer period of time in which the skills gained are analyzed. The fourth step involves measuring the business impact; and finally, step five analyzes the actual return on investment. Worthen's five steps align nicely with Kirkpatrick's and Wade's theories.

### *Training Needs Analysis Methods*

Before training needs can be determined, tasks essential to performing a particular job must be identified. "Generally, an assessment is conducted as a survey," according to Swist. However, Lunney (2000) recommends that agencies "use focus groups, surveys and current performance data to identify skills necessary for employees to accomplish their work."

The next step is to assess the trainee's ability to perform the identified essential tasks. Carlisle (1986) provides trainers with tools they can use to identify what the job is, how the job is done, how to improve the job, and how to learn the job. These tools include: observing employees; interviewing participants, bosses of participants, subordinates, peers, and customers; group work; surveying participants, bosses, and others; testing the participants; and analyzing documents.

### *Training Evaluation Methods*

Evaluation methods should be included in the planning phase of training. The survey method is frequently recommended in Kirkpatrick's book Evaluating Training Programs. Other evaluation methods include: interviewing trainees in person or via telephone; testing participants in a paper/pencil format (pre/post-test); surveying participants, bosses, subordinates, peers, and

customers; using a control group; observation; using annual performance ratings/review; and a check off sheet to be completed by supervisor. Trainers can also require an applicable course-end project requiring specific criteria to be met.

### *Summary*

The literature review began with an overview of adult learning. The review then described the training needs analysis process and theories of training program evaluation components. It is theorized that training program evaluations should include four unique components (evaluating reaction, learning, behavior, and results) to make up the training program evaluation. The literature review also identified various methods recommended to analyze training needs and conduct training program evaluations.

The next chapter describes the methods to be used in the study.

## CHAPTER 3

### Procedures

Professional trainers in business and industrial organizations were sent a survey/questionnaire to measure the types of methods they use to analyze training needs and conduct training program evaluations. The purpose of this chapter is to present the research design, sample, instrumentation, procedural details, and method of data analysis used in the research project.

#### *Research Design*

The research design for this study utilizes descriptive research methods. Descriptive research has been defined by Gay (1996) in Educational Research as a type of research which involves collecting data in order to test research questions or hypotheses regarding the subject's current status. The method of collecting data includes the Training Process Survey. The survey also includes a questionnaire section dealing with the participants' demographical data.

The use of a descriptive research design was appropriate for this research study because information was needed regarding the methods of training needs analysis and evaluation tools being utilized by professionals in business and industrial organizations. Self-administered surveys/questionnaires are efficient and offer the advantage of providing contact with a large number of subjects. However, according to Fraenkel and Wallen (2000), the potential difficulties involved in survey research are mainly threefold: (1) ensuring that the questions to be answered are clear and not misleading; (2) getting respondents to answer questions

thoughtfully and honestly; and (3) getting a sufficient number of the questionnaires completed and returned.

A random sampling of the study's population should assist in controlling internal validity issues such as location and instrumentation decay. The group size remained constant throughout the study; therefore, anticipating no maturation, mortality, or historical threats to the study's validity.

A disadvantage of using the descriptive research design was that only relationships between the variables could be discovered; no actual cause and effect could be determined. Another weakness is that the use of this population limits generalization of the results of the study to the state of West Virginia.

### *Population and Sample*

The population for the study included training leaders in business and industrial organizations throughout the state of West Virginia. A simple random sample of 429 companies, which represented 61% of the accessible population, was obtained from the Regulatory Training Center located in Charleston, West Virginia. The Regulatory Training Center utilized their business and industry mailing list in order to obtain a random sample. The mailing list initially consisted of a list of business and industrial organizations obtained from the Department of Labor. Additional organizational names have been added by the Regulatory Training Center to the mailing list on an as needed basis.

### *Instrumentation*

The instrument used to obtain data in the research study was the Training Process Survey, which was developed by the researcher to measure the types of training needs analysis methods and evaluation tools utilized by business and industrial organizations in West Virginia in a valid and reliable manner. Before the Training Process Survey was administered to the sample, a pilot study was performed utilizing three professors in the Adult and Technical Education Department at Marshall University in West Virginia and two private-industry training professionals in West Virginia. The professors and training professionals reviewed the survey, as if they were trainers, and provided feedback to the researcher. The researcher incorporated the professors' suggestions into the final version of the Training Process Survey, which was administered to the sample population in the study.

Demographic data was obtained from training leaders by utilizing a questionnaire that assessed the professional trainer's age, gender, race, educational level, educational field, current job title, and the number of years the trainer had been in his/her current position. Professional training leaders were also asked questions regarding their organization's structure that included: 1) the type of organization, 2) the size of the organization, 3) how often training is offered at the organization, and 4) the most often method used to conduct training in the organization.

### *Procedural Details*

The training leaders from the randomly selected companies were sent a cover letter introducing the researcher and the purpose of the study as well as detailed instructions, and a Training Process Survey. The training leaders were asked to complete the questionnaire and

return it to the researcher. Postage-paid, self-addressed envelopes were also included for the trainers to use in returning their survey forms to the researcher.

### *Data Analysis*

The analysis of data obtained in the study involved the use of descriptive statistics and the chi-square nonparametric test of significance. Descriptive statistics were used to report the frequencies, percentages, means, and standard deviations. A two-dimensional chi-square was utilized to describe frequencies of categorical variables. Statistical analysis was performed using the computer software program Microsoft Excel and STATPAK.

### *Summary*

Chapter 3 began by providing a description of the research design and sample for the research study. The instrument utilized in the research study and the Training Process Survey was then described in detail. The chapter concluded by discussing the methods of analysis of the data that were used in the research study.

The next chapter will present the results of the analysis of the data after the surveys are completed and returned.

## CHAPTER 4

### Analysis

The research questions presented in Chapter 1 are addressed in Chapter 4, which includes the results and analysis of the data gathered in the study. The purpose of the research study was to identify the extent to which training professionals in the state of West Virginia are using training needs analysis and evaluation methods; as well as, how the use of such tools has aided these organizations in providing effective training programs.

#### *Sample Returns*

A pilot study was performed using professors in the Adult and Technical Education Department at Marshall University in West Virginia and training professionals in business and industry in Huntington, West Virginia. The professors and training professionals reviewed the Training Process Survey and made suggestions that were implemented into the survey.

The training leaders of 429 randomly selected business and industrial organizations in West Virginia were sent a cover letter (Appendix A) introducing the researcher and the purpose of the study as well as detailed instructions, and a Training Process Survey (Appendix C). The training leaders were asked to complete the Training Process Survey and return it to the researcher via postage paid return envelope.

Responses were initially received from 31 of the research subjects, for a response rate of 7.23%. The Training Process Survey was then re-mailed with a new cover letter (Appendix B)

to the non-respondents. An additional 42 responses were received. Of those subjects responding, two subjects only completed the demographic data section of the questionnaire and did not complete the survey section regarding the utilization of training needs analysis methods and evaluation tools. Therefore, there were a total of 71 usable responses, for a response rate of 16.55%.

Due to the low response rate, a random sample of the non-respondent training leaders were selected for a telephone survey, representing 15% of the non-respondents (60). The researcher used the Training Process Survey (Appendix C) as a patterned interview questionnaire. Three of the subjects phone numbers were no longer in service, reducing the sample to 57. Responses were received from 9 of the research subjects, for a response rate of 15.52%.

### *Demographic Data*

The demographic data for the study's sample are listed in Tables 1 and 2. Most of the training leaders were in the age category 40 – 49 years, were male, were white, had a bachelor's degree, and had been in their current job position for one to ten years.



Table 1. Demographic Distribution of Respondents (n=71)

<b>Demographic</b>	<b>Grouping</b>	<b>f</b>	<b>%</b>
Age	20-29	2	3%
	30-39	12	17%
	40-49	29	41%
	50-59	22	31%
	60+	2	3%
	Nonresponding	4	6%
	<b>TOTAL</b>	<b>71</b>	<b>100%</b>
Gender	Female	23	32%
	Male	46	65%
	Nonresponding	2	3%
	<b>TOTAL</b>	<b>71</b>	<b>100%</b>
Race	White	67	94%
	American Indian, Eskimo, and Aleut	1	1%
	Minority Population	0	0%
	Nonresponding	3	4%
	<b>TOTAL</b>	<b>71</b>	<b>100%</b>

(table continues)

Table 1 (continued)

<b>Demographic</b>	<b>Grouping</b>	<b>f</b>	<b>%</b>
Education	High School	22	31%
	Bachelor's	30	42%
	Master's	11	15%
	Doctorate	2	3%
	Associate's	3	4%
	Nonresponding	3	4%
	<b>TOTAL</b>	<b>71</b>	<b>100%</b>

---

**Number of Years in Current**

Position	1-5	18	25%
	6-10	15	21%
	11-15	9	13%
	16-20	3	4%
	20+	21	30%
	Nonresponding	5	7%
	<b>TOTAL</b>	<b>71</b>	<b>100%</b>

---

Table 2. Demographic Data on Organizations (n=71)

<b>Demographic</b>	<b>Grouping</b>	<b>f</b>	<b>%</b>
Type of Organization	Manufacturing	22	31%
	Wholesale/Retail	6	8%
	Educational	0	0%
	Medical	6	8%
	Finance/Banking	0	0%
	Other	34	48%
	Nonresponding	3	4%
	TOTAL	71	100%

Number of Employees in			
Organization			
Number of Employees in Organization	1-50	26	37%
	51-100	13	18%
	101-250	11	15%
	251-500	4	6%
	501-999	1	1%
	1000+	7	10%
	Nonresponding	9	13%
	TOTAL	71	100%

(table continues)

Table 2 (continued)

<b>Demographic</b>	<b>Grouping</b>	<b>f</b>	<b>%</b>
Frequency of Employee Training	Weekly	26	37%
	Once monthly	14	20%
	Once every 3-4 months	8	11%
	Twice a year	7	10%
	Once a year	8	11%
	Nonresponding	8	11%
	TOTAL	71	100%
	<hr/>		
Primary Method Training is Accomplished	Training department	15	21%
	In-house personnel (other than training department) who are subject matter experts	42	59%
	External <i>contracted training</i>	9	13%
	Nonresponding	5	7%
	TOTAL	71	100%
	<hr/>		

### *Frequency of Usage by Organizational Needs Analysis*

The frequency of usage of organizational needs analysis methods by West Virginia training professionals in business and industrial organizations is demonstrated in Figures 1 through 10. The most commonly utilized organizational needs analysis methods by these training professionals included supervisor suggestions and observing employees.

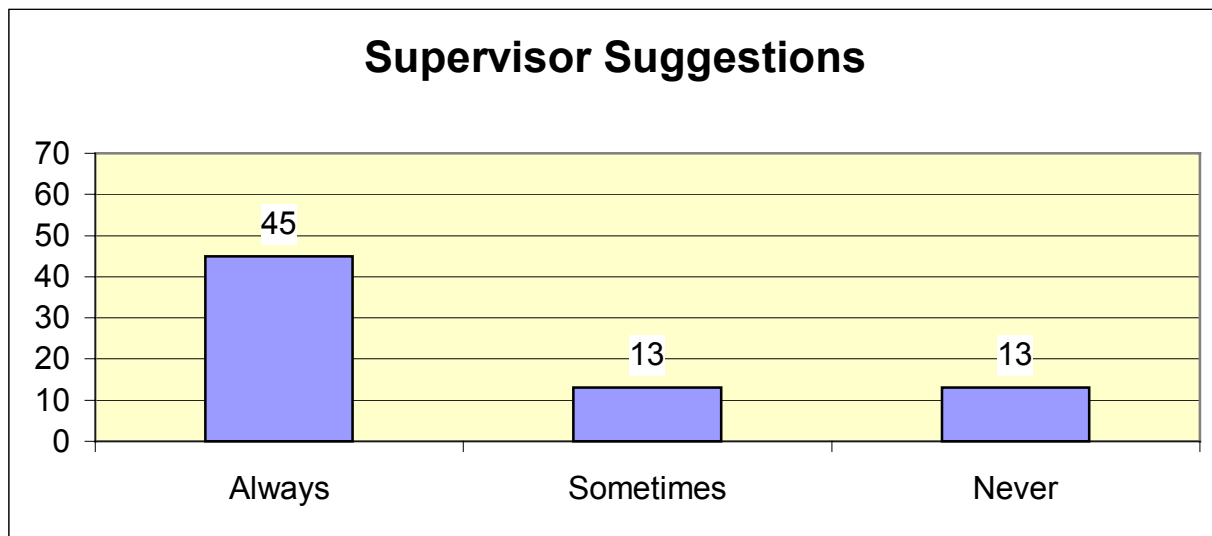


Figure 1. Frequency of usage of supervisor suggestions by West Virginia training professionals in business and industrial organizations.

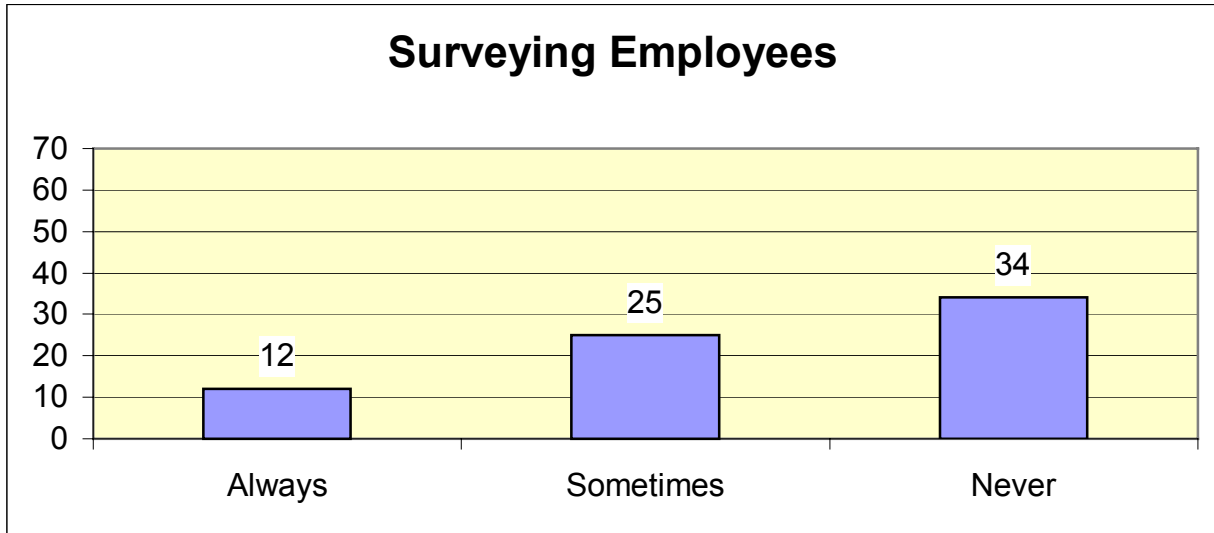


Figure 2. Frequency of usage of surveying employees by West Virginia training professionals in business and industrial organizations.

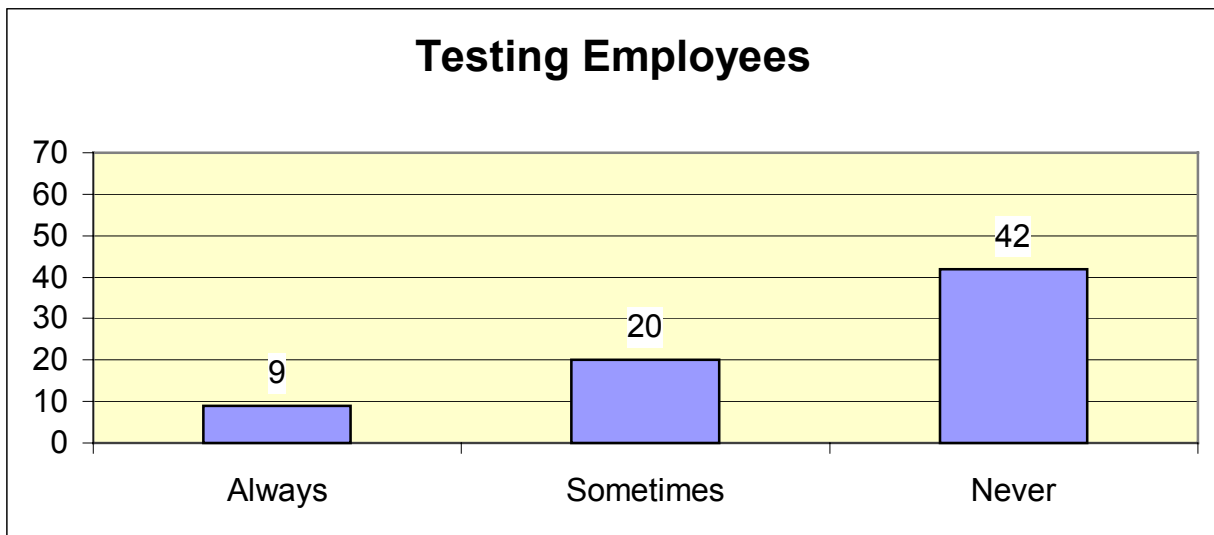


Figure 3. Frequency of usage of testing employees by West Virginia training professionals in business and industrial organizations.

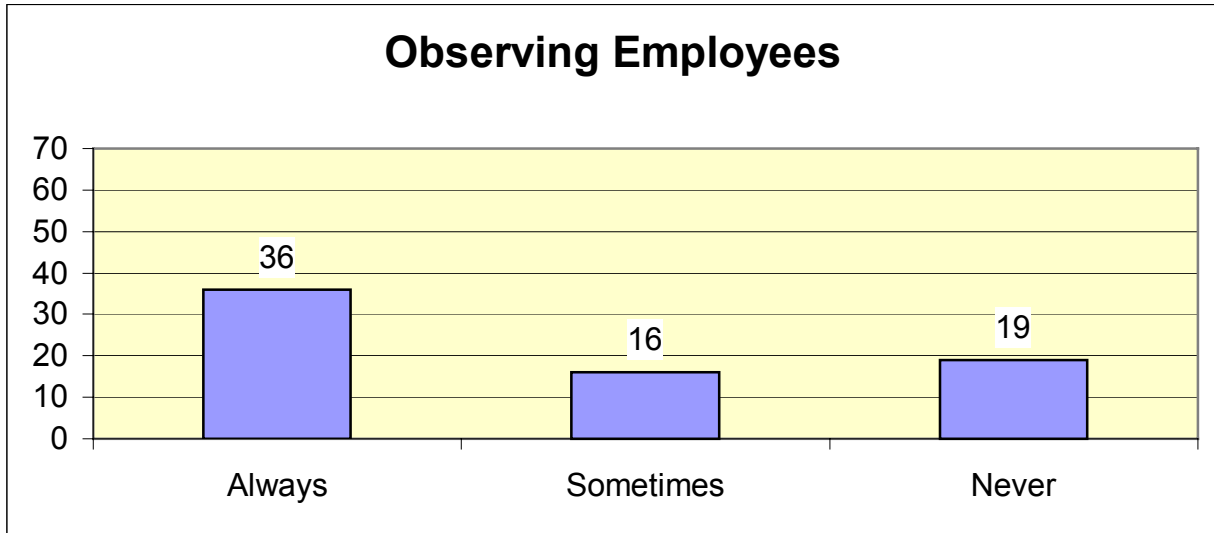


Figure 4. Frequency of usage of observing employees by West Virginia training professionals in business and industrial organizations.

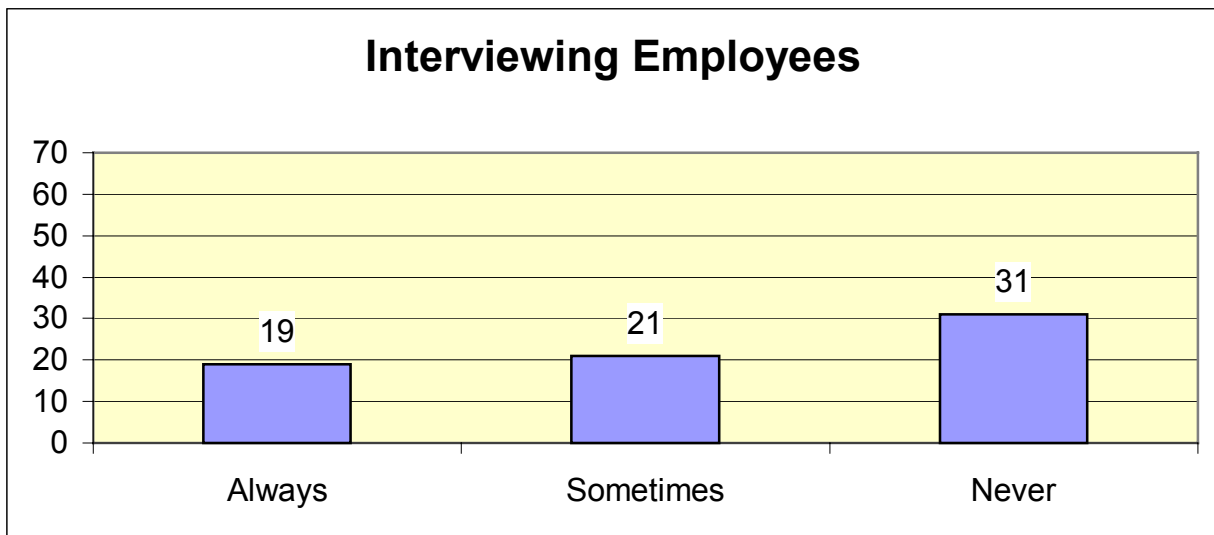


Figure 5. Frequency of usage of interviewing employees by West Virginia training professionals in business and industrial organizations.

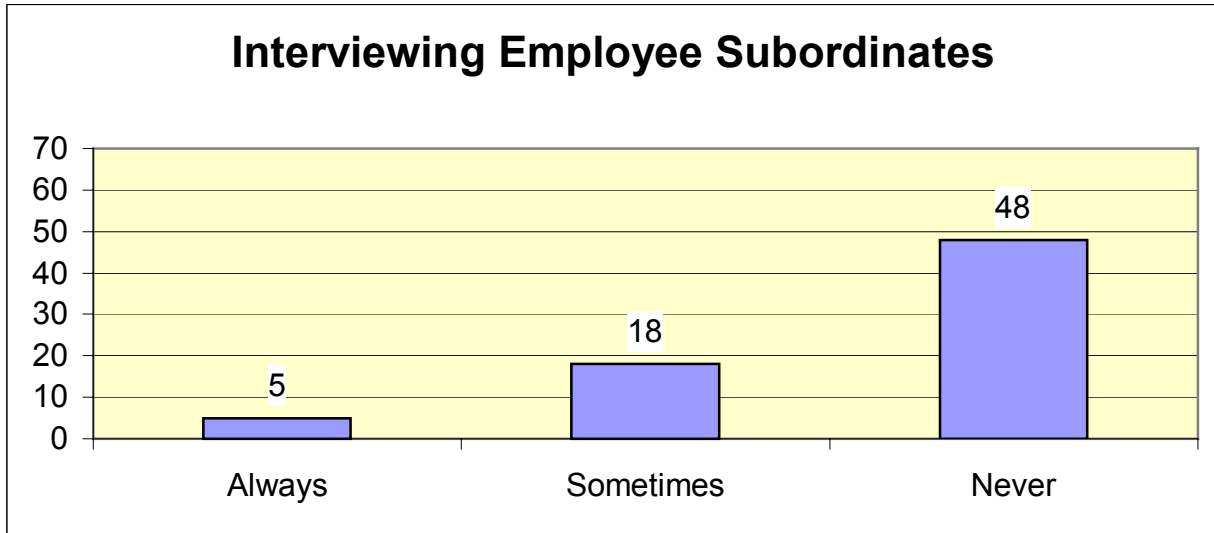


Figure 6. Frequency of usage of interviewing employee subordinates by West Virginia training professionals in business and industrial organizations.

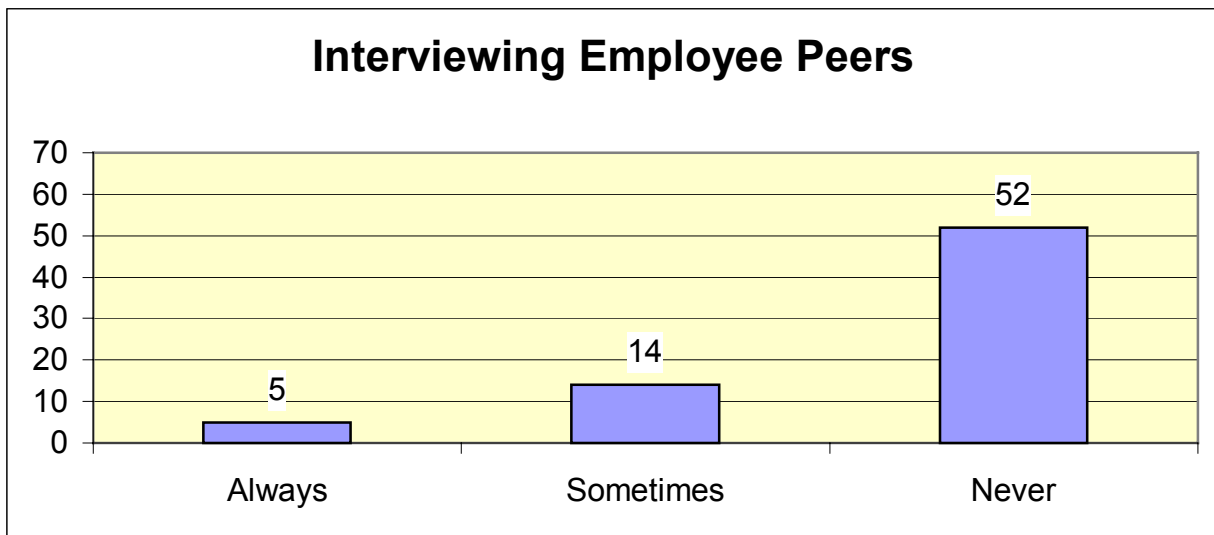


Figure 7. Frequency of usage of interviewing employee peers by West Virginia training professionals in business and industrial organizations.



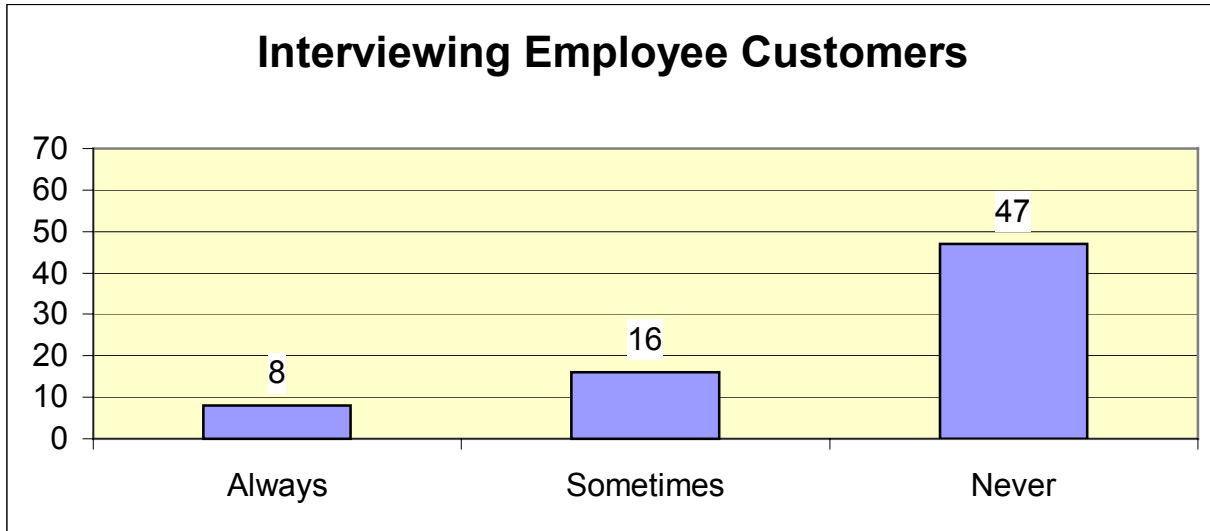


Figure 8. Frequency of usage of interviewing employee customers by West Virginia training professionals in business and industrial organizations.

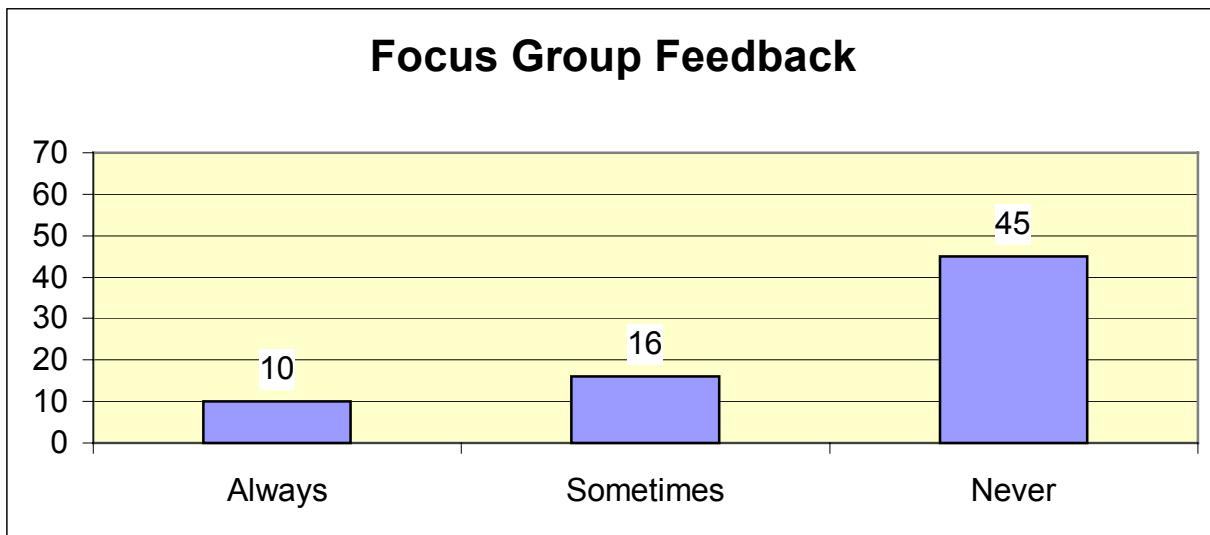


Figure 9. Frequency of usage of focus group feedback by West Virginia training professionals in business and industrial organizations.

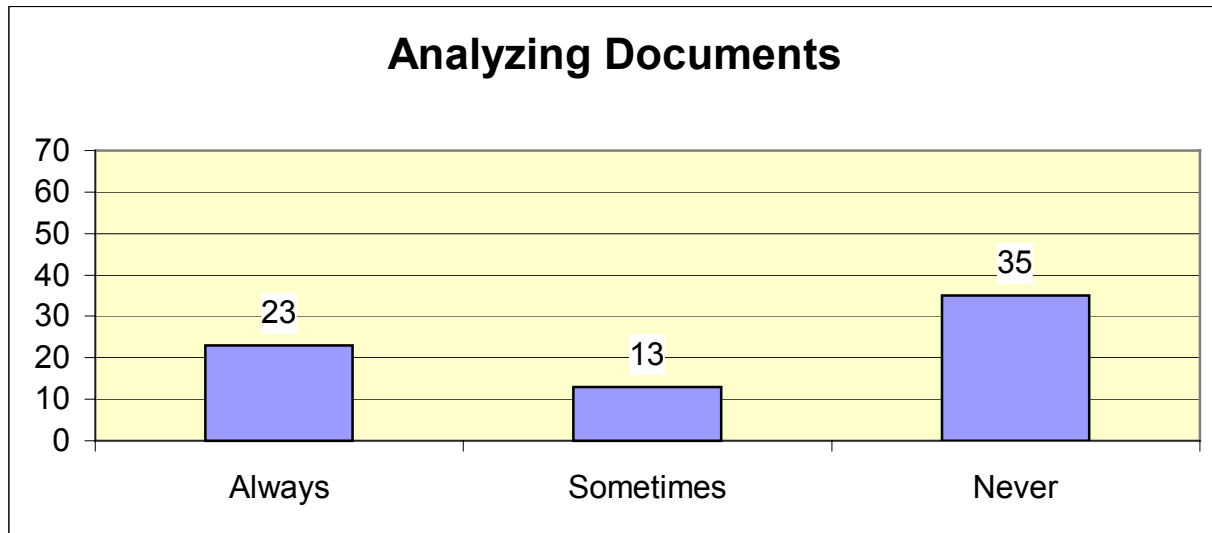


Figure 10. Frequency of usage of analyzing documents by West Virginia training professionals in business and industrial organizations.

### *Frequency of Usage by Individual Needs Analysis*

The frequency of usage of individual needs analysis methods by West Virginia training professionals in business and industrial organizations are demonstrated in Figures 11 through 20. The most commonly utilized organizational needs analysis methods by these training professionals included supervisor suggestions and observing employees.

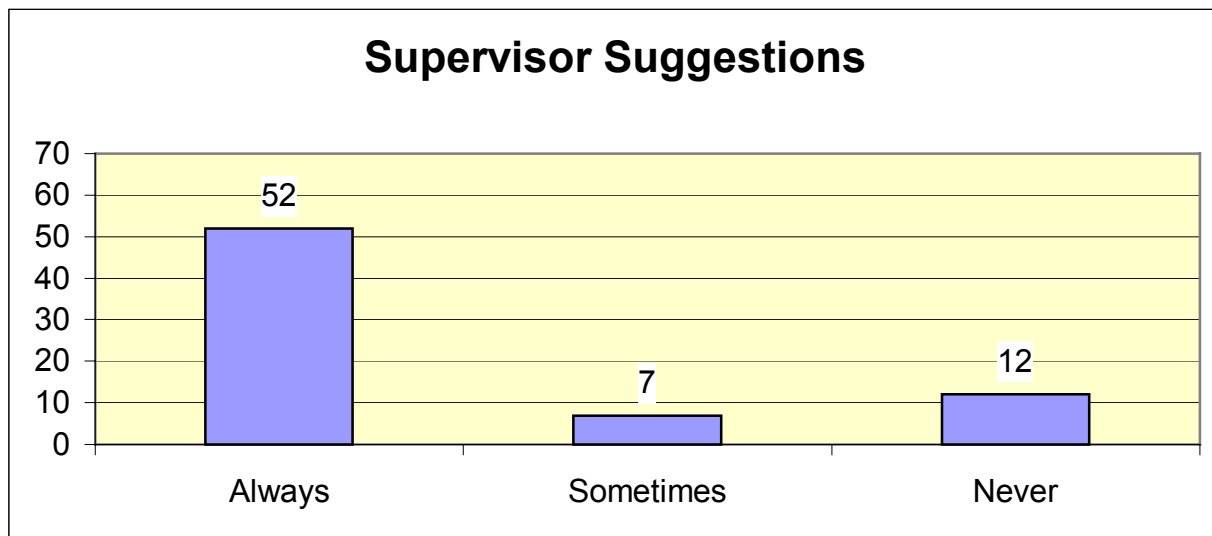


Figure 11. Frequency of usage of supervisor suggestions by West Virginia training professionals in business and industrial organizations.

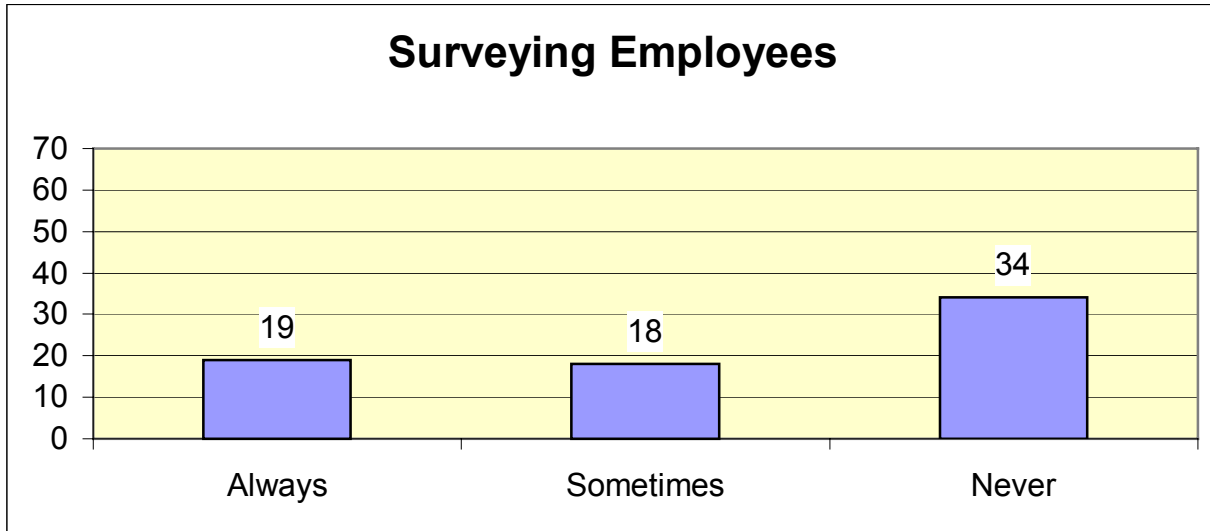


Figure 12. Frequency of usage of surveying employees by West Virginia training professionals in business and industrial organizations.

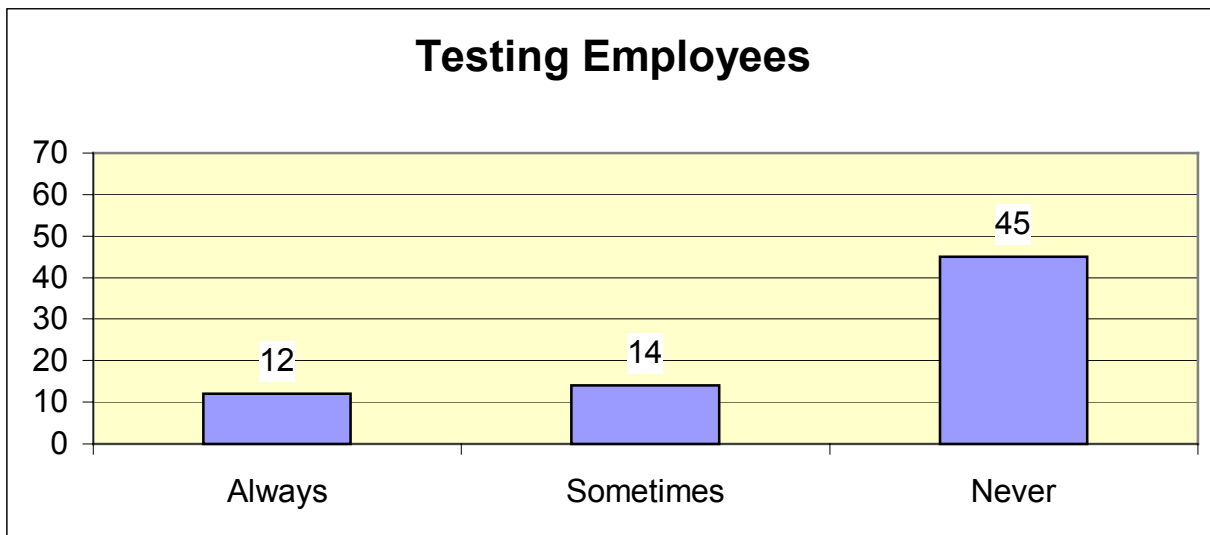


Figure 13. Frequency of usage of testing employees by West Virginia training professionals in business and industrial organizations.

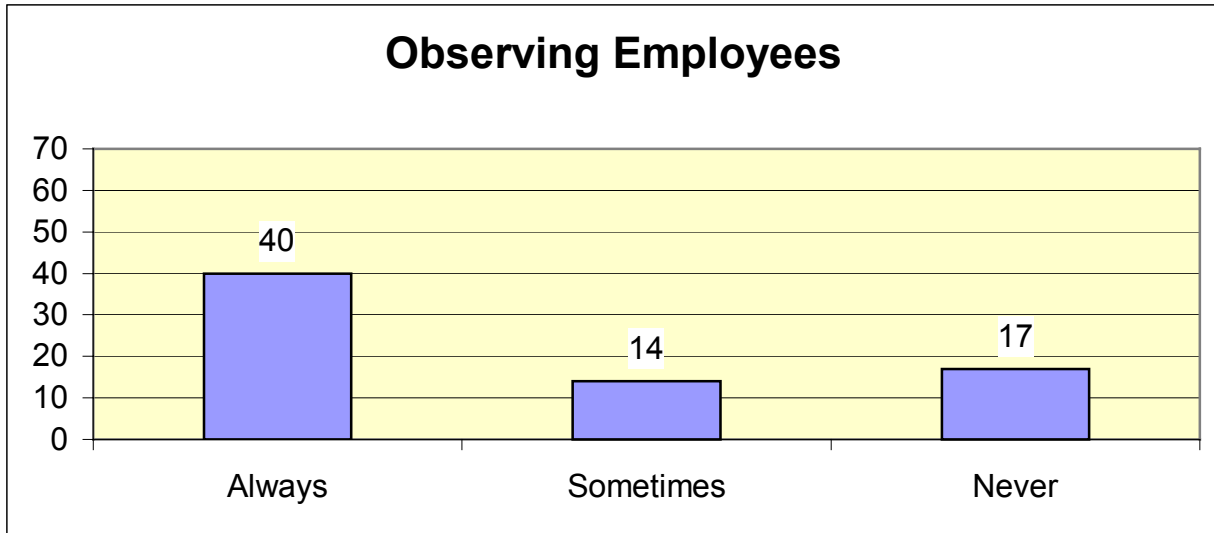


Figure 14. Frequency of usage of observing employees by West Virginia training professionals in business and industrial organizations.

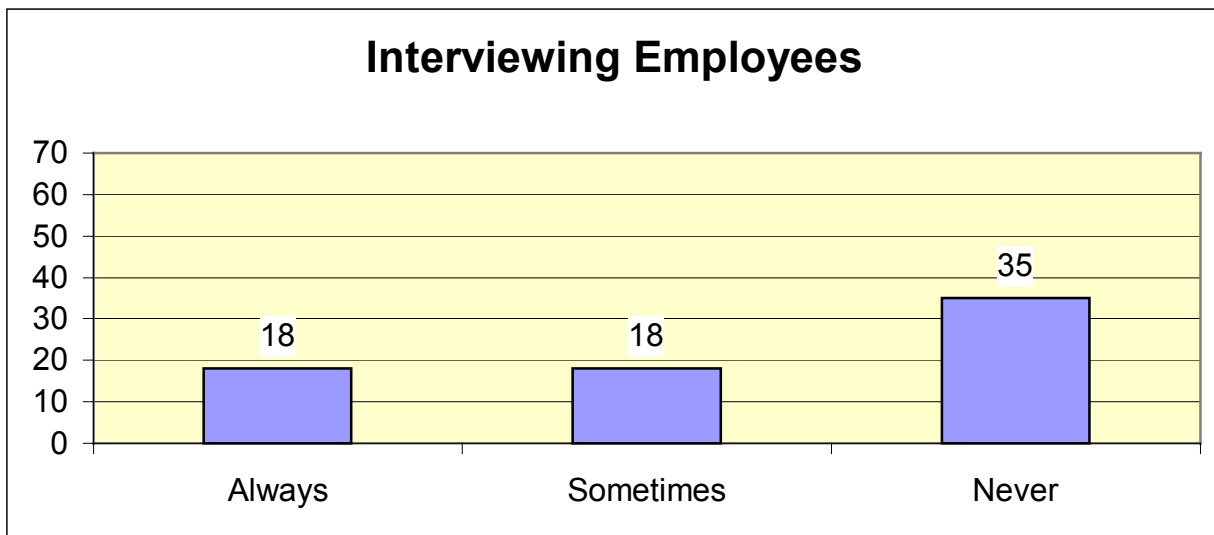


Figure 15. Frequency of usage of interviewing employees by West Virginia training professionals in business and industrial organizations.

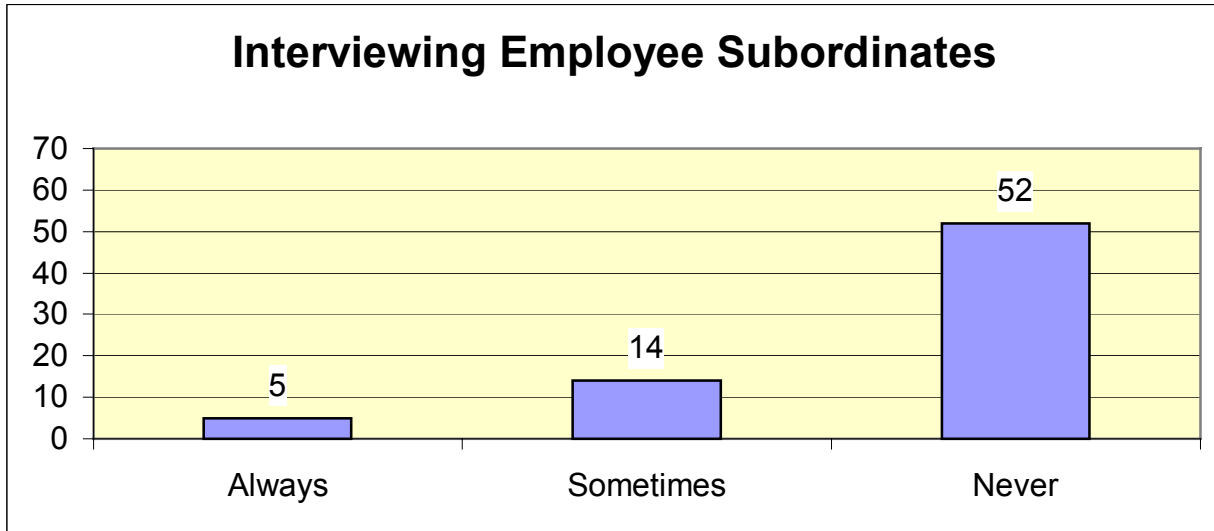


Figure 16. Frequency of usage of interviewing employee subordinates by West Virginia training professionals in business and industrial organizations.

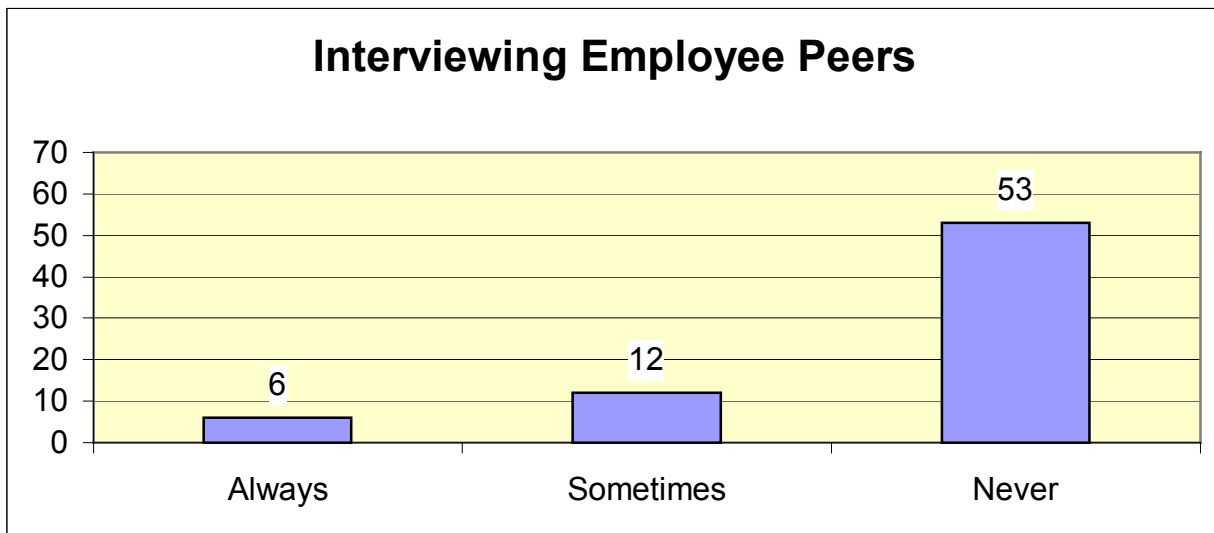


Figure 17. Frequency of usage of interviewing employee peers by West Virginia training professionals in business and industrial organizations.

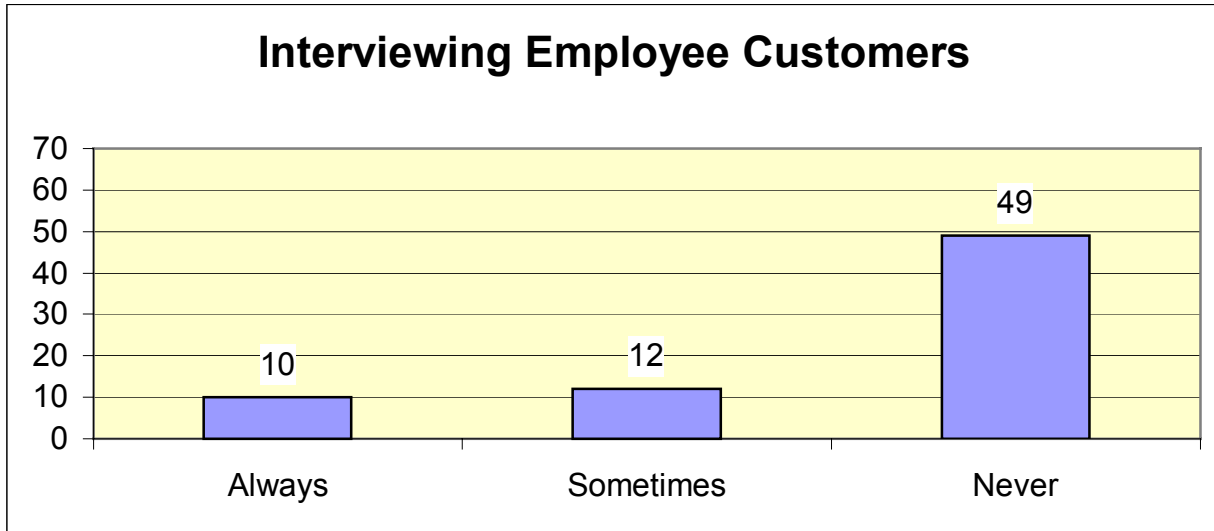


Figure 18. Frequency of usage of interviewing employee customers by West Virginia training professionals in business and industrial organizations.

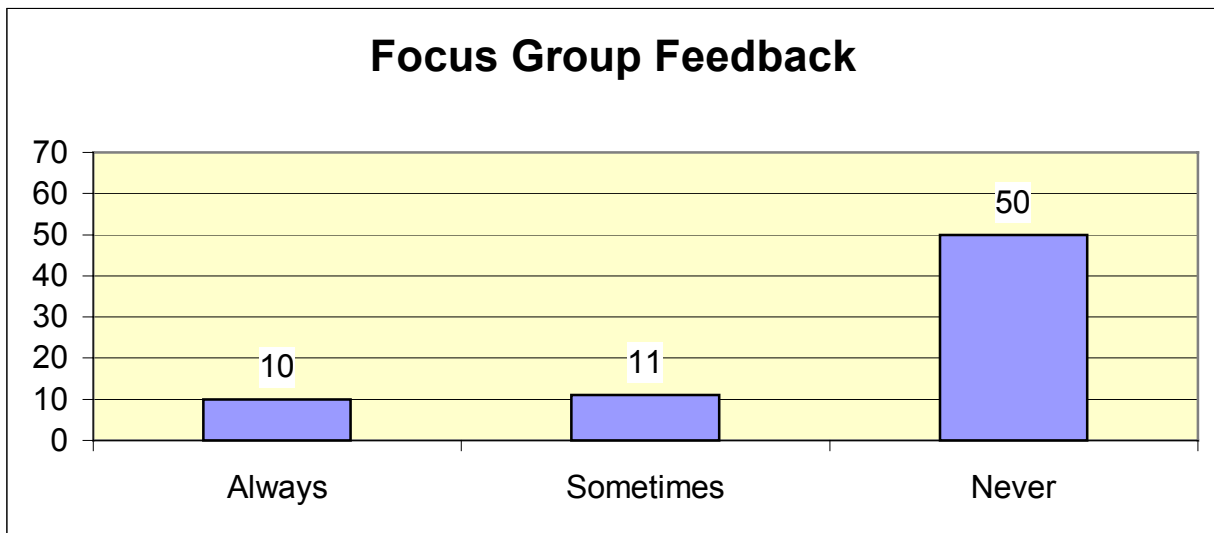


Figure 19. Frequency of usage of focus group feedback by West Virginia training professionals in business and industrial organizations.

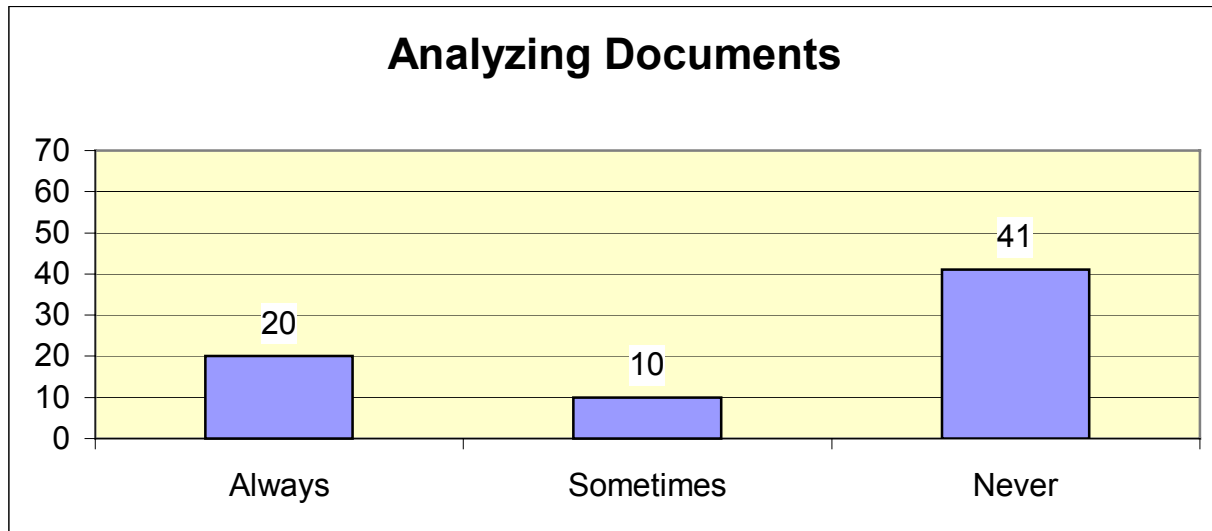


Figure 20. Frequency of usage of analyzing documents by West Virginia training professionals in business and industrial organizations.



### *Frequency of Usage by Satisfaction Evaluation*

The frequency of usage of satisfaction evaluation tools by West Virginia training professionals in business and industrial organizations are demonstrated in Figures 21 through 24.

The most commonly utilized satisfaction evaluation tools by these training professionals included survey – paper/pencil and patterned interview - personal.

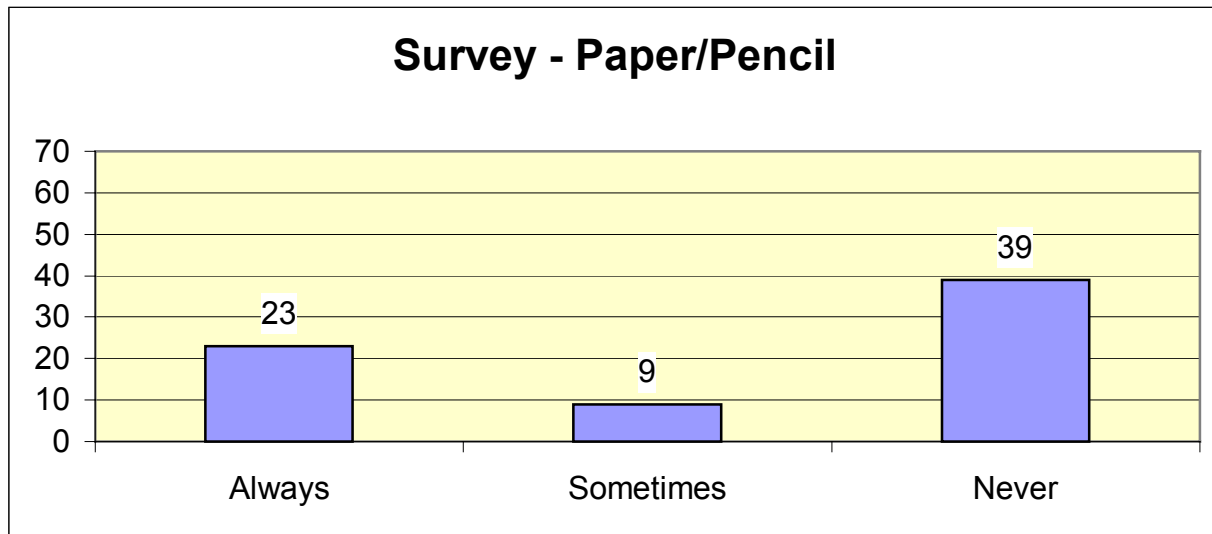


Figure 21. Frequency of usage of survey – paper/pencil by West Virginia training professionals in business and industrial organizations.

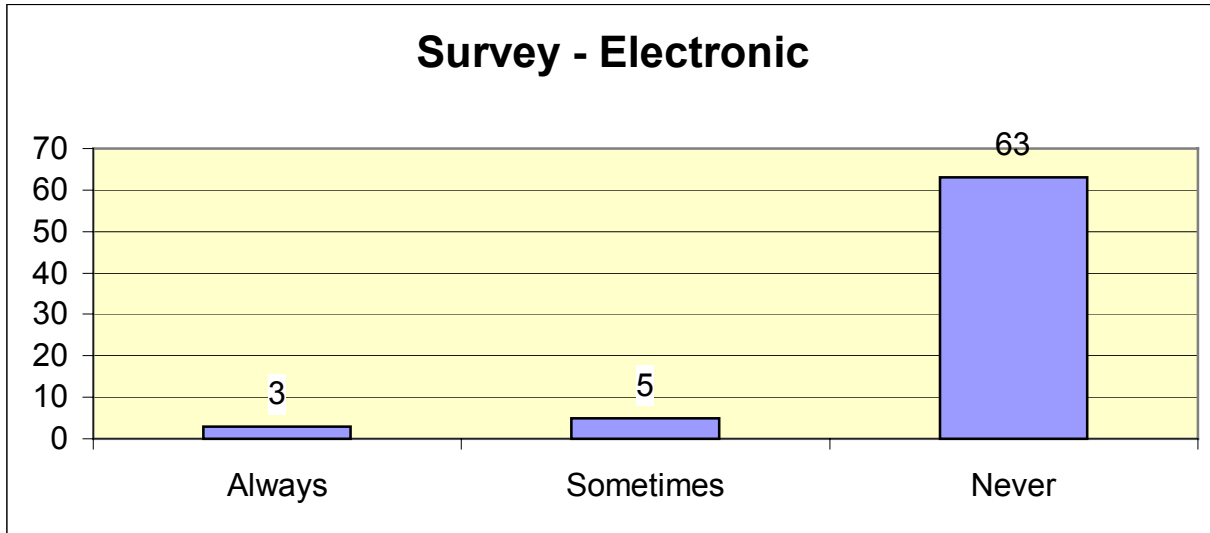


Figure 22. Frequency of usage of survey – electronic by West Virginia training professionals in business and industrial organizations.

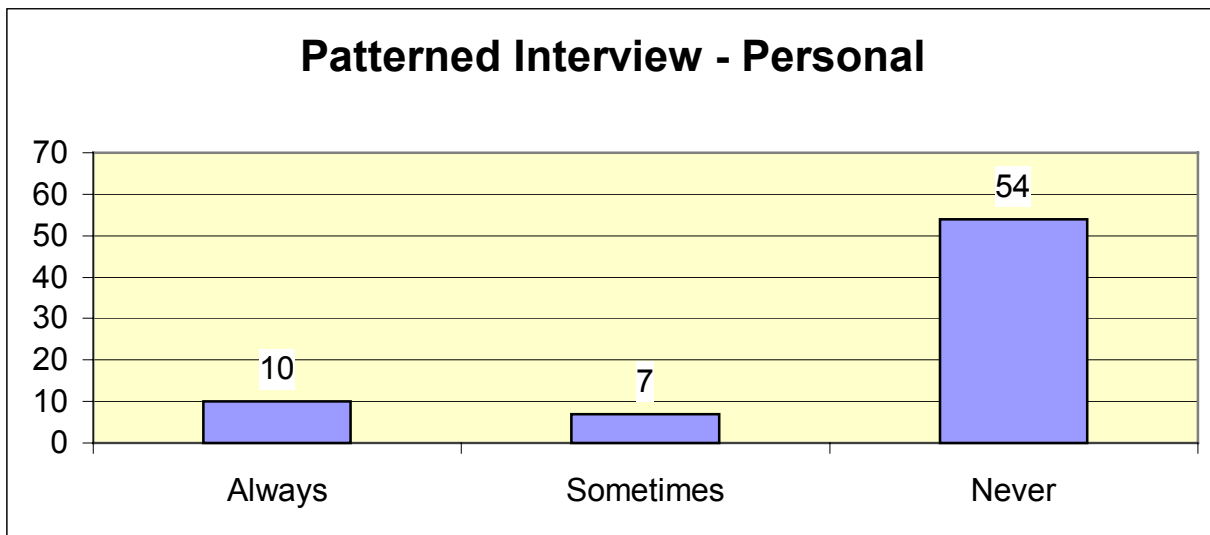


Figure 23. Frequency of usage of patterned interview – personal by West Virginia training professionals in business and industrial organizations.

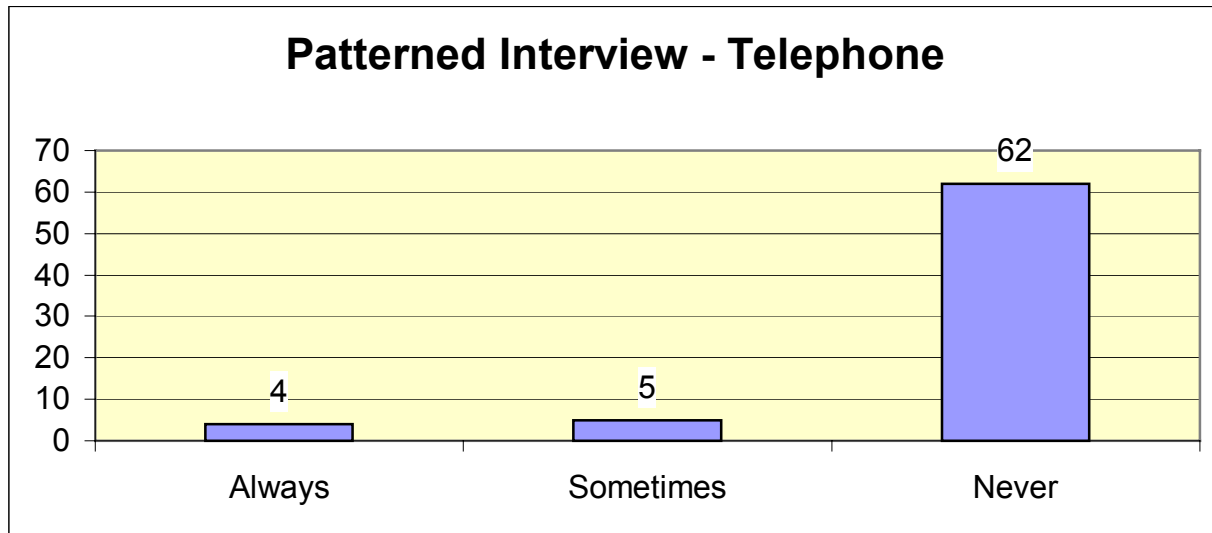


Figure 24. Frequency of usage of patterned interview – telephone by West Virginia training professionals in business and industrial organizations.

### *Frequency of Usage by Learning Evaluation*

The frequency of usage of learning evaluation tools by West Virginia training professionals in business and industrial organizations are demonstrated in Figures 25 through 33. The most commonly utilized learning evaluation tools by these training professionals included post-test – paper/pencil and on-the-job observations.

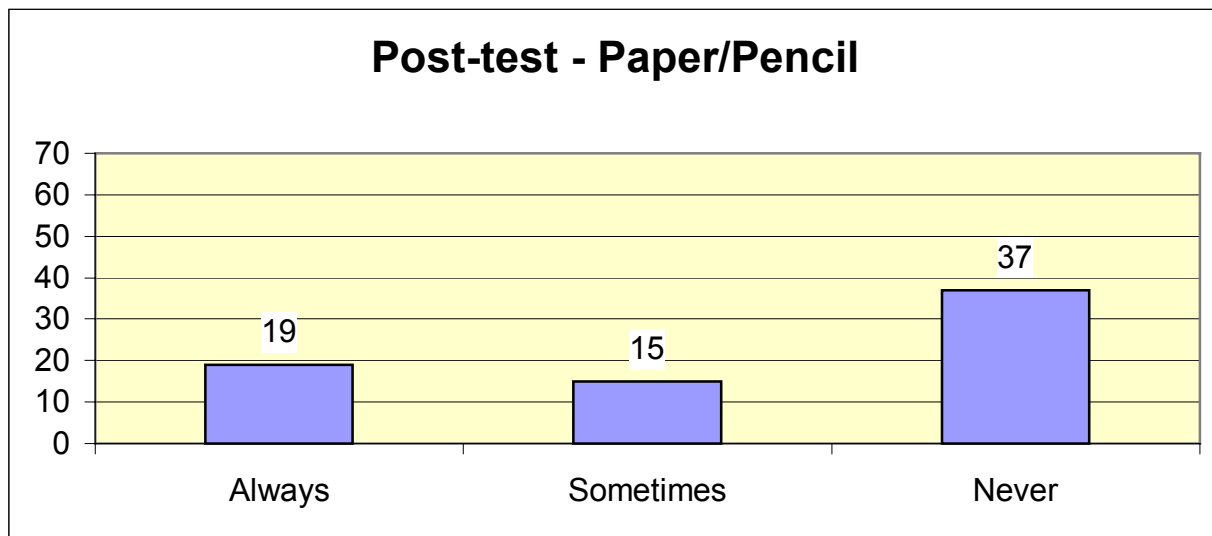


Figure 25. Frequency of usage of post-test – paper/pencil by West Virginia training professionals in business and industrial organizations.

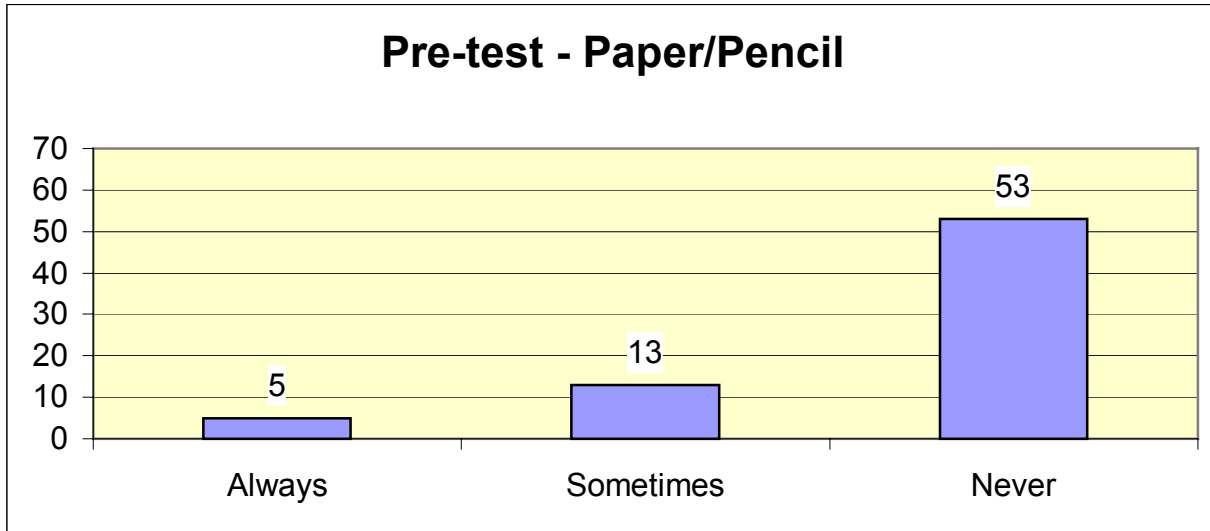


Figure 26. Frequency of usage of pre-test – paper/pencil by West Virginia training professionals in business and industrial organizations.

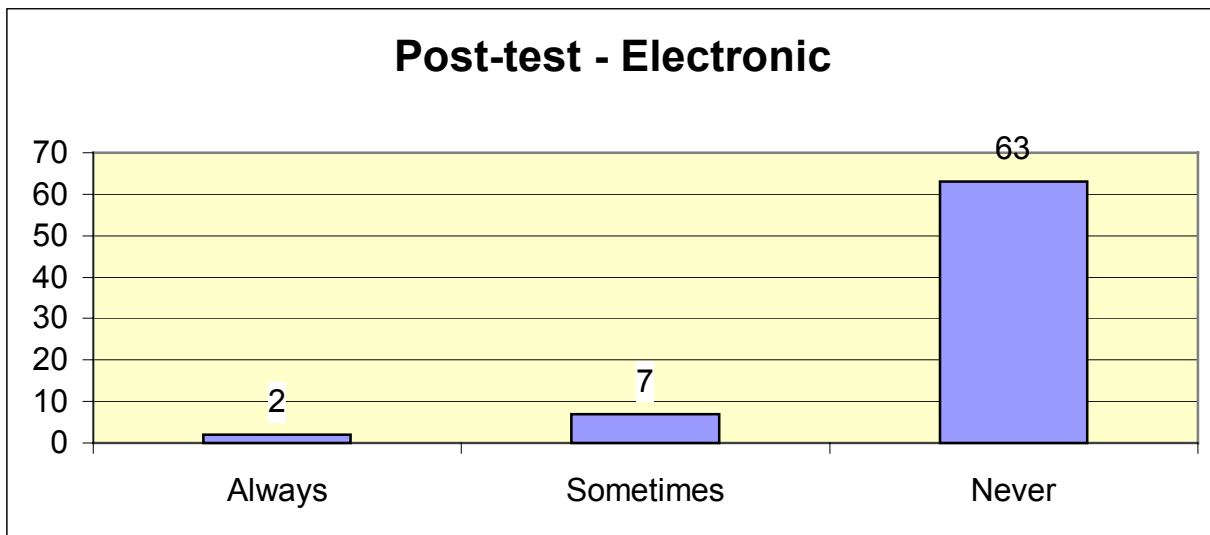


Figure 27. Frequency of usage of post-test – electronic by West Virginia training professionals in business and industrial organizations.

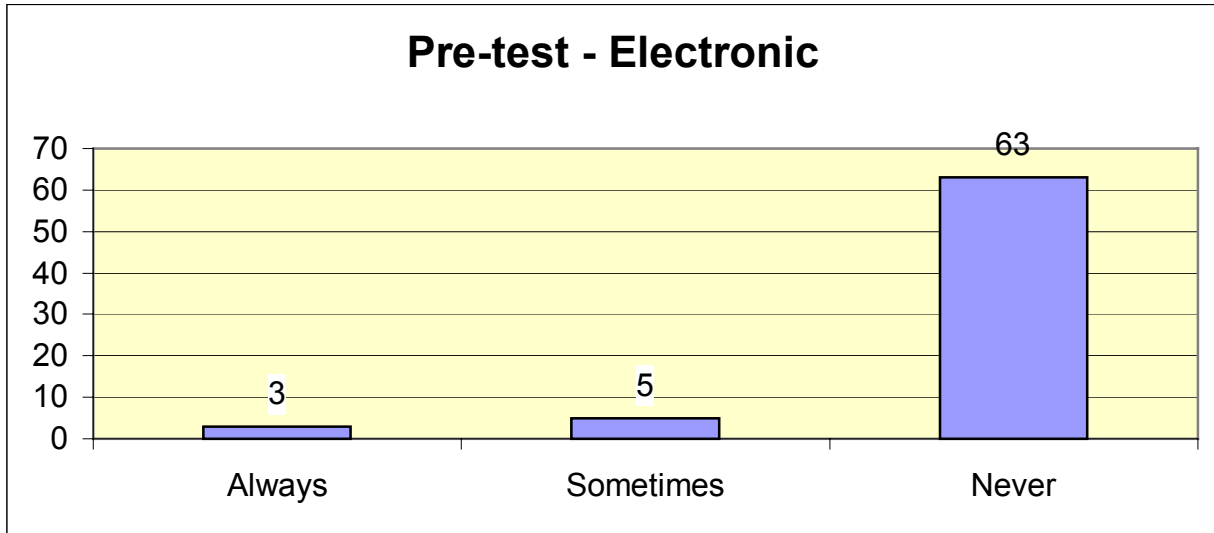


Figure 28. Frequency of usage of pre-test – electronic by West Virginia training professionals in business and industrial organizations.

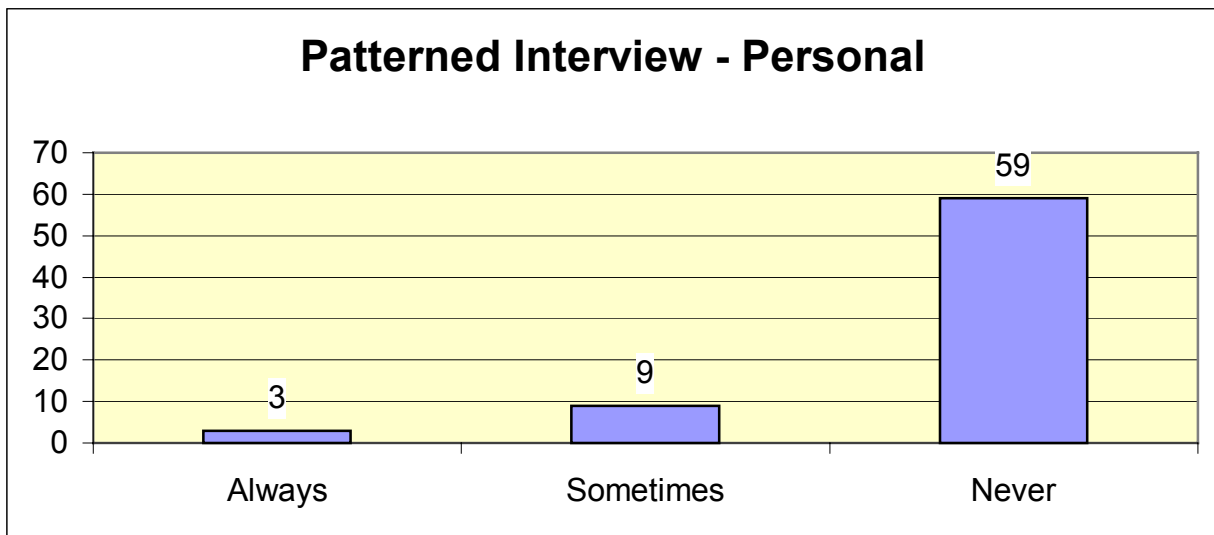


Figure 29. Frequency of usage of patterned interview – personal by West Virginia training professionals in business and industrial organizations.

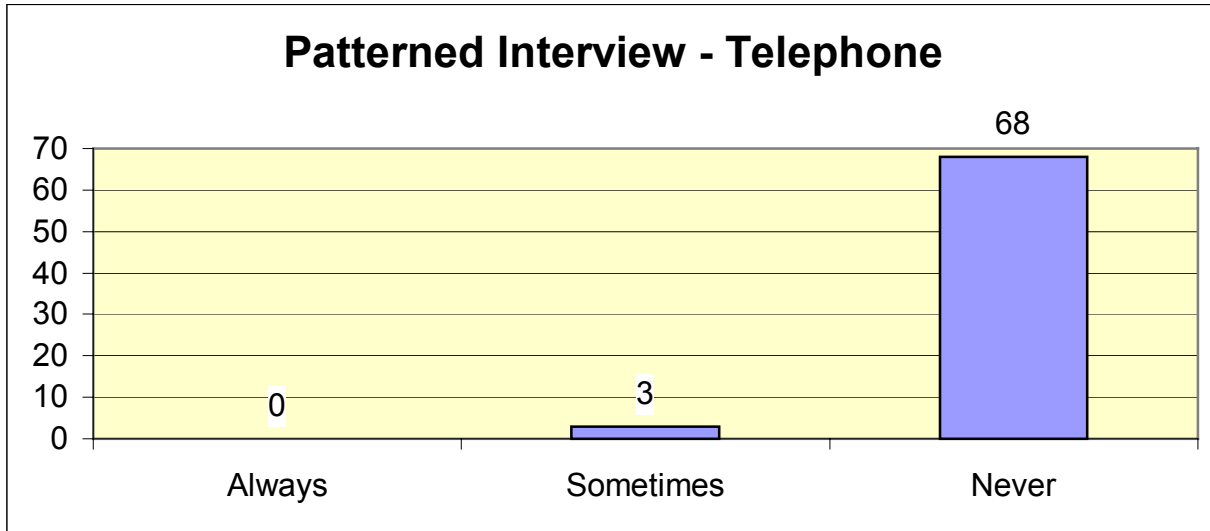


Figure 30. Frequency of usage of patterned interview – telephone by West Virginia training professionals in business and industrial organizations.

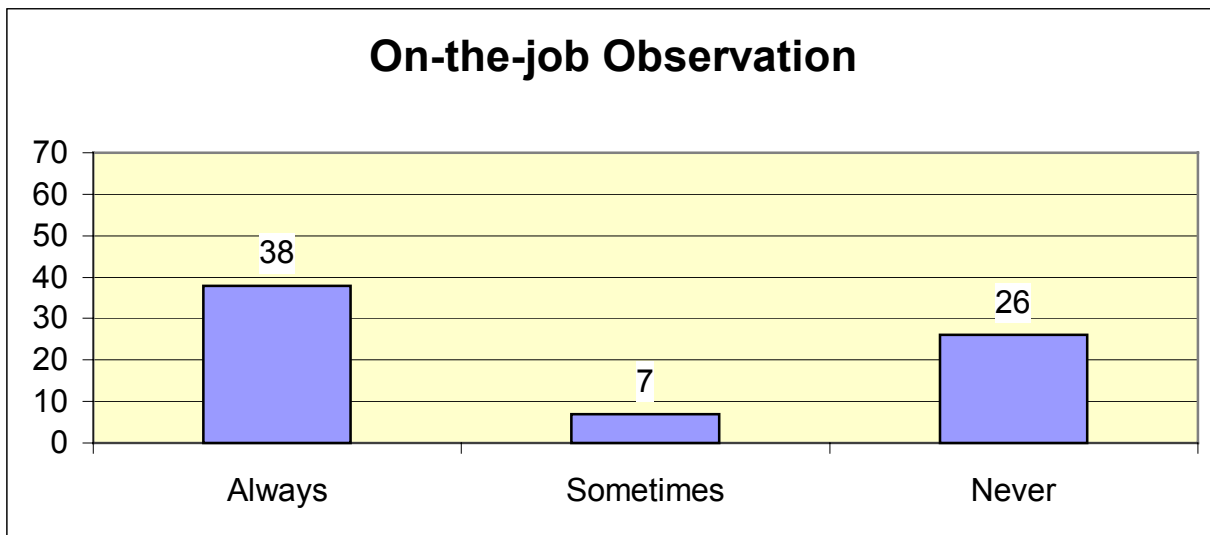


Figure 31. Frequency of usage of on-the-job observation by West Virginia training professionals in business and industrial organizations.

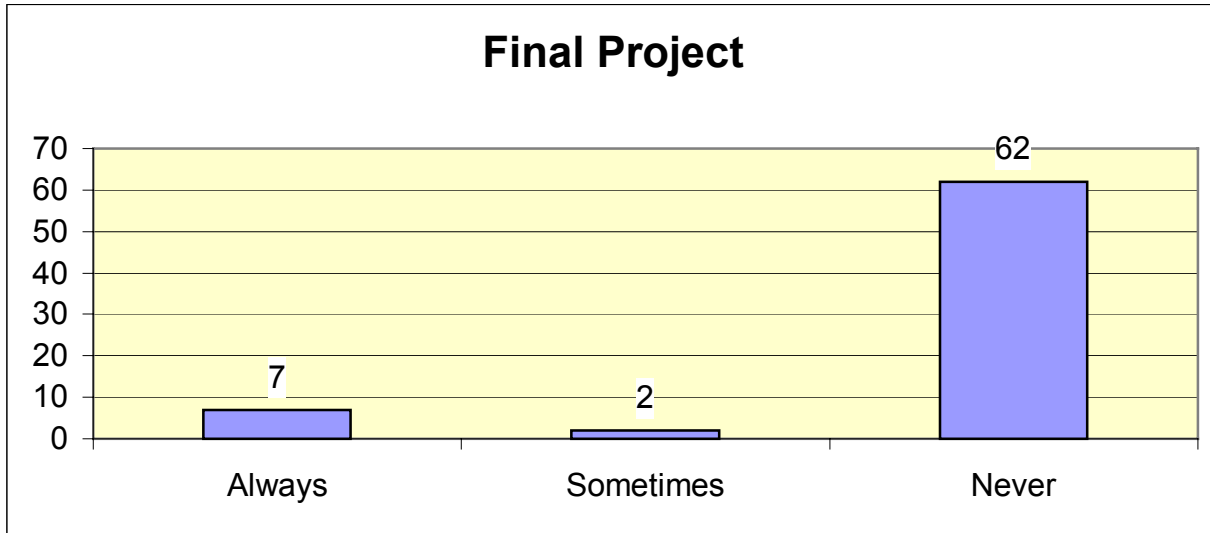


Figure 32. Frequency of usage of final project by West Virginia training professionals in business and industrial organizations.

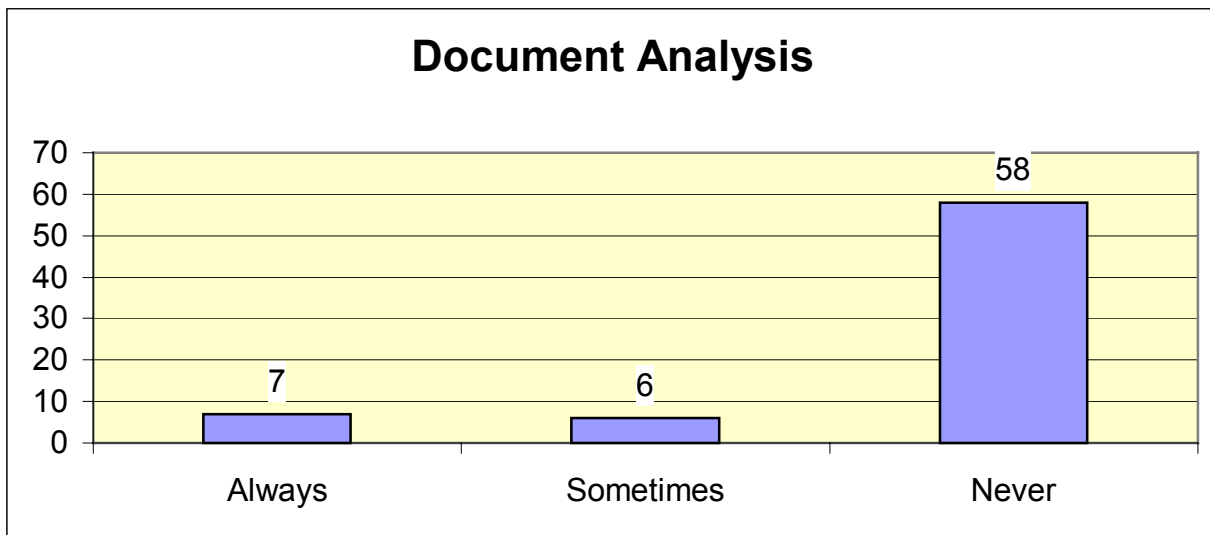


Figure 33. Frequency of usage of document analysis by West Virginia training professionals in business and industrial organizations.



### *Frequency of Usage by Behavior Evaluation*

The frequency of usage of behavior evaluation tools by West Virginia training professionals in business and industrial organizations are demonstrated in Figures 34 through 47. The most commonly utilized behavior evaluation tool by these training professionals was on-the-job observation.

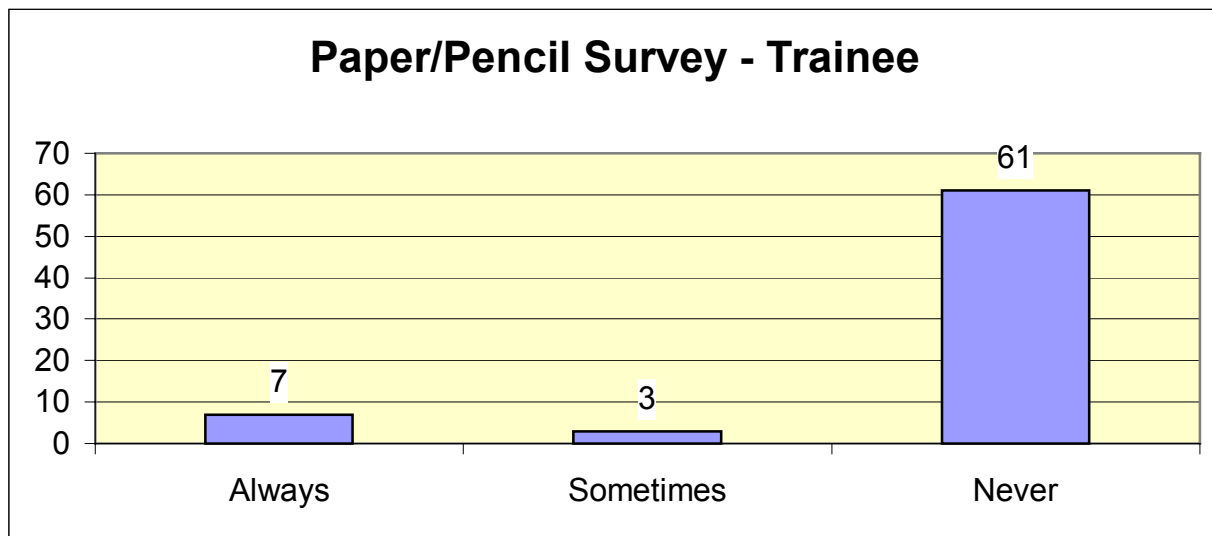


Figure 34. Frequency of usage of paper/pencil survey – trainee by West Virginia training professionals in business and industrial organizations.

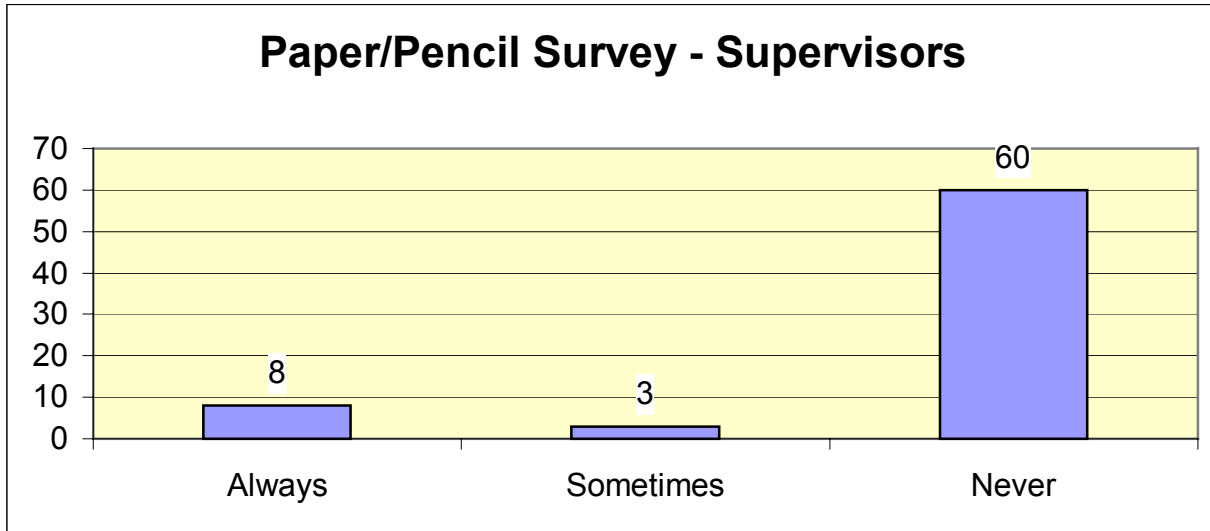


Figure 35. Frequency of usage of paper/pencil survey – supervisors by West Virginia training professionals in business and industrial organizations.

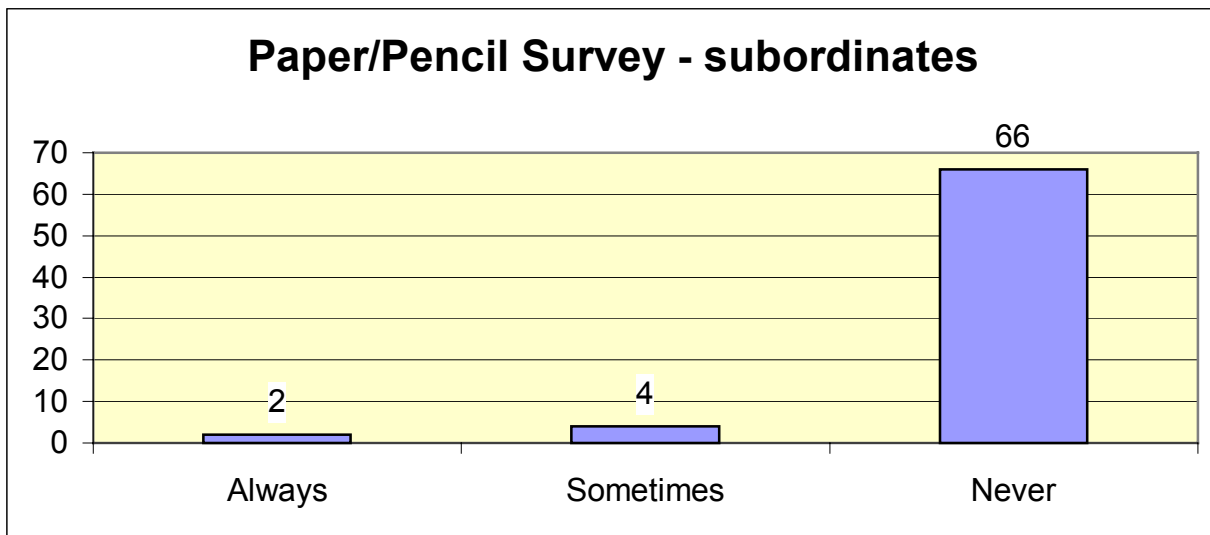


Figure 36. Frequency of usage of paper/pencil survey – subordinates by West Virginia training professionals in business and industrial organizations.

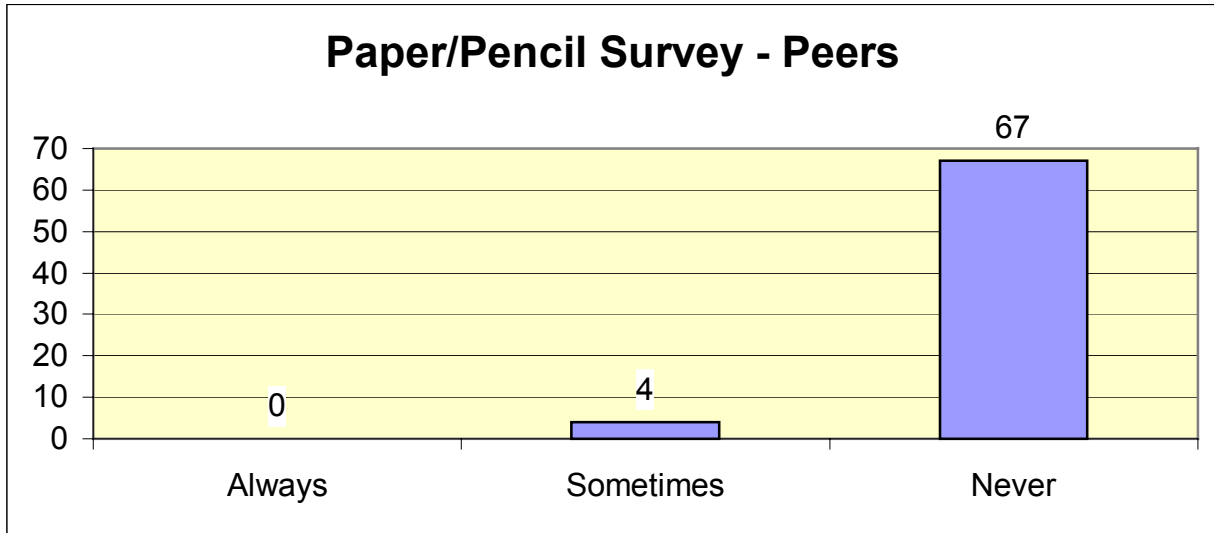


Figure 37. Frequency of usage of paper/pencil survey – peers by West Virginia training professionals in business and industrial organizations.

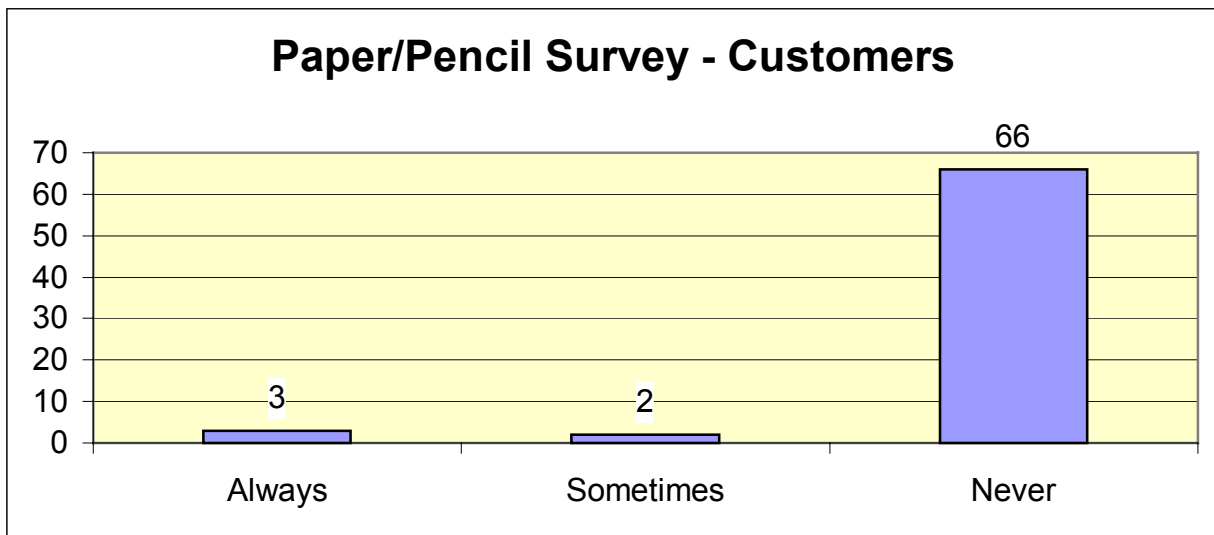


Figure 38. Frequency of usage of paper/pencil survey – customers by West Virginia training professionals in business and industrial organizations.

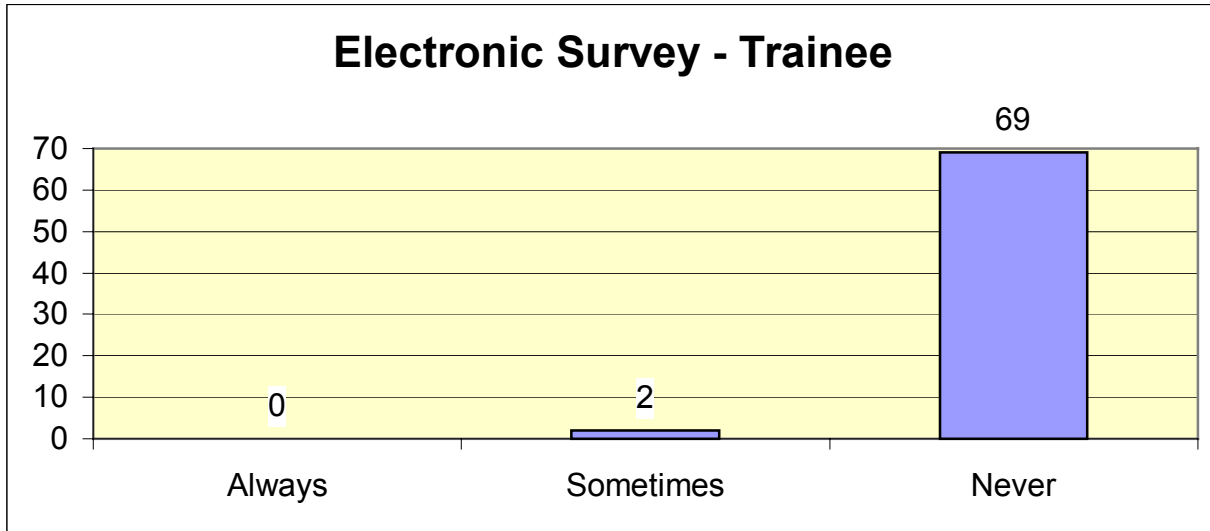


Figure 39. Frequency of usage of electronic survey – trainee by West Virginia training professionals in business and industrial organizations.

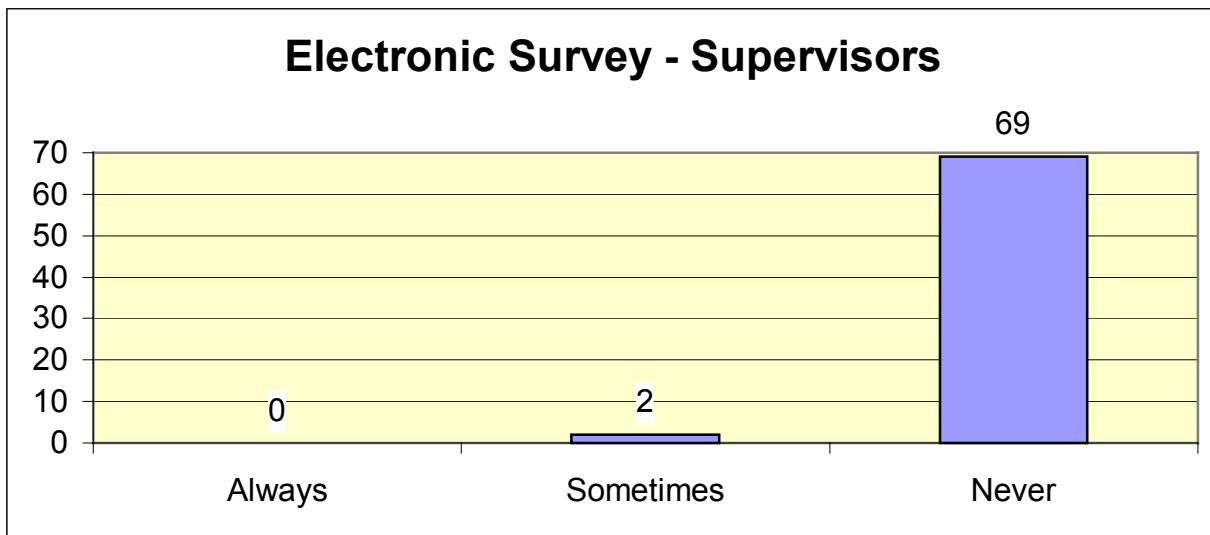


Figure 40. Frequency of usage of electronic survey – supervisors by West Virginia training professionals in business and industrial organizations.

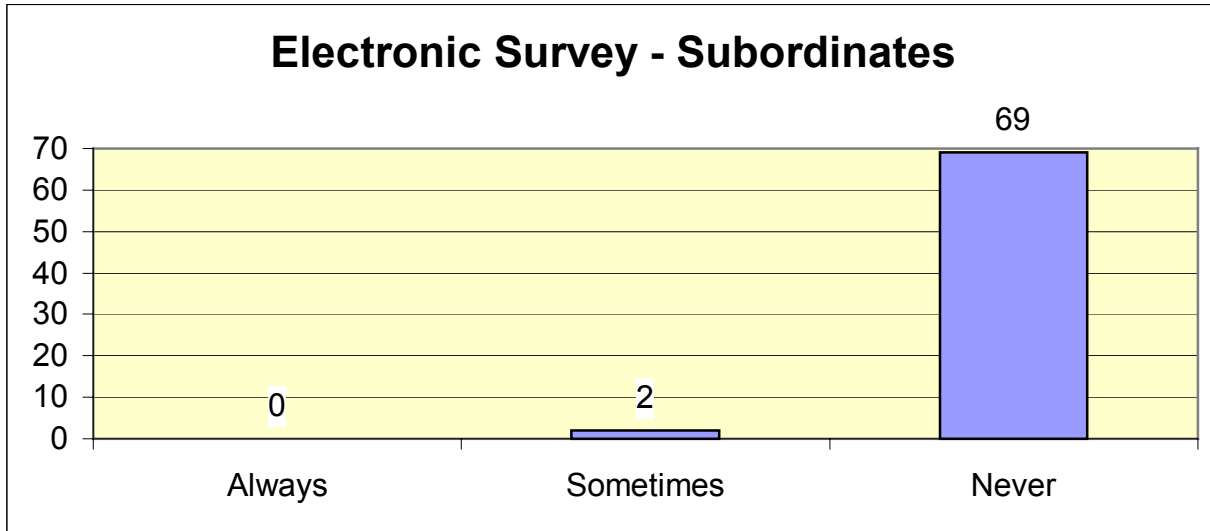


Figure 41. Frequency of usage of electronic survey – subordinates by West Virginia training professionals in business and industrial organizations.

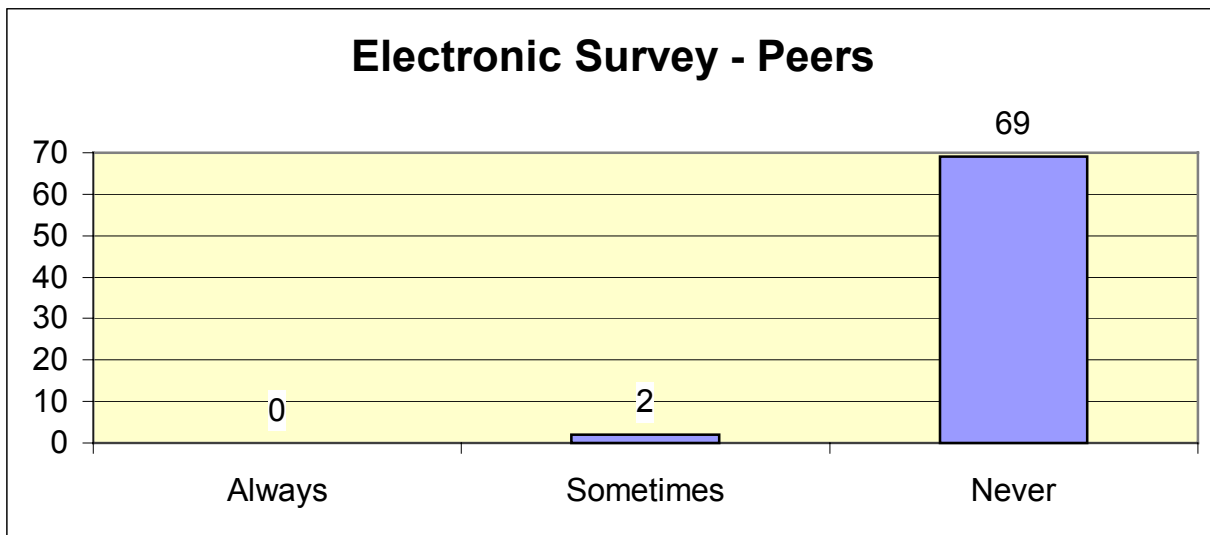


Figure 42. Frequency of usage of electronic survey – peers by West Virginia training professionals in business and industrial organizations.

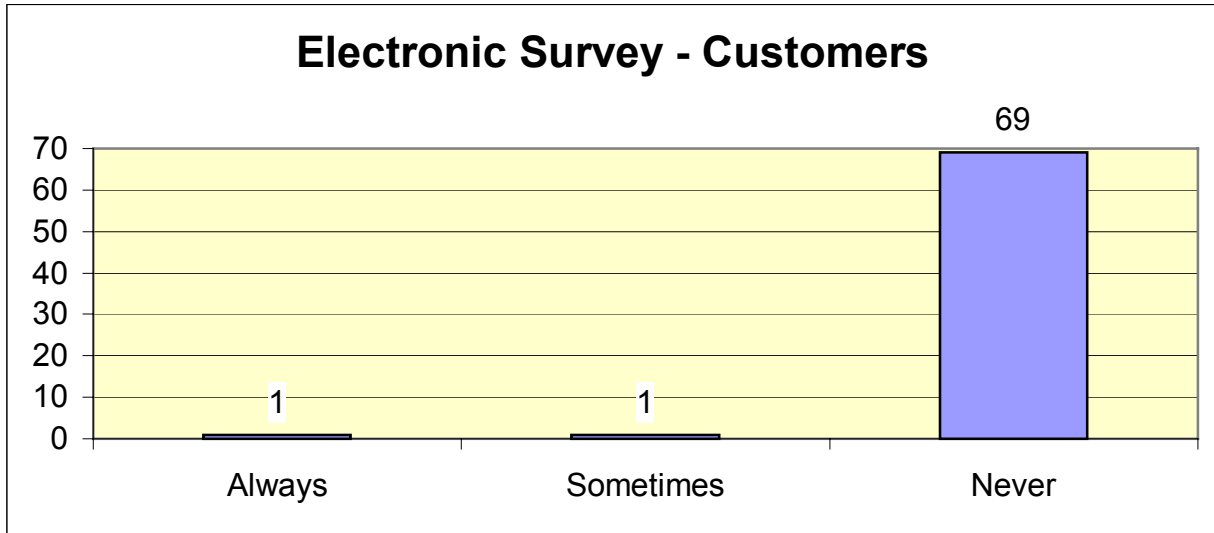


Figure 43. Frequency of usage of electronic survey – customers by West Virginia training professionals in business and industrial organizations.

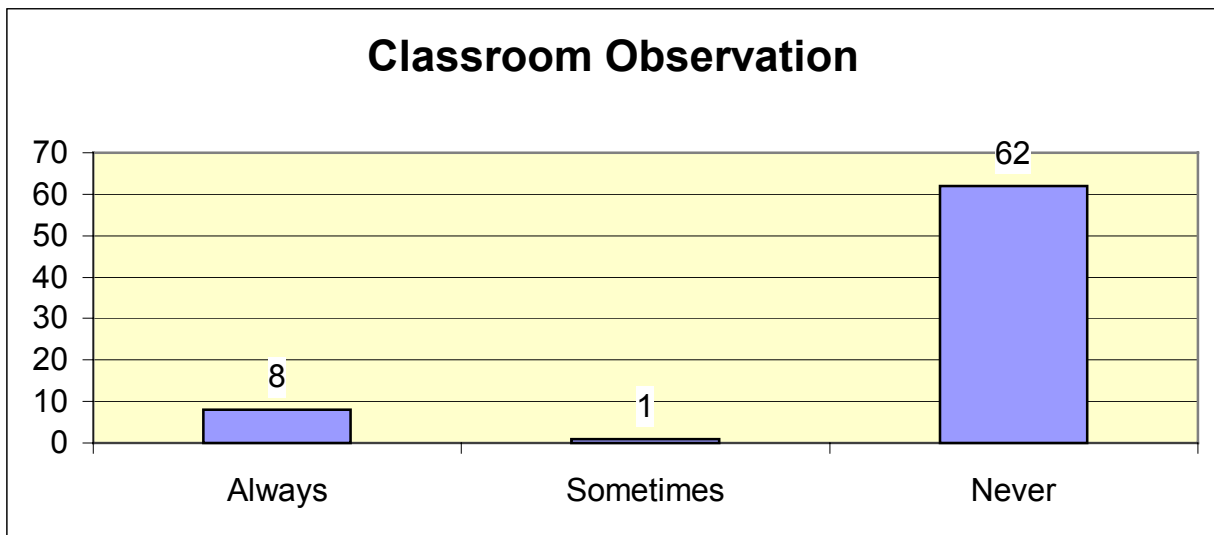


Figure 44. Frequency of usage of classroom observation by West Virginia training professionals in business and industrial organizations.

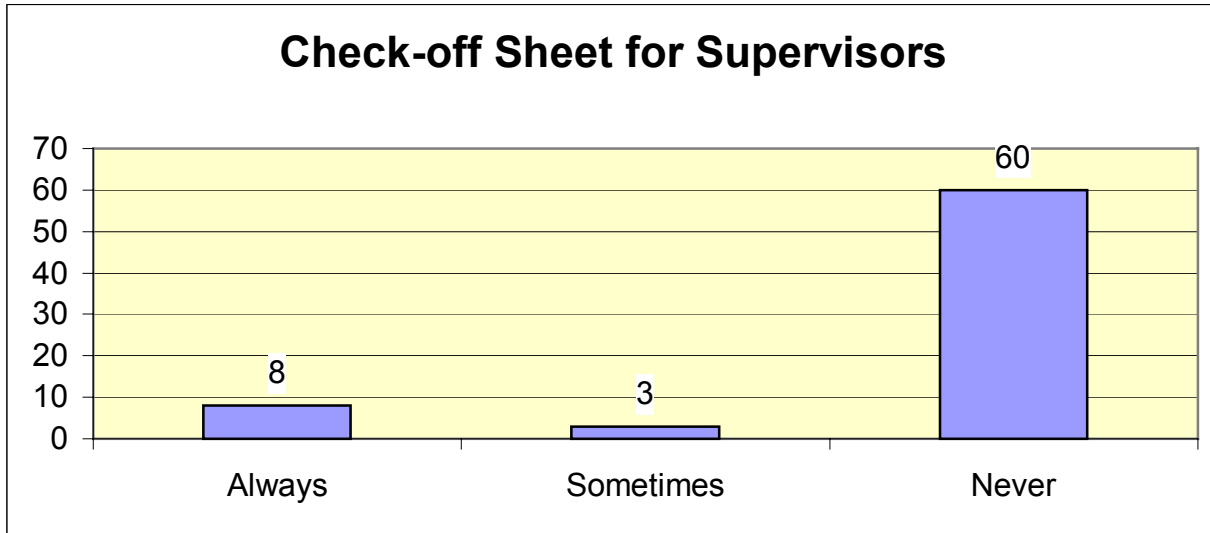


Figure 45. Frequency of usage of check-off sheet for supervisor by West Virginia training professionals in business and industrial organizations.

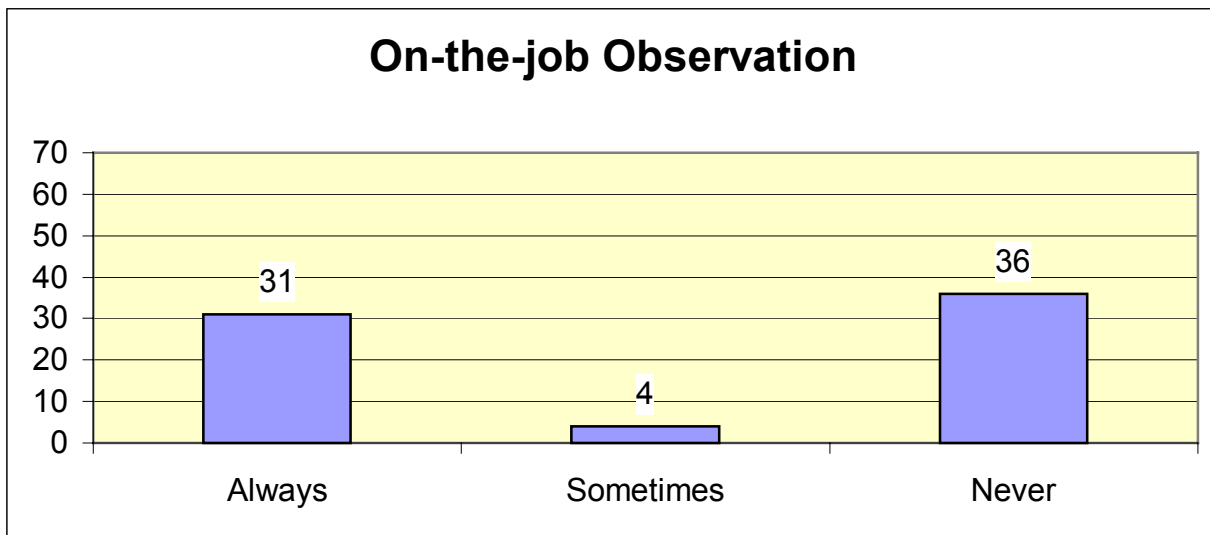


Figure 46. Frequency of usage of on-the-job observation by West Virginia training professionals in business and industrial organizations.

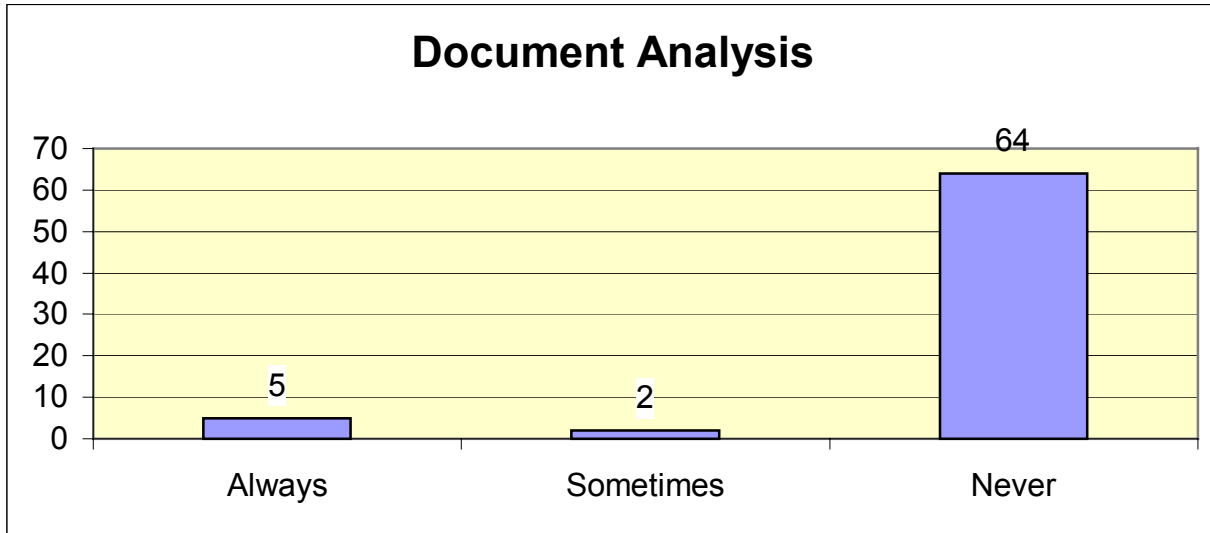


Figure 47. Frequency of usage of document analysis by West Virginia training professionals in business and industrial organizations.



### *Frequency of Usage by Results Evaluation*

The frequency of usage of results evaluation tools by West Virginia training professionals in business and industrial organizations are demonstrated in Figures 48 through 51. The most commonly utilized results evaluation tools by these training professionals included comparison with performance review forms and comparison with figures.

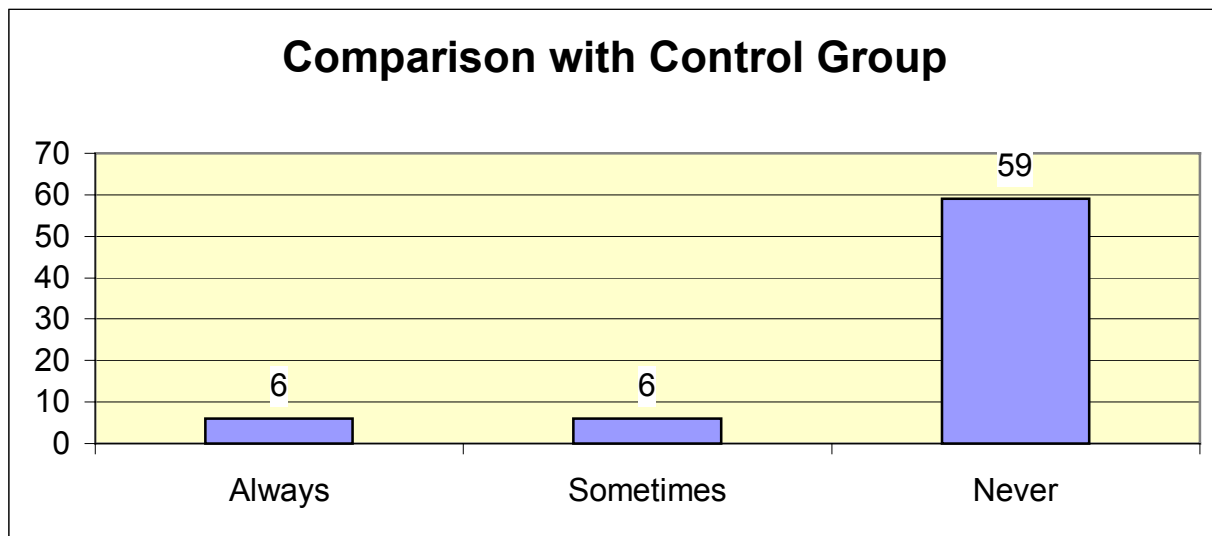


Figure 48. Frequency of usage of comparison with control group by West Virginia training professionals in business and industrial organizations.

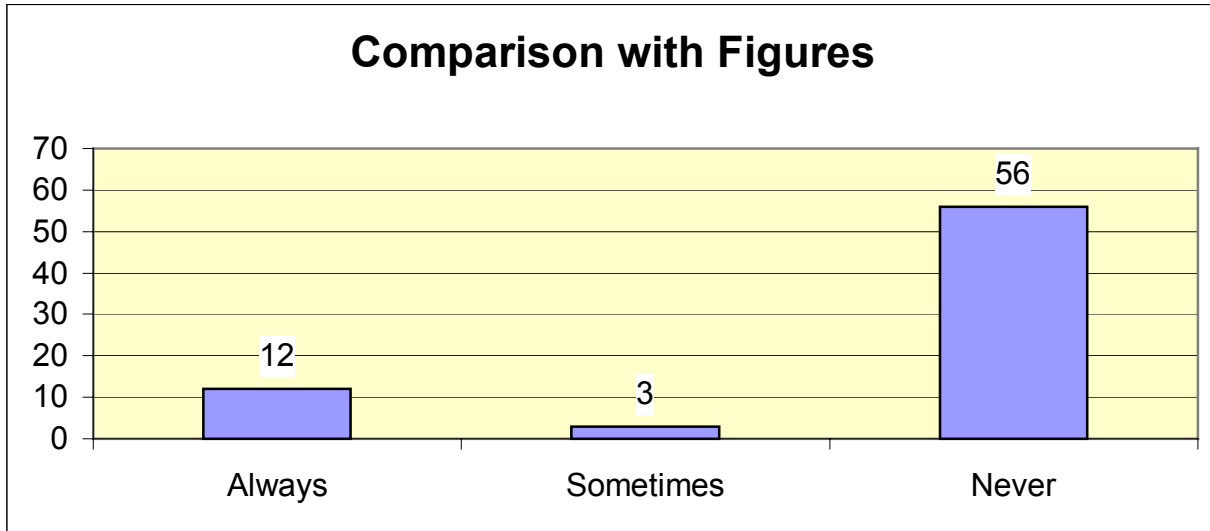


Figure 49. Frequency of usage of comparison with figures by West Virginia training professionals in business and industrial organizations.

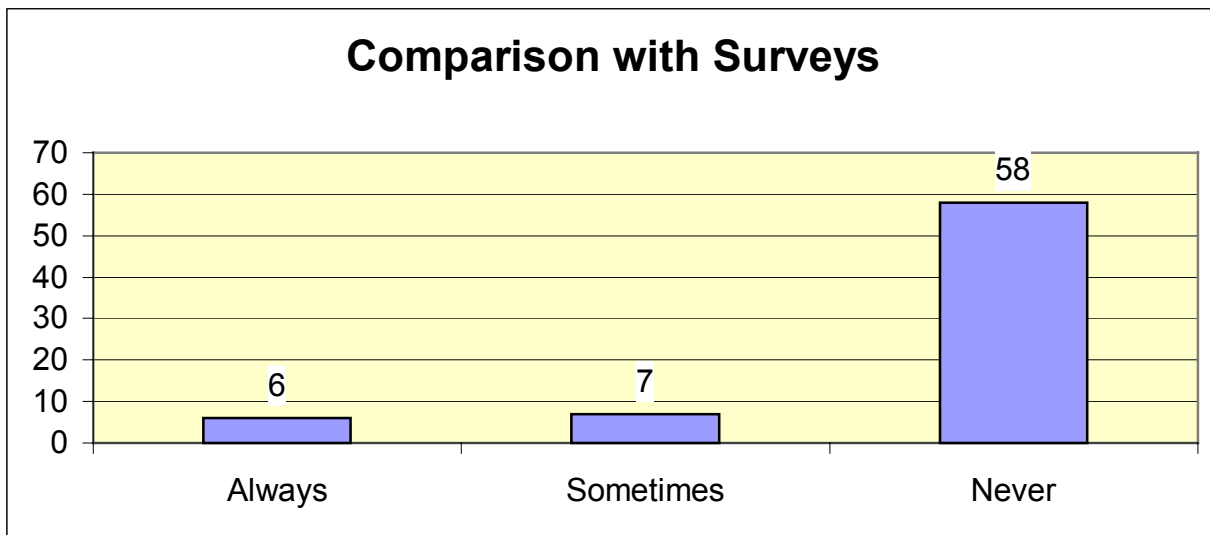


Figure 50. Frequency of usage of comparison with surveys by West Virginia training professionals in business and industrial organizations.

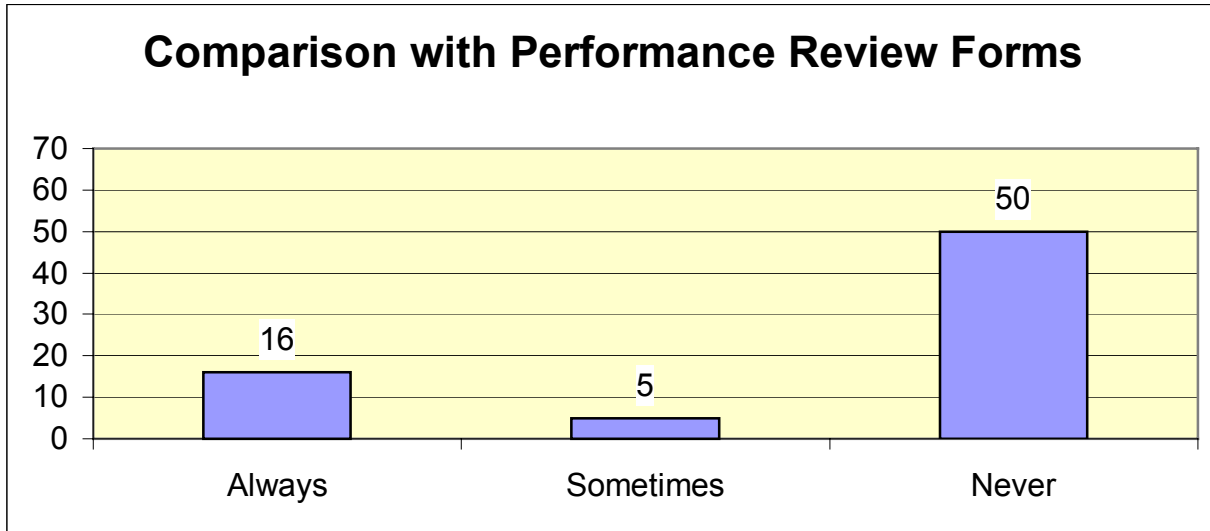


Figure 51. Frequency of usage of comparison with performance review forms by West Virginia training professionals in business and industrial organizations.

### *Frequency of Usage by Training Needs Analysis*

The frequency of usage of training needs analysis by West Virginia training professionals in business and industrial organizations is demonstrated in Table 3. Both organizational and individual needs analysis methods are used by more than 80% of these training professionals.

Table 3. Frequency Professional Trainers in West Virginia use Training Needs Analysis.

Frequency	Organizational Needs Analysis	Individual Needs Analysis
Never	6 – 8%	7 – 10%
Sometimes	6 – 8%	3 – 4%
Always	59 – 83%	61 – 86%

### *Frequency of Usage by Training Evaluation Level*

The frequency of usage of training evaluation levels by West Virginia training professionals in business and industrial organizations is demonstrated in Table 4. Learning evaluation is used most often.

Table 4. Frequency Professional Trainers in West Virginia use Evaluation Methods.

Frequency	Satisfaction	Learning	Behavior	Results
Never	29 – 41%	17 – 24%	34 – 48%	38 – 54%
Sometimes	10 – 14%	7 – 10%	4 – 6%	5 – 7%
Always	32 – 45%	47 – 66%	33 – 46%	28 – 39%

*Analysis of Relationships Utilizing Two-Dimensional Chi-Square Test*

Tables 5 through 6 summarize results utilizing two-dimensional chi-square test on data obtained from West Virginia training professionals in business and industrial organizations. The chi-square probability is less than .05 in all of the following tables, which indicates that there is a significant relationship between the variables involved. Training professionals who have a bachelor's degree or higher tend to always use the on-the-job observation method to determine organizational training needs.

Table 5. Distribution of Education Level and On-the-Job Observation Method to determine organizational training needs

Frequency	Associate Degree or Less	Bachelor's Degree or Higher	Total
Always	8	30	38
Sometimes	2	4	6
Never	15	9	24
Total	25	43	68

Missing = 3

Statistic	DF	Value	Probability
Chi-Square	2	10.903	0.00429

Table 6. Distribution of Years in Current Position and Electronic Survey of Peers Method to determine organizational training needs

Frequency	1 – 10 years	11 + years	Total
Always	1	8	9
Sometimes	10	5	15
Never	22	20	42
Total	33	33	66

Missing = 5

Statistic	DF	Value	Probability
Chi-Square	2	7.206	0.02724

### *Summary*

Chapter 4 described the analysis of the obtained research data. Responses, which were fully completed, were received from 71 of the 429 business and industrial organizations in West Virginia that were surveyed. This chapter discussed in detail the sample returns, demographic data, frequency of usage of organizational needs analysis methods, frequency of usage of individual needs analysis methods, frequency of usage of training needs analysis, frequency of usage of evaluation levels, and relationships utilizing two-dimensional chi-squares.

The next chapter will present a discussion of findings, conclusions, and recommendations on the obtained research data.

## CHAPTER 5

# Findings, Conclusions, and Recommendations

This chapter contains the findings, conclusions, and recommendations based upon the results of the research study. The purpose of the research study was to identify the extent training professionals in the state of West Virginia are using training needs analysis and evaluation methods; as well as, how the use of such tools has aided these organizations in providing effective training programs. The information that is obtained from the research study will provide information to professional trainers developing training programs in the state of West Virginia. The research data was obtained through administration of a survey, which determined the types of and frequency of training needs analysis methods and evaluation tools utilized in business and industrial organizations by West Virginia training professionals.

### *Discussion of Findings*

The sample for the research study consisted of professional training leaders in business and industrial organizations in the state of West Virginia. A random sample of 429 professional trainers in West Virginia was obtained by utilizing the Regulatory Training Center's business and industry mailing list. The 429 professional trainers surveyed represented 61% of the accessible population.

Responses were received from 73 of the 429 research subjects surveyed, for a survey response rate of 17.02%. Of those subjects responding, two subjects only completed the demographic data section of the questionnaire and did not complete the survey section regarding

the utilization of training needs analysis methods and evaluation tools. Therefore, there were 71 study responses that were completely filled out, for a response rate of 16.55%

Due to the low response rate, a random sample of the non-respondent training leaders were selected for a telephone survey, representing 15% of the non-respondents (60). The researcher used the Training Process Survey (Appendix C) as a patterned interview questionnaire. Three of the subjects phone numbers were no longer in service, reducing the sample to 57. Responses were received from 9 of the research subjects, for a response rate of 15.52%. No significant difference was identified between the analysis of the non-respondent group and the analysis outlined in Chapter 4; therefore, this research only discusses the responses from the original mailing.

### *Training Needs Analysis Methods*

*Organizational training needs analysis methods.* The analysis of the research data concluded that businesses and industrial organizations in West Virginia do not use a variety of organizational needs analysis to determine their training needs; however, 83% of the sampled population always uses at least one of the following identified methods. The supervisor suggestions method is used by 82% of the sampled population and the observing employees method is used by 73% of the sampled population to identify organizational training needs. Fewer than 60% of the businesses and industrial organizations sampled use the following methods to determine their organizational training needs (in order from most used to least used): interviewing employees (56%), surveying employees (52%), analyzing documents (51%), testing



employees (41%), focus group feedback (37%), interviewing employee customers (34%), interviewing employee subordinates (32%), and interviewing employee peers (27%).

*Individual training needs analysis methods.* Businesses and industrial organizations in West Virginia do not use a variety of individual needs analysis to determine their training needs; however, 86% of the sampled population always uses at least one of the following identified methods. The supervisor suggestions method is used by 83% of the sampled population and the observing employees method is used by 76% of the sampled population to identify individual training needs. Fewer than 55% of the businesses and industrial organizations sampled use the following methods to determine their individual training needs (in order from most used to least used): surveying employees (52%), interviewing employees (51%), analyzing documents (42%), testing employees (37%), interviewing employee customers (31%), focus group feedback (30%), interviewing employee subordinates (27%), and interviewing employee peers (25%).

### *Evaluation Methods*

Analysis of research data also concluded that training professionals in West Virginia do not use a variety of methods when evaluating employee satisfaction, learning, behavior change, and results. In fact, only 15% of the sampled population always uses all four levels of evaluation as identified by Kirkpatrick (1998). As the following findings will support, businesses and organizations in West Virginia do not adequately evaluate the effectiveness of their training programs.

*Satisfaction evaluation methods.* Satisfaction evaluation methods are always used by 45% and sometimes used by 14% of professional trainers in West Virginia. The paper/pencil survey method is the most often used technique professional trainers in West Virginia use to evaluate trainee satisfaction; 45% of the sampled population uses this method. Fewer than 25% of the businesses and industrial organizations sampled use the following methods to determine their trainee satisfaction (in order from most used to least used): personal patterned interview (24%), telephone patterned interview (13%), and electronic survey (11%).

*Learning evaluation methods.* Learning evaluation methods are always used by 66% and sometimes used by 10% of professional trainers in West Virginia. The on-the-job observation method is the most often used technique professional trainers in West Virginia use to evaluate learning, 63% of the sampled population uses this method. The paper/pencil post-test method is the second most frequently used method, 48% of professional trainers in West Virginia use this method. The following methods were used by 25% or fewer of the businesses and industrial organizations sampled to determine if learning occurred as a result of the training program (in order from most used to least used): paper/pencil pre-test (25%), document analysis (13%), personal patterned interview (11%), final project (13%), electronic post-test (11%), electronic pre-test (11%), and telephone patterned interview (4%).

*Behavior evaluation methods.* Behavior evaluation methods are always used by 46% and sometimes used by 6% of professional trainers in West Virginia. The on-the-job observation method is the most often used technique professional trainers in West Virginia use to evaluate behavior, 49% of the sampled population uses this method. The following methods were used by

15% or fewer of the businesses and industrial organizations sampled to determine if behavior has changed as a result of the training program (in order from most used to least used): paper/pencil survey – supervisor (25%), check-off sheet for supervisors (15%), paper/pencil survey – trainee (14%), classroom observation (13%), document analysis (10%), paper/pencil survey – subordinates (7%), paper/pencil survey – customers (7%), paper/pencil survey – peers (6%), electronic survey – trainee (3%), electronic survey – supervisor (3%), electronic survey – subordinate (3%), electronic survey – peers (3%), and electronic survey – customers (3%).

*Results evaluation methods.* Results evaluation methods are always used by 39% and sometimes used by 7% of professional trainers in West Virginia. The following methods were used by 30% or fewer of the businesses and industrial organizations sampled to determine the results of the training program (in order from most used to least used): comparison with performance review forms (30%), comparison with figures (21%), comparison with surveys (18%), and comparison with control group (17%).

### *Qualitative Data*

*Actions taken based on training evaluation results.* The following qualitative data were provided by subjects on the Training Process Survey describing actions they have taken based on their training evaluation results. Training Evaluation results have aimed professional trainers to specific areas of their training programs to allow for improvement. Evaluation results have also permitted organizations to eliminate duplicate and outdated training courses, ultimately allowing them to provide training that meets the organizational and employee needs.

*“(The) elimination of (training) programs that were outdated; elimination of (training) programs that weren’t useful in the field.”*

*“We (unnamed business or industrial organization) have reworked several training structures as a result of evaluation”*

*“Evaluating the training helps us (unnamed business or industrial organization) to improve training.”*

*“We (unnamed business or industrial organization) have changed training to be more employee involvement.”*

*“My organization has been able to modify training modalities to better accommodate our new employees as well as our existing staff and disciplines”*

*“Ability to key on which training is most effective”*

*“More efficient use of training division personnel; Avoidance of duplication of efforts”*

*“Evaluation helped us (unnamed business or industrial organization) to determine the correct refresher, review training for each of our internal training courses; Evaluation helped us to weed out training courses and events that did not add value to our organization”*

*“Most of our (unnamed business or industrial organization) training evaluation focuses in delivery and how to improve it or identify what was missed or misunderstood.”*

*“We (unnamed business or industrial organization) have a more focused and defined safety-training program. Having both outside and inside personnel evaluating the program we have improved it.”*

*Results from using training needs analysis.* Results from the sample population indicated positive results from those business and industrial organizations that identify their training needs using analysis tools. Following are actual statements as written by sampled subjects on the Training Process Survey.

*“We (unnamed business or industrial organization) regularly survey our employees and ask them what training they feel they need. We do everything we can to see that their requirements are met. This benefits the company as well as the employee.”*

*“We (unnamed business or industrial organization) have been able to adjust the amount of time away from the work- station for training by focusing & combining efforts.”*

*“(The use of training needs analysis resulted in) Reduced customer shipping errors; Increased safety; Compliance with Fed & State Regulations; Reduced paper work; Increased efficiency”*

*“Our organization realized a significant increase in productivity as a result of targeting our training needs.”*

*“My organization noted a reduction in supervisor time dealing with unsatisfied customer as a result of training”*

*“By being able to focus in on company or industry specific training needs we (unnamed business or industrial organization) are able to save money as it relates to our training budget and also we are able to minimize our driver's downtime when they come in for training.”*

*“The cost of employee training has been reduced due to focused group training.”*

*“An efficient, well-trained technical work force is the key to success in any service-oriented organization. By identifying shortcomings in technical or procedural skills, we are better able to support our customer's needs. This results in repeat business!”*

*“(The use of training needs analysis) Has resulted in reduction in the over-use of unnecessary in-services, classes, etc. Thus, less paid out in wages, etc.”*

*“Analysis helps us (unnamed business or industrial organization) to target training to areas of high importance and low performance. Additionally it has helped us to customize learning to individual lifestyles.”*

*“Help us (unnamed business or industrial organization) get in compliance with OSHA regs.”*

*“(The use of training needs analysis) Increased customer satisfaction; Increased confidence of employees in job performance.”*

*“It (the use of training needs analysis) has given us a standard of the type of training needed for each job type (category). From this standard training regime for the job type, we have then been able to determine where to get the needed instruction, information, or supplies, and to make determination for each individual when the training goal has been accomplished.”*

*“(Identifying) Specific training needs allow us to be more efficient and to focus on special needs.”*

*Results from using training evaluation.* Results from the sample population indicated positive training results from those business and industrial organizations that evaluate training. Following are actual statements as written by sampled subjects on the Training Process Survey describing specific results directly related to the use of training evaluations.

*“Lower turnover - crew & mgt; higher customer satisfaction; increase sales; lower labor costs”*

*“Increase in knowledge, skills and abilities of employees; increase of professional services to public”*

*“Increased productivity; accuracy”*

*“Increase in customer satisfaction; Decrease in paperwork mistakes that decrease time used for corrections; Increase in readiness for surveys by regulatory bodies; Increase in sales”*

*“Workers are made more aware of some of the hazards involved in our work that they may not have been aware of before training & therefore work more cautiously & also they know what to expect from our organization & our work methods which have shown an increase in profit.”*

*“Improved safety record. Reduced lost-time accidents; More communication efforts between Supervisor and employee; Improved employee awareness to continuous improvement.”*

*“Decrease in mistakes on computer systems after detailed training”*

*“Better safety; Less (sic) customer errors; less (sic) internal procedural errors”*

## *Conclusions*

The research study was designed to determine the frequency of employee training and to determine the various types of training needs analysis and evaluation methods being utilized by professional trainers of business and industrial organizations in the state of West Virginia. The following conclusions can be drawn from the research study:

1. Professional trainers of most business and industrial organizations in the state of West Virginia provided employee training at least once a month. A similar study conducted by Mayes (1999) utilizing the same population concluded the same frequency of training.
2. Training professionals in West Virginia utilized supervisor suggestion and employee observation methods more frequently than other types of training needs analysis method. According to Mager (1997), “Unfortunately, many administrators and managers don’t yet know how to analyze problems having to do with people performance. So when they see a symptom—someone doing something they shouldn’t, or not doing something they should—they jump to the conclusion that the person *doesn’t know how* to do it. So they ask their trainers to provide instruction. In thousands of instances, that instruction is then used to ‘teach’ people things they already know.” He refers to this practice as “A total waste.”
3. Training professionals in West Virginia utilized paper/pencil survey and personal patterned interview methods more frequently than other types of satisfaction evaluation method. According to Kirkpatrick (1998), “The interview gives you an opportunity to get more information.” He states, “The best approach is to use a patterned interview in which all interviewees are asked the same questions.” It



should also be considered that “interviews are very time-consuming, and only a few can be conducted if the availability of the person doing the interviewing is limited,” according to Kirkpatrick (1998).

4. Training professionals in West Virginia utilized paper/pencil post-test and on-the-job observations methods more frequently than other types of learning evaluation method.
5. Training professionals in West Virginia utilized on-the-job observation more frequently than other types of behavior evaluation method.
6. Training professionals in West Virginia utilized comparison with performance review forms and comparison with figures methods more frequently than other types of results evaluation method.
7. Professional trainers in the state of West Virginia utilized the on-the-job organizational needs analysis method more frequently if they had a bachelor’s degree or higher level of education.
8. Training professionals in the state of West Virginia do not frequently utilize all four levels of training evaluations. Kirkpatrick (1998) suggests, “In most cases, both large and small, there is little pressure from top management to prove that the benefits of training outweigh the cost.” He goes on to say, “Even if the pressure for results never comes, trainers will benefit by becoming accepted, respected, and self-satisfied.” And according to Kirkpatrick (1998), this is accomplished by “evaluating and reporting upon the worth of our training.”

9. Professional trainers in the state of West Virginia who utilized the electronic survey of peers method to determine organizational training needs, did so more frequently if they had been in their current position more than 10 years.
10. Training professionals in the state of West Virginia analyze their training needs more frequently than they evaluate their training programs.

### *Recommendations*

The following recommendations are proposed:

1. The study should be replicated with efforts to minimize the length of the questionnaire, which would increase the likelihood of a higher return rate.
2. The study should be replicated with efforts to obtain a larger sample size, which would contain data on subjects from bordering states such as Kentucky, Ohio, Virginia, and Pennsylvania.
3. The data obtained from the research study should be provided to professional trainers in the state of West Virginia to be utilized in the development of training programs for business and industry.
4. The data obtained from the research study should be provided to the American Society for Training and Development (ASTD) to be utilized in the development of train the trainer programs for current trainers.

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APPENDIX



MARSHALL  
UNIVERSITY

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Division of Human Development and Allied Technology  
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June 19, 2001

- Adult and Technical Education
- Counseling
- Family and Consumer Services
- Safety Technology

Dear Sir or Madam:

Building and sustaining employee competencies to achieve high performance is a goal shared by many organizations. Various methods are recommended by theorists to accomplish this goal. However, it is unknown as to which methods are most beneficial to organizations, specifically organizations in West Virginia, in identifying actual training needs and determining factual results related to the effectiveness of the training programs being offered.

Your organization is one of a small number of randomly sampled businesses throughout West Virginia being asked specific questions on how your organization determines actual training needs. Additionally, there are specific questions that seek to identify what methods are being utilized to evaluate the training programs your organization offers to meet these identified training needs. In order for the results to truly represent the way businesses in West Virginia conduct organizational needs analysis, individual needs analysis, and training evaluations, it is important that this questionnaire be completed in its entirety and returned in the provided postage-paid return envelope within two weeks from the above date.

You may be assured of complete confidentiality. The return envelope has an identification number for mailing purposes only. This is so that we may check your name off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

The results of this research will be made available to all interested organizations. Please check the *yes* box on the last question of this questionnaire if your organization would like to obtain a copy of these results.

I would be most happy to answer any questions you might have. Please write to the above address or call anytime Monday thru Friday from 7:00 a.m. to 3:30 p.m. at (304) 529-6988.

Thank you for your assistance.

Sincerely,

Jody L. Christian  
Graduate Student,  
Adult and Technical Education

Enclosures:

1. Questionnaire
2. Postage-paid Return Envelope



MARSHALL  
UNIVERSITY

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July 23, 2001

- Adult and Technical Education
- Counseling
- Family and Consumer Services
- Safety Technology

Dear Sir or Madam:

You have been selected to participate in a survey being conducted as part of my graduate research work. Approximately four weeks ago, you should have received a letter similar to this one with the same attached questionnaire. To date, I have not received a completed survey from your organization. If you are not the person responsible for training and development in your organization, please pass this survey along to the person who is responsible for your organization's training and development needs. I recognize that today's business environment is very busy; **I assure you it will only take 15 minutes of your time to complete this survey.**

The purpose of this study is to determine which methods are most beneficial to organizations in West Virginia for identifying actual training needs and determining factual results related to the effectiveness of the training programs being offered. Since your organization is one of a small number of randomly sampled businesses throughout West Virginia being asked specific questions related to this purpose, **your response is critical to this research.** Upon completion of this survey, please return it in the provided postage-paid return envelope within two weeks from the above date.

You may be assured of complete confidentiality. The return envelope has an identification number for mailing purposes only. This is so that we may check your name off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

The results of this research will be made available to all interested organizations. Please check the *yes* box on the last question of this questionnaire if your organization would like to obtain a copy of these results.

I would be most happy to answer any questions you might have. Please write to the above address or call anytime Monday thru Friday from 7:00 a.m. to 3:30 p.m. at (304) 529-6988.

Again, thank you for your assistance.

Sincerely,

Jody L. Christian  
Graduate Student,  
Adult and Technical Education

Enclosures:

1. Questionnaire
2. Postage-paid Return Envelope

Please answer the following questions regarding the *training needs analysis methods* and *evaluation tools* used in your organization. This information will be used to provide direction to organizations in West Virginia who are revising or newly implementing a training management system. All italicized words are defined at the top of each sheet.

Thank you for your assistance!

**Contract Training:** To enter into or make an agreement, to acquire training from a source other than the organization for which you are associated.  
**Evaluation Tools:** Something used in the performance of the evaluation program; an instrument.  
**Training Needs Analysis Methods:** Ways in which to accomplish the act of determining a conspicuous difference or imbalance of a specific range of skills, knowledge, or attitudes relating to individuals within the organization or the organization as a whole.

The person who is completing the survey should answer the following questions pertaining to himself/herself.

<p>AGE:</p> <input type="checkbox"/> 20-29 <input type="checkbox"/> 30-39 <input type="checkbox"/> 40-49 <input type="checkbox"/> 50-59 <input type="checkbox"/> 60+ <p>GENDER:</p> <input type="checkbox"/> Female <input type="checkbox"/> Male <p>RACE:</p> <input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> American Indian, Eskimo, and Aleut <input type="checkbox"/> Asian and Pacific Islander <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Bi-Racial	<p>Highest Degree Earned:</p> <input type="checkbox"/> High School <input type="checkbox"/> Bachelor's <input type="checkbox"/> Master's <input type="checkbox"/> Doctorate <p>Field(s) degree is in:          _____          _____          _____</p>	<p>Current job title:          _____</p> <p>Do you currently have training responsibilities?  <input type="checkbox"/> Yes  <input type="checkbox"/> No</p> <p>Years worked in current position:  <input type="checkbox"/> 1-5  <input type="checkbox"/> 6-10  <input type="checkbox"/> 11-15  <input type="checkbox"/> 16-20  <input type="checkbox"/> 20+</p>
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**Organization**

- |  |   |
|--|---|
| <p>1. Type of organization:</p> <input type="checkbox"/> Manufacturing<br><input type="checkbox"/> Wholesale/Retail<br><input type="checkbox"/> Educational<br><input type="checkbox"/> Medical<br><input type="checkbox"/> Finance/Banking<br><input type="checkbox"/> Other: _____ | <p>2. How many employees are in your organization?</p> <input type="checkbox"/> 1-50<br><input type="checkbox"/> 51-100<br><input type="checkbox"/> 101-250<br><input type="checkbox"/> 251-500<br><input type="checkbox"/> 501-999<br><input type="checkbox"/> 1000+ |
|--|---|
3. How often is employee training offered in your organization?
- 
- Weekly
- 
- 
- Once monthly
- 
- 
- Once every 3-4 months
- 
- 
- Twice a year
- 
- 
- Once a year
4. Who provides training for your organization? (check all that apply)
- 
- Training department.
- 
- 
- In-house personnel (other than training department) who are subject matter experts.
- 
- 
- External
- contracted training*
- .
5. Select the one method utilized most to provide training in your organization?
- 
- Training department.
- 
- 
- In-house personnel (other than training department) who are subject matter experts.
- 
- 
- External
- contracted training*
- .



**Analyzing Documents:** To examine methodically written or printed paper that bears the original, official, or legal form of something and can be used to furnish decisive evidence or information.

**Focus Group Feedback:** The responses of a small group selected from a wider population and sampled, as by open discussion, for its members' opinions about a particular subject or area.

**Individual Training Needs:** A lack of skill, knowledge, or attitude required or desired for an individual.

**Interviewing:** A conversation, such as one conducted by a reporter, in which facts or statements are elicited from the employee, subordinates, peers, and/or customers about the employee.

**Observing Employees:** To watch attentively for the purpose of finding out specific behaviors of the employee.

**Organizational Training Needs:** A lack of skill, knowledge, or attitude required or desired for the organization as a whole.

**Supervisor Suggestions:** A proposal, declaration of a plan for something by one who makes decisions or exercises authority.

**Surveying Employees:** Multiple choice or short answer questions on paper to be completed by the trainee utilizing paper/pencil or automated means.

**Testing Employees:** A series of questions or problems designed to determine knowledge, skill, or attitude of employees.

**Training Needs Analysis:** The act of determining a conspicuous difference or imbalance of a specific range of skills, knowledge, or attitudes relating to the individuals within the organization or the organization as a whole.

### Training Needs Analysis

6. Which of the following methods are used in your organization to determine *organizational training needs*? For methods checked, please circle how often this training needs analysis method is utilized. Explanations for each method are above. (Check all that apply)

	Always		Sometimes		Never
<input type="checkbox"/> Supervisor suggestions	5	4	3	2	1
<input type="checkbox"/> Surveying employees	5	4	3	2	1
<input type="checkbox"/> Testing employees	5	4	3	2	1
<input type="checkbox"/> Observing employees	5	4	3	2	1
<input type="checkbox"/> Interviewing employees	5	4	3	2	1
<input type="checkbox"/> Interviewing employee subordinates	5	4	3	2	1
<input type="checkbox"/> Interviewing employee peers	5	4	3	2	1
<input type="checkbox"/> Interviewing employee customers	5	4	3	2	1
<input type="checkbox"/> Focus group feedback	5	4	3	2	1
<input type="checkbox"/> Analyzing documents	5	4	3	2	1
<input type="checkbox"/> Other: _____	5	4	3	2	1

7. Which of the following methods are used in your organization to determine *individual training needs*? For methods checked, please circle how often this training needs analysis method is utilized. Explanations for each method are above. (Check all that apply)

	Always		Sometimes		Never
<input type="checkbox"/> Supervisor suggestions	5	4	3	2	1
<input type="checkbox"/> Surveying employees	5	4	3	2	1
<input type="checkbox"/> Testing employees	5	4	3	2	1
<input type="checkbox"/> Observing employees	5	4	3	2	1
<input type="checkbox"/> Interviewing employees	5	4	3	2	1
<input type="checkbox"/> Interviewing employee subordinates	5	4	3	2	1
<input type="checkbox"/> Interviewing employee peers	5	4	3	2	1
<input type="checkbox"/> Interviewing employee customers	5	4	3	2	1
<input type="checkbox"/> Focus group feedback	5	4	3	2	1
<input type="checkbox"/> Analyzing documents	5	4	3	2	1
<input type="checkbox"/> Other: _____	5	4	3	2	1

**Contract Training:** To enter into or make an agreement, to acquire training from a source other than the organization for which you are associated.  
**In-house Training:** To acquire training from a source within the organization for which you are associated.  
**Patterned Interview:** A document having a pre-set list of questions that remain the same and are asked face to face or over the telephone.  
**Survey:** Multiple choice or short answer questions distributed to one individual or a particular group of individuals for completion.  
**Trainee Satisfaction:** The measurement of how trainee-s fell about one or more of the following: the facilities; the schedule; the methods of instruction; the instructor's ability; visual aids; handouts; the value trainees place on individual aspects of the training program.  
**Training Evaluation:** The process of measuring trainee satisfaction, learning, behavior, and results.  
**Training Needs Analysis:** The act of determining a conspicuous difference or imbalance of a specific range of skills, knowledge, or attitudes relating to the individuals within the organization or the organization as a whole.

8. Please describe specific examples of how *training needs analysis* has benefited your organization? (For example, my organization noted a significant reduction in the training budget as a result of targeting our training needs.)

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**Training Evaluation**

9. Which of the following methods are used in your organization to evaluate *trainee satisfaction*? For each method checked, please circle how often the method is utilized. Explanations of each method are above. (check all that apply)

	Always		Sometimes		Never
<input type="checkbox"/> Survey - paper/pencil	5	4	3	2	1
<input type="checkbox"/> Survey - electronic	5	4	3	2	1
<input type="checkbox"/> Patterned interview - personal	5	4	3	2	1
<input type="checkbox"/> Patterned interview - telephone	5	4	3	2	1
<input type="checkbox"/> Other: _____	5	4	3	2	1
<input type="checkbox"/> None; this evaluation is currently not being conducted.					

10. If your organization currently evaluates *trainee satisfaction*, which courses and employees do you evaluate?

Answer the following for *in-house training*, if applicable:

- All courses and all employees.
- All courses and a sample of employees who completed each course.
- A sample of all courses and all employees who completed the course.
- A sample of all courses and a sample of employees who completed the course.

Answer the following for *contracted training*, if applicable:

- All courses and all employees.
- All courses and a sample of employees who completed each course.
- A sample of all courses and all employees who completed the course.
- A sample of all courses and a sample of employees who completed the course.

**Analyzing Documents:** To examine methodically written or printed paper that bears the original, official, or legal form of something and can be used to furnish decisive evidence or information.

**Contract Training:** To enter into or make an agreement, to acquire training from a source other than the organization for which you are associated.

**Final Project:** An extensive task undertaken by a trainee or group of trainees to apply, illustrate, or supplement classroom lessons.

**In-house Training:** To acquire training from a source within the organization for which you are associated.

**Learning:** 1. To gain knowledge, information, comprehension, skill, or mastery of through experience or study. 2. The skill, knowledge or attitude conveyed by instruction or study.

**Patterned Interview:** A document having a pre-set list of questions that remain the same and are asked face to face or over the telephone.

**Post-test:** A series of questions or problems designed to determine knowledge, skill, or attitude of employees after training.

**Pre-test:** A series of questions or problems designed to determine knowledge, skill, or attitude of employees prior to training.

**On-the-job Observation:** To watch attentively for the purpose of finding out specific behaviors displayed by employees on the job.

11. Which of the following methods are used in your organization to evaluate *learning*? For each method checked, please circle how often the method is utilized. Explanations of each method are above. (check all that apply)

	Always		Sometimes		Never
<input type="checkbox"/> <i>Post-test - paper/pencil</i>	5	4	3	2	1
<input type="checkbox"/> <i>Pre-test - paper/pencil</i>	5	4	3	2	1
<input type="checkbox"/> <i>Post-test - electronic</i>	5	4	3	2	1
<input type="checkbox"/> <i>Pre-test - electronic</i>	5	4	3	2	1
<input type="checkbox"/> <i>Patterned interview - personal</i>	5	4	3	2	1
<input type="checkbox"/> <i>Patterned interview - telephone</i>	5	4	3	2	1
<input type="checkbox"/> <i>On-the-job observation</i>	5	4	3	2	1
<input type="checkbox"/> <i>Final project</i>	5	4	3	2	1
<input type="checkbox"/> <i>Document analysis</i>	5	4	3	2	1
<input type="checkbox"/> Other: _____	5	4	3	2	1
<input type="checkbox"/> None; this evaluation is currently not being conducted.					

12. If your organization currently evaluates *learning*, which courses and employees do you evaluate?

Answer the following for *in-house training*, if applicable:

- All courses and all employees.
- All courses and a sample of employees who completed each course.
- A sample of all courses and all employees who completed the course.
- A sample of all courses and a sample of employees who completed the course.

Answer the following for *contracted training*, if applicable:

- All courses and all employees.
- All courses and a sample of employees who completed each course.
- A sample of all courses and all employees who completed the course.
- A sample of all courses and a sample of employees who completed the course.

**Analyzing Documents:** To examine methodically written or printed paper that bears the original, official, or legal form of something and can be used to furnish decisive evidence or information.

**Contract Training:** To enter into or make an agreement, to acquire training from a source other than the organization for which you are associated.

**Surveying Employees:** Multiple choice or short answer questions on to be completed by the trainee utilizing paper/pencil and/or automated means.

**In-house Training:** To acquire training from a source within the organization for which you are associated.

**Behavior Change:** an approach that emphasizes observable measurable behavior.

**Classroom Observation:** The act of noting and recording pertinent information with instruments based on an inference or a judgment.

**Check-off Sheet for Supervisors:** A document having a pre-set list of questions/actions that a supervisor answers/check-off as each pertain to the employee.

**On-the-job Observation:** To watch attentively for the purpose of finding out specific behaviors displayed by employees on the job.

13. Which of the following methods are used in your organization to evaluate *behavior change*? For each method checked, please circle how often the method is utilized. Explanations of each method are above. (check all that apply)

	Always		Sometimes		Never
<input type="checkbox"/> Paper/pencil survey - trainee	5	4	3	2	1
<input type="checkbox"/> Paper/pencil survey - supervisors	5	4	3	2	1
<input type="checkbox"/> Paper/pencil survey - subordinates	5	4	3	2	1
<input type="checkbox"/> Paper/pencil survey - peers	5	4	3	2	1
<input type="checkbox"/> Paper/pencil survey - customers	5	4	3	2	1
<input type="checkbox"/> Electronic survey - trainee	5	4	3	2	1
<input type="checkbox"/> Electronic survey - supervisors	5	4	3	2	1
<input type="checkbox"/> Electronic survey - subordinates	5	4	3	2	1
<input type="checkbox"/> Electronic survey - peers	5	4	3	2	1
<input type="checkbox"/> Electronic survey - customers	5	4	3	2	1
<input type="checkbox"/> Classroom observation	5	4	3	2	1
<input type="checkbox"/> Check-off sheet for supervisors	5	4	3	2	1
<input type="checkbox"/> On-the-job observation	5	4	3	2	1
<input type="checkbox"/> Document analysis	5	4	3	2	1
<input type="checkbox"/> Other: _____	5	4	3	2	1
<input type="checkbox"/> None; this evaluation is currently not being conducted.					

14. If your organization currently evaluates *behavior change*, which courses and employees do you evaluate?

Answer the following for *in-house training*, if applicable:

- All courses and all employees.
- All courses and a sample of employees who completed each course.
- A sample of all courses and all employees who completed the course.
- A sample of all courses and a sample of employees who completed the course.

Answer the following for *contracted training*, if applicable:

- All courses and all employees.
- All courses and a sample of employees who completed each course.
- A sample of all courses and all employees who completed the course.
- A sample of all courses and a sample of employees who completed the course.

**Comparison with Control Group:** 1. The act of comparing; an examination of two or more groups of employees with the view of discovering the resemblances or differences after the training was presented to one group. 2. An experiment that isolates the effect of training on one group by holding constant all variables but training with a second group during observation.

**Comparison with Figures:** An experiment that examines hard data (output, time, quality, cost, etc.) related to the training course in the organization before and after training with the view of discovering the resemblances or differences after the training was presented to employees.

**Comparison with Performance Review Forms:** An experiment that examines supervisors appraisal of employees in the organization before and after training with the view of discovering the resemblances or differences after the training was presented to employees.

**Comparison with Surveys:** An experiment that examines soft data (customer satisfaction, efficient use of human resources, etc.) related to the training course in the organization before and after training with the view of discovering the resemblances or differences after the training was presented to employees.

**Results:** The organizational benefit or consequence of a training course; an outcome.

15. Which of the following methods are used in your organization to evaluate *results*? For each method checked, please circle how often the method is utilized. Explanations of each method are above. (check all that apply)

	Always		Sometimes		Never
<input type="checkbox"/> Comparison with control group	5	4	3	2	1
<input type="checkbox"/> Comparison with figures	5	4	3	2	1
<input type="checkbox"/> Comparison with surveys	5	4	3	2	1
<input type="checkbox"/> Comparison with performance review forms	5	4	3	2	1
<input type="checkbox"/> Other: _____	5	4	3	2	1
<input type="checkbox"/> None; this evaluation is currently not being conducted.					

16. What results have been correlated to your organization's training program? (Example 1: Decrease in workplace accidents after implementing a new safety training program. Example 2: Increase in customer satisfaction after problem solving training was completed by all employees.)

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17. Please describe specific examples of how evaluating the training provided to employees has benefited your organization? (Example 1: My organization noted a significant reduction in the training result of evaluating our training. (Example 2: My organization eliminated 500 redundant and/or outdated training courses as a result of evaluating our training.)

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18. Is your organization interested in obtaining the results of this study?

- Yes
- No

*Thank you for participating!*