A comparison of research findings obtained through focus group sessions with those acquired through surveys

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A comparison of research findings obtained through focus group sessions with those acquired through surveys

by

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CHAPTER I. INTRODUCTION

Over the past decade, focus groups have grown from a little-known research tool to a household word. The same people who have never heard of a probability sample speak knowingly of focus groups and may even have an idea of what they are. (Abelson, 1989, p. 58).

Increasingly, educators have striven to use reliable information to determine the effectiveness of their programs, processes and curriculums. In this search for useful information upon which to make decisions many have experimented with different methodologies to collect and analyze information. Traditionally, quantitative methods have been used. These methods include surveys and questionnaires. The appeal of these methods is that they can be analyzed statistically. Using recognized statistical formulas the researcher can state with some certainty the degree of significance of the findings. Concomitantly, if the researcher used proper research conventions he or she could generalize findings to the general population.

Despite these advantages of quantitative research methods, educators have begun to look for other tools for collecting information. Lederman (1990) noted that researchers began searching for deeper information about what their subjects were thinking. Byers and Wilcox (1991) said that researchers began seeking to develop “grounded theory” (p.64). Grounded theory, according to these authors, means getting information beyond mere numbers. This information includes learning not only what people are thinking but why they are thinking as they are.
Another reason why researchers began to look for other methods of gathering information is the discomfort many practitioners have with statistical methods. Many who need to obtain information are not conversant with statistical methodologies. The language of statistical studies can also be difficult to use in sharing information with those untrained in statistics. Hence, methods that are less dependent on statistics and on statistical language have become more widely used.

The search for the "why" behind the answers and for less statistically dependent methods has led to increasing numbers of studies which use focus groups to gather information. This qualitative methodology is now common place in many fields including marketing and education. Often focus groups are used in combination with other research techniques when seeking information. Writers such as Fores and Alonso (1995) saw the focus groups best used in conjunction with other research methodologies such as quantitative methods and other qualitative methods such as individual interviews. However, writers such as Calder (1977) and Krueger (1994) have argued that information from focus groups can stand alone as a basis for decision making. Desousges and Frey (1989) noted that such information gained through focus groups is often the only information decision makers are using.

Desvouses and Frey (1989) expressed concern over this sole use of data gained through focus groups. They felt this was unwise because lack of statistical rigor made focus group findings inappropriate for generalizing to a larger population.

This study will explore whether, and how, information gained from focus groups can be generalized to a larger population.
Statement of the Problem

Focus group studies have become a frequently used tool. They are often employed by school districts and other organizations to determine what their stakeholders are thinking about organizational effectiveness, programs, and services.

According to investigators such as Camaghi (1994), Jacobi (1991), and Ward (1991) this methodology’s findings can be used as the sole research tool. Camaghi writes. “In many areas involving student affairs work and the need to obtain information on individual s’ experience, attitudes, or perceptions, it may be perfectly legitimate to use focus groups as the sole means for data collection” (p. 110). Using focus groups as the sole means of data collection, without determining if the information is representative of the larger population from which the participants are drawn, is supported by such authors and is often done by professionals who wish to get a quick idea of what their constituencies are thinking.

The problem of this study is to determine if this uncritical use of the method is warranted. The investigation will use focus group findings gained from a study of a new teacher evaluation program being used in the Mesa, Arizona, School District for the first time during the 1996-1997 school year. These findings will be compared with the findings from a questionnaire survey given to all teachers, evaluators, and clerical workers using the new program. From this comparison, inferences will be drawn about the generalizability of focus group findings to the larger population from which they are drawn.
Purpose of the Study

One purpose of this study was to see if focus group findings are generalizable to the larger group from which the participants are selected.

A second, and related, purpose was to examine how closely findings gained from a qualitative methodology, focus group research, correlate with the findings obtained from a quantitative methodology, survey questionnaires.

A third purpose was to examine the place of focus group methodology in the larger research framework.

Finally, this study sought to present what the literature contains regarding recommended practices in effective focus group investigations.

Objectives of the Study

The following objectives were presented to accomplish the tasks of determining whether focus group findings are generalizable to the larger group from which the participants are selected, whether focus group findings correlate with findings obtained from a quantitative methodology, and what focus group methodology’s place is in the larger research framework.

1. From a review of the literature, assess the limitations and the strengths of focus group research compared with quantitative methodologies.

2. Ascertain what prior studies have found to be the relationship between focus group research and survey methodologies.

3. Determine what researchers maintain is effective focus group methodology.
4. Obtain a setting in which to conduct the experiment.

5. Conduct focus groups in the Mesa, Arizona, School District with representatives who are taking part in the teacher appraisal pilot study.

6. From these focus groups determine beliefs about the effectiveness of the teacher evaluation system. This effectiveness will be differentiated between the conceptual framework of the system and the process used to implement it.

7. Evaluate the effectiveness of the new system through surveying all members of the pilot study population not included in focus groups.

8. Compare the findings of the two methods and check for similarities and differences.

9. From this comparison determine the relationship that exists between focus group findings and findings obtained through survey methodology.

10. From the literature examine the best ways to use focus group studies with other methodologies.

11. Recommend effective combinations of focus group and survey methodologies if feasible.

**Research Questions**

The following questions were used to guide the study:

1. What are consistent features of focus group research?

2. When are focus groups most appropriately used?

3. What are recommended techniques that are used in focus group research?

4. Why is focus group research used?

5. What are the limitations of focus group research?
6. How can focus group research compliment quantitative research methods?

7. How do the results gained from focus groups compare with those gained through quantitative methods?

8. Is it appropriate to generalize results gained through focus group methods to the larger population from which the focus group participants are taken?

9. What are the best techniques to use when conducting focus group research?

**Research Hypothesis**

There was one hypothesis in the study:

There will be no significant differences in the answers gained through focus group sessions and answers gained from surveying the larger population from whom the focus group participants were selected as measured by responses to the same questions recorded on a scan form by participants who were in one of two groups:

1. focus group members following one-and-one-half hour focus group sessions;

2. members of the Mesa Public School teacher evaluation pilot program who were not involved in any of the focus group sessions.

**Ho:** \( \mu_1 = \mu_2 \)

**Ha:** \( \mu_1 \neq \mu_2 \)
Basic Assumptions

It was recognized that there were conditions or circumstances affecting the study which could not be controlled or manipulated by the research design. The basic assumptions of this study included the following:

1. The focus group participants will be candid and honest in responses to questions posed in the investigation.

2. The conclusions drawn from the focus group sessions by the investigator are consistent with what other investigators would determine using the same procedures.

3. The respondents to the questionnaire fairly represent the pilot study population.

4. The selection process used to form focus groups is similar to the process typically used and adequately represents accepted practice.

5. The results from the Mesa District Schools represents one sample and may not necessarily be generalizable to another specific study.

6. The differences or similarities in answers when comparing the two groups, the focus group results and the non-focus group results, is not the result of sample size. Focus group members comprised 17% of the total pilot study population.

7. The samples selected for the focus group discussions comprised a representative cross-section of the pilot study population.
Delimitations of the Study

There were several delimitations in this study. Efforts to ensure that the investigation was rigorous and made a valuable contribution to the scientific knowledge base on research methodology, required a careful examination of the following delimitations.

1. The methods used during the focus group sessions in Mesa were derived from the literature review, from discussions with research consultants and through experience gained in designing focus groups for the Owatonna Public Schools.

2. The people participating in the Mesa Teacher Appraisal System pilot study were 196 teachers and administrators in the Mesa Public Schools. Each school in the district contributed members to this study and each participant provided information for the comparison study of this investigation.

3. Thirty-six teachers and administrators who took part in the pilot study served as members of the focus groups. This represents about 19% of the total pilot study group.

4. The questions used with the focus groups and in the survey were formulated after consultations with the Mesa Teacher Appraisal Committee.

5. Focus group participants were chosen by the Mesa Teacher Appraisal Committee. This committee sought to form focus groups that represented a cross-section of teacher and administrator opinion on the appraisal model studied.

6. The questions given to the focus groups following their discussions were the same as those given to all the other teachers and administrators who participated in the pilot study.

7. This study included one school district, the Mesa Public Schools in Mesa, Arizona, during the 1996-1997 school year.
Definition of Terms

Several terms were defined for use in the study.

**Brainstorming** - A technique used in group discussions to generate ideas. In brainstorming all ideas are noted, none are judged, and individuals are encouraged to creatively generate as many different ideas as possible.

**Focus groups** - Focus groups are small groups of people, usually six to twelve members, who are gathered together to give opinions on a topic by verbally answering a series of questions. Their answers are recorded and analyzed to obtain information.

**Group interview** - A term usually used synonymously with focus group in the literature.

**Group dynamics or group synergy** - The generation of ideas and creative formulation of thought due to interaction of group members. Usually this generation of ideas takes place within the context of an open, free-flowing, group discussion.

**Moderator** - The person who facilitates the interaction within a focus group. Typically this person is trained and focuses on developing group interaction so they can generate ideas and have free-flowing discussion of the topics of a research study.

**Nominal group techniques** - A nominal group technique is a group processing method used to set priorities within a group. In this technique individuals are first asked to write down items that are important to each. Then all are asked to share their lists which are put on a group chart. Discussion follows in which all items may be clarified. Lastly all are asked to vote for those they think are best. Votes are then tallied with those receiving the most votes getting priority over those receiving fewer.
**Qualitative research** - Burgess (1985) summarized qualitative research as methodology that emphasizes participant observation and in-depth interviews that help researchers gain a first-hand understanding about the social world.

**Quantitative research** - Avery and Zabel (1995) summarized this term: “A quantitative approach is associated with objectives, an understanding of probability, methodological rigor (i.e. you’re collecting data concerning the same variables each time you conduct a survey -- not asking each person a different set of questions), and makes substantial use of statistics (i.e. allows you to generalize to varying degrees)” (p. 2).
CHAPTER II. REVIEW OF LITERATURE

This chapter consists of seven parts: a) methodology; b) a description of focus groups; c) when focus groups are used; d) techniques in focus group research; e) why focus groups are used; f) limitations of focus group research; g) focus groups and quantitative research methods; h) a comparison of focus group results with results obtained through quantitative methods; i) synopsis.

Methodology

Information was found through a variety of sources. Much of the published material was included in professional journals. Other material was found in specific studies such as conference presentations and position papers. The sources of information included but was not limited to library indexes, dissertation abstracts, and other collections of educational research studies. Further sources were identified from citations in journals and from information at conferences and workshops.

Several limitations of the research strategy should be recorded:

a. A systematic study of sources outside the United States was conducted, however, only information presented in English was used;

b. Many other contributions have been made to the existing body of knowledge which may be relevant, but due to time and other constraints were not included in this study.
A Description of Focus Groups

Before discussing focus group research, and comparing its results with that of survey research, it is important to get a clear understanding of what is meant by focus groups. This section will give the reader a description of focus group research as is consistently presented in the literature.

Focus group research is used by many in business, education and other fields to determine the views of their constituents and to set direction for their operations. Part of its popularity is due to the feasibility of using it to report results quickly, to the dynamic quality that is derived from group interaction, and to the information it gives that allows the researcher to report the results in terms participants use and laypeople understand. Ward, Bertrand and Brown (1991) noted this increasing popularity of focus groups: “In recent years, focus groups have gained increasing acceptance as a research methodology in the field of health and family planning. Whereas a decade ago, focus groups were often passed over because information obtained in this manner was considered ‘too soft,’ many applied researchers now consider them a highly appropriate means to obtain an in-depth look at motivations behind human behavior” (p. 266). Ward et al. gave their definition of what focus group research is. “Focus groups are guided group discussions, intended to yield information on a specific topic from a selected population” (p. 267).

Also frequently noted as characteristics of focus groups are their small size (six to twelve participants), their homogeneous make-up, ninety to 120 minute discussions, a relaxed atmosphere, and the facilitation of a trained moderator (Bers, 1989; Carnaghi, 1992; and Krueger, 1994).
These are some traits of focus groups. However, there are also assumptions that are common in focus group research. Lederman (1990) summarized them this way:

There are five other fundamental assumptions upon which the method rests: (1) that people themselves are a valuable source of information, including information about themselves; (2) that people can report on and about themselves, and that they are articulate enough to put into words their thoughts, feelings and behaviors; (3) that people need help in 'mining' that information, a role served by the interviewer, or researcher, who 'focuses' the interview in the focus group interview; (4) that the dynamics of the group can be used to surface genuine information rather than creating a 'group think' phenomenon; and (5) that the interview of the group is superior to the interview of the individual. (p. 118)

Many writers include group interaction in their definition of focus groups. This is often called group synergy and is a frequently mentioned feature of focus groups. This synergy is not possible in quantitative methods such as surveys or in many qualitative methods such as individual interviews. The synergistic element of focus groups is perhaps their most defining element. This is supported by Brotherson, Bloch, Krueger and Morgan.

Because of the dynamic nature of focus groups, Carnaghi (1992) and Brotherson (1994) described focus group research as an evolving process: Brotherson said, "Questions are constantly changing as the moderators become 'smarter' about the problem of the study. Additional questions are identified in areas of void, that is, areas where the investigators hypothesized there would be issues but none emerged. Comments that do not seem to reflect the majority viewpoint are also explored" (p.113).
When Focus Groups Are Used

Focus group research's popularity has increased since the early 1970's. It is being used in such diverse areas as political polling and banking services. However, the methodology dates back to 1926. In 1926 group interviews were used in sociology to measure social distance scales (Bogardus, 1926). Similar techniques were used in post-war studies for the military to ascertain the effects of propaganda techniques used in the war. Psychologists began using a version of the group interview technique in the 1940's and 1950's to determine the effects of "brainstorming" and "nondirective" technique to get information in research on personality (Desvogues and Frey, 1989 and Lunt and Livingston, 1996).

More recently, focus group use has become increasingly popular in such diverse areas as political polling, banking services, and library and information science (Kerslake and Goulding, 1996 and Morrison, 1997). Desvogues and Frey (1989) said, "Lawyers use focus groups to test arguments in preparation for a trial; newspapers use them to try out ideas for news features; universities are interviewing groups of current and prospective students to evaluate recruiting strategies; and more recently, the focus group interview is being used to assess risk, opinion, and questionnaire construction" (p.349).

A common use of focus groups is to support qualitative research. For example terminology to be used in a survey can be developed through focus group interactions. More on how focus groups can be used to support quantitative research will be discussed later in this review.
Some other uses of focus groups mentioned in the literature included: developing a research hypothesis based on participants’ insights; generating background information on a topic, gaining consumers’ impressions of a product or service, seeking creative solutions to problem, and proactively planning for potential problems that may occur if a service, product or methodology is adopted (Krueger, 1994. and Morgan, 1989).

Techniques in Focus Group Research

The previous sections focused on what focus group research is and when and why it is done. The next section will focus on some of the common techniques of focus groups. These techniques are taken from the literature as suggested best practice in conducting focus group research.

First of all focus groups start with a clear design. This design needs to begin with a precise formulation of objectives. Bers (1989) said. “The first key to successful focus-group research is to know the objective of the study. If the objective cannot be concisely defined and agreed upon, there is no point in going further” (p.263).

Many writers also stressed that an effective focus group study must be carefully planned by a trained moderator. This moderator needs to plan such elements as opening remarks, physical setting, questioning sequence and prepared materials. The effectiveness of the moderator will largely determine the success of a focus group study (Bloch. 1992).

Effective moderators will help participants feel relaxed and welcome. Such moderators also will be accepting of participants’ answers and will not be judgmental. Such individuals will also guard against influencing group opinions with their own biases or points
of view. Correspondingly, writers believe that good moderators are good listeners and have other traits necessary to help a group want to share ideas and opinions. These traits include having a good sense of humor and expressive, kind manner of interaction (Flores, 1995; Creason, 1991; and Kaase, Harshburger and Bruse, 1993).

Moderator skills are often seen as essential ingredients for effective focus groups. These skills and the nine qualities of effective focus groups are mentioned by Byers and Wilcox (1991):

1. A Clearly Understood Objective. Is the focus group part of an ongoing research project or is it self-contained? Does the research team have a clearly defined subject of study?

2. Homogeneity Within the Group. The participants should be homogeneous in relation to the topic under discussion (i.e., all should either have or have not been exposed to the topic of the study).

3. Good Recruiting. Recruiting should be done to insure homogeneity and a sufficient number of qualified participants.

4. A Relaxed Atmosphere. The moderator should insure confidentiality and promote openness.

5. A Moderator Who Listens. The moderator must insure that the discussion does not stray too far from the point of interest, yet must not rule out things that may seem unrelated.

6. A Well-Prepared Moderator. The moderator typically follows an unstructured interview guide.

7. Free-Flowing Dialogue. The moderator should begin the discussion by inviting honest and open dialogue and guiding the discussion only when necessary.

8. Restrained Group Influence. The moderator should refrain from contributing to the discussion unless necessary.

9. Skilled Analysis. The data can be analyzed by either a qualitative, or ethnographic summary; or a quantitative systematic coding via content analysis (Morgan, 1988, p.64)

10. Competent Researchers. The research team should be sure that all necessary details are controlled. (p.65)
In order to succeed instruction is required. It should include training in listening skills, understanding of verbal and non-verbal communication, effective questioning strategies, and skills that insure the involvement of all members of the focus group. Also needed is an understanding of probe and pause. By this is meant that moderators must learn how to wait to give participants time to respond to questions even when this forces an uncomfortable silence (Botherson, 1992).

Various processes can be used to effectively conduct focus groups. One methodology that can be used within the focus group session is the Nominal Group Technique. Bloch (1992) described this technique in this way: "...participants individually identify items of importance. contribute their items to a group list without discussion, then discuss the items, and finally vote in a secret ballot. A role-playing simulation ... was introduced into the structure between the early item identification steps and the voting that ended the process" (p. 343).

Others, including Carnaghi (1992) and Franklin, Krame and Knight (1995) and Byers and Wilcox (1991) recommended a more spontaneous, less structured, process that evolves with discussion and group interaction.

Another important feature in effective focus group research is the use of careful methodology in choosing samples to serve as focus groups. Block (1992) and Lederman (1990) discussed the importance of setting clear criteria for the focus groups participants. They must be a part the population whose views the study seeks to examine. Lederman (1990) said, "If, for example, the study is to examine the thoughts of administrators on educational effectiveness of a particular program, one important selection criterion is that
participants work in administration” (p.121).

Other commonly mentioned criteria for choosing samples include homogeneity and commonality among members. Though they should share common traits, writers believed it ideal when group members are strangers. While they stressed the ideal of homogeneity of traits, they also said that homogeneity of opinion should not be sought. They believe that the best focus group research strives for differences in points of view and for dynamic discussion (Carnaghi, 1992, and Asher and Lane, 1996).

Follow-up on items raised in focus group discussions is a frequently mentioned recommendation. This follow-up could be done in subsequent focus groups or through a quantitative method such as a phone survey. This is believed to be good practice because some question the wisdom of generalizing the findings of focus groups to a larger population (Bloch, 1991, and Calder, 1977).

Sometimes a researcher who is analyzing focus group information must determine which comments are important and worthy of noting and which are less significant. In making this determination some, like Block (1992), recommended a quantifiable approach such as the Nominal Group Technique to determine how many participants share the views of one respondent. Others, such as Carnagi (1992), recommended using more subjective criteria such as consistency of response, recurring themes and intensity of expressed feeling in analyzing group discussions.

Regardless of the technique prescribed, most researchers agreed that the analysis of findings is time consuming, difficult, and very important. Krueger (1994) maintained the
depth and sophistication of analysis is dependent on the budget and time constraints of the study. Those studies that budget time and money so that increased depth of analysis is possible, structure the focus groups to allow for exact transcription of comments. This is done through taping each session and having a transcriber reproduce in writing exactly what was said by each individual. When time and money are less generously budgeted, analysis may be made from the notes of the group moderator or from those of the assistant moderator.

Various methods of reporting the researcher's analysis are possible. However, one common characteristic is the use of the actual language of the participants in noting results. The use of direct quotations is the commonly recommended practice.

**Why Focus Groups Are Used**

This section will deal with two critical questions: Why should one use focus groups? And what are some of the advantages of focus group research over other methods?

Several authors mentioned not only how focus groups are used but also why they are used instead of other research techniques. For example Herbert Abelson (1989) noted that focus groups allow researchers to get "below the surface" of a topic. This means a good moderator can effectively probe responses of participants to find out not only what they think but why they think it. Franklin and Knight (1995), Lederman (1990) and Byers and Wilcox (1991) also wrote about the possibility of using focus groups to get the reasons for the preferences of participants. Franklin and Knight (1995) said it this way, "In other words focus group research does not ask 'how many' but 'why'" (p. 6).

Another reason to use focus groups is to identify multiple perspectives that exist on
an issue. Within these multiple perspectives researchers seek to find recurring themes (Carnaghi, 1992). Merton (1990) wrote, "As is generally recognized, one of the principal reasons for the use of interviews rather than questionnaires is to uncover a diversity of relevant responses, whether or not these have been anticipated by the inquirer. There would be little point in using the interview at all if it simply resolved itself into a fixed list of stock questions put by the interviewer" (p.13).

Adding to this, Byers and Wilcox wrote that focus groups are used to provide "grounded theory". They quoted researchers Zeller and Goldman when she wrote, "... focus group (research) offers researchers the chance to observe transactions between and among participants, how they respond and react to each other” (p.64).

Three types of focus groups are identified in the literature -- exploratory, clinical, and phenomenological types of focus groups (Calder, 1977). Each one has a different purpose. In exploratory focus groups, Calder explained that the purpose is to determine the language and questions that can be used in a quantitative study. This approach uses focus groups as a precursor to quantitative research. It helps make the quantitative research more effective as the everyday thoughts and words of the target population are identified and used to make the questions and concepts of the quantitative study more understandable and relevant to the concerns of the population. This approach also can be used to verify scientific explanations with laypersons' interpretations.

The second type of focus group mentioned by Calder is the clinical, or therapeutic approach. This approach is used when quantitative approaches cannot generate useful
information. Such useful information cannot be gained, according to Calder, from quantitative research when "Self-reports, the grist of many quantitative techniques, cannot be taken at face value" (p. 357). These self-reports, says Calder, cannot be taken at face value because they have been filtered by defense mechanisms. Hence focus groups can be useful in finding underlying reasons for the beliefs and reactions of individuals as they can explore not only what people think but why they think as they do.

The third approach, said Calder, is the phenomenological. In this approach Calder says the focus group gives the researchers "a chance to experience the flesh and blood of a consumer" (p. 358). Such an approach is necessary, wrote Calder, when the researchers are out of touch with the population being examined or when the subject of the research is changing rapidly.

A common reason given for using focus group research is "that it works" (Ward et al., 1991). Those using it in market research verify this by improved sales after making changes based on information gained through focus groups. Focus groups can provide insight to researcher that quantitative methods cannot (Lederman, 1990 and Kerslake and Goulding, 1996).

Stewart and Shamdasani (1989) concurred:

Focus groups allow the researcher to interact directly with respondents. This provides opportunities for the clarification of responses, for follow-up questions, and for the probing of responses. Respondents can qualify responses or give contingent answers to questions. In addition, it is possible for the researcher to observe nonverbal responses such as gestures, smiles, frowns, and so forth, which may carry information that supplements (and, on occasion, even contradicts) the verbal response. (p. 16).
Focus group research is very flexible and can be used with a wide range of individuals and topics. It is one of the few methods that can be used successfully with children (Hill et al., 1996).

From a market research perspective, Desvousges and Frey told why focus group research is used. “In market research, focus groups are popular because they make the research less of a mystery to the client; they are affordable; they provide almost immediate feedback to the client and researcher; and they do not require sophisticated sampling and statistical analysis” (p. 350).

Many researchers mentioned the client focused theme expressed above. Jacobi (1991) and Mitra (1994) talked about the benefit of focus group research using language that is readily understood by the consumer. Bertrand et al., (1992) and Krueger (1994) similarly wrote about how focus group research is effective because the results are relatively easy to comprehend. Ableson (1989) and Jacobi (1991) also talked about how focus group research allows the researchers to use the group’s own words to make the communication more powerful and clear.

Focus groups are frequently described as being enjoyable to use. This also helps explain the technique’s popularity. Stycos (1991) describes focus group research as being “dynamic and process oriented” (Stycos, 451).

Focus groups also allow researchers to look for common elements that can be important in making decisions or in motivating change. An example of this benefit can be seen in a focus group study at Charleston Southern College. Focus group discussions helped identify a common feeling of isolation being felt by minority students. Because of this
identification of need, a council was established to address the problem (Kaase and Hashbarger, 1994).

Focus group research is also used because it incorporates strengths of other qualitative research techniques and can use larger samples in the process. Morgan and Spanish (1984) noted this benefit:

In essence, the strengths of focus groups come from a compromise between the strengths found in other qualitative methods. Like participant observation, they allow access to a process that qualitative researchers are often centrally interested in: interaction. Like in-depth interviewing, they allow access to the content that we are often interested in: the attitudes and experiences of our informants. As a compromise, focus groups are neither as strong as participant observation on the naturalistic observation of interaction, nor as strong as interviewing on the direct probing of informant knowledge, but they do a better job of combining these two goals than either of the other two techniques. We believe this is a useful combination, and one which, for some types of research questions, may represent the best of both worlds (p. 260).

Many writers, including Stycos, Stewart, Creason, Byers, Wilcox, and Liderman noted the advantage focus groups research has over interviews. Stycos (1981) said:

A group discussion, they argue, produces something more than the sum of its parts: provides more and richer information; and evokes information that relates to emotional processes, inner reasons, and less overt determinants of behavior. Since the groups are socially homogenous, participants are less on guard, more apt to express strong opinions and disclose behavior and attitudes that they might not... in an individual situation. One reason they do this is simply because they become carried away by the discussion. Nevertheless, the group interview acts as a deterrent to possible exaggeration (p. 451).

Another advantage mentioned by Krueger (1994) is the ability of focus group researchers to generate speedy results. "In emergency situations skilled moderators have been
able to conduct three to four discussions, analyze the results, and prepare a report in less than a week” (p. 35).

Avery and Zabel (1995) supported this position noting that one “can almost always satisfy objectives in three to four sessions” (p. 6). Also mentioning the time efficiency of focus group research were Bertrand, Bloch, Creason, Bryers, Wilcox and Jacobi.

Analysts also report that focus group research can be done at low cost. One taking exception with this was Bers, who noted that this type of research can be done inexpensively, but that expense varies depending on such variables as leasing of facilities, payment for participants, and transcription costs.

A consistently mentioned advantage of focus group research over other methods is the positive effects of group synergy. Avery and Zabel (1995) and Bloch (1992) saw this as important. Bloch wrote, “The great advantage, however, is not in the economies, but in the group interaction process itself. Brainstorming, role playing, small - and large - group discussion, working in pairs or triads, word association, ....can all be used to stimulate interaction. From this interaction, ideas occur and coalesce in a way that is different from what happens during an individual interview or in responding to a written questionnaire” (p. 347).

This was also summarized by David Stewart: “Focus groups allow respondents to react to and build upon the responses of other group members. This synergistic effect of the group setting may result in the production of data or ideas that might not have been uncovered in individual interviews” (p.16).

Other writers have added to this idea by noting that important side issues can be
generated in focus groups that might be missed in other methods. Mitra (1994) and Stewart (1989) also noted that focus groups allow for spontaneous thoughts and discussions that can stimulate important investigations.

Some individuals will share information in a group who might not in an interview or survey. It was noted by Avery and Zabel (1995) that a certain degree of safety exists in groups that is important to open expression of ideas.

This group sharing is further enhanced in a focus group when a moderator probes for a clarification and depth of information that more quantitative techniques do not allow. Lederman (1990) summarized this by saying that focus groups allow the researcher to find the “why” behind the numbers. Along with this, Betrand et al. (1992) said that focus groups make it possible for participants to provide in-depth insights. As a result Kaase, Harshbarger and Bruce (1993) wrote, “More quality and depth of information can be generated” (p. 285).

Another benefit of this research method over more quantitative ones: it allows the sponsors or researchers to show they care and are listening to others’ concerns (Krueger, 1994).

Two other advantages of focus group research mentioned by writers were little training is required to conduct such a study and the data are easy to interpret (Bertrand, 1992). By this is meant that issues and reasons participants hold certain positions are relatively easy to identify (Byers and Wilcox, 1991).

In addressing why focus groups are used, Jacobi (1991) said that limitations of quantitative study methods often cause researchers to use focus groups. She noted that quantitative studies are often costly, use language that is misunderstood by subjects and the
public in general, set up a distance between those being studied and the decision makers, and provide little room for expansion on ideas beyond one standardized answer. She also mentioned that so many organizations use surveys and questionnaires that they are often not received with enthusiasm from those whom the researcher is seeking information (p. 195).

She mentioned the following problems quantitative tools such as surveys have that focus groups do not: higher costs, misunderstood language, the distance decision makers must keep from the subjects questioned and the limitations surveys have in allowing subjects to expand on their answers.

Merton (1990) also gave reasons why focus groups supplant quantitative studies:

The strength of the method (quantitative research), namely, its capacity to provide timely, precise measures of a wide variety of social facts, does not suit them (researchers) when they search for clues to motives for behavior or potential points of leverage. The human element that helps one to translate social facts into policy recommendations often appears to be missing in massive quantitative portraits and analyses, and one result has been that qualitative research -- most notable in the form of 'focus groups' -- has assured greater prominence in many fields of application... (p. xi).

Limitations of Focus Group Research

While writers noted the advantages of focus group research over other methods, many writers also identified limitations of focus groups and advantageous of other research methodologies in comparison.

For example, Avery and Zabel (1995) cited several advantages they saw in survey research: "Researchers like surveys because they are not too intrusive, they are direct, they are usually anonymous so people may tell you things they wouldn't say to your face, the
analysis is fairly straightforward, and if you've got a representative sample you can draw
generalizations from your findings” (p. 2).

Perhaps the most common limitation of focus group research mentioned in the
literature is the concern that focus group findings cannot be assumed to be representative of
the larger population. This was mentioned by many including Stewart and Shamdasani (p.
expressed this idea: “A small (6-12 member), relatively homogeneous group that meets with
a trained moderator who facilitates a 90 to 120 minute discussion in a nonthreatening, relaxed
environment about a selected topic...do not generate quantitative data, information, or
numbers that can be projected to a larger population” (p. 261).

Many writers also stressed the importance of not generalizing focus group findings.
Ryan (1993) encouraged the reader to consider focus group information as a “snapshot” of
the views of the population. He stressed that this snapshot may look very different if other
members of the population are queried.

It was cautioned that the results may be not represent a larger population because the
analysis of a session may be unduly influenced by memorable statements (Bers, 1989).

Others noted that focus group findings and reports may be too subjective to use to
generalize to a larger population. Bertrand, Brown and Ward (1993) said, “Moreover, they
(critics) say, the lack of quantification allows for undue subjectivity on the part of the
researcher in analyzing results arriving at conclusions” (p. 198). Differences in philosophies
and training also may influence the analysis of focus group results (Brotherson, 1996).

Some writers have mentioned that group reliability was a concern. The idiosyncrasies
of individual sessions may also limit the ability to generalize their results (Krueger, 1994; Franklin and Knight, 1995; Bers, 1989; and Jacobi, 1991). These writers also pointed out that focus group sessions are very difficult to analyze. Krueger (1994) said, “Second, data are more difficult to analyze. Group interaction provides a social environment, and comments must be interpreted within that context. Care is needed to avoid lifting comments out of context and out of sequence or coming to premature conclusions. Occasionally participants will modify or even reverse their positions after interacting with others” (p. 37).

Another limiting factor when generalizing focus group findings is the possibility that assertive or extroverted group members may inhibit the quieter members of a group. Merton (1990) called this the “inhibiting effect of a group” (p.151). This again may limit the accurate comparison of focus group findings with a larger population.

Focus group research cannot easily be subjected to statistical rigor as it is dependent on the analysis of the moderator (Bloch, 1992). Quantitative statistical methods are not often used in this analysis. Because of this, Greenbaum (1991) and Stewart (1989) concluded that focus group findings are not definitive. Stewart wrote.

Perhaps the greatest drawback associated with focus groups is that each group really represents a single observation. Simply because 12 people are involved in a group discussion does not mean that there are 12 independent observations. By definition and by design, the statements of focus group participants are influenced by the group interaction and the opinion of others. As a result of this influence — as well as the fact that it is seldom the case that more than a few groups are conducted on any one topic — statistical estimation is not possible, nor is it appropriate to generalize about specific population parameters based on focus group results” (p.142).
Lederman (1990) cautioned against using numbers of opinions generated in focus group discussions as statistical evidence. "The analysis was not used to generate numbers or draw inferences, although it would theoretically be possible to use such a system to provide percentages vis-à-vis responses of interviewees. This was not done because the generation of numbers can easily lead to a misuse of the focus group data" (p. 125).

Because of the limitations mentioned above, writers said focus group data should not be used for decision making (Greenwald, 1985 and Ryan, 1993). Instead they recommended using surveys, or other quantitative tools for decision making.

Sampling in focus group research can be a problem. Byers (1989) said, "An analyst should not generalize from focus group results to the larger population from which the respondents were a sample, and it is well to remember that the respondents are volunteers who may be more extroverted, outgoing, and sociable than the 'average' individual" (p. 67).

Likewise it was pointed out that the average person often is not interested in being part of a focus group. Therefore those from whom focus group information is gathered may be unrepresentative of the general population from whom the group is taken (Mitra, 1994 and Servier, 1989).

Another noted factor that limits the validity of focus group results is the moderator. Writers including Wells (1974) and Desvousges and Frey (1989) pointed out that moderators can direct a session in such a way as to generate results they consciously or unconsciously want to produce. Desvousges said, "Respondents may feel they have to 'please' the moderator with their responses" (p. 351).
A concern that too often focus group results are used on their own when making decisions was expressed. Because of this, it was recommended that focus group research methods be used as a complement to more quantitative techniques (Calder, 1977 and Merton, 1990). This complementary relationship between focus group research and quantitative methods will be the subject of the next section.

Focus Groups and Quantitative Research Methods

Some writers believed quantitative methods could be used with focus groups to find valid and useful information. Others suggested that the two forms of research are not compatible.

One writer saw a direct conflict between quantitative methods such as surveys and qualitative methods such as focus groups. Smith (1984) wrote, “Certainly since his (Max Weber’s) time social inquiry has been characterized far less by synthesis and far more by ‘an endemic conflict between competing frameworks’. The two approaches have moved along separate lines, differing not only in technique, but also in terms of their philosophical temperaments or ‘logics of justification’” (p. 381).

Similarly, others saw a fundamental difference between focus groups and quantitative methods. Ward et al., (1991) characterizes this as a difference between being content free as in quantitative methods and being context dependent as in focus groups. By this Ward meant that surveys and other quantitative methods attempt to gather information using techniques that are not influenced by their surroundings. Thus they attempt to be content free. Contrary to this, the focus group method attempts to gather information in
settings where the context enriches the information. Thus the group synergy of focus groups helps produce information in focus group methodology. Quantitative research attempts to collect information that is not influenced by such group interaction.

Other differences in the two methodologies mentioned by Ward et al., (1991) include:

1. The quantitative approach assumes there is one reality that needs to be discovered by a researcher as compared to a focus group premise that there are many different realities that can be discovered through the perceptions of a group.

2. The interaction between the researcher and the subjects is different. In a quantitative approach the researcher is separated from the subjects of the research. Whereas the researcher in focus groups is closely involved with the subjects.

3. A quantitative approach assumes that truth is not dependent on the content or the environment of the respondent. Focus groups, on the other hand, assume that the truth, as perceived by the subject of the research, is highly influenced by factors in the subject's surroundings.

While they admitted this basic difference in methodologies, many writers including Stewart and Shamadasani (1979), Flores and Alonso (1995), Kaase et al. (1993), Grover and Glazier (1995) and Avery and Zabel (1995) did not see the two approaches as mutually exclusive. They, in contrast, saw the two methods supporting and enriching one another.

These writers saw the possibility that focus groups could help a researcher formulate a survey. Kaase et al. (1993) wrote, "While a focus group's aim is generally to obtain perceptions, feelings, attitudes, or ideas from participants, it may serve a variety of purposes.
It may, for example, be used to generate ideas for the development of quantitative studies, or
to supplement the findings of a quantitative study” (p. 285).

Some writers saw focus groups being used in a variety of ways to strengthen quantitative studies. Stewart and Shamdassani (1989) wrote:

Focus groups may be useful at virtually any point in a research program....focus
groups tend to be used very early in a research project and are often followed by other
types of research that provide more quantifiable data from larger groups of
respondents. Focus groups also have been proven useful following the analysis of a
large-scale, quantitative survey. In this latter use the focus group facilitates
interpretation of quantitative results and adds depth to the responses obtained in the
more structured survey (p. 15).

Another way focus groups may supplement surveys is to help improve confusing
questions. Avery and Zabel (1995) noted this use of focus groups also. They wrote that
focus groups can be conducted solely to test different questions and terms and from this test
choose ones best suited for a survey.

Not only can focus groups be used to clarify questions; they also can be used to
generate new questions. Adams and Beck (1994) wrote: “They helped to overcome any
deficiencies in the survey questions, provided an opportunity for new questions to arise, and
provided an opportunity to clarify areas of concern or misunderstanding among both the
surveyors and those surveyed” (p. 4).

Another way writers mentioned using focus groups to increase the effectiveness of a
survey included:

1. designing response categories (Mitra, 1994);
2. helping a researcher make sure that all key issues are covered in a
survey (Greenbaum, 1995);
3. verifying the results of a quantitative study (Calder, 1977);
4. gaining meaning from survey results by hearing firsthand from the
subjects of a study (Ward et al., 1995);
5. developing visual aids (Desouges and Frey, 1989);
6. assessing the order of questionnaire topics (Desouges and Frey, 1989);
7. overcoming problems with troublesome language (Desouges and Frey, 1989).

Focus groups can be used at the same time quantitative approaches are being used. Krueger (1994) called this research method “triangulation”. While seeing no conflict in using focus groups with other methods, several writers explained how focus groups can be used on their own. Krueger (1994) said, “They are helpful when insights, perceptions, and explanations are more important than actual numbers” (p. 30).

Others were against the isolated use of focus groups. Desvousges and Frey (1989) believed that using focus groups without the statistical support given by quantitative methods was an error: “Focus groups have become so popular, in fact, that the results of the group interview are often taken as the only basis upon which decisions are made. This, of course, is a mistake, because qualitative impressions should not be substituted for statistical inferences about a target population, since each serves a different purpose” (p. 350).
A Comparison of Focus Group Results With Results Obtained Through Quantitative Methods

This section examines studies that sought to compare results gained from focus groups with those obtained through quantitative methodologies. Ward et al. (1991) wrote that very few such comparative studies exist. Krueger (1994) noted that of those that he examined the comparative results of focus groups and quantitative research methods were 97% similar. He noted that focus group results had better predictive validity. Krueger based his information on the study by Reynolds and Johnson summarized below.

The first study was done by Fred Reynolds and Deborah Johnson. They wrote about a comparison of focus group findings with those obtained from a survey. The context of the focus group study was 20 sessions held in 10 U.S. cities during December 1974 and January 1975. The topic was shopping and food preparation conducted for the benefit of Needham, Harper & Steers’s food clients. “The discussion focused on food preparation, on reactions to inflation and concerns about nutrition, and on what was different then from the way it was the year before. Respondents were homemakers responsible for food shopping and food preparation, selected so as to vary in age, family size, and social class” (p. 21).

The quantitative study used for comparison was a nationwide survey on life-style. It was a 19-page questionnaire mailed to 2,000 female members of the Market Facts’ Consumer Mail Panel. Ninety percent of the questionnaires were returned. The two samples were well matched in age, education, income, and area of residence.

The authors said the area on the survey related to changes was particularly important as it provided opportunities to make comparisons between trends in the survey and those that
surfaced in the focus group study. In making comparisons between the two studies, the authors noted what they called direction rather than magnitude in the focus group analysis. They did not tally exact numbers of those agreeing with a response in a focus groups. Rather they indicated responses that seemed to be the direction of opinion expressed by the focus group.

In analyzing these results, it was noted: “In only one comparable instance -- baking -- were qualitative and quantitative findings not in accord. In this one instance later sales data showed the qualitative finding to be the more accurate reading of the market” (p. 22).

The researchers concluded that focus groups do give data that can be generalized to a larger population. However, they qualified this by saying that it is directional data and not statistical data. They called this “getting the drift of the market” (p. 24). But when more exact information is needed as to the size of the majority that agree with a viewpoint, a quantitative measure is needed. They ended their article with the point that focus groups can be valuable in verifying quantitative studies. This is true, they said, because some survey questions can be misunderstood and require a focus group to get reliable information.

The second comparative study was done by J. Mayone Stycos (1981) who examined findings obtained in Mexico by researchers concerned with Mexican attitudes toward family planning. One method of collecting information was through focus groups in which 44 sessions were conducted. The content of their questions was much the same as a national survey called KAP (Knowledge, Attitude, and Practice). In comparing results the authors found several areas where the two methods yielded similar conclusions:
Both methods found religious factors to be of little significance, a finding usually reported in surveys but sometimes questioned. Further, both techniques revealed safety and effectiveness of contraception methods to be of prime concern. They also found cost and ease of acquisition to be of little importance. The survey showed that women were quite concerned with whether the method would interfere with their partner's (not their own) pleasure in sexual relations; and the group sessions confirmed that lack of interference with sexual pleasure is 'a major concern for many men, often approaching safety and effectiveness in importance (p. 454).

While these similarities were noted, the author also found discrepancies in the findings of the two studies:

The survey showed positive attitudes toward spacing, while group interviews disclosed ambivalence. The same was true for 'family-level attitudes' toward family planning. Further, the 'vast majority' of those surveyed reported no difficulty in obtaining supplies, but both sexes in group sessions revealed that 'considerable embarrassment is connected with the purchase of condoms and vaginal contraceptives.' Direct contradiction was not frequent, but did occur: in the survey the majority reported joint decision making on the use of birth control; in the group sessions the husband almost invariably was named as decision maker (p. 454).

Stycos concluded that it is wise to use both surveys and focus groups when doing an attitude study. He felt that both methods had strengths and weakness that are overcome when using a counterbalancing approach.

A third comparative analysis was completed by Victoria Ward, Jane Bertrand and Lisanne Brown (1991). They analyzed findings of three different studies conducted in the countries of Guatemala (1988), Honduras (1988) and Zaire (1989). These studies all used a combination of results gained from focus groups and surveys. The focus groups and surveys
in Guatemala and Zaire all centered on the topic of tubal legation. The Honduras topic was vasectomy. In all cases individuals who had had the surgery were the subjects of the questions.

In comparing the results for the qualitative method and the quantitative method the authors used three classifications in judging the similarity of results:

1. Variables that provided similar results
2. Variables for which the results were similar, but the focus groups provided more information
3. Variables for which the results were similar, but the survey provided more information
4. Variables for which the results were dissimilar (p. 271).

The authors noted the need to qualify their comparison by pointing out that the focus group analysis used could not be statistically quantified. It required the subjective analysis of the researchers. Thus the comparison technique was also subjective. They said this was a limiting factor in their analysis.

The results were placed in the “similar” category if they would lead to the same conclusions. The example the authors give is in the greatest benefit of tubal legation as identified by the Guatemala survey. Women there said permanency was the greatest advantage (fifty-five percent of respondents). In the focus groups this same belief was worded in various ways by the women. One such comment was that it ended the worry of becoming pregnant “for good.” The analyzers of the findings deemed these two answers “similar.”

Explanations were also provided for other categories: “...findings were classified as ‘similar, but the focus groups provided more detail’ when the results from the focus groups
provided information that was not obtainable from the survey. Similarly, findings were categorized as 'similar, but survey provides more detail' when the frequencies provided by the survey gave greater or more precise information" (p. 272).

The findings were: "Overall, for twenty-eight percent of the variables the results were similar; for forty-two percent of the results were similar but focus groups provided additional detail; for seventeen percent of the results were similar, but the survey provided more detail. And in only twelve percent of the variables were the results dissimilar" (p. 273).

In discussing their results Ward et al, registered little surprise that the largest category was the one where similar focus group findings provided more information than surveys. They said this, after all, is the purpose of focus groups: to provide more in-depth information. In the cases where surveys yielded similar but more extensive results they noted that these occurred in questions that required yes or no responses. The survey are better able than focus groups to cover a larger number of such "prompted" questions. Thus in these areas they provided more comprehensive information than the focus groups.

In the areas of dissimilarity the authors noted that they occurred in four different contexts. One is in questions that may yield different over-all conclusions if all subjects are given a chance to reply. Surveys allow this. Typically in a focus group not all members respond to a question. A second area in which discrepancies occurred was in questions that were of a sensitive (personal) nature. People are much more likely to respond to such questions on an anonymous instrument such as a survey as compared to the group setting of a focus group. Related to this the authors noted the same hesitancy to reply candidly in focus group sessions when the issue discussed was new to the respondent. In the case of an
unfamiliar issue the authors believe a respondent on a survey may guess at the proper response and in a focus group setting may choose an answer perceived to be safe according to the intuited norms of the group.

A fourth reason given for discrepancies in results is the wording of questions in surveys as compared to focus groups. Using the Zaire study as an example, the authors identified how the focus group questions were asked in a more generalized way that would be more comfortable in a group setting than the survey questions which were more personal and specific. For example one of the topics in the Zaire study was on coital frequency. In the focus groups the question was asked in a general way such as requesting the ideal number of coital experiences in a week. The survey asked the respondent to give the exact number she engaged in during the past week.

The researchers concluded that when variables from surveys and focus groups can be compared the results are similar. This does not mean that they saw either method being suitable for all needs. They noted that in certain research situations one technique may be preferable to another. Therefore they believed that researchers need to look carefully at the purposes of their study before choosing which technique will best achieve the hoped-for results.

Synopsis

After surveying the literature on focus group research, the present investigator noted many commonly held ideas. These ideas helped strengthen the design of his study.
From the literature it was seen that focus groups typically consist of a small group of six to twelve people who are similar in position or belonging to the same category from which one is forming the group. It is also important that they not be close friends and that they are willing to share divergent viewpoints.

The preparation done by the moderator was also noted. A focus group study must be carefully designed by a moderator who takes into account such elements as formulating a plan based on clear objectives, preparing several questions that will provide needed information, and helping individuals feel comfortable within the environment of the group discussions. Other important features of effective focus group facilitation include recognizing not only the words spoken but the feelings expressed through voice and body tone, making sure to listen carefully to group members, keeping a balance within a group so that all participate and none dominate, and skillfully analyzing the information gathered in a session so that important trends and commonly held ideas can be shared with the client.

While there was wide agreement on the elements of focus group methods listed above, a wide divergence was recorded as to the best way to analyze the data and to insure that the researcher accurately portrays the group’s opinions and beliefs. The task of analyzing focus group data in a way faithful to the beliefs of the group was presented as one of the most challenging of the moderator’s responsibilities. It was widely held that careful notes need to be taken. Also recommended were scripted transcripts of sessions using a stenographer or audio tapes. This careful recording of information increased the likelihood of analyzing group results accurately.
Also aiding accurate analysis are group techniques such as the nominal group approach which help participants prioritize beliefs and ideas so they can be represented accurately. Other methods recommended included giving special emphasis to frequently expressed ideas and to comments communicated with strong conviction. Most writers agreed that this analysis is a subjective process and must be done with great care. Some stressed the importance of not giving over-emphasis to cleverly phrased or entertaining comments.

These cautions, and the other advise given by the writers studied, were carefully considered and incorporated into the procedures used in gathering and analyzing focus group information. As was suggested frequently in literature, a variety of methods were used to gather and report information.

It was recorded that focus group research can be used in a variety of contexts. Sometimes it is used as the only method of information gathering. At other times it is used to help design other research tools. It is also used as a supplement to survey research. In this case it can be used to validate findings gathered through surveys or to get deeper information on questions which could not be expanded upon in a survey form.

Many writers expressed concern about focus groups results being generalized to the larger population from which it was taken. These writers believed that when making inferences to a larger population, quantitative methods should be used to support the focus group datum. Focus groups provide depth to survey methods by providing opportunities to explain thoughts and feelings. Surveys were seen as more appropriate when the degree of agreement with a question or issue needs to clear.
Very few studies were found which compared the results obtained from focus group research with those gathered through quantitative methods such as surveys. Thus there were not many models to emulate in designing such a study. The present investigator used some of the techniques mentioned by a variety of writers to first record accurate information and to later report the most commonly held opinions of the groups.

Table 1 is a synthesis of this research and a listing of related studies. These studies are grouped by year and a short summary of each is included.
Table 1. A synthesis of research literature on focus group research methodology and its relationship to quantitative research methods.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Year</th>
<th>Subject</th>
<th>Viewpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lewin</td>
<td>1947</td>
<td>Group Dynamics</td>
<td>Group synergy has a powerful effect on responses</td>
</tr>
<tr>
<td>Calder</td>
<td>1977</td>
<td>Focus Groups in Market Research</td>
<td>Focus group results should be used with caution but can be valuable.</td>
</tr>
<tr>
<td>Reynolds &amp; Johnson</td>
<td>1978</td>
<td>Study Compares Focus Group and Survey Results</td>
<td>Study showed many similarities between focus group and survey results.</td>
</tr>
<tr>
<td>Szybillo &amp; Berger</td>
<td>1979</td>
<td>Focus Groups and Advertising Agencies</td>
<td>Believes focus groups provide valuable information to advertising professionals.</td>
</tr>
<tr>
<td>Guba</td>
<td>1981</td>
<td>Criteria For Assessing Qualitative Studies</td>
<td>Believes there are significant theoretical differences between qualitative and quantitative studies.</td>
</tr>
<tr>
<td>Stycos</td>
<td>1981</td>
<td>Study Compares Focus Group and Survey Results</td>
<td>Mixed results: Focus group data and survey data match in some areas but not all.</td>
</tr>
<tr>
<td>Morgan &amp; Spanish</td>
<td>1984</td>
<td>Focus Groups’ Place in Qualitative Research</td>
<td>Focus groups combine some of the best techniques of naturalistic observation and individual interviews.</td>
</tr>
<tr>
<td>Greenbaum</td>
<td>1985</td>
<td>Examines Trustworthiness of Focus Group Results</td>
<td>Believes focus groups have a place but must use with caution.</td>
</tr>
<tr>
<td>Grover &amp; Glazier</td>
<td>1985</td>
<td>Using Focus Groups in Evaluating Library Services</td>
<td>Gives overview of how focus groups can be used in library sciences. Recommends also using quantitative methods.</td>
</tr>
<tr>
<td>Templeton</td>
<td>1987</td>
<td>An Overview of Focus Group Methodology</td>
<td>Believes focus group results should not be used without quantitative verification.</td>
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<tr>
<th>Resource</th>
<th>Year</th>
<th>Subject</th>
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<tbody>
<tr>
<td>Caio</td>
<td>1988</td>
<td>Focus Groups’ Place in Market Research</td>
<td>Can use results immediately but should also use cautiously.</td>
</tr>
<tr>
<td>Desvouges &amp; Frey</td>
<td>1989</td>
<td>Integrating Focus Groups and Surveys</td>
<td>Promotes using focus group research to improve quantitative studies.</td>
</tr>
<tr>
<td>Bers</td>
<td>1989</td>
<td>Popularity and Problems of Focus Groups</td>
<td>Cautions that both possibilities and problems exist in focus group research.</td>
</tr>
<tr>
<td>Abelson</td>
<td>1989</td>
<td>Focus Groups in Market Research</td>
<td>Believes focus groups can be valuable in market research.</td>
</tr>
<tr>
<td>Servier</td>
<td>1989</td>
<td>Focus Groups on the College Campus</td>
<td>Recommends using the results with extreme caution.</td>
</tr>
<tr>
<td>Stewart &amp; Shamdasani</td>
<td>1989</td>
<td>Proper Uses of Focus Group Findings</td>
<td>Sees information gained from focus groups as being valuable if used appropriately.</td>
</tr>
<tr>
<td>Buttram</td>
<td>1990</td>
<td>Using Focus Groups as Needs Assessment</td>
<td>Sees the main use of focus groups as developing a clear idea of an organization’s needs.</td>
</tr>
<tr>
<td>Lederman</td>
<td>1990</td>
<td>Using Focus Groups to Judge Educational Effectiveness</td>
<td>Promotes using carefully considered techniques when conducting focus groups.</td>
</tr>
<tr>
<td>Cooper</td>
<td>1990</td>
<td>Using Qualitative Research Methods</td>
<td>There is no one best research method -- the one we choose should fit the needs of the situation.</td>
</tr>
<tr>
<td>Merton</td>
<td>1990</td>
<td>Characteristics of the Focused Interview</td>
<td>Believes there are weaknesses in both quantitative and qualitative methods. Promotes not using either alone.</td>
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<table>
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<tr>
<th>Resource</th>
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<th>Viewpoint</th>
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<tbody>
<tr>
<td>Mesters, Pieterse and Meertons</td>
<td>1990</td>
<td>Focus Group Use Pediatric Medicine</td>
<td>Explains that focus groups research is valuable in improving care to children. Recommends using with caution.</td>
</tr>
<tr>
<td>Greenwald</td>
<td>1991</td>
<td>Using Focus Group Information to Make Decisions</td>
<td>Sees information gained through focus groups as being helpful but not reliable enough for decision making.</td>
</tr>
<tr>
<td>Ward, Bertrand &amp; Brown</td>
<td>1991</td>
<td>Comparison of Focus Groups and Survey Research</td>
<td>Believes focus groups can be used as sole data source for decision making. But sees them best used with supporting quantitative data.</td>
</tr>
<tr>
<td>Roy</td>
<td>1991</td>
<td>Describes Differences Between Qualitative And Quantitative Research</td>
<td>Promotes using focus groups with quantitative methodologies.</td>
</tr>
<tr>
<td>Jacobi</td>
<td>1991</td>
<td>Using Focus Groups in a Student Affairs Office</td>
<td>Explains the advantages and disadvantages in using various research approaches in a college student affairs office.</td>
</tr>
<tr>
<td>Byers &amp; Wilcox</td>
<td>1991</td>
<td>Focus Groups and Their Place as a Research Tool</td>
<td>Promotes using focus groups and puts them in the context of other research methods.</td>
</tr>
<tr>
<td>Creason</td>
<td>1991</td>
<td>Focus Groups as an Evaluation Tool</td>
<td>Explains the advantages of focus groups over individual surveys.</td>
</tr>
<tr>
<td>Bertrand, Brown &amp; Ward</td>
<td>1992</td>
<td>Techniques for Analyzing Focus Group Data</td>
<td>Believes analysis of focus group information needs to be done with great care.</td>
</tr>
<tr>
<td>Bloch</td>
<td>1992</td>
<td>Applying Focus Groups to Evaluate Career Development</td>
<td>Promotes using the nominal group technique to determine focus group opinion.</td>
</tr>
</tbody>
</table>
Table 1. Continued

<table>
<thead>
<tr>
<th>Resources</th>
<th>Year</th>
<th>Subject</th>
<th>Viewpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brotherson &amp; Goldstein</td>
<td>1992</td>
<td>Using Focus Groups in Early Childhood Special Education</td>
<td>Explains how to conduct focus groups to evaluate special education programs and believes this is a good way to check for educational effectiveness.</td>
</tr>
<tr>
<td>Carey &amp; Smith</td>
<td>1992</td>
<td>Enhancement of Validity Through Focus Groups</td>
<td>Focus groups can help a researcher develop better survey questions.</td>
</tr>
<tr>
<td>Twombly</td>
<td>1992</td>
<td>Identifying Student Perspectives</td>
<td>Encourages using focus groups to gather student opinion.</td>
</tr>
<tr>
<td>Carnaghi</td>
<td>1992</td>
<td>Using Focus Groups to Discover Student Opinions</td>
<td>Focus group research needs to be carefully planned and carried out.</td>
</tr>
<tr>
<td>Kaase &amp; Harchbarger</td>
<td>1993</td>
<td>Applying Focus Groups in Student Affairs Assessment</td>
<td>Cautions against generalizing findings of a focus group study.</td>
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<tr>
<td>Ryan</td>
<td>1993</td>
<td>Focus Groups in Market Research</td>
<td>Favors using focus groups before making market decisions.</td>
</tr>
<tr>
<td>Brotherson</td>
<td>1994</td>
<td>Focus Groups in Early Intervention</td>
<td>Promotes using focus groups in setting up early intervention plans for handicapped children.</td>
</tr>
<tr>
<td>Krueger</td>
<td>1994</td>
<td>Focus Group Guide</td>
<td>Believes focus groups can be used in multiple ways.</td>
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<tr>
<td>Mitra</td>
<td>1994</td>
<td>Focus Groups Research and Its Uses With Quantitative Studies</td>
<td>Sees focus groups as a useful tool to improve quantitative research studies.</td>
</tr>
<tr>
<td>Parsons</td>
<td>1994</td>
<td>Using Focus Groups in Program Evaluation</td>
<td>Advocates using focus groups to evaluate adult development programs.</td>
</tr>
<tr>
<td>Resource</td>
<td>Year</td>
<td>Subject</td>
<td>Viewpoint</td>
</tr>
<tr>
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<td>------</td>
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<tr>
<td>Smith</td>
<td>1994</td>
<td>Developing Criteria for Interpretive Inquiry</td>
<td>Believes there is a significant philosophical difference between qualitative methods and quantitative research.</td>
</tr>
<tr>
<td>Avery &amp; Zabel</td>
<td>1995</td>
<td>Gathering Client Data</td>
<td>Supports using focus groups to gather information from customers.</td>
</tr>
<tr>
<td>Franklin &amp; Knight</td>
<td>1995</td>
<td>Using Focus Groups to Discover Student Opinions</td>
<td>Believes focus groups are effective in finding why people believe as they do.</td>
</tr>
<tr>
<td>Adams &amp; Beck</td>
<td>1995</td>
<td>Surveys in College Libraries</td>
<td>Focus groups are helpful in creating effective survey questions.</td>
</tr>
<tr>
<td>Hoppe et al.</td>
<td>1995</td>
<td>Using Focus Groups with Children</td>
<td>Focus groups are useful in discussing sensitive subjects with youth and in designing survey questions.</td>
</tr>
<tr>
<td>Flores &amp; Alonso</td>
<td>1995</td>
<td>Focus Groups' Role in Educational Research</td>
<td>Focus groups can be effectively used with other research techniques.</td>
</tr>
<tr>
<td>Wagner</td>
<td>1995</td>
<td>Focus Groups and Developing a Shared Vision</td>
<td>Promotes using focus groups to develop an organizational vision.</td>
</tr>
<tr>
<td>Sapp &amp; Temares</td>
<td>1996</td>
<td>Focus Groups Are Used to Re-structure a College Department</td>
<td>Encourages using focus groups to discover faculty opinion.</td>
</tr>
<tr>
<td>Lunt &amp; Livingstone</td>
<td>1996</td>
<td>Using Focus Groups in Media Research</td>
<td>Argues that focus group discussions are socially situated and hard to generalize.</td>
</tr>
<tr>
<td>Hill et al.</td>
<td>1996</td>
<td>Researching Children’s Emotions</td>
<td>Discusses how focus groups’ use in discerning children’s emotions.</td>
</tr>
</tbody>
</table>
Table 1. Continued

<table>
<thead>
<tr>
<th>Resource</th>
<th>Year</th>
<th>Subject</th>
<th>Viewpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerslake &amp; Goulding</td>
<td>1996</td>
<td>Focus Groups' Uses in Library Science</td>
<td>Discusses reasons for using focus groups in evaluating library science programs and services.</td>
</tr>
<tr>
<td>Morrison</td>
<td>1997</td>
<td>How Focus Groups Can Be Used to Assess Information Literacy</td>
<td>Expresses the view that focus groups can be effective in determining information literacy among students.</td>
</tr>
</tbody>
</table>
CHAPTER III. METHODS

The main purpose of this study can be summarized in two questions: Are data gathered from focus groups consistent with data obtained through using quantitative research tools such as surveys? Correspondingly, are data obtained from focus groups generalizable to the larger population from which the focus groups are formed?

The Mesa Study

To obtain the information needed to determine answers to the questions above a study was conducted for the Mesa Public Schools, located in Mesa, Arizona. The Mesa Public Schools wished to determine the effectiveness of a teacher appraisal system being piloted during the 1996 - 1997 school year. To evaluate this effectiveness the committee, charged with creating and implementing the new system, wished to gather the viewpoints of staff within the district who were using the new system during the pilot year. They also wished to hear from the teachers' unions' representatives who served as spokespersons for all teachers in the district.

The new teacher appraisal system was a multi-dimensional model that judged teacher effectiveness through ratings on eight components. These components included:

1. Classroom Instruction;
2. Teacher Artifacts;
3. Student Growth;
4. Goal Setting;
5. Student Feedback;

6. Peer Feedback;

7. Acquired Knowledge;

8. Professional Standards.

More detail on these components is given in the Mesa Teacher Appraisal Report on file at the School Improvement Office at Iowa State University.

The educators in the pilot study included teachers and administrators. The teachers were selected using a computer-generated random sample. The administrators consisted of all administrators who had evaluation of teachers as part of their job descriptions. Administrators in their first year with the Mesa public schools had the option of not participating in the pilot program. Three elementary principals chose this option. The total number of evaluators in the pilot program was 98. Each of them worked with one teacher; therefore 98 teachers were in the pilot study. These teachers, being randomly selected, included teachers with varying degrees of experience.

Planning Steps

A team of consultants was commissioned by the Mesa Public Schools to conduct the study. This team consisted of Paul Hillyer and Richard Manatt, Ph.D. They began their work by visiting the Mesa district on November 16 and 17, 1996. During this visit the consultants met with various groups to set objectives for the study. These meetings were open-ended discussions in which the Mesa staff was asked to share their thoughts on the new appraisal system and suggest areas that should be explored in a follow-up visit. They met with the following groups:
1. Members of the Teacher Appraisal Committee;

2. Members of the largest teachers union;

3. Members of the smaller independent union;

4. District-level administrators who were responsible for supporting various parts of the new plan including administrators coordinating the following areas: staff development, curriculum and assessment development, and the Career Ladder Program.

Following this visit the consultants submitted a report on the findings of these meetings and communicated issues and concerns that surfaced during them. From this information the Mesa Teacher Appraisal Committee formulated questions that they wished used as a basis for the study.

On January 13 and 14, 1997, Hillyer and Professor Manatt conducted focus groups using the questions developed by the committee. These questions were used only with four groups -- two groups of teachers being evaluated under the new system and two groups of administrators using the new system to conduct evaluations. There were two other groups that had different questions assigned by the Mesa Teacher Appraisal Committee. Of these latter groups, one consisted of support staff who were working with new plan; the other group contained representatives from the unions to which Mesa public school teachers belong, the Mesa Education Association and the Mesa Independent Professional Association.

The sessions that provided the information used in this study were those containing the educators who were using the plan during its pilot phase. It was from these groups that the qualitative data were collected that will be examined in this study, and it was from these
groups that survey information was taken whose results were later compared with those
gathered from the rest of the pilot study educators.

**Sampling Procedures**

Dr. Frederick Skoglund, Assistant Superintendent for the Mesa Public Schools, was
the coordinator of the Mesa Teacher Appraisal Committee. He selected the administrators
for these focus groups. In deciding whom to include, Dr. Skoglund chose representatives
from each schooling level in the district — the elementary division, the middle level division,
and the high school division. He also chose people he knew represented a cross-section of
varying viewpoints about the proposed plan. This information was obtained by Dr. Skoglund
through his personal contacts with these individuals. This strategy was consistent with the
recommendation of Carnaghi (1992) who said that while groups should be homogeneous in
make-up, they should not be have homogeneity of opinion.

A similar strategy was employed when choosing teachers for the focus groups. The
Mesa Teacher Appraisal Committee selected teachers that represented the varying levels of
education in the district and who provided a good cross-section of opinions about the
proposed system. Again the cross-section of opinion was determined through personal
contacts with the individuals involved. Also, discretion was given to Dr. Skoglund and the
Teacher Appraisal Committee as they ultimately would have to implement and maintain the
system being studied.

When participants were being recruited for the sessions the research of Axelrod
(1975) was also consulted:

1. it was requested that members in a group not be close personal friends;
2. It was requested that all groups have a homogeneous make-up (i.e. administrators in one group, teachers in another, etc.).

**Focus Group Methodology**

Each focus group contained nine participants, a moderator and an assistant moderator.

The focus group questions for the educators are listed below:

1. What are the strengths and weaknesses of the Classroom Instruction Component?
2. What are the strengths and weaknesses of the Teacher Artifacts Component?
3. What are the strengths and weaknesses of the Student Growth Component?
4. What are the strengths and weaknesses of the Goal Setting Component?
5. What are the strengths and weaknesses of the Student Feedback Component?
6. What are the strengths and weaknesses of the Peer Feedback Component?
7. Did the proposed evaluation system take a great deal of your time to implement?
8. Do you think the Acquired Knowledge modules will result in more effective teaching? (This question was only asked of teachers.)
9. What are the strengths and weaknesses of the Professional Standards component? (This question was only asked of evaluators.)
10. Is the proposed evaluation system better than the current system?

Before, during and after the focus group sessions, the research of various writers was used.

Using the advice given by Bloch (1992) the focus groups were planned:

1. Opening remarks were prepared that were used consistently with each group in
order to clarify the purpose of the study, insure confidentiality, and explain the
importance of participant input;

2. a comfortable physical setting was planned which contained a large U shaped table
around which participants sat and from which all could effectively communicate
with the moderators and with each other;

3. microphones were centered in the middle of the group so that all could be clearly
recorded;

4. an assistant moderator was present who operated the tape recorder, seated and
acclimated late arrivals, and helped answer participant questions as needed;

5. all members were provided tablets, pens and copies of the piloted evaluation plan;

6. folded name cards were provided that identified individuals while insuring
confidentiality (i.e. Speaker 1, Speaker 2, etc.);

7. questions were prepared in advance along with a time frame for each question.

When facilitating the groups, the moderators employed strategies Creason (1991) and
Florese (1995) identified as important:

1. they warmly welcomed participants as they entered the room;

2. they attempted to keep discussions non-confrontational and friendly;

3. they had a thorough knowledge of the processes to be followed;

4. they were careful to listen closely to each participant;

5. they practiced a non-judgmental attitude, respecting and accepting all comments;

6. they attempted to speak clearly and expressively;

7. they incorporated humor when appropriate.
The moderators also used the work of Kaase et al. (1993) in the following ways:

1. they encouraged all members to actively participate in the group discussion;
2. they used probing questions to allow more depth and detail to be added by participants.

The research of Byers and Wilcox (1991) was also taken into account as the moderators refrained from offering opinions and from influencing the discussion with their thoughts and beliefs.

Also having an effect on the conduct of the focus groups was the writing of Carnaghi (1992) who emphasized that:

1. all group members should share ideas honestly;
2. a dynamic discussion should be sought through probing for deeper information and by seeking the opinions of quiet members on occasion.

**Information Gathering Procedures**

In analyzing the results the work of Krueger (1994) was influential. Below are the methods used by the moderator because of Krueger's work:

1. all sessions were recorded and extensive notes were taken by the moderators;
2. tapes of the discussions were transcribed and saved on a computer disk;
3. responses were coded so that like comments could be grouped together;
4. participants were asked to verify information as the moderator repeated or rephrased what he heard;
5. the moderator and the assistant moderator debriefed between sessions to validate the accuracy of notes and perceptions;
6. preliminary and final reports were shared with the assistant moderator to help
   evaluated the faithfulness of the report to the information given during the focus
group sessions.

At the end of the sessions whose participants were educators involved in the pilot
study either as evaluators or evaluatees, a survey was administered that contained questions
similar to those asked during the focus group discussion. These surveys were completed and
handed to the consultants before the participants left the meeting room. This survey
instrument was then given to all other educators involved in the pilot study either as
evaluators or evaluatees but who had not been a member of a focus group. The non-focus
group members of the pilot study met together in an auditorium and completed and returned
the survey. Any members who could not be present received a copy of the survey through
the mail and were given the chance to complete it and have it tabulated with the surveys
completed in the auditorium. One hundred thirty-seven out of 160 or 86 percent of the non-
focus group pilot study teachers and evaluators completed the surveys.

**Information Analysis**

The field work for this study resulted in three data sources:

1. recordings of all focus group discussions with accompanying moderator notes;
2. responses to the survey questions by focus group participants;
3. the surveys completed by the pilot study participants who were not involved in the
   focus group sessions.

In analyzing the collected data the following procedure was used:
1. cassette tape recordings of each focus group session were transcribed on a word processor (Microsoft Word) and saved to 3.5 inch floppy disk;

2. the responses to each question from all groups of educators were combined — thus, for example, all responses to question number one were put together;

3. each question was analyzed to identify reoccurring themes;

4. each theme was given a code and each quotation that fit that theme was given that theme's code;

5. for each question the themes most frequently appearing were placed at the top of the analysis for that question;

6. those themes mentioned less frequently or only once were placed near the end of the analysis for each question;

7. under each theme direct quotes were given that explained the theme in the words of the participants — more quotes were included under themes more frequently expressed;

8. exceptions were made to this method only when comments were missed in the transcribing due to one of two reasons: either the speaker could not be heard or the comments were missed as a cassette tape was being changed;

9. when the above exceptions applied, the notes of the moderator were used to provide the speaker's comments. It should be noted that any speaker whose comments were not included in the moderator's notes and not on a tape may have been excluded from the analysis;

10. summaries of the taped responses, along with representative quotations, were
added to the completed surveys in order to have a complete picture of the focus groups;

11. the survey responses by the non-focus group participants were tallied;

12. survey responses from the two groups were analyzed for similarity and dissimilarity;

13. the comparison of focus group and non-focus group responses became the object of the investigation. It was used to determine if focus groups could accurately replace survey findings. A criterion level of 80 percent congruence at the .05 error level was set prior to conducting the experiment;

14. a statistical comparison of the two survey groups' means was completed via computer using the SPSS Program Version 7.5. The program conducted independent two sample tests using the following formulas:

When variances were unequal:

$$T = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{(S_1^2 \div N_1) + (S_2^2 \div N_2)}}$$

When variances were equal:

$$T = \frac{\bar{x}_1 - \bar{x}_2}{Sp \sqrt{\frac{1}{N_1} + \frac{1}{N_2}}}$$

$$Sp = pooled = \frac{S_1^2 (N_1 - 1) + S_2^2 (N_2 - 1)}{(N_1 + N_2 - 2)}$$
The p-value was then calculated for significant differences at both the .01 and the .05 levels;

15. these steps were followed for each of three groups: General (all who completed the survey), administrators (designating evaluators), and teachers (those evaluated under the new model). Exceptions to this were made on questions eight, which was only completed by teachers, and nine, which was only completed by administrators.

A comparison was also made between the analysis of the focus group narrative and the survey results taken from the pilot group educators who were not involved in the focus groups. This comparison was made to see how well the narrative analysis matches the survey results, what the focus group analysis adds to the survey results, and what information the survey gives which the focus group analysis does not.

The final report to the Mesa Governing Board (on file in the School Improvement Model Office at Iowa State University) was a combination of the results gained through the focus group analysis and from the results of the completed surveys. Both research methods sought to identify the opinions of the educators in the pilot study. Each method attempted to identify the strengths and the weaknesses of the new appraisal system as perceived by the initial users of the model.

In order to answer the questions in the opening paragraph of this chapter, the two groups of survey results (the focus groups’ and the rest of the pilot group’s) were compared using the T-tests calculations.
CHAPTER IV. RESEARCH FINDINGS

This chapter compares the results gained from a ten question survey given following focus group discussions of the questions with those gained from the same survey given to the larger pilot group who were not involved in focus group discussions. The questions covered each of the eight components of the teacher appraisal model piloted during the 1996-97 school year in the Mesa, Arizona, School District. The Mesa Teacher Appraisal Committee requested that two further questions be added. They were on the time requirements and on overall comparison of the new model with the one that preceded it. The questions asked in the survey are given below:

1. The content of the Classroom Instruction component is effective in improving classroom instruction.
2. The Teacher Artifacts component effectively promotes improved instruction.
3. The Student Growth component effectively promotes improved instruction.
4. The Goal Setting component effectively promotes improved instruction.
5. The Student Feedback component stimulates professional growth.
6. The Peer Feedback component stimulates professional growth.
7. The proposed evaluation plan took a great deal of my time.
8. The Acquired Knowledge modules will result in more effective teaching.
9. The Professional Standards component allows you to effectively address areas of job performance outside of the classroom.
10. The proposed evaluation system is better than the current one.

The scale used in the surveys was a Likert Scale in which 1 indicates strongly disagree, 2 indicates disagree, 3 indicates neutral or no opinion, 4 indicates agree, and 5 indicates strongly agree.

Below are the descriptive data for both sets of survey results for each question. Member responses for both focus groups and survey-only groups will be tabled in the order
of the questions asked. For each question, these tables are presented *viz.* General (combining answers of teachers and administrators), Administration and Teachers. In two instances, questions eight and nine, only one respondent group was used. Question eight was filled out only by teachers, and question nine was filled out only by administrators.

Tables 2-11 contain the analysis of the focus group responses to the questions asked in the discussion and in the follow-up surveys. These tables also include the synopsis of the surveys given to participants who were queried with the ten question instrument but did not participate in the focus groups. Discussion summary is given for the "General" group only as the teacher and administrator comments were combined in the qualitative analysis.

**The Content of the Classroom Instruction Component Is Effective in Improving Classroom Instruction**

Table 2 reveals that, in the focus groups, both teachers and administrators in their focus group discussions and in their survey responses tended to agree that the Classroom Instruction component of the new evaluation system was effective in improving classroom instruction. This belief also was supported by the responses given by the non-focus group participant in the survey.

Although all groups agree, the focus group answers for the teachers and for the combined teachers and administrators were significantly more positive (\( p \leq .05 \)) than those of the survey group. Focus group discussion conclusions were similar to their ratings on the survey instrument at the close of the session. However, many reservations about the
Table 2. Analysis for the respondents' answers to the question: The content of the Classroom Instruction component is effective in improving classroom instruction.

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus</td>
<td>4.03</td>
<td>(4 = agree)</td>
<td>.80</td>
<td>2.269*</td>
</tr>
<tr>
<td>Group Discussion</td>
<td></td>
<td>For the most part the answer was yes. However, they believed that specifics in this component could be improved. In particular they felt the scoring scales should be changed and that clear expectations for use by administrator needed to be communicated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General -- Focus Group Survey</td>
<td>3.6</td>
<td>(closer to agree than to neutral)</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>General -- Non-focus Group Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration -- Focus Group Survey</td>
<td>4.06</td>
<td>(4 = agree)</td>
<td>.91</td>
<td>.619</td>
</tr>
<tr>
<td>Administration -- Non-focus Group Survey</td>
<td>3.91</td>
<td>(closer to agree than to neutral)</td>
<td>.98</td>
<td></td>
</tr>
<tr>
<td>Teachers -- Focus Group Survey</td>
<td>4.00</td>
<td>(4 = agree)</td>
<td>.64</td>
<td>1.992*</td>
</tr>
<tr>
<td>Teachers -- Non-focus Group Survey</td>
<td>3.48</td>
<td>(closer to neutral than to agree)</td>
<td>1.08</td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .05  Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral or No Opinion; 2 = Disagree; 1 = Strongly Disagree
Classroom Instruction component were expressed during discussions. The general tone of the discussion was not as positive as the concluding survey evaluation (4.03 on a five-point scale) would indicate. It is important to also note that reservations expressed were usually related to specific elements of the instrument used in the Classroom Instruction component. General agreement on the importance of the component itself characterized the discussions.

The Teacher Artifacts Component Effectively Promotes Improved Instruction

This question asked them to critique the second component in the Mesa teacher appraisal plan. The responses (Table 3) obtained from the focus group discussion regarding “artifacts promoting improved instruction” reflected those gained from the surveys. In both cases, teacher respondents had reservations about the Teacher Artifacts component. Though more positive than negative, the average was close to an even split. Administrators in both groups were more affirming of this component than were teachers.

A close correlation in this analysis also was seen between focus group survey results and non-focus group results. The focus group responses to the survey question were slightly more positive than was the non-focus group response. However, no significant differences were found in this question between focus group and non-focus group participant answers.
Table 3. Responses to question two: The Teacher Artifacts component effectively promotes improved instruction.

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group Discussion</td>
<td>3.70</td>
<td>(closer to agree than to neutral)</td>
<td>0.91</td>
<td>1.146</td>
</tr>
<tr>
<td>General -- Focus Group Survey</td>
<td>3.5</td>
<td>(half way between agree and neutral)</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>Administration -- Focus Group Survey</td>
<td>4.00</td>
<td>(4 = agree)</td>
<td>0.84</td>
<td>1.123</td>
</tr>
<tr>
<td>Administration -- Non-Focus Group Survey</td>
<td>3.75</td>
<td>(closer to agree than to neutral)</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>Teachers -- Focus Group Survey</td>
<td>3.39</td>
<td>(closer to neutral than to agree)</td>
<td>0.89</td>
<td>0.323</td>
</tr>
<tr>
<td>Teachers -- Non-focus Group Survey</td>
<td>3.31</td>
<td>(closer to neutral than to agree)</td>
<td>1.04</td>
<td></td>
</tr>
</tbody>
</table>

Qualified support was given. These qualifications included establishing district-wide consistency in implementation, allowing for differences in teacher preferences, adding some areas that were not originally included and making sure the collection of materials is not overly time consuming.

Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral or No Opinion; 2 = Disagree; 1 = Strongly Disagree
The Student Growth Component Effectively Promotes Improved Instruction

The Student Growth Component results (shown in Table 4) follow the same pattern established in the first two questions:

1. The focus groups rated this component higher than did the non-focus group participants.

2. Teacher responses on the survey in both groups were less positive than administrators. Instructors more than administrators were concerned that too much time was being spent on testing.

Both teachers and administrators expressed the opinion that some areas were held more accountable than others because criterion referenced tests had not been established for all subjects. In particular it was felt that the specialist areas of art and music had very limited student achievement data from which to draw. It was also noted that the Career Ladder Program in Mesa had helped the district use student achievement data to determine teacher effectiveness.

Administrators in both groups indicated that they agreed that using student achievement data to determine teacher effectiveness would improve instruction. Teachers, on the other hand, in both groups were closer to neutral on this point. Their survey responses and focus group comments indicated reservations about the effectiveness of this component in making classroom instruction better.

On this question no significant differences were noted between survey responses from the focus and non-focus group participants.
Table 4. Analysis of question three: The Student Growth component effectively promotes improved instruction. (The purposes of this question was to gain participant opinions on the third part of the Mesa plan which related to student achievement data analysis.)

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group Discussions</td>
<td>3.73</td>
<td>(closer to agree than to neutral)</td>
<td>.92</td>
<td>1.321</td>
</tr>
<tr>
<td>General -- Focus Group Survey</td>
<td>3.5</td>
<td>(half way between agree and neutral)</td>
<td>1.02</td>
<td></td>
</tr>
<tr>
<td>General -- Non-focus Group Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration -- Focus Group Survey</td>
<td>4.06</td>
<td>(4 = agree)</td>
<td>.91</td>
<td>1.301</td>
</tr>
<tr>
<td>Administration -- Non-focus Group Survey</td>
<td>3.75</td>
<td>(closer to agree than to neutral)</td>
<td>.90</td>
<td></td>
</tr>
<tr>
<td>Teachers -- Focus Group Survey</td>
<td>3.4</td>
<td>(closer to neutral than to agree)</td>
<td>.88</td>
<td>.00</td>
</tr>
<tr>
<td>Teachers -- Non-focus Group Survey</td>
<td>3.4</td>
<td>(closer to neutral than to agree)</td>
<td>1.13</td>
<td></td>
</tr>
</tbody>
</table>

Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral or No Opinion; 2 = Disagree; 1 = Strongly Disagree
The Goal Setting Component of the Mesa Teacher Appraisal Plan

Table 5 shows no significant differences were seen in the answers given through discussions or through surveys given to focus groups or non-focus group participants. All data sources indicated narrowly supportive opinions about the Goal Setting component. The data would indicate that Mesa educators see some value in this component. However, they see this value being somewhat limited.

Survey mean scores on this component were very close across all subgroups. The non-focus group administrators responded the most positively with a mean score of 3.84 on the 5.00 scale. The focus group administrators responded least favorable with a 3.61 mean score.

The focus groups indicated that great inconsistency existed in the implementation of this area. Some principals were very thorough in the formation of growth plans with teachers. Others did little more than require a teacher to take a university class. This inconsistency may have caused the survey responses to be mixed between agree and neutral. Another factor that was frequently mentioned in focus groups as a shortcoming was the inexperience both teachers and administrators had in setting effective goals. It was requested in several discussions that the district provide models from which teachers and evaluators could choose.

More consistency, training and clearer expectations were expressed as necessary improvements in this component if it were to positively impact teacher performance.
Table 5. Analysis of question four on the Goal Setting component of the Mesa Teacher Appraisal plan.

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group Discussion</td>
<td>3.68</td>
<td>(closer to agree than to neutral)</td>
<td>.87</td>
<td>-.484</td>
</tr>
<tr>
<td>General—Focus Group Survey</td>
<td>3.76</td>
<td>(closer to agree than to neutral)</td>
<td>.99</td>
<td></td>
</tr>
<tr>
<td>General—Non-focus Group Survey</td>
<td>3.61</td>
<td>(closer to agree than to neutral)</td>
<td>.76</td>
<td>-1.098</td>
</tr>
<tr>
<td>Administration--Focus Group Survey</td>
<td>3.84</td>
<td>(closer to agree than to neutral)</td>
<td>.94</td>
<td></td>
</tr>
<tr>
<td>Administration—Non-focus Group Survey</td>
<td>3.68</td>
<td>(closer to agree than to neutral)</td>
<td>.98</td>
<td>-.039</td>
</tr>
<tr>
<td>Teachers --Focus Group Survey</td>
<td>3.69</td>
<td>(closer to agree than to neutral)</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td>Teachers—Non-focus Group Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral or No Opinion; 2 = Disagree; 1 = Strongly Disagree
Support Expressed by Mesa Educators for the Student Feedback Component

Significant differences were found between the responses of focus group administrators and non-focus group administrators in their responses on the survey (see Table 6). Responses from administrators on the survey indicated that the focus group participants were significantly more affirming of this component \( (p \leq .05) \) than were their counterparts who did not take part in focus group discussions. The administrative focus group discussion was very supportive of the Student Feedback component also.

Teachers in the focus groups responded more negatively than did teachers not involved in focus group discussions. The teacher focus group discussions were also generally more negative toward this component than were administrative groups.

Large differences were also seen between teacher and administrative responses on the survey question. This difference is indicated by the mean response of 3.88 by focus group administrators as compared to 2.58 by focus group teachers.

It was noted secondary administrators expressed more support for this component during focus group discussions than did elementary administrators. The strong support of secondary administrators may have resulted in the higher survey mean for focus group versus non-focus groups.

Focus group responses indicated that elementary educators do not feel elementary students are mature enough to accurately assess teacher performance. The main reservations expressed by secondary teachers and administrators were in the wording of specific questions and in the logistics of when and how the student survey was given. Some concerns were also
Table 6. Support expressed by Mesa educators for the Student Feedback component of their appraisal plan.

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group Discussion</td>
<td>3.17</td>
<td>(closer to neutral than to agree)</td>
<td>1.21</td>
<td>.133</td>
</tr>
<tr>
<td>General -- Focus Group Survey</td>
<td>3.14</td>
<td>(closer to neutral than to agree)</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>General -- Non-focus Group Survey</td>
<td>3.14</td>
<td>(closer to neutral than to agree)</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>Administration -- Focus Group Survey</td>
<td>3.88</td>
<td>(closer to agree than to neutral)</td>
<td>.78</td>
<td>2.486*</td>
</tr>
<tr>
<td>Administration -- Non-focus Group Survey</td>
<td>3.31</td>
<td>(closer to neutral than to agree)</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td>Teachers -- Focus Group Survey</td>
<td>2.58</td>
<td>(closer to neutral than to disagree)</td>
<td>1.18</td>
<td>-1.210</td>
</tr>
<tr>
<td>Teachers -- Non-focus Group Survey</td>
<td>2.95</td>
<td>(closer to neutral than to disagree)</td>
<td>1.11</td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .05  
Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly Disagree
voiced by secondary teachers about which students are surveyed. They reported that some
students would answer more objectively than others.

Opinions Given by Mesa Educators on the Peer Feedback Component

Table 7 shows focus group responses on the survey were more negative than were the
non-focus group responses. This aligns with the focus group discussions which were not
supportive of the Peer Feedback component. This more negative response was true across all
focus groups and expressed by both teachers and administrators on their surveys. So while
the differences were not significant at the .05 level they were consistent across focus groups
and across the participant categories of teachers and administrators.

Focus group teachers expressed apprehension about this component for several
reasons: Teachers would not give negative evaluative feedback to a colleague and distances
between classrooms and departments prevent teachers from having an accurate idea of what
happens in other teachers' classrooms. Also mentioned was the isolation teachers often
experience from one another which prevents them from knowing the instructional
effectiveness of fellow teachers.

Time Demands of the New Appraisal System

Reactions to question 7 showed a strong difference between focus and non-focus
groups (Table 8). The synergistic effect of the focus groups may have influenced their
responses. Discussion participants frequently expressed strong feeling in their belief that
Table 7. Opinions given by Mesa educators on the Peer Feedback component.

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group Discussion</td>
<td>2.87</td>
<td>(closer to neutral than to disagree)</td>
<td>1.22</td>
<td>-1.680</td>
</tr>
<tr>
<td>General -- Focus Group Survey</td>
<td>3.24</td>
<td>(closer to neutral than to agree)</td>
<td>1.14</td>
<td></td>
</tr>
<tr>
<td>General -- Non-focus Group Survey</td>
<td>3.22</td>
<td>(closer to neutral than to agree)</td>
<td>.97</td>
<td>-.687</td>
</tr>
<tr>
<td>Administration -- Focus Group Survey</td>
<td>3.4</td>
<td>(closer to neutral than to agree)</td>
<td>1.11</td>
<td></td>
</tr>
<tr>
<td>Administration -- Non-focus Group Survey</td>
<td>2.55</td>
<td>(closer to neutral than to disagree)</td>
<td>1.32</td>
<td>-1.491</td>
</tr>
<tr>
<td>Teachers -- Focus Group Survey</td>
<td>3.05</td>
<td>(closer to neutral than to disagree)</td>
<td>1.14</td>
<td></td>
</tr>
<tr>
<td>Teachers -- Non-focus Group Survey</td>
<td>2.87</td>
<td>(closer to neutral than to disagree)</td>
<td>1.22</td>
<td>-1.680</td>
</tr>
</tbody>
</table>

Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly Disagree
Table 8. Time Demands of the new appraisal system.

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group Discussion</td>
<td>3.98</td>
<td>(4.00 = Agree)</td>
<td>1.17</td>
<td>4.083*</td>
</tr>
<tr>
<td>Administration Focus Group Survey</td>
<td>4.22</td>
<td>(4.00 = Agree)</td>
<td>1.13</td>
<td>2.703*</td>
</tr>
</tbody>
</table>

* Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral; 2 = Disagree; 1 = Strongly Disagree

*p = .05
the new appraisal system would be extremely time consuming. Principals, in particular, expressed concerns about the demands of the new system. These strongly expressed opinions may have influenced the opinions of other group members.

The largest difference was recorded in the teacher responses. Focus group respondents to the survey were much more likely to say the new plan was time-consuming than were non-focus group teachers. The reason for this is unclear, but may be attributed to the influence of participant discussion on the beliefs of the group.

Significant differences at the .05 level were seen on three response comparisons: The overall difference in responses of teachers and administrators in the focus groups versus the non-focus groups, the difference between administrators in focus groups versus non-focus groups and the difference between teachers in the focus groups versus the non-focus groups. In all three cases the focus group means were higher.

Two of the means were higher at the .01 significance level as well. They were the overall comparison and the teacher comparison.

Effect the Acquired Knowledge Modules Will Have on Teaching Effectiveness.

There was no difference significant at the .05 level. Focus group survey results were higher than those obtained from non-focus group members. Once again, the tone of the focus group discussions was similar to the responses they gave in the survey. This would seem to support the researchers such as Bers (1989) and Ryan (1993) who said strong members of a focus group can have an effect on the opinions of other participants.
Table 9. Effect the Acquired Knowledge modules will have on their teaching effectiveness (teachers only).

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group</td>
<td>3.56</td>
<td>(closer to agree than to neutral)</td>
<td>1.3</td>
<td>1.432</td>
</tr>
<tr>
<td>Discussion</td>
<td></td>
<td>In general teachers were supportive of the staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>development requirements as long as they were</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>reimbursed for their time.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Focus Group</td>
<td>3.08</td>
<td>(closer to neutral than to agree)</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>Focus Group Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General -- Non-focus Group</td>
<td>3.08</td>
<td></td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral or No Opinion; 2 = Disagree; 1 = Strongly Disagree
Focus group responses on the survey indicated they were more positive than negative in their opinions about the acquired knowledge modules that teachers in the Mesa district are required to take. During discussions, focus group teachers expressed their support for the consistency in practice across the district that they saw resulting from this component. They did communicate reservations about the time commitment that needed to be made to complete the staff development sessions. However, these reservations were largely erased when they were assured that teachers would be reimbursed for the time spent in staff development classes.

Non-focus group respondents were more evenly split over the value of these modules. Perhaps this could be attributed to the fact they were not informed about payment for taking staff development classes. The opportunity to clarify such points was a benefit of the focus groups. Some of the difference in responses in this area and in others may have been directly related to the opportunity focus group participants had in getting questions answered by the moderators or other participants during discussions.

Opinions on the Professional Standards Component

Administrators, on this question regardless of group, expressed strong approval for the component (Table 10). Focus group support voiced in discussions closely matched the opinions expressed in surveys. A high degree of accord was evident. Focus group discussions emphasized that this component allowed evaluators to give teachers feedback on professional standards expected outside of the classroom. The opinion was frequently expressed that the professional standards addressed in this component were essential to being
Table 10. Opinions on the Professional Standards component (administrators only).

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group Discussions</td>
<td>4.5</td>
<td>There was a widely held agreement that this was an excellent component.</td>
<td>.83</td>
<td>1.604</td>
</tr>
<tr>
<td>General -- Focus Group Survey</td>
<td>4.5</td>
<td>(5.00 = Strongly Agree)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General -- Non-focus Group Survey</td>
<td>4.15</td>
<td>(closer to agree than to strongly agree)</td>
<td>.88</td>
<td></td>
</tr>
</tbody>
</table>

Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral or No Opinion; 2 = Disagree; 1 = Strongly Disagree
an effective teacher. Focus group participants also expressed the belief that this area was largely unaddressed in the prior evaluation plan.

This component received the highest rating of all from both administrative focus groups and non-focus group participants. The focus group participants responded slightly more favorably focus group discussions. This agreement became more evident as each discussion continued. This consensus, built on discussion, may have resulted in the higher score given by focus group participants over non-focus group members.

Is the New Evaluation System Better Than the Old One?

Answers given to the final question are shown in Table 11. More supportive responses were given in the focus group discussions and surveys than in the non-focus group surveys. The differences were significant at the .01 level of difference for the general score comparisons and for the teachers' scores. Means for the focus groups were all very near or above the 4.00 level which indicates “agree”. The Administrative mean was the highest at 4.39 compared to the teachers focus-groups’ mean of 3.83. The non-focus group means, on the other hand, were 3.35 and 3.14 respectively for administrators and teachers.

If only the non-focus group survey results were used, it could be concluded that Mesa educators are closely split on the benefits of the new plan over the old. However, the information gathered through the focus groups pointed in a different direction. It could be concluded from the focus group responses that the new system was clearly more popular than the old model.
Table 11. Is the new evaluation system better than the old one?

<table>
<thead>
<tr>
<th>Type of Respondent</th>
<th>Mean</th>
<th>Response Summary</th>
<th>Standard Deviation</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Focus Group Discussion</td>
<td></td>
<td>Generally the focus group discussions noted a belief that the new system is better than the old.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General -- Focus Group Survey</td>
<td>4.11</td>
<td>(closer to agree than to strongly agree)</td>
<td>.74</td>
<td>3.80&lt;sup&gt;^&lt;/sup&gt;</td>
</tr>
<tr>
<td>General -- Non-focus Group Survey</td>
<td>3.35</td>
<td>(closer to neutral than to agree)</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>Administration -- Focus Group Survey</td>
<td>4.39</td>
<td>(closer to agree than to strongly agree)</td>
<td>.76</td>
<td>1.967&lt;sup&gt;^&lt;/sup&gt;</td>
</tr>
<tr>
<td>Administration -- Non-focus Group Survey</td>
<td>3.81</td>
<td>(closer to agree than to neutral)</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td>Teachers -- Focus Group Survey</td>
<td>3.83</td>
<td>(closer to agree than to neutral)</td>
<td>.6</td>
<td>2.822&lt;sup&gt;^&lt;/sup&gt;</td>
</tr>
<tr>
<td>Teachers -- Non-focus Group Survey</td>
<td>3.14</td>
<td>(closer to neutral than to agree)</td>
<td>.98</td>
<td></td>
</tr>
</tbody>
</table>

<sup>^</sup>p < .01; *p < .05

Response Options: 5 = Strongly Agree; 4 = Agree; 3 = Neutral or No Opinion; 2 = Disagree; 1 = Strongly Disagree
The focus group discussions related to this question were heavily weighted in favor of the new system. These positive discussions may have had an influence on the focus group members responding to the follow-up survey.

**Analysis of Differences in Mean Ratings**

In all a total of 28 pairs of survey means were compared. The comparisons were established between groups who took part in the focus groups with those who did not. At the .05 error level, eight of the comparisons, or 31 percent of them, were significantly different. Four of these eight variables, or 15 percent of the total, were also significantly different at the .01 level. When a significant difference was present, the focus group mean was always the higher one.

**Comparison of Qualitative and Quantitative Analysis of Focus Groups**

The qualitative analysis was done by grouping answers to each question together across focus groups. Then for each question common themes in answers were grouped together. Those themes most frequently mentioned were highlighted in the analysis by being mentioned before less frequently mentioned themes. Likewise each theme was supported by exact statements of participants. The more commonly addressed themes were given a greater number of exact comments (the Mesa Study Report is on file at the School Improvement Office at Iowa State University).

At times it was noted that focus group responses to a question may have influenced their survey responses and accounted for the difference between focus group survey results
and non-focus group survey results. An example can be seen in the responses to question five ("The Student Feedback component stimulates professional growth"). Here the more negative responses, compared to the non-focus group responses, made on the surveys by the teacher focus groups corresponded with the negative discussion that preceded the recording of opinion on the survey. Such a relationship between focus group discussions and their survey responses being more or less favorable than their non-focus group counterparts could be seen in six of the ten questions.

This influence of group discussion, however, could not be used to explain differences in survey responses to all questions where the difference between focus group survey recording and non-focus group responses was in the opposite direction of discussion. The question on the Teacher Artifacts question is the exception. As mentioned above, a good share of the focus group discussions were critical of this component, yet the focus groups responded more favorably to the related survey question than did the non-focus group participants.

In three of the ten questions the focus group discussion was so divergent that identifying its effect on survey responses, in comparison with non-focus group responses, was not possible. An example of this was the question on the Student Growth component. The focus group discussion was evenly split on whether this component was effective in improving classroom instruction. Therefore the discussions' effect on the survey responses is hard to determine.

In the questions that elicited significant differences (p ≤ .05) between focus group participant answers and non-focus group participant answers, focus group discussion could
be an influencing variable. In question five secondary school administrators expressed
strong belief that student opinion was a valid source of information in assessing teacher
effectiveness. This firmly delivered feeling may have had an effect on their elementary
colleagues who were initially less favorable. The difference in response between focus group
and non-focus group administrators might be directly related to these discussions. The same
was true in questions seven and ten where resolutely stated beliefs correlate to a significant
difference between survey responses of focus and non-focus group members.

Question one on the Classroom Instruction component is an exception here as focus
group members responded more positively (significant at the .05 level) to the survey
question, but their focus group discussion was split between the benefits and problems of the
discussed component. It would seem that the difference in survey responses (significant at
the .05 level) could not be directly attributed to focus group discussion.

As might be expected the qualitative analysis of the focus group discussions provided
a much greater variety of information. It was mentioned by Dr. Skoglund that this
information was useful to the Mesa Teacher Appraisal committee. On other hand the survey
information gave a more precise knowledge of exactly how many supported the new plan.
Dr. Skoglund mentioned that this was effective in communicating with the public and the
board of education.
CHAPTER V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was conducted using data from the Mesa Public School District, Mesa Arizona. The purpose of this study was to determine whether information gained from a focus group study is significantly different from information gained from surveying the larger population from which the focus are taken. This study also was undertaken to determine whether information gained from focus groups should be generalized to the larger population from which focus groups are taken. Finally, this study sought to discover what the relationship, if any, exists between focus group research and survey research.

Summary

Four focus groups were conducted during March of 1997. Focus group participants were all involved in implementing a new teacher appraisal system that was piloted during the 1996-97 school year. Two of the groups contained teachers, and two contained administrators. Questions were asked of these four groups that sought to determine the effectiveness and the challenges in the pilot model. Great care was taken to accurately record and analyze responses of these groups. Following each group discussion a survey was completed that contained the ten questions asked during the focus group discussions. Participants were asked to score their agreement with the question on a scale of one to five with one being strong disagreement and five being strong agreement.

This same survey was then administered to the rest of the teachers and administrators in the pilot study who did not take part in the focus groups. The results from these two
survey groups were compared to determine if significant differences could be noted in their answers. The discussions of the focus groups were also analyzed. This analysis was compared with the survey results to see if answers to the survey questions differed from the analysis of the discussions.

**Research Hypothesis**

There will be no significant differences in the answers gained through focus group sessions and answers gained from surveying the larger population from whom the focus group participants were selected.

In all, t-scores were calculated for answers to ten survey questions comparing the responses given by focus group participants with those given by the rest of the teachers and administrators who participated in the pilot study. In analyzing answers to the questions means and standard deviations were tabulated for three subgroups: One was a combination of all teachers and administrators, a second was all teachers and the third was all administrators. Two questions had only one group responding. For one it was teachers only. For the other it was administrators only. So for these two questions only one set of means was compared. In all 26 focus group means were compared with 26 means taken from the larger population.

Of these 26 eight or 31 percent were found to be significantly different at the .05 error level and of these eight, four, or 15% of the 26, were significantly different .01 level also. In looking at all means that were significant at either the .05 or the .01 error level, it was noted that the focus group means were always more positive. When a mean was significantly different at the .05 level, it translated to about one half to three fourths of a point difference.
This could mean the difference, when rounding, to being closer to a three in one case and a four in the other. Translated, this means a significantly different mean \((p \leq .05)\) could be a "neutral" answer in one group as compared to an "agree" answer in another. This is a substantial difference for the decision maker. If respondents are neutral in the attributes of a component, the organization may decide to change it. They are less likely to do so if they perceive that respondents are supportive of the component. Table 12 below illustrates these findings.

Based on these results and the previously determined 80 per cent congruence standard, the research hypothesis was rejected when using the .05 error level. That is, significant differences did occur in the information obtained from a qualitative tool such as focus groups as compared to the information they obtain from a quantitative tool such as a survey.

The focus group results were qualitatively analyzed on each question asked during the discussions. These questions aligned with the questions that were used in the survey. The results of this analysis revealed that focus group discussions matched the follow-up responses given by the focus group participants on the survey instrument.

**Conclusions**

The results point to two conclusions relating to the comparison of focus group findings and findings attained from survey methods.

1. Though a majority of findings gained from the two techniques (focus group research and survey research) are similar, they do not always align.

2. Not all information gathered through focus groups can be generalized to the larger
population from which the focus groups are taken. One must use caution when making generalizations from focus group discussions to the beliefs of the larger population from which the focus group is taken.

Limitations

1. All data analyzed in this study came from a single school district and cannot be generalized outside that population.

2. The Likert Scale used in this study had a high score of five which indicated “strongly agree” and a low score of one which represented “strongly disagree”. The Likert Scale typically used in the Mesa district works from the opposite premise (i.e. one being high and five being low). This change in scales may have caused some educators to fill out their surveys incorrectly.

3. The percentage of teachers and administrators in the focus groups in relation to the number of teachers and administrators in the pilot study might account for some of the mean differences in the “General” category when comparisons were made. A one-to-one correspondence in this study existed between teachers and administrators. In the Mesa system as a whole the ratio of teacher to administrator would be approximately thirty-to-one.

4. Questions used in the surveys were generated before the focus group discussions were held. If such questions had been generated after the focus group discussions, the comparison of focus group analysis and survey information gained from the larger pilot group analysis and survey information gained from the larger pilot group may have been different.
Table 12. Summary Responses on all questions: The mean responses to each question by each group are given below. Questions one, five, eight and ten have mean scores significantly different when focus group answers are compared to pilot group ones.

<table>
<thead>
<tr>
<th>No.</th>
<th>General Focus Group</th>
<th>General Non-focus Group</th>
<th>t-value</th>
<th>Admin. Focus Group</th>
<th>Admin. Non-focus Group</th>
<th>t-value</th>
<th>Focus Group</th>
<th>Teacher Non-focus Group</th>
<th>Teacher t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.03</td>
<td>3.6</td>
<td>2.269*</td>
<td>4.06</td>
<td>3.91</td>
<td>.619</td>
<td>4.00</td>
<td>3.48</td>
<td>1.992*</td>
</tr>
<tr>
<td>2</td>
<td>3.70</td>
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*p ≤ .01; *p ≤ .05; 5 = Strongly Agree; 4 = Agree; 3 = Neutral or No Opinion; 2 = Disagree; 3 = Strongly Disagree
5. Some of the comments made during focus group discussions were not captured on tape. This happened when tapes were being flipped over or changed. Moderator notes were used to fill in gaps.

6. All focus groups met in the district administrative building in the district board room.

7. A five point response scale was used. A ten point scale could give more precision.

8. The survey instruments were given to individuals in groups. The survey given to non-focus group members was given in a large group setting in an auditorium.

9. The focus group surveys were given after the focus group discussions took place.

10. The survey given to focus group members was administered by the Researchers conducting the study, Paul Hillyer and Dr. Richard Manatt. The survey given to non-focus group members was given by an administrative member of the Mesa Public Schools.

11. Focus group sessions were limited to one and one half hours. This was a relatively short time to discuss nine questions.

12. Random sampling was not used when selecting focus group participants.

13. Focus group sessions took place throughout two work days during which participating staff were released from their regular duties.
Discussion

The major purpose of this study was to see if information gained from focus groups is representative of the population from whom the focus groups are taken. The study also sought to determine if focus group research and survey research can be mutually supportive.

Generalizing Focus Group Findings to the General Population

Results from this study supported the opinions of many writers including Bers (1989) and Ryan (1993). These writers maintained that focus group results should rarely be used alone as they do not always represent the views of the larger population. This was confirmed by the fact that 31 percent of the focus group response means were significantly different at the .05 level from the response means of the larger population from whom the focus groups were drawn. The reason for this difference is unknown. Perhaps it is as Ryan (1993), and Krueger (1994) noted: A focus group is like a snapshot. The picture and the information may change if different members are placed in the group. The reason that focus group findings may not reflect the larger population may also be that strong group personalities at times can dominate the discussions (Bloch, 1992). Merton (1990) called this the “inhibiting effect of the group” (p.151). Other reasons noted in the literature included biases of the focus group analyzer (Bloch, 1992), biases of the group moderators (Krueger, 1994), and sampling procedures that select unrepresentative samples (Mitra, 1994).

It was also noted that group synergy has an impact on focus group discussion. Often members would build on the ideas of one another. Thus when a discussion began to develop a particular theme, groups tended to support and expand on this theme. Some other ideas they had may not have been expressed due to direction the discussion took. This synergistic effect was mentioned frequently in the literature (see Avery and Zabel, 1995).
Using More than One Method to Investigate a Question

The results of this study supported the idea of triangulation, or using a variety of research tools in conducting an investigation (Krueger, 1994). Both methods gave qualified support to the new teacher appraisal system. The results from the survey given to the larger population gave information on actual numbers or percentages of people that were satisfied with the new appraisal plan. What these survey results did not reveal was why they were satisfied or dissatisfied with the new plan. They also could not tell the researcher what suggestions teachers and administrators had in making the model stronger. This information was provided by the focus group discussions.

On the other hand, focus group data cannot give a precise figure on the percentage of the general population that agree with focus group comments.

Both kinds of information are helpful to decision-makers. One needs to quantify information so as to know how much support actually exists for the program being examined. The researcher also needs to know what is behind the numbers. Knowing the reason a person gives a response a four on a five point scale can be very useful in making improvements. Use of focus groups allow the researcher to uncover this information.

Use Different Tools for Different Purposes

This study verified that information gained from different research methods is helpful for different purposes. As was mentioned earlier, the focus group information was used by the Mesa Teacher Appraisal committee to make adjustments in their system. The focus groups generated information on how to make the new system better. On the other hand, the statistical information gained through surveys was useful in communicating with the board of education and the public about how well the new plan was being received by the pilot group.
This survey information also helped the Mesa Public Schools determine how wide spread feelings of discontent or satisfaction actually were. If the district had only the focus group information to determine this, it is likely the appraisal committee would have concluded that the degree of discontentment was much higher than it actually was.

**Sampling and Surveying Focus Groups**

This study accommodated the request of the Mesa Teacher Appraisal Committee to select focus group participants. Another sampling approach would be to randomize the focus group samples. This randomization would help make the sample more representative of the larger population from which they were taken. The Mesa committee selected their participants as they were the group responsible for the implementation of the new appraisal model and were entrusted with selecting a reasonable cross section of the population.

In surveying focus groups several possibilities exist. One is to survey the groups after discussions as was done in this study. Another alternative would be to pre and post survey focus groups before and after discussions. This would allow the researcher to determine the effect, if any, of the focus group discussions on participant opinions. Should this option be chosen, a period of time between the completion of the first survey and the focus group discussions should be allowed so that focus group respondents will be less likely to remember the answers given on the first survey. Another option would be to survey some focus groups before their discussions and others after their discussions. This would also allow the researcher to draw conclusions about the effect of focus group discussions on participant opinions.
When to Use Focus Groups

Focus groups can be used for a variety of purposes as was mentioned in the second chapter. However, several recommended uses with quantitative approaches suggest themselves based on the experiences of this study. One is to use them before a survey is conducted to help researchers formulate questions that are of importance to the consumers of the research. This is a useful tactic as it allows the researcher to focus on areas that are presented as being important by participants. It also helps the researcher use language that is understandable to those completing the surveys.

Focus groups can also be used following a survey to determine the meaning of responses to those completing the survey. Survey questions can be interpreted in several ways. Using focus groups following surveys allows the researcher to clarify the meaning behind survey responses through the giving examples and explanations by focus group participants.

Recommendations for Further Research

In conducting this study several new avenues for further investigation were noted. One would be to conduct a similar study using fewer discussion questions in the focus groups. This would allow for more in-depth exploration of concepts and issues important to the groups. Then a survey could be developed after the discussions were analyzed. This survey should be based on the issues that surfaced during the group discussions. The survey then could be administered to the larger population to verify whether conclusions drawn from focus group discussions were characteristic of beliefs and attitudes of the larger population.
A second potential area for further research would entail a follow-up study which would involve all teachers and administrators in the Mesa School District who are now using the new appraisal model:

- this second study could determine if impressions gathered through the pilot study investigation held constant with the larger group after the new appraisal system was beyond the pilot year;
- a Lickert scale similar to the one used in other Mesa School District surveys should be used so that confusion over different forms is eliminated as a possible factor in the survey responses;
- utilize more than one tape recorder in the focus groups to insure information is not lost through the flipping of tapes during discussions;
- during this investigation a qualitative and quantitative comparison of teacher versus administrator responses could be made;
- focus group and non-focus group means on survey instruments could be compared as in the current study to determine if significantly different responses are obtained from focus groups versus the larger population.

Another study could investigate whether data collection techniques effect research results. In such a study a researcher could determine whether surroundings have an effect on participant responses. Included in such a study would be the following:

- conduct a focus group study in which the groups meet on district property, as was done in this study;
- compare these results with those gathered from groups that meet at a neutral site off of district property;
• in this study also include a quantitative component in which surveys are administered via mail and in large groups on district property;

• the two survey results could be compared for significant differences:

• for the surveys conducted on district property, have one half administered by district officials and one half by the study’s researchers;

• compare the survey results gathered on district property for significant differences;

• use a ten point response survey and compare the results with the five point survey results obtained in this paper’s study;

• determine if the ten point scale gives more useful results than does the five point scale.

Recommendations for Practitioners

The results of this study suggest that caution should be used when generalizing information gained from focus groups to the larger population. It seems advisable to consider using a variety of research techniques in order to gain accurate and specific information to make decisions. General recommendations for practitioners, based on knowledge gained through this study include:

1. while a majority of findings gained from the two techniques are similar, there are enough significant differences to merit taking great care when generalizing focus group results to a larger population;

2. when using information gained from focus groups as data for decision making, it is wise to verify such data with a quantitative tool, such as a survey given to the
3. larger population. This verification will help determine which focus group data is representative of the larger population and which is not;

4. data collection is time consuming and can be costly. However, the more complete and thorough one can be in this process, the more information one will have to make effective decisions for change and improvement;

5. information gained from focus groups can be a rich source of ideas for making improvements. This information is difficult to obtain through a quantitative tool such as a survey;

6. use more than one tape recorder during sessions or having speakers pause while tapes are being changed to insure that all comments are recorded;

7. administer a ten-option response survey instead of a five option scale to add more discrimination power to the instrument;

8. verify focus group analysis with another moderator before reporting findings;

9. use no more than five questions during a focus group session to insure enough time to adequately discuss each one;

10. do not influence focus group discussions by interjecting moderator opinions during the sessions;

11. the moderator should not report responses of prior groups during focus group discussions in order to avoid predisposing group members toward making similar responses;

12. allow time in focus group sessions to “warm up” or to allow group members
to become comfortable with sharing their thoughts;

13. work closely with the organization for whom a study is being done prior to
initiation to insure that the proposed design will yield the information needed
by the organization.

Specific recommendations to the Mesa, Arizona, Public Schools include:

1. continue to use and develop the teacher appraisal model investigated in this
study;

2. do an annual focus group study with a different group of teachers and
educators after each of the first three years of implementation. Make changes
and improvements based on the ideas shared in these groups;

3. at least every three years survey all participants in the teacher appraisal system
and determine their degree of satisfaction with the system. Use this input to
determine when significant revisions need to be made in the system;

4. insure that the time requirements for administrators in the new plan are
reasonable and practical;

5. do an analysis of the impact the new plan has on the district Career Ladder
Program;

6. conduct periodic study on how well the staff development component is
helping teachers develop professionally;

7. make sure that teacher growth plans are being supported through district staff
development efforts;

8. annually track student academic gains to see if the new appraisal system is
improving student achievement.
BIBLIOGRAPHY


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