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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

EFFECTS OF STRUCTURE ON EFFICACY OF PUBLIC RELATIONS

PROBLEM SOLVING PROCESSES

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

Doctor of Philosophy

By

INTAE CHUNG

Norman, Oklahoma

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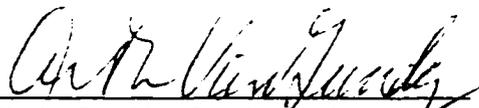
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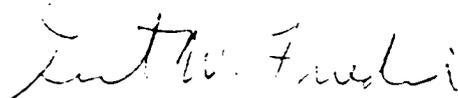
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PROBLEM SOLVING PROCESSES

A DISSERTATION

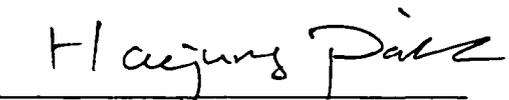
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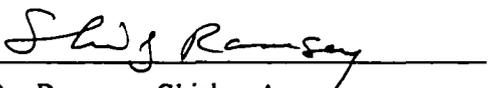
By


Chair: Dr. VanGundy, Arthur B.


Dr. Friedrich, Gustav W.


Dr. Lujan, Philip D.


Dr. Paik, Haejung


Dr. Ramsey, Shirley A.

DISSERTATION COMMITTEE

돌아가신 아버님의 영전에 이 논문을 바칩니다.
(This work is dedicated to my late father, Sang-Soo Chung).

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Table of Contents

Page	
	LIST OF TABLES ix
	LIST OF FIGURES x
	ABSTRACT xi
	 CHAPTER
	I. Introduction 1
	A. Statement of the Problem 1
	B. Hypotheses 2
	C. Theoretical Backgrounds of Creative and Public Relations
	Problem Solving 2
	D. Need for the Study 3
	E. Operational Definitions 6
	II. Review of Literature 7
	A. Definition of a Problem 7
	B. Types of Problems 10
	C. Public Relations Problems 11
	1. Definitions of Public Relations 11
	2. Public Relations Problems 16
	D. Problem Solving Processes 20

1. Creative Problem Solving Process	20
a. Brief History of Creative Problem Solving	20
b. Overview of the Creative Problem Solving Process	21
2. Public Relations Problem Solving Process	41
a. Overview of Public Relations Problem Solving Processes	41
b. Traditional Public Relations Problem Solving Process	48
c. Modified Public Relations Problem Solving Process	74
E. Decision Making Procedures and Performance	84
F. Effects of Creativity Training and CPS	85
G. Restatement of the Problem and Hypotheses	90
III. Research Methodology	92
A. Sample	92
B. The Training Program	93
C. The Design	93
D. Reliability	97
E. Data Analysis	98
1. Assumptions Tests	96
2. Quality of the Problem Statements	103
3. Quantity of Ideas about Strategies	103
4. Quality of Ideas about Strategies	104
5. Satisfaction	105

IV. Results	106
A. Multivariate Analysis of Variance	106
B. Univariate Analysis of Variance	108
1. Quality of the Problem Statements	108
2. Quantity of Ideas about Strategies	109
3. Quality of Ideas about Strategies	110
4. Satisfaction	112
V. Discussion and Recommendations	118
A. Discussion	118
B. Limitations of the Study	127
C. Recommendations for Future Research	128
REFERENCES	131
APPENDICES	142

LIST OF TABLES

TABLE

1. Summary Statistics	107
2. ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and the Problem Statements	109
3. ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and the Quantity of Ideas	110
4. ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and the Quality of Ideas	111
5. ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and the Quality of Ideas (Rater 1 & 2)	112
6. ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and Satisfaction	113
7. ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and Satisfaction Levels on Perceived Freedom to Participate, Quantity of Ideas, Quality of Ideas, and Process	115
8. Correlation Matrix Between Satisfaction Levels on Perceived Freedom to Participate, Quantity of Ideas, Quality of Ideas, and Process	117

LIST OF FIGURES

FIGURE

1. Example of a Weighted Decision Matrix	35
2. Example of a Potential Problem Analysis (PPA)	38

Abstract

The research question for this study was: What effect does training in techniques of divergent and convergent activities in creative problem solving (CPS) have on public relations problem solving processes? To answer this question, this study focused on the differences between three groups in terms of the quality of problem statements, the quantity of ideas about strategies, the quality of ideas about the strategies, and participants' satisfaction levels.

The unit of analysis for this study was the group. Treatment groups A were trained in a modified public relations problem solving (PRPS) process which used CPS techniques as decision making procedures. The treatment groups B were trained in the traditional PRPS process; and the control groups were not trained.

The groups were given a hypothetical public relation case. The quality of the problem statements and ideas generated by the groups were evaluated by two judges. The quantity of ideas was measured by counting the number of ideas about the public relations campaign strategies generated by each group of subjects. The satisfaction levels of individuals were measured by participant's self-reports after finishing the experiment task.

The results indicated that there was a significant difference in the quality of the problem statements developed between the three groups. However, a post hoc analysis showed that there was no significant difference in the problem statements produced between groups trained in the modified PRPS process and the traditional PRPS process. The results of the study indicate that groups trained in the modified

PRPS process generate significantly more ideas than groups trained in the traditional PRPS and the control groups.

Although inter-rater reliability on the quality of ideas was too low to compare the three groups, two judges' ratings were summed for each idea and average quality scores across groups for each condition were compared. This analysis revealed a non-significant effect for the quality of ideas.

The results show that subjects trained in the modified PRPS process were more satisfied with their small group communication than subjects trained in the traditional process. The results show, however, that ideas produced by subjects trained in the traditional PRPS process and in the control groups are significantly better than ideas produced by the subjects trained in the modified PRPS.

The study revealed that subjects trained in the modified PRPS process were more satisfied with their perception of freedom to participate and the quantity of ideas generated by their groups than subjects trained in the traditional PRPS. In addition, the results reveal that participants' satisfaction level on "perceived freedom to participate" was positively related to their satisfaction level on the quantity and quality of ideas generated and the process used by them.

It was concluded that training in CPS activities may have a significant effect on idea quantity and participant satisfaction—at least when public relations campaigns are considered.

CHAPTER I

Introduction

Public relations practitioners are communication problem solvers in their organizations—that is, they manage, plan, and execute communication for their organizations as they solve public relations problems. When solving public relations problems, they usually follow a public relations problem solving process (PRPS). These public relations problems are usually ill-structured problems. Creative problem solvers also use a creative problem solving (CPS) process to solve ill-structured problems when existing or conventional solutions do not work, using a variety of CPS techniques. That is, both public relations practitioners and creative problem solvers usually use a series of steps to solve ill-structured problems. The basic steps that public relations managers and creative problem solvers follow to solve their problems are very similar. Therefore, this study will investigate the effects of an application of CPS techniques suggested by VanGundy (1992) to PRPS processes.

Statement of the Problem

Many studies have been done on the effects of CPS, finding that CPS works in various settings. However, very little work has been done on the effects of CPS on public relations programs. Therefore, this study will investigate the effects of the application of creative problem solving (CPS) techniques to public relations problem solving (PRPS) processes when public relation practitioners solve their public relations problems. This study will adopt some steps that VanGundy (1992) suggests for divergent and convergent activities in CPS to public relations problem solving processes.

Hypotheses

The research question for this study is: What effect does training in techniques of divergent and convergent activities in CPS have on public relations problem solving processes? The following hypotheses will be tested:

H1: There is a significant difference in quality of problem statements produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

H2: There is a significant difference in quantity of ideas of strategies generated among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

H3: There is a significant difference in quality of ideas of strategies produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

H4: There is a significant difference in satisfaction levels among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program about the overall problem solving processes.

Theoretical Backgrounds of Creative and Public Relations Problem Solving

Both CPS and PRPS can be understood from a systems theory perspective. According to VanGundy (1997), CPS follows a procedure similar to basic systems theory: inputs, throughputs (processing), outputs, outcomes, and feedback. For example, first, creative problem solvers implement the CPS process: objective finding, fact finding, problem finding, idea finding, solution finding, and acceptance finding. Then, creative problem solvers implement the solutions by applying them to the

problem and evaluating the result. If the problem is resolved satisfactorily, they can terminate the process. Otherwise, they reenter the CPS process. This process has a ground in basic systems theory.

Public relations practitioners serve as a liaison between organizations and their external publics. As boundary personnel, public relations practitioners support other organizational subsystems by helping them to communicate across the boundaries of the organization to external publics and by helping them to communicate with other subsystems within the organization (Grunig & Hunt, 1984). Therefore, public relations practitioners must understand systems concepts when they solve public relations problems for their organizations. The public relations practitioners must work out procedures to deal with inputs and to produce outputs and seek feedback to see if the output had the desired effect on penetrating systems in the organization's environment (Grunig & Hunt, 1984).

Need for the Study

Creative problem solvers and public relations problem solvers use similar processes to solve their problems. During the processes, both problem solvers identify problems, find facts, and define problems. After that, they generate ideas and select promising ones to solve the problems. Then they develop an action plan before implementing the solutions. During and after the implementation stage, they receive feedback about the result of solutions.

For example, during the problem identification stage, public relations practitioners identify public relations problems of their organizations as do creative problem solvers at the objective finding stage. Public relations practitioners also carry

out a situation analysis to understand their problem as do creative problem solvers who gather information about their problem during the fact finding stage. At the problem finding stage, creative problem solvers define and redefine their original problem statement, based on data obtained during the fact finding stage. Public relations practitioners also define their problems and make a problem statement, based on the data from the situation analysis. After understanding the current state of the problem, public relations practitioners decide the desired state, a program goal statement, and establish objectives to use as criteria of evaluation for the public relations programs or campaigns.

After defining a problem statement and establishing a program goal and objectives, public relations practitioners develop ideas to close the gap between the desired state, the program goal, and the current state, the problem statement, during the strategies stage. Creative problem solvers also generate ideas to solve their problems during the idea generation stage, using a variety of idea generation methods. At the solution finding stage, creative problem solvers select the best ideas to solve the problem as do public relations practitioners at the selection stage.

Public relations practitioners develop an action plan (timetable and budget) before implementing their chosen strategies. After implementing the solutions, they evaluate their programs to find out whether the solutions worked or not. Creative problem solvers not only identify potential implementation obstacles and ways to overcome them, but also develop a series of steps for an action plan. After implementing the solutions, they also check to see if the solutions really solve the problem.

Creative problem solvers use creative problem solving techniques such as divergent and convergent activities during the CPS process that public relations practitioners can adapt to PRPS process when they solve their public relations problems. That is, CPS techniques can provide public relations practitioners, who solve public relations problems together as a group, with a decision making procedure at each stage of the public relations problem solving process.

Scientists believe that formal procedures enhance group effectiveness. Jarboe (1996) suggests that creative thinking as a procedure enhances quality of thought of group members.

By specifying "Discuss this" or "Think about that," some procedures promote critical and/or creative thinking of group members.... Creative thinking is often labeled *divergent* and analytical thinking, *convergent* (Albrecht, 1987; Rawlinson, 1981; Scheidel & Crowell, 1979; Whitfield, 1975). Both divergent and convergent thinking are necessary for effective group problem solving (Scheidel, 1986). (Jarboe, 1996, pp.349-350).

However, public relations practitioners do not typically use CPS techniques such as divergent and convergent activities to apply to their public relations problems. If public relations practitioners were to apply these CPS techniques to their PRPS processes as decision making procedures, the effects of their public relations programs and campaigns conceivably could be increased. Therefore, the purpose of this study is to develop more effective public relations problem solving processes for public relations programs and campaigns by applying some CPS techniques to PRPS

processes as decision making procedures.

Operational Definitions

Traditional Public Relations Problem Solving Process (PRPS) : A traditional PRPS is a 10-step public relations problem solving process to solve public relations problems. The 10-step public relations problem solving process is as follows: Problem Identification, Situation Analysis, Problem Definition (Problem Statement), Publics, Program Goals and Objectives, Strategies and Tactics, Selection, Budgeting and Timetable, Action and Communication, and Evaluation.

Modified Public Relations Problem Solving (PRPS) Process: A modified PRPS process is the PRPS process adding decision making procedures such as divergent and convergent activities in creative problem solving (CPS) to the traditional PRPS process.

Creative problem solving techniques: Creative problem solving techniques are divergent and convergent activities in the creative problem solving process. Guilford (1977) suggests two types of information operations: convergent and divergent production. Divergent activity is a broad search for alternative approaches to a problem or situation. Convergent activity is a focused search when only one alternative is needed.

Decision making: This study regards problem solving as a comprehensive, multistage process that begins with problem identification and ends with evaluation of a program. And decision making is the process of obtaining the objectives of each stage. That is, decision making is the process which guides problem solvers concerning how to identify problems, analyze situations, define problems, and so on.

CHAPTER II

Review of Literature

Chapter I introduced the creative problem solving process, briefly discussed the CPS techniques and PRPS, and hypothesized that CPS techniques will increase the effectiveness of public relations programs and campaigns. The purpose of this chapter is to review the literature on CPS and PRPS and to discuss the effects of training in creativity and creative problem solving.

Definition of a Problem

Reitman (1964) suggests a three-component analysis (A, B, \rightarrow) of a problem, saying, "this representation provides a useful basis for definitions of problem and problem solutions" (p.284). The first component, A, stands for the initial state or objects; the second component, B, stands for the terminal state or object. The third component, \rightarrow , denotes a process, program, or sequence of operations. He says that many problem situations are clearly representable in these three terms. Taylor (1974) states that the initial state is the current problem state that the problem solver has available; the terminal state is the target or goal that s/he is trying to attain; and the third component, transformations, are the processes or steps by which the problem solver can move from the initial state to the terminal state.

Many people have developed definitions of problems based on the three-component unit. For example, MacCrimmon & Taylor (1976) define a problem as "the existence of a gap between the existing state and the desired state" (p.139). Therefore, there is no problem if the initial state and the terminal states are identical. They say that problems are subjective and relative to the problem solver because one

person may see a “gap” between the existing and desired states, while another person may not. Therefore, they suggest that several conditions exist which determine whether the problem solver accepts the situation as a problem.

First, the problem solver must be aware of the gap. If the problem solver is unaware of the gap, s/he does not have a problem. Second, the problem solver must be motivated to resolve the problem. Although there are many situations in the world for which people are aware of a gap between an initial state and a terminal state, many people would not be motivated to try to reduce the gap. These situations are not problems. Finally, the problem solver needs to have the abilities and resources to resolve the problem in order for it to be a meaningful problem for him/her.

VanGundy (1988 b) adds one more problem precondition between the second and third ones: “The size of the gap should be measurable in some way” (p.3). If the problem solver cannot measure the size of the gap, there is no way of knowing when the desired solution is achieved, VanGundy says. Therefore, VanGundy (1988 b) summarizes the preconditions necessary to begin the problem-solving process:

1. The existence of a gap between what is and what should be
2. An awareness that a gap exists
3. The motivation to decrease the gap
4. An ability to measure the size of the gap
5. The abilities and resources required to close the gap (p.4).

According to Beebe & Masterson (1997), Kepner and Tregoe (1965) also suggest three elements of a problem: an undesirable existing situation, a goal someone wishes to achieve, and obstacles that keep that person from achieving his or her goal.

Kepner and Tregoe (1976) define a problem as “a deviation from some standard or norm of desired performance” (p. 50). They contend that a problem exists only when people think that a deviation from a desired performance should be corrected and are concerned enough to look for its cause, or think that the performance should be changed in order to meet a different standard. That is, they believe that although there is some departure from desired performance, no problem exists if nobody is concerned about the deviation.

VanGundy (1988 a) believes that defining a problem as a gap between current and desired states has one weakness. The weakness is that this definition is a static definition, despite the fact that most problems are not static. He believes that the majority of problem situations are dynamic. They may remain relatively stable for short periods, but the shifting nature of our complex environment frequently produces rather drastic changes in our problems. He insists that a more dynamic definition of problem is needed. Therefore, he defines a problem as “a set of ongoing perceptions held about a constantly changing gap between a desired and existing state” (VanGundy, 1988 a, p. 12).

VanGundy (1988 a) says that resolving a problem defined in this manner requires constant awareness about the nature of a problem situation from time to time. It also requires searching for new information and re-examining old information. He contends that the problem solvers’ perceptions about a problem and the actions they take to deal with it must be dynamic because a problem is dynamic.

In summary, a problem consists of three components: an undesirable existing state, a desired state, and transformations to close the gap between the states. Most

problems are dynamic; that is, the nature of a problem situation changes constantly. In order to be a problem, an individual must perceive the changing gap between an existing state and a desired state. Second, an individual must be motivated by the problem to solve it. Third, an individual must have an ability to measure the size of the gap. Fourth, an individual must have the abilities and resources to resolve it.

Types of Problems

In order for a problem solver to solve problems more easily, s/he needs to classify problems into types. That is, s/he must know where s/he is and where s/he wants to be before s/he can resolve a situation (VanGundy, 1997). Although there are many different ways to classify problems, one that has been used frequently in the problem solving literature is to describe problems as being well-structured, ill-structured, or semi-structured (e.g., MacCrimmon & Taylor, 1976; Simon, 1973). Structure in this context refers to “the amount of information [a problem solver] has about the problem states or the amount of information perceived to exist about the undesirable existing and desired problem states and how to close the gap between them” (VanGundy, 1997, p.V-5).

Well-structured problems are those which a problem solver is familiar with the existing state, the desired state, and how to close the gap. Therefore, the well-structured problem can be resolved using ready-made, routine solutions. Ill-structured problems are those for which the problem solver has the least amount of information about the existing state, the desired state, and the required transformations. Therefore, the problem solver must use custom-made, nonroutine solutions. Semi-structured problems are those situations that fall between well-

structured and ill-structured problems. The problem solver may use custom-made solutions, ready-made solutions, or elements of both to solve these problems (VanGundy, 1987, 1997).

Public Relations Problems

Definition of Public Relations

Many scholars and practitioners have defined public relations. For example, Grunig and Hunt (1984) say: "Public relations is the management of communication between an organization and its publics" (p.6). They believe that public relations professionals manage, plan, and execute communication for themselves as well as the organization as a whole. They manage the movement of messages into the organization and out of the organization. For instance, when public relations practitioners conduct research on the knowledge, attitudes, and behaviors of publics and use that information to counsel managers on organizational policies or actions, they manage the movement of messages into the organization. On the other hand, when public relations practitioners help management decide how to explain a policy or action to the public and help them write a news story or fact sheet to explain the policy or action, they manage the movement of a message out of the organization (Grunig & Hunt, 1984).

Cutlip, Center, and Broom (1994) offer their definition: "Public relations is the management function that establishes and maintains mutually beneficial relationships between an organization and the publics on whom its success or failure depends" (p. 6). They believe that this conceptual definition unifies a broad range of activities and goals identified with the practice. It also identifies building and maintaining the

mutually beneficial relationships essential to modern society as the moral and ethical basis of the profession. At the same time, it suggests criteria for determining what is and what is not part of the function.

Broom, Lauzen, and Tucker (1991) think that the boundaries between public relations and marketing are blurred because public relations and marketing use the same techniques and strategies to build and maintain relationships. They think, however, that the goals of these two management functions are different.

To clarify the concepts underlying these two management functions, the San Diego-based public relations firm of Nuffer, Smith, Tucker, Inc. and San Diego State University's Department of Journalism co-sponsored a colloquium on the public relations-marketing relationship. At this colloquium, a panel consisting of William Ehling, Patrick Jackson, Larry Jones, and Philip Kotler, discussed public relations and marketing, settling on the following definition:

Public relations is the management process whose goal is to attain and maintain accord and positive behaviors among social groupings on which an organization depends in order to achieve its mission. Its fundamental responsibility is to build and maintain a hospitable environment for an organization (Broom, Lauzen, & Tucker, 1991, p. 223).

The panel also agreed on the following definition of marketing:

Marketing is the management process whose goal is to attract and satisfy customers (or clients) on a long-term basis in order to achieve an organization's economic objectives. Its fundamental responsibility

is to build and maintain a market for an organization's products or services (Broom, Lauzen, & Tucker, 1991, p. 223).

The panelists believe that public relations and marketing both deal with organizational relationships and employ similar processes. They also agree that the two functions are not differentiated by the techniques and strategies they employ. They conclude, however, that the major difference is in the outcomes they seek to achieve. That is, they believe that public relations' goal is to attain and maintain accord with other social groupings upon which an organization depends in order to achieve its mission, while marketing's goal is to attract and satisfy customers on a sustained basis in order to achieve an organization's economic objectives.

Hundreds of additional definitions of public relations have been developed. Harlow (1976) found 472 definitions of public relations and asked 83 public relations leaders for their definitions of public relations. He then offered the following definition:

Public relations is a distinctive management function which helps establish and maintain mutual lines of communication, understanding, acceptance, and cooperation between an organization and its publics; involves the management of issues; helps management to keep informed on and responsive to public opinion; defines and emphasizes the responsibility of management to serve the public interest; helps management keep abreast of and effectively utilize change, serving as an early warning system to help anticipate trends; and uses research

and sound and ethical communication techniques as its principal tools (Harlow, 1976).

The Public Relations Society of America formally adopted an even longer “Official Statement on Public Relations.” The statement is the preamble to the November 1982 position paper that won the unanimous endorsement of the elected leaders of 11,000 professionals. According to Nager and Allen (1984), the statement reiterates the ideals, mission, and role expressed in so many earlier attempts to define the place of public relations persons in society and business. The statement is as follows:

Public relations helps our complex, pluralistic society to reach decisions and function more effectively by contributing to mutual understanding among groups and institutions. It serves to bring private and public policies into harmony.

Public relations serves a wide variety of institutions in society such as businesses, trade unions, government agencies, voluntary associations, foundations, hospitals, schools, colleges, and religious institutions. To achieve their goals, these institutions must develop effective relationships with many different audiences or publics such as employees, members, customers, local communities, shareholders, and other institutions, and with society at large.

The management of institutions need to understand the attitudes and values of their public in order to achieve institutional goals. The goals themselves are shaped by the external environment.

The public relations practitioner acts as a counselor to management and as a mediator, helping to translate private aims into reasonable, publicly acceptable policy and action.

As a management function, public relations encompasses the following:

- Anticipating, analyzing, and interpreting public opinion, attitudes, and issues that might impact, for good or ill, the operations and plans of the organization.
- Counseling management at all levels in the organization with regard to policy decisions, courses of action, and communication, taking into account their public ramifications and the organization's social or citizenship responsibilities.
- Researching, conducting, and evaluating, on a continuing basis, programs of action and communication to achieve the informed public's understanding necessary to the success of an organization's aims. These may include marketing, financial, fund raising, employee, community or government relations, and other programs.
- Planning and implementing the organization's efforts to influence or change public policy.
- Setting objectives, planning, budgeting, recruiting and training staff, developing facilities—in short, *managing* the resources needed to perform all of the above.

Examples of the knowledge that may be required in the professional practice of public relations include communication arts, psychology, social psychology, sociology, political science, economics, and the principles of management and ethics. Technical knowledge and skills are required for opinion research, public-issues analysis, media relations, direct mail, institutional advertising, publications, film/video productions, special events, speeches, and presentations.

In helping to define and implement policy, the public relations practitioners use a variety of professional communication skills and play an integrative role both within the organization and between the organization and the external environment (PRSA National Assembly).

Public Relations Problems

Organizations and publics have reciprocal relationships with each other. Decisions made by an organization may have consequences upon publics. When publics learn about these consequences, they often take actions that have consequences upon the organization. Those consequences upon one another create a public relations problem. To solve the public relations problem, the organization needs communication programs (Grunig & Hunt, 1984).

Public relations people communicate with both management and publics to solve their public relations problems. In communicating with publics, public relations people conduct opinion surveys or interview people to learn how the publics view the organization. They also use mass communication or interpersonal communication to explain their organizations to publics. Public relations people also communicate with

management to provide it with public opinions about the organization so that management has the benefit of that knowledge when making decisions. They also need to know the decisions and behaviors of management to explain those decisions and behaviors to the publics (Grunig & Hunt, 1984). Public relations scholars Broom and Dozier (1990) define a public relations problem as “a condition in which someone thinks there is a gap between what is perceived and what is desired” (p.24), which is similar to MacCrimmon and Taylor’s definition. That is, public relations people try to close the gap between what organizations and publics perceive and what organizations and publics desire by using communication programs.

Wilcox et al. (1995) grouped public relations problems into three categories:

1. *Overcoming a negative perception of an organization or product.*

Some examples of these negative perceptions that Wilcox et al. suggest are:

- a. Resistance by the public to company products on the basis of price, quality, or company behavior—for example, word-of-mouth assertions that a local manufacturing company is damaging the environment by secretly dumping toxic waste material in a nearby hill.
- b. Belief expressed by security analysts that a manufacturing company’s production equipment has become outdated, making the firm lose ground competitively.
- c. Evidence that employees believe their company lacks concern for their interests.

- d. Complaints from patients about what they perceive as excessively high hospital bills.
- e. A decline in membership of a professional association (Wilcox et al. pp.182-3).

2. *Conducting a specific, one-time project.* Typical problems in the one-time project category that a public relations specialist must define and attempt to solve are as follows:

- a. Organize a citizens' campaign demanding that the city council adopt an ordinance banning smoking in public buildings and restaurants.
- b. Introduce a new product.
- c. Conduct a fund drive for a hospital expansion.
- d. Enlist employee input and support for a major revision of company medical benefits.
- e. Obtain shareholder approval for acquisition of another company (Wilcox et al., p. 183).

3. *Developing or expanding a continuing program to create or maintain a favorable situation.* The following are common examples of continuing program objectives:

- a. Maintain community confidence that a company is a good corporate citizen with a sense of social responsibility.

- b. Satisfy employees that the company is a good place to work.
Retention of trained employees is a constant management problem.
- c. Convince householders that their city's recycling program is achieving significant results and encourage them to increase their contributions to it.
- d. Raise funds on an annual basis to keep human welfare programs like those of the American Red Cross or American Heart Association functioning.
- e. Supply the media with a steady flow of newsworthy information about the employer and answer their requests promptly and openly (Wilcox, et al., pp. 149-151).

Most public relations problems are ill-structured problems. Public relations practitioners do not have routine solutions to solve their problems. That is, there is no or little information about the problem states and how to close the gap between them. Suppose public relations practitioners in the Public Relations Office at the University of Oklahoma need to raise funds on an annual basis to build the Oklahoma Museum of Natural History. They need information about the three components of problem states: an undesirable existing state, a desired state, and transformations. In order to be a problem, they must perceive the changing gap between an existing state and a desired state. That is, they know that there is a gap between the current amount of money that the university has and the desired amount of money that the university needs to build the museum. They also can estimate the desired amount of money to build the museum, want to close the gap, and have the resources to resolve the gap.

However, they do not have ready-made, routine solutions to close the gap. Therefore, this public relations problem is ill-structured and requires creative thinking to resolve.

Problem Solving Processes

Creative Problem Solving Process

According to VanGundy (1992), Creative Problem Solving (CPS) is a systematic problem-solving model. A problem solver uses CPS when existing or conventional solutions don't work. To use CPS appropriately, VanGundy (1992) suggests that "(1) you solve the correct problem, (2) CPS is the most efficient approach, and (3) your problem is suitable for CPS" (p.13).

Brief History of Creative Problem Solving

Alex Osborn (1963) suggested three stages of creative problem solving: fact finding, idea finding, and solution finding. Osborn also suggested four brainstorming rules:

1. Quantity breeds quality.
2. Defer judgment.
3. The wilder the better.
4. Seek combination and improvement (VanGundy, 1992, pp. 16-17).

After conducting several major research studies on CPS, Sydney J. Parnes added two more stages to the original Osborn model. The two stages, problem finding and acceptance finding, emphasize defining problems and implementing solutions. He also identified the importance for each stage of divergent and convergent activities during data generation and evaluation (VanGundy, 1992)..

Finally, Scott Isaksen and Donald Treffinger (1985) added a preliminary problem-solving stage: objective finding. This stage helps identify a target area (i.e., the primary concern, challenge, or opportunity) (VanGundy, 1992). As a result, the CPS process involves six stages: objective finding, fact finding, problem finding, idea finding, solution finding, and acceptance finding.

Overview of the CPS process

VanGundy (1987, 1992, 1997) describes the basic activities in each of the six CPS stages, known as Osborn-Parnes Creative Problem Solving Model, as follows:

Objective Finding

This stage is designed to “identify a target problem area” (VanGundy, 1992, p.18). Problem solvers start a divergent search for concerns, challenges, and opportunities. They list all problem areas that represent concerns, challenges, and opportunities without judgment. Isaksen and Treffinger suggest that problem solvers can use the format “Wouldn’t it be nice if..? (WIBNI...?) and Wouldn’t it be awful if...? (WIBAI...?)” to help identify problem areas (VanGundy, 1997, V-10).

VanGundy (1997) provides sample statements as follows. “WIBNI my toaster had more features? or WIBAI my supervisor required me to check with him before I made any decision?” (p. V-10).

After listing all problem areas, problem solvers select one of these statements and transform it into an initial problem statement. Isaksen and Treffinger (1985) suggest three criteria for selecting one of the statements: ownership (are you motivated to solve it?), priority (how important is the problem?), and criticalness (what is the urgency in solving this problem?). Problem statements usually are stated

as “In what ways might we (IWWMW) ...?” or “How might...?”

Isaksen and Treffinger (1985) suggest a three-step process to converge problem areas generated:

1. Identify the most relevant or important problem topics(hits).
2. Select the one hit that is most important to you.
3. State the hit in the form of a problem using the format “IWWMW?” (VanGundy, 1992, pp.18-19).

At the end of this stage, the problem solvers have identified the one problem they need to solve.

VanGundy (1992, p.25-34) uses an example of a major airline to illustrate how to use the CPS process.

Assume that the vice-president of marketing for FlySafe Airlines sends you the following memo (VanGundy, 1992, pp.25):

To: John Smith, Human Resources Director

From: Mel Jones, Marketing Vice-President

Subject: Creative problem-Solving Facilitation

As you know, our earnings for the first two quarters were down significantly over last year. And our stock has fallen dramatically over the last three years. Moreover, our major competitor, Air Turbulence, has gained considerable market share in recent years.

President Bump has asked me to generate ways to reverse our financial position. I told him that your personnel are equipped to facilitate Creative Problem-Solving sessions and possibly can help us deal with this problem. Would you put your personnel to work and see what solutions you can come up with? I have informed other division directors that we may need to use their staff to contribute data and brainstorm ideas. Let me know your final recommendations as soon as possible.

According to VanGundy (1992), a creative problem solving group for FlySafe Airline should follow the four-step process to develop a problem statement.

1. Diverge, generating potential problem topics. The group lists some major concerns in the marketing division without judgment when generating these ideas.

The group generates the following list:

- 1) Recruiting more qualified personnel
- 2) Improving customer service for international passengers
- 3) Increasing market share
- 4) Better predicting customer responses to marketing
- 5) Developing a marketing slogan
- 6) Improving manager-subordinate relations
- 7) Reducing advertising cost
- 8) Improving target market identification
- 9) Determine customer preferences
- 10) Improving focus group procedures (pp.25-26).

2. Identify the most relevant or important problem topics (hits).

This process is a subjective process because companies or people have different situations. In this case, suppose the group identifies items 1, 2, 4, and 9 as hits. Items 2, 4, and 9 represent hotspots concerning customers. According to VanGundy (1992),

Hits are the specific items [problem solvers] identify as important or relevant to a particular stage (the best objectives during objective finding, the best facts during fact finding, etc.). *Hotspots* are clusters of related hits that are optional in the sense that logical or related data

groupings may not always appear (pp. 17).

3. *Select the one hit that is most important to you.*

To identify this area, the group applies the criteria of ownership, priority, and criticalness. The group decides that they have ownership over all the hits, since the customers are a prime marketing responsibility. Of the hits, they decide that item 2 has higher priority than the other hits, since it is more likely to affect financial profit. It also is critical because the financial position needs improvement to increase market share and ensure organizational survival. Improved customer service may result in more customers (or repeat business) and, therefore, more profit. After reviewing the hits and applying the criteria, the group select item 2 as the most important topic among the hits: Improving customer service for international passengers (VanGundy, 1992, pp. 26).

4. *State the hit in the form of a problem using the format "IWWMW?"* In this case, the problem statement can be, "In what ways might we improve customer service for international passengers?"

Fact finding

The purpose of this stage is to gather relevant problem data systematically and efficiently to improve understanding of the problem. These data are used during the problem finding stage to test assumptions and revise the original problem statement, if needed (VanGundy, 1997). The first step of the fact finding stage is to diverge. That is, problem solvers list everything that they know about the problem. They use the Five Ws method to search for data systematically. They generate a list of Who? What? Where? When? and Why? questions and answer them (VanGundy, 1992,

p.26). After generating as much data as possible without judgment, problem solvers converge and select fact-finding hits and hotspots.

The process can be summarized as follows:

1. Diverge, generating a list of everything you know about the problem. Use the Five W's: Who? What? Where? When? Why? Then answer each question.
2. After generating responses to these and other questions, move to convergence, identifying hits among the responses.
3. Then, if necessary, group your hits into hotspots (VanGundy, 1992, pp.19).

VanGundy (1992) shows how the creative problem solving groups for FlySafe Airline followed the above process to generate relevant data to improve understanding of the problem.

1. Diverge, generating a list of everything you know about the problem. Use the Five W's: Who? What? Where? When? Why? Then answer each question.

- *Who are our potential customers?* The flying public. People on business. People on vacation. People combining business and pleasure. Frequent flyers. People visiting families. Males and females. Young and old people. Rich and poor people. People flying on other airlines.
- *Who provides customer service?* Flight attendants. Ticket counter personnel. Baggage handlers. Catering personnel. Pilots. Ground crew. Travel agents. Baggage claim personnel.

- *What is customer service?* Learning customer preferences. Attending to customer needs. Solving customer problems. Anticipating problems before they occur. Interacting with customers with a positive attitude.
- *Where is customer service most evident?* During flights. When delays occur. At ticketing counters. When any problem affects customers. During peak travel periods.
- *When do most people notice customer service?* When they are ignored. When someone goes out of his or her way to help. When they receive prompt attention. When an employee overlooks a minor policy to help someone in trouble.
- *Why is good customer service important?* It helps attract new customers. It helps retain old customers. Sustained profits depend on it. It helps the company project a positive image. It creates satisfied customers who are more likely to fly with us again (pp.26-27).

2. *After generating responses to these and other questions, move to convergence, identifying hits among the responses.*

- *Who are our potential customers?* The flying publics. People flying on other airlines.
- *Who provides customer service?* Flight attendants. Ticket counter personnel.

- *What is customer service?* Learning customer preferences.
Anticipating problems before they occur.
- *Where is customer service most evident?* During flights. When delays occur.
- *When do most people notice customer service?* When someone goes out of his or her way to help. When they receive prompt attention.
- *Why is good customer service important?* It helps attract new customers. It helps retain old customers. It produces satisfied customers. It helps the company project a positive image (pp.27).

3. *Next, the group examines hits to see if it might group some together into hotspots.* The group members develop the following list:

Employees:

Flight attendants

Ticket counter personnel

When someone goes out of his or her way to help

Customers:

The flying public

People flying on other airlines

Learning customer preferences

It helps attract new customers

It helps retain old customers

It produces satisfied customers

Flight-related data:

During flights

When delays occur (pp.27-8).

Problem finding

The purpose of this stage is to generate the best, most productive problem definition. Problem solvers need to redefine the original problem statement because the initial problem definition may not be the one that will result in unique solutions. (VanGundy, 1997). The specific activities for this stage are:

1. Review all the fact-finding hits and use each hit as a stimulus to redefine your original problem statement. Use these stimuli to generate a list of problem redefinitions.
2. Converge and identify hits using the criteria of ownership, likelihood of stimulating many ideas, and freedom from criteria (VanGundy, 1992, pp.19).

The creative problem solving group for FlySafe Airline can follow this two-step process as follows:

1. Review all the fact-finding hits and use each hit as a stimulus to redefine your original problem statement. Use these stimuli to generate a list of problem redefinitions. The group members generate the following list of problems:

In what ways might we (IWWMW):

1. Encourage employees to go out of their way to help customers?

2. Attract passengers who regularly fly other airlines?
3. Attract new customers?
4. Increase international customer satisfaction?
5. Reduce the number of takeoff and departure delays? (VanGundy, 1992, pp.28).

2. Converge and identify hits using the criteria of ownership, likelihood of stimulating many ideas, and freedom from criteria.

After analyzing all the statements, the group selects problem 1, 3, and 4. Of these, the group decides that problem 4 is most likely to resolve their objective of improving the airline's financial position.

The primary reason for this choice is one of ownership. [The group thinks] that the international market is the most unstable. No airline yet has established itself in a dominant market position, as is the case with domestic travel. Thus, they might be able to capture a larger market share and improve their financial position (VanGundy, 1992, pp. 28).

Idea Finding

This stage is designed to generate as many ideas as possible for resolving problems and select the most promising ones. Problem solvers generate ideas by listing every idea they can think of. They also use formal individual and group idea-generation methods (VanGundy, 1997). VanGundy (1995) describes 101 formal individual and group idea-generation methods that can be used. After generating all ideas, they converge and select the most promising ideas.

VanGundy (1992) suggests a four-step process for the idea finding stage:

1. Withhold judgment and generate a list of all possible ideas. This purge activity helps get rid of conventional ideas.
2. Use formal idea-generation techniques to prompt ideas.
3. Converge and identify idea hits. If natural categories of hits appear, group them together (e.g., finance, personnel, or marketing hits).
4. Select the best ideas or categories of ideas, using one or two broad criteria such as cost or time involved (pp.20).

The group now is ready to begin idea finding using the problem, “IWWMW increase international customer satisfaction?” The members start with a purge to list more conventional ideas:

1. *Withhold judgment and generate a list of all possible ideas. This purge activity helps get rid of conventional ideas.*

- Install more comfortable seats.
- Offer good entertainment.
- Provide more legroom.
- Train personnel to be more courteous.
- Lower ticket prices (pp.29).

2. *Use formal idea-generation techniques to prompt ideas.*

For example, the group can use two word methods and brainwriting methods.

VanGundy (1992) generates several ideas using these two methods as such:

- Gourmet food

- Seconds on food and drink
- Free flight insurance
- Vibrating seats
- Shortening airport check-in time
- Wine-tasting classes
- Videocassette players built into seat backs
- Computers built into seat backs
- Stand-up comedians
- Free popcorn
- Educational seminars
- Motivational speakers
- Theme flights with audience participation
- Free tourism-survival kits
- On-board business card raffles (pp.29-30).

3. *Converge and identify idea hits. If natural categories of hits appear, group them together (e.g., finance, personnel, or marketing hits). For example,*

- In-flight comfort (e.g., more comfortable seats, more legroom, vibrating seats)
- Food enhancements (e.g., gourmet food, free popcorn)
- Educational and entertainment programs (e.g., wine-tasting classes, stand-up comedians) (pp.30).

4. *Select the best ideas or categories of ideas, using one or two broad criteria such as cost or time involved.* After examining all the ideas and applying the criteria, three ideas are left:

1. Vibrating seats
2. Videocassette players built into seat backs
3. Theme flights with audience participation (pp. 31).

The group is now ready to move to the next CPS stage and select a final problem solution.

Solution Finding

This stage is designed to select a solution capable of solving the problem. This stage uses two divergent activities. First, problem solvers generate a list of general criteria to evaluate solutions (e.g., time, cost, and feasibility). Second, they determine if they can improve the ideas from idea finding. If they decide the ideas don't need improvement, they can move on to convergent solution finding. Convergence during solution finding also involves two activities. First, review the criteria and select the most important ones. Then, select the highest rated option, using the criteria they generated. (VanGundy, 1997, pp.v-14).

VanGundy (1992) suggests a four-step process for the solution finding stage:

1. Generate evaluation criteria.
2. If needed, transform the hits within the category into more workable solutions (concept expansion and development).
3. If there are too many criteria, select the most important ones.

4. Use the criteria to select the best solution(s). If time is available, use a weighted decision matrix. Or rate each solution (1 = low potential; 5 = high potential) across all the criteria (pp.23).

VanGundy (1992) suggests the following process to use for the problem solvers to construct a weighted decision matrix.

- 1) Rate the importance of each criterion on a five-point scale (1 = not very important; 5 = very important).
- 2) Use a similar five-point scale and rate each solution against each criterion.
- 3) Multiply the importance rating of each criterion by the rating for each solution.
- 4) Add up the products for each solution.
- 5) Select the solution with the highest score (or select a combination of solutions) (pp.22-23).

The creative problem solving group for the FlySafe follows this four-step process.

1. *Generate evaluation criteria.*

- 1) Cost
- 2) Time to implement
- 3) Degree to which current equipment will require modification
- 4) Effect on routine flight operations
- 5) Acceptance by airline crew

6) Passenger long-term interest level

7) Ability to interest a broad cross section of passengers (pp.31).

2. *If needed, transform the hits within the category into more workable solutions (concept expansion and development).* This activity improves the ideas from idea finding. In this case, the group members decide the ideas don't need improvement and they move on to convergent solution finding.
3. *If there are too many criteria, select the most important ones.* Of the seven criteria they generated, the group members decide to delete criteria 2 and 5.
4. *Use the criteria to select the best solution(s). If time is available, use a weighted decision matrix. Or rate each solution (1 = low potential; 5 = high potential) across all the criteria.* The group constructs matrix as follows:

Figure 1. Example of a weighted decision matrix (VanGundy, 1992, p.32).

Criteria	Criteria Importance	Vibrating Seats		VCRs In Seatbacks		Theme Flights	
		Is	Subtotal	Is	Subtotal	Is	Subtotal
1. Low cost	5	2	10	3	15	3	15
2. Equipment modification	5	1	5	2	10	5	25
3. Routine flight operations	4	2	8	3	12	4	25
4. Passenger interest level	4	3	12	5	20	3	12
5. Interest to cross section	3	3	9	5	15	4	12
Totals:			44		72		80

The group rates each criterion on importance, using a five-point scale (1= not very important; 5 = very important). Next, each solution is rated on the degree to which it satisfies each criterion. The lower the number, the less the criterion is satisfied. For instance, vibrating seats were rated a 2 on the criterion of low cost. This means the group believes vibrating seats will be relatively expensive (Cost often is a confusing criterion since a low cost will be rated high). As shown in the figure, the group rated theme flights the highest, closely followed by VCRs, and then vibrating seats. Because VCRs and theme parties are relatively close, they both might be used. However, the group decides to select VCRs (VanGundy, 1992, pp.31-32).

Acceptance Finding

This stage helps problem solvers implement the solution successfully. There are two divergent activities in this stage: (a) identifying potential implementation obstacles and ways to overcome them and (b) developing a series of steps for an implementation action plan. During convergence, problem solvers should select the most important steps for their action plan (VanGundy, 1997, p.v-14). Major activities for this stage are:

1. List potential implementation obstacles and ways to overcome them.
2. Develop both preventive actions and contingency (backup) plans.
3. Generate an action plan to implement your solution.
4. Select the most important implementation obstacles.

5. Evaluate your action plan and make any needed improvements

(VanGundy, 1992, p.23-24).

A potential problem analysis (PPA) ensures effective implementation of above steps 1 and 2. VanGundy (1992) suggests a version of potential problem analyses which was developed by Kepner and Tregoe (1965; 1981) and later modified by VanGundy (1988). The steps for conducting a PPA are as follows:

1. Generate a list of potential problems that might hinder solution implementation.
2. Select the most important problems and list possible causes of each.
3. Rate the probability of occurrence of each cause (1= not very probable; 5 = very probable) and the seriousness of each (1 = not very serious; 5= very serious).
4. Multiply each probability rating (P) times each seriousness rating (S) to obtain a PS score.
5. Generate preventative actions for each problem cause.
6. Rate the residual probability (RP) that each problem cause still will occur after a preventative action has been taken.
7. Multiply the PS score by the RP score.
8. Develop contingency (backup) plans for causes with the highest PS x RP scores (VanGundy, 1992, p.33).

The creative problem solving group for FlySafe follows the above steps to implement the solution as follows:

An example of a PPA using the VCR is shown in Figure 2. There are two problems with three causes each. The group estimates that all the preventative actions will reduce the probability of occurrence of each cause. For instance, equipment failure owing to lack of maintenance is reduced from a probability value of 3 to a 1 after the preventative action of checking the VCRs after every flight. Group members then multiply the PS ratings the RP ratings to determine which causes should have backup or contingency plans. In this case, the most important area seems to be equipment failure owing to misuse. If built-in "help" functions don't prevent misuse, they suggest a computer diagnostic program that automatically signals potential misuse. If the group wanted, it also could have developed contingency plans for the other, more highly rate causes (VanGundy, 1992, p.33).

Figure 2. Example of a potential problem analysis (PPA) (VanGundy, 1992, p.33)

Potential Problems/Causes	P	S	Preventive Actions	PS	RP	PSxRP	Contingency Plan
1. Equipment failure							
a. Heavy use	4	5	Use industrial equipment	20	2	40	
b. Misuse	5	5	Build in "help" functions	25	2	50	Computer diagnosis
c. Lack of maintenance	3	5	Check after every flight	15	1	15	
2. Passengers don't know how to use equipment							
a. Unfamiliarity	2	3	Show instructional movie	6	1	6	
b. Poor instructions	5	3	Write own instructions	15	1	15	
c. Not user-friendly	5	4	Test with passenger sample	20	2	40	

The last acceptance-finding activity involves developing an action plan. Creative problem solvers should develop an action plan to guide solution implementation. VanGundy (1992) suggests using the Five W questions of Who? What? Where? When? and Why? to structure this plan. For instance, they might ask such questions as :Who will be responsible for implementation? What will they implement? Where will they need to go to implement it? When should it be implemented? The Why? question can be used by asking "Why" of all the other questions—that is, asking why a particular person (or persons) should be responsible for an implementation activity (who?), why a particular thing should be implemented (what?), why it should be implemented in a particular location (where?), and why one time would be better than another to implement it (when?). This stage concludes with a sequential listing of specific action-plan steps. In this case, the creative problem solving group for FlySafe first might want to survey customers, then contract VCR manufacturers and take bids, consult with engineers on installation problems, rewrite instructions if necessary, and so forth (p.34-35).

After implementation, creative problem solvers should follow up on the effectiveness of the solution. In this case, the creative problem solving group for FlySafe should check to see if it has solved the original problem of increasing international passenger satisfaction. If so, the next task is to relate improved satisfaction with increased revenues from ticket sales. At this point, it is time to leave CPS (VanGundy, 1992).

In summary, the CPS process involves six stages: objective finding, fact finding, problem finding, idea finding, solution finding, and acceptance finding. At each stage, creative problem solvers use a set of divergent and convergent activities. At the objective finding stage, creative problem solvers identify a target problem area. After listing all problem areas and selecting one of these, they develop an initial problem statement, using “IWWMW...?” At the fact finding stage, creative problem solvers gather all information and data relevant to the problem to improve understanding of the problem. They use the Five Ws method to diverge and hits and hotspots to converge on the information. After understanding their problem, creative problem solvers redefine their original problem statement at the problem finding stage. They review all the fact finding hits and use each hit as a stimulus to redefine their original statement. After generating a list of problem redefinitions, they converge, using criteria of ownership, likelihood of stimulating many ideas, and freedom from criteria, and choose one problem statement. After selecting one problem statement, they generate ideas to resolve the problem. At first, they generate as many ideas as possible without judgment, using individual and group idea generation methods. After this, they converge on the ideas and select the most promising ones, using one or two broad criteria such as cost or time involved. At the solution finding stage, creative problem solvers select a solution capable of solving the problem. They generate a list of evaluation criteria and select the most important ones. They then select the highest rated option, using the criteria. They may use a weighted decision matrix to select the best solutions. At the acceptance finding stage, creative problem solvers identify potential implementation obstacles and ways to

overcome them and then develop an action plan. A potential problem analysis (PPA) can help them find potential implementation obstacles and develop an action plan.

Public Relations Problem Solving Process

Overview of Public Relations Problem Solving Processes

According to Wilcox et al. (1995), “ Public relations is a process—that is, a series of actions, changes, or functions that bring about a result” (p.8). Hendrix (1995) says, “The public relations process is a method for solving problems” (p.5) . That is, public relations practitioners use basic steps to solve their ill-structured public relations problems. Public relations scholars suggest models of the public relations process. For example, Cutlip, Center, and Broom (1995) suggest a four step public relations process:

1. Defining the problem (or opportunity).
2. Planning and programming.
3. Taking action and communicating.
4. Evaluating the problem (pp. 317).

The first step of the public relations process is the situation analysis phase in which public relations practitioners probe and monitor knowledge, opinion, attitudes, and behaviors of publics concerned with and affected by the acts and policies of an organization. This is an organization's intelligence function to find facts. The second step is the strategy phase in which public relations practitioners decide publics, objectives, action and communication strategies, tactics, and goals in the interests of all concerned, using information gathered in the first step. Cutlip et al. (1995)

suggest ten steps in preparing a plan:

1. The Problem, Concern, or Opportunity
2. Situation Analysis (Internal and External)
3. Program Goal
4. Target Publics
5. Objectives
6. Action Strategies
7. Communication Strategies
8. Program Implementation Plans
9. Evaluation Plans
10. Feedback and Program Adjustments (Cutlip et al., 1995, pp.358-359)

The third step is the implementation phase which involves implementing the plans and program through both action and communication designed to achieve specific objectives related to the program goal. The fourth step of the public relations process is the assessment phase in which public relations practitioners assess the results of the program as well as the effectiveness of program preparation and implementation (p.357).

Therefore, Cutlip et al. (1995) describe the public relations strategic planning process as follows:

Four-Step Process

1. Defining the Problem

2. Planning and Programming

3. Taking Action and Communicating

Strategic Planning Steps and Program

Outline

1. **The Problem, Concern, or Opportunity**

“What’s happening now?”

2. **Situation Analysis (Internal and External)**

“What positive and negative forces are operating ?

“Who is involved and/or affected?”

“How are they involved and/or affected?”

3. **Program Goal**

“What is the desired situation?”

4. **Target Publics**

“Who—internal and external—must the program respond to, reach, and affect?”

5. **Objectives**

“What changes must be made to achieve the outcomes stated in the objectives?”

6. **Action Strategies**

“What must be achieved with each public to accomplish the program goals?”

7. **Communication Strategies**

“What message content must be communicated to achieve the outcomes stated in the objectives?”

“What media best deliver that content to the target publics?”

8. Program Implementation Plans

“Who will be responsible for implementing each of the action and communication tactics?”

“What is the sequence of events and the schedule?”

“How much will the program cost?”

4. Evaluating the Program

9. Evaluation Plans

“How will the outcomes specified in the program goal and objectives be measured?”

10. Feedback and Program Adjustment

“How will the results of the evaluations be reported to program managers and used to make program changes?” (Cutlip et al. pp.358-9).

Wilcox, Ault, and Agee (1995) follow a four-step process for public relations, known as RACE. The RACE formula for public relations activity consists of four key elements:

1. Research—What is the problem?
2. Action and planning—What is going to be done about it?
3. Communication—How will the public be told?
4. Evaluation—Was the audience reached and what was the effect?

(p.9).

Wilcox et al. (1986) contend that the first step of public relations problem solving process is research. After public relations practitioners assume that a problem exists, they carry out research to determine its cause and extent. The second step, planning a program, embodies the results of the research effort. If public relations practitioners find public relations problems as a result of the research, they plan a public relations program/campaign. Wilcox et al. (1986) suggest a series of seven basic steps for generating such a plan:

1. Define the problem.
2. Research the facts.
3. Set objectives.
4. Define the audiences.
5. Plan the program.
6. Execute the program.
7. Assess the results (pp. 148).

The third step in the public relations process, after appropriate research and planning, is communication. Communication is the implementation of a decision. It may take the form of news releases, press conferences, special events, brochures, speeches, bumper stickers, newsletters, parades, posters, and the like. In a program plan, this stage is referred to as strategies and tactics. The final step in the public relations process is evaluation—the measurement of results against the established objectives set during the planning process. Public relations practitioners want to know if the money, time, and effort expended on public relations are well spent and contribute to

the realization of organizational objectives—whether it is attendance at an open house, product sales, or increased public awareness of the organization's contributions to the local community (Wilcox, Ault, & Agee, 1986).

Grunig and Hunt(1984) provide a behavioral molecule grounded in systems theory. The segments of the behavioral molecule are as follows: Detect... Construct... Define... Select... Confirm... Behave... Detect...(p.106).

In the detect phase, public relations practitioners detect a problem in the environment. They may carry out research to find problems in the environment that they would otherwise not know about. In the construct phase, the practitioners begin to formulate a solution to the problem they have detected. In this segment, Grunig and Hunt say, public relations practitioners: "(1) define the problem, (2) choose an objective that suggests what it will take to solve the problem, and (3) formulate alternative solutions to the problem" (p. 106) In the define phase, the practitioners define how each alternative can be implemented. Public relations practitioners think how they would do each alternative, how long it would take, how much it would cost, and what effects it would have. In the select phase, a manager chooses an alternative to implement. In the confirm phase, a manager evaluates the alternative and confirms that the selected alternative will work and is the best one. In the behavior phase, the practitioners carry out the program selected. Public relations practitioners write a news story, hold an open house, set up a community-relations program and so on. In the detect phase, practitioners detect if their program meets objectives by examining feedback (Grunig & Hunt, 1984).

Ramsey (1994) suggests an action memo in which public relations ideas on programs or campaigns are finalized in written form for potential clients or for upper-level managers. The action memo is a planning document prepared for upper-level management; however, it includes all activities that public relations practitioners should follow to develop their public relations programs and campaigns. The action memo consists of eight essential parts: situation analysis, publics, goals and objectives, strategies and tactics, impact on the organization, evaluation, timetable, and budget.

Ramsey (1994) believes that, first, public relations practitioners should address problems in the situation analysis section. This section should also update the reader on the internal (programmatic) or the external (client) focus of the plan. She emphasizes the importance of research in situation analyses such as some type of secondary (background) or primary (Focus Group or surveys) research. After some type of research, public relations practitioners should identify and segment publics to be reached by the plan. And then they should establish goals and objectives. Goals and objectives should relate directly to the situation, the publics as outlined, and research findings. After this, public relations practitioners should develop strategies and tactics to achieve the goals and objectives of the program. Next, public relations practitioners itemize how the projected program will affect the organization and outline how they evaluate the success of their project. And then, they should outline in detail the steps to be taken to accomplish the tactics in the plan. Finally, they should specify best estimates of cost for the tactics of the plan (Ramsey, 1994).

Traditional Public Relations Problem Solving Process

The above public relations problem solving processes can be combined as follows:

1. Problem Identification
2. Situation Analysis
3. Problem Definition (Problem Statement)
4. Publics
5. Program Goals and Objectives
6. Strategies and Tactics
7. Selection
8. Budgeting and Timetable
9. Action and Communication
10. Evaluation

Problem Identification

The first step in the public relations problem solving process is to identify public relations problems. Public relations practitioners must identify whether there are problems in the organization. Problem identification starts with informal, unsystematic monitoring of the environment. After public relations practitioners find a potential problem through informal and opportunistic scanning of the environment, they use more formal and systematic observation to explore, confirm, and describe the problem (Broom & Dozier, 1990). Proactive public relations practitioners can find many problems through environmental scanning while they are still small enough to

permit corrective action before becoming major public issues (Cutlip, Center, & Broom, 1994).

Situation Analysis

After identifying problems, public relations practitioners must understand the problems. Public relations practitioners must get at cause and effect quickly.

Therefore, they should conduct a systematic analysis of the situation. According to Cutlip, Center, and Broom (1994), “situation analysis research gives practitioners and their employers and clients the timely, complete, and accurate information needed to understand the problem and to serve as a basis for decision making” (p.326). A situation analysis contains all the background information and data collected about the internal and external environments. The background information and data can be used to define and refine the problem statement. They also can be used as resources for establishing program goals and objectives and developing strategies and tactics to achieve goals and objectives.

Cutlip, Center, and Broom(1994) and Broom and Dozier (1990) suggest topics to be covered in a situation analysis as follows.

I. Internal Factors

1. Statements of an organization’s mission, charter, bylaws, history, and structure
2. Lists, biographies, and photos of key officers, board members, managers, and so forth
3. Descriptions and histories of programs, products, services, and so forth

4. Statistics about resources, budget, staffing, sales, profits, stockholders, and so forth
5. Policy statements and procedures related to the problem situation
6. Position statements (quotations) by key executives regarding the problem situation
7. Description of how the organization currently handles the problem situation
8. Descriptions and lists of the organization's internal stakeholders
9. Lists of organizational media (two-way) for communicating with internal groups

II. External Factors

1. Clippings from newspaper, magazine, trade publication, and newsletter coverage of the organization and the problem situation
2. Reports, transcripts, and tapes of radio, television, and cable coverage
3. Content analyses of media coverage
4. Lists of media, journalists, columnists, talk-show hosts, freelance writers, and producers who report news and features about the organization and issues related to the problem situation

5. Lists of and background information on individuals and groups who share the organization's concerns, interests, and positions on the problem situation (including their controlled internal and external media outlets)
6. Lists of and background information on individuals and groups who oppose the organization's concerns, interests, and positions on the problem situation (including their controlled internal and external media outlets)
7. Results of surveys and public opinion polls related to the organization and the problem situation
8. Schedules of special events, observances, and other important dates related to the organization and the problem situation
9. Lists of government agencies, legislators, and other officials with regulatory and legislative power affecting the organization and the problem situation
10. Copies of relevant regulations, legislation, pending bills, referenda, government publications, and hearing reports
11. Copies of published research on topics related to the problem situation
12. Lists of important reference books, records, and directories, as well as their locations in the organization (Cutlip, Center, & Broom, 1994, pp.326-327).

Problem Definition (Problem Statement)

After figuring out the situation, public relations practitioners must define problems clearly. They must make a problem statement that summarizes what was learned about the situation. According to Broom and Dozier (1990), the form and content of the problem statement is most critical in the strategic planning process. The problem statement should describe “What’s happening now?” It describes “a situation in specific and measurable terms” (Cutlip, Center, & Broom, 1994, p.322). It details most of or all the following:

What is the source of concern?

Where is this a problem?

When is it a problem?

Who is involved or affected?

How are they involved or affected?

Why is this a concern to the organization and its publics? (Cutlip, Center, & Broom, 1994, pp.322).

Cutlip, Center, and Broom (1994) provided examples of problem statements as follows:

Only 5 percent of new graduates join the alumni association during the first year following graduation, compared with 21 percent of all graduates, resulting in lost contact and reduced support for the university (p.322).

In the case of a fund-raising effort for a new youth center, the problem could be stated as: *The building fund is \$200,000 short of the annual*

needed to complete and equip the new gymnasium by the planned June 1 opening. Or, if you had worked for one of the major oil companies a several years ago, you might have been concerned about the “divestiture problem”: A plurality (47 percent) of Americans agree with proposals to break up each of the major oil companies into four separate and competing operating companies, thus encouraging some in Congress to vote in favor of divesting legislation (pp.322-323).

To define and redefine the problem statement, public relations practitioners need to carry out all kinds of research during the situation analysis phase. To illustrate how research is used in the public relations problem definition process, Broom and Dozier (1990) suggest the case of a regional blood bank with the problem, “We simply need more donors.” They think that the problem statement does not describe the current situation in a specific and measurable terms, so they use the problem definition process as follows:

First, they question the initial problem statement: “We simply need more donors”. After having interviews with the director and key staff members and reviewing copies of letters from hospitals describing the consequences of the demand-supply problem and copies of internal memos detailing staff reassignments during the crisis situations, Broom and Dozier detect a blood supply and demand problem.

Second, they refine and sharpen the problem statement. Through a survey of records and shipment logs covering the past two years, they find that there is a blood supply-demand problem, but only in June, July, August, and December, and the shortfall is about 100 units each of those four months. Third, they expand their understanding of

the problem situation. For example, additional reviews of order and shipment records indicate that not only does demand go up during the four months, but the number of units collected drops. In addition, detailed study of the collection records uncovers the finding that the blood mobile does not operate on the university and college campuses in the region during summer months. Fourth, they identify the forces for and against solving the problem. To do that, they do the internal analysis through a study of staffing, policies, and procedures of the blood bank. They find that the staff schedules for the previous twelve months that show vacation time is taken during the summer months. Externally, increased traffic during summer vacation and Christmas periods correlates with increased numbers of highway accidents and hospital emergency room admission, as well as increased blood demand from the blood bank. Finally, they restate the problem definition (Broom & Dozier, 1990). Armed with a more detailed understanding of the problem situation, they rephrase the problem statement as follows:

During the months of June, July, August, and December, demand for blood exceeds blood bank supplies by approximately 100 units each month. The blood bank's inability to fulfill its supply mission causes critical blood shortages for emergencies at hospitals in the region, postponements of elective surgeries, increased costs of transferring blood among hospitals, and diversion of blood bank staff effort away from donor recruitment and blood collection activities (Broom & Dozier, 1990, pp. 29).

Broom and Dozier (1990) indicate that

this version details a) *what*—demand for blood exceeds supply by an average of 100 units; b) *where*—the region served by the blood bank; c) *when*—June, July, August, and December; d) *who*—emergency and surgery patients at the region’s hospitals, the hospital and blood bank staffs; e) *how*—increases risks to hospital patients, decreases hospitals’ ability to meet patient needs, increase costs, and takes blood bank staff away from other activities; and f) *why*—concern about blood bank’s ability to fulfill its mission of providing for the region’s blood needs.

This sharpened problem statement focuses attention on current conditions and motivates the program of corrective action and communication (Broom & Dozier, 1990, pp.29).

Publics

After defining problems, public relations practitioners must identify the key publics with which communication must occur. “A public is a group of people who are aware of shared interests and common concerns” (McElreath, 1993, p.95). Public relations practitioners must reach publics which impact their organization in order to develop the objectives, strategies, and tactics necessary for implementing a program. Public relations practitioners can develop objectives, strategies, and tactics if they know what different people know about an issue or situation, how they feel about it, and what they do that is either contributing to or reacting to it (Cutlip, Center, & Broom, 1994).

One technique to identify the key publics involves identifying every group to be targeted in the public relations program. For example, the following list can be a part of the list for a business cooperation: board members, community and civic leaders, customers, shareholders, clients, neighbors (within the immediate business area), financial partners, government agencies, regulatory agencies, vendors, certain competitors, family members, analysts, legal groups, media, subsidiary heads, employees, plant managers, union officials, retirees, pension holders, and sales/marketing personnel (Dougherty, 1992).

If it is not easy for public relations practitioners to list all publics, they can look for their organizational linkages to the environment. These linkages can "identify likely groups of publics that have mutual consequences with the organization" (Grunig & Hunt, 1984, p.139). According to Grunig and Hunt (1984), Esman suggests four types of linkages that an organization needs to survive:

1. Enabling linkages
2. Functional linkages
3. Normative linkages
4. Diffused linkages (Grunig & Hunt, pp.140-143).

Enabling linkages are "linkage with organizations and social groups that provide the authority and control the resources that enable the organization to exist" (p.140).

Examples are stockholders, congress, state legislators, government regulators, boards of directors and community leaders. Functional linkages are "linkages with organizations or publics that provide inputs and take outputs" (p.141). Grunig and Hunt divide these linkages into two linkages: (a) input linkages and (b) output

linkages. Input linkages include "relations with employees and unions and with suppliers or raw materials" (p. 141) and output linkages are "with other organizations that use the organization's product" (p. 141). Normative linkages are "with organizations that face similar problems or share similar values" (p. 141). Associations, political groups, and professional societies are examples. According to Grunig and Hunt (1984), Esman describes diffused linkages as linkages with "elements in society which cannot clearly be identified by membership in formal organizations" (p. 142). Therefore, publics in these linkages arise when the organization has consequences on people outside the organization while those publics are not considered as key publics at ordinary times. Examples are environments, community residents, students, voters, minorities, and women. Grunig and Hunt say that these linkages include relations with media "because the media inform diffused publics about consequences that the organization has on them and help to bring those diffused publics into existence in the first place" (p. 142).

By using these linkages of an organization, public relations practitioners can list their publics. After listing the main publics, public relations practitioners should list publics in order of importance. They also can separate constituent groups into broad categories such as primary, secondary, and tertiary publics (Ramsey, 1994).

Primary public(s) are "the public identified as being primary for solving the public relations problem" (Ramsey, 1994, p. 94). Ramsey (1994) uses college students as an example of a primary public for her public relations campaign targeting college students. Her public relations problem is getting college students to wear seat belts. Secondary public(s) are "an important public close to the primary public in

relationships or in organizational mission” (p.94). To go with the seatbelt example, a secondary public for college students is campus faculty and administration because she needs to know more about them in order to plan messages. Tertiary publics are “those publics important to the campaign’s success but they are neither primary nor secondary publics” (p.94). Parents and police officers might be tertiary publics for the seatbelt case because she needs to know more about them in order to plan messages.

Program Goals and Objectives

The next step is to establish program goals and objectives to solve problems. In general, public relations practitioners who work for organizations which use a management by objectives (MBO) philosophy must set goals and objectives for their public relations programs (Dozier & Ehling, 1992). “Goals are the desired effects of the plan, while objectives are the steps needed to be taken to reach the overall goals” (Ramsey, 1994, p.95). Therefore, Broom and Dozier (1990) say, “Goals give the program direction. Objectives spell out the sequence of operational-level program consequences—sometimes referred to as key results—for each public. They also suggest that objectives:

1. give focus and direction to developing program activities,
2. provide guidance and motivation to those working in the program,
and
3. spell out the criteria for assessing program impact (pp.40).

They also say that the objective should specify measurable results. Ramsey (1994) provides a good example of a goal and two objectives based on the seatbelt example:

Goal: That college students “buckle up.”

Objective: To reach 1,000 college students within the metropolitan area by April about safety statistics on seat belt use.

Objective: To enroll at least 100 college students in support groups for driving safety by the end of the spring semester (Ramsey, 1994).

Strategies and Tactics

After establishing objectives, public relations managers must generate ideas about strategies and tactics to meet the criteria of the objectives. In public relations practice, “strategy typically refers to the overall concept, approach, or general plan for the program designed to achieve a goal. Tactics refer to the operational level: the actual events, media, and methods used to implement the strategy” (Cutlip, Center, & Broom, 1994, p.354). These strategies and tactics develop from the findings of the situation analysis and are consistent with the objectives of the program.

Ramsey (1994) provides examples of both based on the seatbelt example. The strategy for reaching 1,000 college students with information on seatbelt safety is to use The Oklahoma Daily (the university newspaper of the University of Oklahoma) because this newspaper reaches most of the OU students. The tactic for the strategy is to ask the editor of the Oklahoma Daily to assign a Daily writer to do an explanatory story. The strategy for enrolling at least 100 college students in support groups for driving safety is to work with other groups on campus supporting safety programs—to form informal coalitions—to help set up, promote, and recruit for these sessions. Tactics are to help Greek houses plan support groups from the beginning of the

semester, with refreshments; to work with the various activity directors in setting up sessions. Also, to help arrange for a guest speaker from the highway department and for a colorful brochure with a question and answer section to sustain the interest of the groups (Ramsey, 1994).

Selection

After generating ideas about strategies and tactics, public relations practitioners should review and evaluate alternatives and select activities to implement. The chosen alternatives should be the best solution of the problem. Grunig and Hunt (1984) suggest previous experience as referent criteria to eliminate some alternatives. If public relations managers have previous experience on the problem, they can use this experience for their decision making because they know that certain alternatives have worked better in the past than others. Grunig and Hunt (1984) also say that value or attitudes may become referent criteria because public relations practitioners will not use certain alternatives if they conflict with their professional values. After selecting alternatives, public relations practitioners should confirm that the selected behaviors will work and are the best alternatives. In this segment, public relations practitioners should consider whether anything can go wrong. If they conclude that the risk is small, they can confirm the decision (Grunig & Hunt, 1984).

Budgeting and Timetable

Before implementing public relations programs or campaigns, public relations practitioners need to estimate the costs of their ideas. Although different kinds of public relations programs have different categories of expenses, Grunig and Hunt

(1994) suggest the following categories of expenses for most programs:

1. *Salaries and benefits.* Determine what proportion of their time full-time employees spend on each program. Allocate that proportion of their salary and benefits to the program. Add in the costs of necessary part-time employees and consultants.
2. *Production.* Determine the costs of printing, typesetting, art and design, photographs, audiovisual materials, purchase of media time and space, reproduction of press release, etc.
3. *Equipment.* Determine the costs of new equipment needed for a program, or for maintenance and depreciation of equipment already on hand.
4. *Overhead.* Determine what percentage of rent, postage, telephone utilities, etc. should be allocated to each program.
5. *Special project costs.* Determine costs such as those of renting a hotel room for a press conference, renting exhibit space at a conference, providing meals or snacks at an open house, buying memberships for employees in community organizations, or contributing to community programs.
6. *Travel.* Determine the costs of the local and out-of-town travel that will be necessary for each program.
7. *Other costs.* Each kind of public relations program will have unique expenses. Determine what they are and include them in this category (Grunig & Hunt, pp. 165).

Next public relations practitioners need to construct a detailed timetable to implement their programs. They usually use chronological lists, milestones, timetables, and more sophisticated production schedules, such as Gantt charts and PERT networks, to schedule their programs (McElreath, 1993).

Action and Communication

Once a problem is defined, target publics determined, the strategic plan and budget approved, then action commences. It may take the form of a policy change, launching an internal or public campaign, redesigning a product, or countless other forms. These actions are designed not only to achieve program objectives and organizational goals, but also to respond to the needs and well-being of an organization's publics. That is, "corrective actions serve the mutual interests of an organization and its publics" (Cutlip et al., 1994, p.383). Center and Jackson (1995) say, "the action is the substance of the plan" (p.24) because the corrective action is necessary to eliminate the original source of the problem.

However, communication is required to inform publics of the action, to persuade those publics to support and accept the action, and to instruct publics in skills needed to translate intention into action. (Cutlip et al., 1994). Patrick Jackson says public relations practitioners should ask themselves a series of questions before preparing any communication materials:

1. Is it appropriate?
 - a. For the sender?
 - b. For the recipient?

2. Is it meaningful?
 - a. Does it stick to the subject?
 - b. Is it geared to the recipient's interest, not the sender's?
3. Is it memorable?
 - a. In phraseology or metaphor?
 - b. Through the use of visual or aural devices?
4. Is it understandable?
 - a. In both denotative and connotative language?
 - b. Graphically or aurally?
5. Is it believable?
 - a. Does the audience trust the spokesperson?
 - b. Does the communication exhibit expertise in the subject matter? (Wilcox, Ault, & Agee, 1995, pp.203).

In addition, public relations practitioners must have basic knowledge of what constitutes communication and how people receive messages. They also need to understand the way people process information and possibly modify their attitudes, opinions, and actions (Wilcox et al., 1995). Public relations practitioners usually follow these activities to implement their programs (Grunig, 1984):

1. Writing press releases.
2. Preparing house organs, magazines, newsletters, publications.
3. Preparing institutional advertisements
4. Making informal contacts with newsmen.

5. Counseling management or administrators on public opinion toward their organizations.
6. Staging events, tours, open houses.
7. Preparing tapes, films, and audiovisual material.
8. Writing speeches.
9. Contacting governmental offices.
10. Holding press conferences.

Evaluation

Finally, public relations practitioners should evaluate whether or not the program achieved the results they specified in the objectives. To learn if their program worked, they must use the criteria established in the objectives. Grunig and Hunt (1984) suggest five objectives that public relations programs should seek and common methods to evaluate these five objectives. These five objectives include “communication, retention of messages, acceptance of cognition, formation or change of an attitude (evaluation), and overt behavior” (Grunig & Hunt, p.192).

Some common ways in which these five objectives may be evaluated are:

Objective	Evaluation Method
Communication	Press Clippings & Content Analysis of Clips
Retention of Messages	Readability Studies Multiple Choice Comprehension
Acceptance of Beliefs	Likert-type Scale on Survey that lists

	“agree-disagree” questions
Agreement of Attitude	Likert-type Scale that lists questions that measure strength of agreement/disagreement (SA, MA, N, MD, SD).
Behavior	Question respondent either personally or on questionnaire about behaviors (do wear seatbelt, donate to charity, and so forth?) (Ramsey, pp.99-100).

In summary, the first step in the public relations problem solving process involves identifying problems in the organization. Environmental scanning determines whether there are problems in their organizations. After identifying problems, public relations practitioners analyze the situation to understand the problems. They need to conduct a systematic analysis of the situation to have all the background information and data about internal and external environments. After figuring out the situation, they formulate problem statements. The problem statement must describe “What’s happening now?” After that, public relations practitioners identify key publics with which they must communicate to solve the problems. And then, they establish their program goals and objectives. After establishing goals and objectives, public relations practitioners generate lots of ideas about strategies and tactics to achieve the goals and objectives and determine some ideas as strategies and tactics. Before implementing tactics, they budget for their programs and make a timetable to schedule their programs. Now public relations practitioners prepare all materials and communicate with their publics according to the schedule. Finally, they evaluate their

programs to know whether the programs solve their problems. To do that, they usually use criteria established in the objectives.

Modified Public Relations Problem Solving Process

Application of Creative Problem Solving Techniques to The Traditional Public Relations Process

Both CPS and PRPS processes use similar steps to solve problems. VanGundy (1992) suggests a variety of techniques for CPS at each stage, both divergent and convergent. Public relations practitioners should be able to apply these techniques to their problem solving processes. A comparison of CPS and PRPS process follows:

CPS Process

1) Objective Finding:

Identify a target problem area.

PRPS Process

1) Problem Identification:

Identify a public relations problem area in the organization.

* A Four-Step Process

1. Diverge, generating potential problem topics.
2. Identify the most relevant or important problem topics (hits).
3. Select the one hit that is most important to you.
4. State the hit in the form of a problem using the format "IWWMW?"

- **Application of CPS to PRPS**

Apply the four-step process to identify public relations problems.

2) Fact Finding:

Gather all information and data relevant to the problem.

- A Three-Step Process

1. Diverge, generating a list of everything you know about the problem. Use Five W's: Who? What? Where? When? Why? Then answer each question.
2. Converge, identifying hits among the response.
3. Then, if necessary, group your hits into common categories known as hot spots.

- **Application of CPS to PRPS**

Apply the three-step process to find the relevant information on the problem among the internal factors and external factors, using the 5W 1H method described by Cutlip, Center, & Broom (p. 322). (Refer to the next PRPS step, Problem Definition, to see the 5W 1H method).

2) Situation Analysis:

Have all the background information and data about the internal and external environment.

- * Topics in a Situation Analysis

1. Internal Factors.
2. External Factors.

3) Problem Finding:

Gather the best, most productive problem definition.

* A Two-Step Process

1. Review all the fact finding hits and use each hit as a stimulus to redefine the original problem statement. Use these stimuli to generate a list of problem redefinitions.
2. Converge and identify hits using the criteria of ownership, likelihood of stimulating many ideas, and freedom criteria.

- **Application of CPS to PRPS**

Apply the two-step process to define a problem statement.

3) Problem Definition:

Define problems clearly.

* The 5W 1H Method

What is the source of concern?

Where is this a problem?

When is it a problem?

Who is involved or affected?

How are they involved or affected?

Why is this a concern to the organization and its publics?

4) Publics

Identifying key publics with which public relations practitioners must communicate to solve their problems.

- Target Publics

1. Primary publics

2. Secondary publics
3. Tertiary publics

5) Program Goals and Objectives

- Program goals: The desired state
- Program Objectives:
 1. give focus and direction to developing program activities.
 2. provide guidance and motivation to those working in the program, and,
 3. spell out the criterion for assessing program impact.

4) Idea Finding:

Generate as many ideas as possible for resolving problems and select the most promising ones.

- A Four-Step Process
 1. Withhold judgment and generate a list of all possible ideas.
 2. Use formal idea-generation techniques to promote ideas.

6) Strategies and Tactics:

Generate ideas about the strategies and tactics to meet the criteria of the objectives.

3. Converge and identify idea hit.
4. Select the best ideas or categories of idea, using one or two broad categories such as cost or time involved.

- **Application of CPS to PRPS**

Apply the four-step process to generate ideas about strategies and tactics for public relations programs or campaigns.

5) Solution Finding:

Select a solution capable of solving the problem.

7) Selection:

Determine some alternatives to implement.

* A Four-Step Process

1. Generate evaluation criteria.
2. If needed, transform the hits within the category into more workable solutions (concept expansion and development).
3. If there are too many criteria, select most important ones.
4. Use the criteria to select the best solution(s). If time is available, use a weighted decision matrix. Or rate each solution (1 = low potential,

* Criteria of Selection

1. Previous experience.
2. Value and attitude

5 = high potential) across all the criteria.

*** Application of CPS to PRPS**

Apply the four-step process to create criteria and select the best alternatives.

6) Acceptance Finding:

Identify potential implementation obstacles and ways to overcome them and develop an action plan.

• A Five-Step Process

1. List potential implementation obstacles and ways to overcome them.
2. Develop both preventive actions and contingency (backup) plans.
3. Generate an action plan to implement your solution.
4. Select most important implementation obstacles.
5. Evaluate your action plan and make any needed improvement.

8) Timetable and Budgeting

Estimate the costs and make a timetable.

* Timetable

1. Chronological lists,
2. Milestones,
3. Timetables
4. Gantt Charts, or
5. PERT network

* Categories of Expense

1. Salaries and benefits
2. Production
3. Equipment
4. Overhead
5. Special project costs
6. Travel
7. Other costs

- **Application of CPS to PRPS**

Use the five-step process to create an action plan for public relations programs.

9) Action and Communication:

Achieving programs goals and objectives.

- Public Relation Techniques

1. Write press releases.
2. Prepare house organs, magazines, newsletters, publications.
3. Prepare institutional advertisements
4. Make informal contacts with news persons.
5. Counsel management or administrators on public opinion toward their organizations.
6. Stage events, tours, open house.
7. Prepare tapes, films, and audiovisual material.
8. Write speeches.
9. Contact governmental offices.

10. Hold press conferences.

10) Evaluation:

Evaluating programs or campaigns to find out if they solve their problems.

• Objectives and Evaluation Methods

1. Communication: Press clippings & content analysis of clips.

2. Retention of messages: Readability studies, multiple choice comprehension.

3. Acceptance of beliefs: Likert-type scale on survey that lists “agree-disagree” questions.

4. Agreement of attitude: Likert-type scale that lists questions that measure strength of agreement/ disagreement (SA, MA, N, MD, SD).

5. Behavior: Question respondent either personally or on questionnaire about behaviors

The above comparison suggests that steps for divergent and convergent activities in CPS can be applied to identify public relations problem areas in

organizations, to find the relevant information about public relations problems among the internal and external factors, to describe public relation problem statements, to generate ideas about strategies and tactics of public relations programs or campaigns, to select best alternatives of the ideas, and to develop an action plan (See Appendix 2 to see an example of the application of these CPS techniques to a public relations case problem). That is, CPS techniques can be applied to public relations problem solving processes as a decision making procedure at each stage.

Modified Public Relations Problem Solving Process

Therefore, the researcher proposes a modified public relations problem solving process for effective public relations programs and campaigns by adding decision making procedures such as divergent and convergent activities to the traditional public relations problem solving process. A traditional public relations problem solving process can be summarized as follows:

1) Problem Identification: Identify public relations problem areas in the organization.

2) Situation Analysis: Have all the background information and data about the internal and external environment.

* Topics in a Situation Analysis: 1. Internal Factors. 2. External Factors.

3) Problem Definition: Define problems clearly.

What is the source of concern? **Where** is this a problem? **When** is it a problem?

Who is involved or affected? **How** are they involved or affected?

Why is this a concern to the organization and its publics?

4) Publics: Identifying key publics with which pr practitioners must communicate to solve their problems.

* Target Publics: 1.Primary publics 2. Secondary publics 3.Tertiary publics.

5) Program Goals and Objectives

- Program goals: The desired state
- Program Objectives:
 1. give focus and direction to developing program activities
 2. provide guidance and motivation to those working in the program, and,
 3. spell out the criterion for assessing program impact.

6) Strategies and Tactics: Generate ideas about the strategies and tactics to meet the criteria of the objectives.

7) Selection: Determine some alternatives to implement.

* Criteria of Selection

1. Previous experience.
2. Value and attitude

8) Timetable and Budgeting: Estimate the costs and make a timetable.

* Timetable

1. Chronological lists, 2. Milestones, 3. Timetables 4. Gantt Charts, or 5. PERT network

* Categories of Expense

1. Salaries and benefits 2. Production 3. Equipment 4. Overhead 5. Special project costs 6. Travel 7. Other costs

9) Action and Communication: Achieving programs goals and objectives.

Implementing one or more following(s).

1. Write press releases. 2 Prepare house organs, magazines, newsletters, publications. 3. Prepare institutional advertisements 4. Make informal contacts with news persons. 5. Counsel management or administrators on public opinion toward their organizations. 6. Stage events, tours, open house. 7. Prepare tapes, films, and audiovisual material. 8. Write speeches. 9. Contact governmental offices. 10. Hold press conferences.

10) Evaluation: Evaluating programs or campaigns to find out if they solve their problems.

*** Objectives and Evaluation Methods**

1. Communication: Press clippings & content analysis of clips.
2. Retention of messages: Readability studies, multiple choice comprehension.
3. Acceptance of beliefs: Likert-type scale on survey that lists “agree-disagree” questions.
4. Agreement of attitude: Likert-type scale that lists questions that measure strength of agreement/ disagreement (SA, MA, N, MD, SD).
5. Behavior: Question respondent either personally or on questionnaire about behaviors

On the other hand, a modified public relations problem solving process adds divergent and convergent activities as decision making procedures as follows.

1) Problem Identification:

- **A Three-Step Process**

1. *Converge, generating potential problem topics.*

2. *Identify the most relevant or important problem topics (hits).*

3. *Selecting the one hit that is most important to you.*

2) Situation Analysis:

- Topics in a Situation Analysis: 1. Internal Factors. 2. External Factors.

- A Three-Step Process

1. *Diverge, generating a list of everything you know about the problem from the situation analysis. Use Five Ws and One H: Who? What? Where? When? Why? How? Then answer each question.*

2. *Converge, identifying hits among the responses.*

3. *Then, if necessary, group your hits into common categories known as hot spots.*

3) Problem Definition:

- * A Two-Step Process

1. *Review all the hits in the situation analysis and use each hit as a stimulus to redefine the original problem statement in the problem identification. Use these stimuli to generate a list of problem statements.*

2. *Converge and identify hits using the criteria of 5W1H, likelihood of stimulating many ideas, and the effects of the campaign.*

4) Publics:

- * Target Publics: 1. Primary publics 2. Secondary publics 3. Tertiary publics.

5) Program Goals and Objectives

- Program goals: The desired state
- Program Objectives:

1. give focus and direction to developing program activities
2. provide guidance and motivation to those working in the program, and,
3. spell out the criterion for assessing program impact.

6) Strategies and Tactics:

- A Three-Step Process

1. *Withhold judgment and generate a list of all possible ideas. Use formal idea-generation techniques to promote ideas.*
2. *Converge and identify idea hits.*
3. *Select the best ideas or categories of ideas, using criteria such as mass appeal, cost or time involved, and feasibility.*

7) Selection:

- A Four-Step Process

1. *Generate evaluation criteria.*
2. *If needed, transform the hits within the category into more workable solutions (concept expansion and development).*
3. *If there are too many criteria, select most important ones.*
4. *Use the criteria to select the best solution(s). If time is available, use a weighted decision matrix. Or rate each solution (1 = low potential, 5 = high potential) across all the criteria.*

8) Timetable and Budgeting:

- * *An Action Plan*

- A Four-Step Process

1. *List potential implementation obstacles and ways to overcome them (Develop both preventive actions and contingency backup plans).*
2. *Select most important implementation obstacles.*
3. *Generate an action plan to implement your solution.*
4. *Evaluate your action plan and make any needed improvement.*

*** Timetable**

1. Chronological lists, 2. Milestones, 3. Timetables 4. Gantt Charts, or 5. PERT network

*** Categories of Expense**

1. Salaries and benefits 2. Production 3. Equipment 4. Overhead 5. Special project costs 6. Travel 7. Other costs

9) Action and Communication:

1. Write press releases. 2. Prepare house organs, magazines, newsletters, publications. 3. Prepare institutional advertisements 4. Make informal contacts with news persons. 5. Counsel management or administrators on public opinion toward their organizations. 6. Stage events, tours, open house. 7. Prepare tapes, films, and audiovisual material. 8. Write speeches. 9. Contact governmental offices. 10. Hold press conferences.

10) Evaluation:

*** Objectives and Evaluation Methods**

1. Communication: Press clippings & content analysis of clips.
2. Retention of messages: Readability studies, multiple choice comprehension.

3. Acceptance of beliefs: Likert-type scale on survey that lists “agree-disagree” questions.
4. Agreement of attitude: Likert-type scale that lists questions that measure strength of agreement/ disagreement (SA, MA, N, MD, SD).
5. Behavior: Question respondent either personally or on questionnaire about behaviors

Following is a comparison between the traditional public relations problem solving process and the modified public relations problem solving process.

A Traditional PRPS Process

1) Problem Identification

2) Situation Analysis

A Modified PRPS Process

1) Problem Identification:

A Four-Step Process

1. *Converge, generating potential problem topics.*
2. *Identify the most relevant or important problem topics (hits).*
2. *Selecting the one hit that is most important to you.*
3. *State the hit in the form of a problem using the format “IWWMW?”*

2) Situation Analysis:

A three step process

1. *Diverge, generating a list of everything you know about the problem from the situation analysis. Use Five Ws and One H: Who? What? Where? When? Why? How? Then answer each question.*

2. *Converge, identifying hits among the responses.*

3. *Then, if necessary, group your hits into common categories known as hot spots.*

3) Problem Definition

3) Problem Definition:

A Two-Step Process

1. *Review all the hits in the situation analysis and use each hit as a stimulus to redefine the original problem statement in the problem identification. Use these stimuli to generate a list of problem redefinitions.*

2. *Converge and identify hits using the criteria of ownership,*

*likelihood of
stimulating many ideas, and
freedom criteria.*

4) Publics

4) Publics

5) Program Goals and Objectives

5) Program Goals and Objectives

6) 6) Strategies and Tactics

6) Strategies and Tactics:

A Two-Step Process

- 1. Withhold judgment and generate a list of all possible ideas. Use formal idea-generation techniques to promote ideas.*

- 2. Converge and identify idea hits.*

7) Selection

7) Selection:

A Four-Step Process

- 1. Generate evaluation criteria.*
- 2. If needed, transform the hits within the category into more workable solutions (concept expansion and development).*

3. *If there are too many criteria, select most important ones.*

4. *Use the criteria to select the best solution(s). If time is available, use a weighted decision matrix.*

Or, rate each solution (1 = low potential, 5 = high potential) across all the criteria.

8) Timetable and Budgeting

8) Timetable and Budgeting:

- *An Action Plan*

A Four-Step Process

1. *List potential implementation*

obstacles and ways to overcome

them (Develop both preventive

actions and contingency

backup plans).

2. *Select most important*

implementation obstacles.

3. *Generate an action plan to*

implement your solution.

4. *Evaluate your action plan and make*

any needed improvement.

9) Action and Communication

9) Action and Communication

10) Evaluation

10) Evaluation

Decision Making Procedures and Performance

Some people view the terms *problem solving* and *decision making* as virtually synonymous while others see them as opposites (Fisher & Eliss, 1990, & Jarboe, 1996). However, as mentioned in the operation definition section, this study regards problem solving as a comprehensive, multistage process that begins with problem identification and ends with evaluation of a program. And decision making is the process of obtaining objectives of each stage—that is, decision making is the process which guides problem solvers in how to identify problems, analyze situations, define problems, and so on.

Scientists believe that formal procedures can improve the decision making performance of groups (Pavitt & Curtis, 1994). According to Jarboe (1996), formal procedures enhance group effectiveness. She says, for example,

Free or naturally interacting groups can suffer from any number of ills, such as the focus effect, in which the group falls into a rut (Dunnette, Campbell, & Jaastad, 1963, Taylor, Berry, & Block, 1958); premature evaluation of ideas (Collaros & Anderson, 1969); conformity pressures due to status differences (Torrance, 1957); influence of dominant personalities (Chung & Ferris, 1971); and unexpressed judgments made by group members (Collaros & Anderson, 1969) (Jarboe, 1996, pp.349).

She believes, however, that formal procedures minimize these problems.

Poole (1991) also believes that formal procedures can counteract harmful tendencies and harness the strengths of groups. He suggests eight reasons why formal procedures can help groups improve their decision: they help coordinate members' thinking; they provide a set of objective ground rules; they prevent counterproductive behavior; they capitalize on the strengths of groups; they balance member participation; they can reveal and manage conflicts; they give groups a sense of closure; they make groups reflect on their process; and they empower groups.

Jarboe (1996) believes that creative thinking is a procedure which enhances quality of thought of group members. She thinks that creative thinking is both divergent and convergent and "both divergent and convergent thinking are necessary for effective group problem solving" (pp.350).

Effects of Creativity Training and CPS

A review of the literature reveals that creativity can be enhanced through creativity training. The Center for Studies in Creativity, Buffalo State College, conducted one of the most extensive research projects on creativity training. The Creative Studies Project (Noller & Parnes, 1972, Parnes & Noller, 1972 a, 1972 b, 1973) was conducted in the early 70's to find out if training would enhance creative behavior. The program evaluated the impact of four consecutive semesters of a creative problem solving curriculum on various aspects of college students' behavior—in class, in college, in their personal live, and in the community at large. The findings show that a two-year program of CPS successfully develops the creative behavior of students (Isaksen, Dorval, & Treffinger, 1995).

Parnes (1987) reports that there are five major compilations in the U.S. literature of studies specifically covering the area of creativity development. These show significant positive results when creative abilities are deliberately nurtured (Mansfield et al., 1978; Parnes & Brunelle, 1967a & b; Rose & Lin, 1984; Taylor, 1959; Torrance, 1972). Parnes concludes that “creative abilities can be developed by deliberate programs and methods” (Parnes, 1987, p.156).

Many studies examined the effects of creative problem solving training and found a positive and meaningful impact of CPS training. Parnes (1962) carried out research on the effects of training in creative problem solving. A course in creative problem solving was provided to 350 students who participated in the study. The course emphasized the idea-production effort in problem solving and the formation of potentially good ideas into usable ideas along with problem definition and analysis. The study found that the experimental group produced a greater quantity and a higher quality of ideas than the control group which received no training. The study also demonstrated that the creative problem solving courses were equally beneficial to students of low and high initial creative ability and those with low and high intelligence levels.

Firestien (1987) examined differences in communication behaviors for small groups trained in CPS and groups not trained in CPS. Forty groups of five members were evaluated (22 trained groups and 18 untrained groups). The study found that subjects trained in CPS participated more than untrained groups, were more satisfied with the interaction in their groups than untrained groups, criticized ideas significantly less than untrained groups, supported ideas significantly more than untrained groups

and exhibited significantly more verbal and nonverbal indications of humor than untrained groups. Groups trained in CPS did not participate more evenly than groups not trained in CPS. Trained groups also produced significantly more ideas than untrained groups.

Firestien and McCowan (1988) compared the behavior of 200 students working in groups at the State University College at Buffalo. The results shows that groups trained in creative problem solving perform more effectively than untrained groups. In trained groups, there is more participation by group members, more ideas produced, and the group climate is significantly more friendly and less critical of ideas.

Russel (1991) studied the effects of group climate and incubation periods on creative problem solving by elementary school children. Groups were evaluated on the number and quality of the ideas generated. Russell used three different approaches to creative problem solving, and assumed that each had a different effect on the creative climate of groups. Russell's results, however, showed no significant differences in the quantity or quality of ideas produced by different groups. He was unable to demonstrate a relationship between group productivity and group climate.

Firestien and Luken (1993) reported the results of a study that was conducted to determine the long-term impact of the Master of Science Degree in Creative Studies at Buffalo State College on the personal and professional lives of program graduates. A questionnaire designed to assess how graduate study in creativity impacted graduates' personal and professional lives was sent to all program students. They concluded that study in creativity significantly influenced student lives.

Smith (1993) studied the effect of discounting behavior on the productivity of creative problem solving groups. Three dimensions of productivity were measured: the quantity of ideas produced, the quality of ideas, and the emotional response of group participants to the problem solving process. Discounting was defined as a verbal or nonverbal detractor message that is designed to castigate and diminish another person. Discounts assault self-esteem and place the receiver on the defensive. Smith found that discounted groups produced significantly fewer ideas and received significantly lower emotional response scores than was true of the nondiscounted control groups. There was no difference between groups with regard to the quality of ideas produced.

Parnes (1987) also contends that a cluster of studies has demonstrated significant positive benefits for deliberate creative development in the “real-life” arena: in industry, academic achievement, and personal adjustment areas. He describes a dozen studies demonstrating such positive results (Basadur et al., 1982; Cohen et al., 1960; Ekvall & Parnes, 1984; Heppner et al., 1983; Hepper & Reeder, 1984; Jacobson, 1977, 1978; Karol & Richards, 1981; Parnes & Noller, 1973; Richards & Perri, 1978; Simberg & Shannon, 1959; Sommers, 1962).

The Center for Studies in Creativity also conducted a number of impact research projects within major US organizations. These projects were designed to determine the level and kind of impact resulting from CPS training in organizations (Bruce, 1991; De Schryver, 1992; Isaksen, & Murdock, 1990; Isaksen, Murdock, & De Schryver, 1991; Isaksen, & Puccio, 1988). For example, De Schryver (1992) examined the impact of a three day CPS training program on the personal and

professional lives of 53 people within a large petroleum manufacturing organization. Eight months after training, the participants reported during interviews that they used the CPS tools and language both inside and outside the organization. They shared organizational success stories ranging from improving the relationships among project team members to saving the organization over 1.5 million dollars.

Other researchers have also studied the training of creativity and problem solving in business and other organizational settings. For example, Fontenot (1987) investigated the effects of training in creativity and creative problem-finding upon business people. Studying a sample of 68 individuals with random assignment and a control group, she utilized an eight hour training program based on the Osborn-Parnes Creative Problem Solving Method as the main experimental treatment. She found that training in creative problem-finding had a significant influence on the improvement of fluency and flexibility and also the quality of problem statements, based on this sample of business people. Solomon (1990) reported on creativity training programs at Frito-Lay, Du Pont, and Texas Instruments. All three companies introduced programs to increase the quantity and quality of creative problem solving in their organizations.

Many researchers have also studied the effects of creative problem solving in educational settings. Schack (1993) examined the impact of a CPS curriculum on gifted, honors, and average students. The study found that a CPS curriculum produced positive and substantial changes in the problem-solving ability of students in all three groups.

Sanfilippo (1992) assessed the effectiveness of the Osborn-Parnes method of creativity problem solving when the model was added to a collection of information processing models of teaching. The study found that the Osborn-Parnes method of creative problem solving is an effective model of teaching creative problem solving skills to technology education students.

Restatement of the Problem and Hypotheses

As reviewed above, many studies have found that CPS works in various settings. However, public relations scholars and practitioners do not introduce CPS techniques such as divergent and convergent activities as decision making procedures; and very little work has been done on the effects of CPS on the public relations programs. Therefore, this study will investigate the effects of applying of creative problem solving (CPS) techniques such as divergent and convergent activities to public relations problem solving (PRPS) processes. The research question for this study is: What effect does training in techniques of divergent and convergent activities in CPS have on public relations problem solving processes? The following hypotheses will be tested:

H1: There is a significant difference in quality of problem statements produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

H2: There is a significant difference in quantity of ideas of strategies generated among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

H3: There is a significant difference in quality of ideas of strategies produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

H4: There is a significant difference in satisfaction levels among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program about the overall problem solving processes.

CHAPTER III

Research Methodology

Sample

A sample of 108 individuals was used in this study. Thirty six individuals were in treatment groups A; 36 in the treatment B; and 36 in the control groups. The unit of analysis for this study is the group. Each group consisted of three individuals. Therefore, treatment groups A and B and the control groups consisted of 12 groups, respectively—that is, 12 groups trained in the modified PRPS process were treatment groups A, twelve groups trained in the traditional PRPS process were treatment groups B, and 12 groups who did not have any training program were control groups. The performances of these three groups were compared in the study. The reason why 12 groups of subjects were placed in each condition was to increase robustness to unequal variances because tests are generally robust to unequal variances if $n_1 = n_2 = n_3$ is larger than or equal to 7 (for $\alpha = .05$) (Toothaker, 1986). The unit of analysis for this study was the group because public relations practitioners in organizations usually work together to develop plans for their public relations programs.

The subjects were students at the University of Oklahoma. One hundred eight individuals were undergraduate students who took 1998 spring communication courses titled, “Principles of Communication and Public Speaking”. To recruit subjects, a written request was submitted to the Institutional Review Board (IRB), the Communication Department Research Subject Coordinators, and instructors of the courses. Students participated in exchange for partial course credit.

The Training Program

A 40-minute training program for the traditional PRPS process was developed that focused on public relations problems and 10 steps of a public relations problem solving process. A 60-minute training program for a modified PRPS emphasized divergent and convergent activities at each stage, including idea generation techniques, and how to apply these steps to the PRPS processes.

As a pilot test, 60 undergraduate students were used to test the training program to determine any needed changes. One group received 75 minutes of traditional PRPS process training and 75 minutes of modified PRPR. Other group had 75 minutes of a modified PRPS process training. The other group did not have any training. After this, they had 75 minutes to solve a case problem.

The Design

Experimental and control groups were observed in testing the four hypotheses. The experimental design is a posttest-only control group design (Frey, Botan, Friedman, & Kreps, 1991). That design is shown below.

R	X ₁	O ₁ (E ₁)	Treatment groups A: groups trained in a modified PRPS process.
R	X ₂	O ₂ (E ₂)	Treatment groups B: groups trained in traditional PRPS process.
R	X ₀	O ₃ (C)	Control Groups: untrained groups

The main reason that a posttest-only control group design was used for this study is to remove the possibility of sensitizing subjects to the dependent variable and affecting posttest scores by having taken pretests. Treatment groups A received 60 minutes training for the PRPS which emphasizes problem statements and strategies.

They were trained in divergent and convergent activities in CPS and how to apply them to state public relations problems and generate public relations strategies.

Treatment groups B were trained in the same PRPS for 40 minutes, but without using CPS techniques. The control groups did not have any training program. After this, treatment and control groups were given 75 minutes to solve a public relations case problem which required them to generate possible solutions.

To begin, the research assistants distributed a handout which described the case problem, some information about the results of a situation analysis, and a question about the problem statement. And then, groups were asked to develop a problem statement. After 30 minutes, the research assistants distributed some information about publics, the program goal and objective, and other questions about ideas of strategies and selection of strategies. The research assistants asked groups to generate as many ideas as possible and then, select the best three ideas about strategies.

The research assistants asked group members to choose a recorder. Each group recorder was asked to write down a problem statement, and strategies generated by his/her group to solve the case problem.

The problem given to subjects was a hypothetical Oklahoma Museum of Natural History (the Stovall Museum) University Campaign case. All groups were given a two-page problem identification and situation description about the OMNH and asked to develop problem statements about the situation and generate ideas about strategies to promote the museum. The case problem is in Appendix 3.

The treatment A groups were asked to use a two-step process for the public relations situation analysis in order to understand the situation systematically and develop problem statements. The two-step process were as follows:

1. Diverge, generating a list of everything you know about the problem. Use Five W's and one H: Who? What? Where? When? Why? How? Then answer each question.

What is the source of concern?

Where is this a problem?

When is it a problem?

Who is involved or affected?

How are they involved or affected?

Why is this a concern to the organization and its publics?

2. Converge, identifying hits among the response (Use majority rule to select hits).

What is the source of concern?

Where is this a problem?

When is it a problem?

Who is involved or affected?

How are they involved or affected?

Why is this a concern to the organization and its publics?

The first step was to diverge. Group members in treatment A groups were asked to generate as much data as possible without judgment by answering a list of

Who? Where? What? Where? When? How? and Why? questions. After that, they were asked to converge and select hits among the data for each question.

Group members in the treatment A groups were then asked to use a two-step process to define public relations problem statements. The two-step process was as follows:

1. Review all the hits in the situation analysis and use each hit as a stimulus to redefine your original problem statement in the problem identification. Use these stimuli to generate a list of problem statements.

2. Converge and select one statement using the criteria of 5W1H and effects of the campaign (Use majority rule to select one statement).

Group members in the treatments A groups were asked to use hits to develop as many problem statements as possible during the divergent activities. After that, they were asked to choose the best one.

When group members in the treatment B groups were asked to develop problem statements, they were asked to use Five W's and One H. However, they were not guided to use the divergent and convergent processes. Group members in the control group were not given any information when they were asked to develop problem statements.

When group members in the treatment A groups generated ideas about strategies to promote the museum, they were also asked to use a two-step process as follows:

1. Withhold judgment and generate a list of all possible ideas.

2. Converge and identify idea hit.

Group members in the treatment B groups and in the control groups, however, were just asked to brainstorm as many ideas as possible about strategies to promote the Stovall Museum to OU students.

After finishing idea generation, all subjects was asked to fill out a satisfaction questionnaire. The satisfaction questionnaire was a modification of the questionnaire created by Van de Ven and Delbecq (1974):

1. To what extent did you feel free to participate and contribute your ideas?
2. How satisfied are you with the quantity of ideas generated by your groups?
3. How satisfied are you with the quality of ideas generated by your group?
4. In general, how satisfied were you with the process used by your group?

(VanGundy, 1996).

They responded to these four items using a 7-point scale: 1 = Very Dissatisfied; 7 = Very Satisfied.

Reliability

To measure the reliability of the satisfaction questionnaire, Cronbach's alpha coefficient was calculated through the SPSS for Windows. The Cronbach's alpha was .8322. This value indicates that the measurement was reliable. Pearson's "r" was calculated to determine inter-rater reliability between the two judges. The inter-rater reliability for the problem statements was $r = .56$. This correlation is not very satisfactory. The inter-rater reliability for the idea quality was $r = -.3$. This correlation is too low—that is, the inter-rater reliability was not reliable.

Data Analysis

The research question of this study focused on differences among the three groups in terms of the quality of problem statements, the quantity of ideas about strategies, the quality of ideas about the strategies, and participants' satisfaction levels. Multivariate Analysis of Variance (MANOVA) was used to assess differences between the control and experimental groups. Following this, one-way analysis of variance (ANOVA) was used to test each hypothesis.

MANOVA for this study involved one predictor variable and four criterion variables. The predictor variable was type of training programs and was divided into three groups: modified PRPS groups (coded as 1), traditional PRPS groups (coded as 2), and control groups (coded as 3). The four criterion variables were quality of problem statements, quantity of ideas about strategies, quality of ideas about strategies, and satisfaction. All four were measured on a Likert 7-point scale except the quantity of ideas. The quantity of ideas was measured by counting the number of ideas generated by each group. The statistical test for this study was Wilks' lambda, derived through a one-way MANOVA, between-groups design.

Assumptions Tests

Before testing the hypotheses, assumptions underlying MANOVA with one between-groups were tested. To test the homogeneity of covariance matrices, the Box test was used. However, the homogeneity of covariance matrices assumption for these groups were not tenable because the Box test was significant at .05 level ($F = 1.75810$, $p = .025$ (Approx.)). The literature indicates that tests are generally robust to unequal variances if $n_1 = n_2 = n_3$ is larger than or equal to 7 (for $\alpha = .05$)

(Toothaker, 1986). Therefore, in order to produce equal numbers of groups, two groups among 15 groups in the control groups were removed because they were outliers, and one group was randomly chosen to remove. One among 13 groups in the treatment A groups was randomly chosen and removed. As a result, the treatment groups A, B, and the control groups consisted of 12 groups, respectively. That is, the control and experimental groups used the same number of groups to increase robustness to unequal variances. Therefore, the researcher need not be concerned about the violation of homogeneity assumption.

To test the independence assumption, the intraclass correlation (ICC) R of each criterion variable was calculated.

$$\text{ICC (Intraclass correlation) } R = (MS_b - MS_w) / \{MS_b + (n-1) MS_w\}$$

$$\begin{aligned} \text{ICC } R \text{ of the problem statements} &= (8.590 - 1.428) / \{8.590 + (36-1) 1.428\} \\ &= 7.162 / 8.590 + 49.98 \\ &= 7.162 / 58.57 \\ &= .122 \end{aligned}$$

ICC R of the problem statement is .122, which is greater than .05. An independence assumption of the problem is not tenable. Therefore, the problem statement needs to be tested at a more stringent level of significance. It was tested at $\alpha = .01$, realizing that the actual error rate was about .05 or somewhat greater (Stevens, 1996).

$$\begin{aligned} \text{ICC } R \text{ of the quantity of ideas} &= (1489.15 - 190.46) / \{1489.15 + (41-1) \\ &\quad 190.46\} \\ &= 1298.69 / 14.89.15 \times 7618.4 = 1298.69 / \end{aligned}$$

$$9107.55 = .14$$

ICC R of the quantity of ideas is .14, which is greater than .05. An independence assumption of the quantity of ideas is not tenable. Therefore, the quantity of ideas was tested at a more stringent level of significance. It was tested at $\alpha = .01$, realizing that the actual error rate was about .05 or somewhat greater (Stevens, 1996).

ICC R of the quality of ideas was not calculated because the inter-rater reliability was too low to compare the quality of ideas produced by the three groups. However, the raters' score were analyzed separately.

$$\begin{aligned} \text{ICC R of the quality of ideas evaluated by rater 1} &= (1.873 - .391) / \{1.873 + \\ &35 (.391)\} = 1.482 / 1.873 + 13.685 \\ &= 1.482 / 15.558 = .095 \end{aligned}$$

ICC R of the quality of ideas evaluated by rater 1 is .095, which is greater than .05. An independence assumption of the quality of ideas evaluated by rater 1 is not tenable. Therefore, the quality of ideas evaluated by rater 1 was tested at a more stringent level of significance. It was tested at $\alpha = .01$, realizing that the actual error rate was about .05 or somewhat greater (Stevens, 1996).

$$\begin{aligned} \text{ICC R of the quality of ideas evaluated by rater 2} &= (1.040 - .663) / \{1.040 + \\ &35 (.663)\} = .377 / 1.040 + 23.205 \\ &= .377 / 24.245 = .015 \end{aligned}$$

ICC R of the quality of ideas evaluated by rater 2 is .015, which is less than .05. An independence assumption of the quality of ideas evaluated by rater 2 is tenable.

$$\begin{aligned}\text{ICC R of satisfaction} &= (.945 - .276) / \{.949 + (36-1) .276\} \\ &= .669 / (.949 + 9.66) \\ &= .669 / 10.609 = .062\end{aligned}$$

ICC R of satisfaction is .062, which is greater than .05. The independence assumption of satisfaction is not tenable. Therefore, satisfaction was tested at a more stringent level of significance. It was tested at $\alpha = .01$, realizing that the actual error rate was about .05 or somewhat greater (Stevens, 1996).

To test a multivariate normality distribution, the data was run through the SPSS EXPLORE procedure to obtain, among other things, the Shapiro-Wilk statistical test for normality for each variable in each group. These are the results for the four variables in each group:

	STATISTIC	SIGNIFICANCE
PROBLEM STATEMENTS		
GROUP 1		
SHAPIRO-WILK	.958	.694
GROUP 2		
SHAPIRO-WILK	.976	.925
GROUP 3		
SHAPIRO-WILK	.872	.077
QUANTITY OF IDEAS		
GROUP 1		
SHAPIRO-WILK	.850	.042
GROUP 2		
SHAPIRO-WILK	.943	.498
GROUP 3		
SHAPIRO-WILK	.945	.525
QUALITY OF IDEAS		
GROUP 1		
SHAPIRO-WILK	.954	.642
GROUP 2		
SHAPIRO-WILK	.915	.315
GROUP 3		
SHAPIRO-WILK	.955	.657
SATISFACTION		
GROUP 1		
SHAPIRO-WILK	.917	.327
GROUP 2		
SHAPIRO-WILK	.954	.652
GROUP 3		
SHAPIRO-WILK	.867	.067

Normality is testing in each case at the .05 level. Therefore, only the quantity of ideas deviates from normality in just Group 1. This would not have much of an effect on power, and the researcher should not be concerned (Stevens, 1996). That is, a normality assumption is tenable.

Quality of the Problem Statements

The quality of the problem statements developed by each group in the control and treatment groups was compared. The following was tested:

H1: There is a significant difference in quality of problem statements produced among groups trained in a modified PRPS, those trained in traditional PRPS, and

Idea quality was rated independently by two experts, one in academic and one in field. The judges used a Likert 7-point scale in which the judges assessed the quality of the statements (1 = poor 7 = excellent). The judges evaluated the statements, mainly considering whether they describe “a situation in specific and measurable terms” using the SWIH method and whether they surmised the situation well. Pearson’s “r” was calculated to determine the inter-rater reliability between the two judges. The inter-rater reliability was $r = .56$. Although this correlation was not very satisfactory, the ratings were summed for each problem statement and used to calculate average quality scores across groups for each condition. One-way analysis of variance (ANOVA) and the Tukey procedure were conducted to compare the three groups.

Quantity of Ideas about Strategies

The number of ideas about public relations strategies generated by each group of subjects in the control and experimental groups was counted. The following hypothesis was tested:

H2: There is a significant difference in quantity of ideas of strategies generated among groups trained in a modified PRPS, those trained in traditional PRPS, and

those without any training program.

ANOVA and the Tukey procedure were conducted to compare the three groups.

Quality of ideas about Strategies

The quality of ideas about strategies generated by each group in the control and treatment groups was compared. The following hypothesis was tested:

H3: There is a significant difference in quality of ideas of strategies produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

Idea quality was rated independently by one public relations practitioner and one public relations scholar. The judges used a Likert 7-point scale in which the judges assessed the quality of the ideas (1 = poor, 7 = excellent). The judges were instructed to consider criteria they normally use. The judges evaluated the ideas, considering mainly whether these strategies develop from the findings of the situation analysis and are consistent with the objectives of the program. They also used mass appeal, feasibility of the ideas, uniqueness of ideas, cost, and time as criteria.

Pearson's "r" was calculated to determine inter-reliability between the two judges.

The inter-rater reliability was $r = -.3$. The correlation between two raters is too low—that is, the inter-rater reliability is not reliable. Although the inter-rater reliability was too low to compare the quality of ideas produced by the three groups, ratings were summed for each idea and average quality scores across groups were calculated for each condition. In addition, the individual raters' score were analyzed separately. ANOVA was conducted to compare the three groups.

Satisfaction

Satisfaction levels of individuals in the control and experimental groups were compared. The following hypothesis was tested:

H4: There is a significant difference in satisfaction levels among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program about the overall problem solving processes.

After finishing the experimental task, all individuals completed a satisfaction questionnaire. They responded to four items (using a 7-point scale: 1 = Very Dissatisfied; 7 = Very Satisfied), and the total for all items was computed. Cronbach's alpha coefficient was calculated to measure the reliability of the questionnaire. The Cronbach's alpha was .8322. This value indicates that the measurement was reliable. ANOVA and the Tukey procedure were conducted to compare the three groups.

Each item in the satisfaction questionnaire was also analyzed to find if there are differences among groups, using ANOVA. The Pearson correlation coefficient was calculated to see if there is a correlation between items in the questionnaire.

CHAPTER IV

Results

This chapter presents the results of the statistical analyses of the data for the experimental and control groups. The chapter reports the multivariate analysis results and the univariate results for each criterion variable. Summary Statistics are displayed in Table 1.

Multivariate Analysis of Variance

As mentioned in Chapter 3, MANOVA for this study involved one predictor variable and four criterion variables. The predictor variable was type of training program and was divided into three groups: modified PRPS groups (coded as 1), traditional PRPS groups (coded as 2), and control groups (coded as 3). The four criterion variables were quality of problem statements, quantity of ideas about strategies, quality of ideas about strategies, and satisfaction.

The null hypothesis (H_0) is:

In the population, there is no significant difference among the groups trained in a modified public relations problem solving (PRPS) process, the groups trained in a traditional PRPS process, and the groups without any training program when they are compared simultaneously on the quality of problem statements, the quantity of ideas about strategies, the quality of ideas about strategies, and satisfaction.

Table 1.

Summary Statistics

Variable	Group	N	Mean	Std.	Median	Minimum	Maximum
P.S.	1	12	4.7083	.9643	4.7500	3.00	6.00
	2	12	4.5417	.8382	4.5000	3.00	6.00
	3	12	3.1667	1.6283	2.5000	1.50	6.00
Qn	1	12	35.6667	22.9706	25.5000	15.00	84.00
	2	12	20.3333	7.5358	18.5000	10.00	36.00
	3	12	16.6667	6.1693	17.0000	8.00	26.00
Ql	1	12	5.0694	.4232	5.0000	4.33	5.67
	2	12	5.1389	.4485	5.0833	4.33	5.83
	3	12	5.2083	.4212	5.3333	4.50	6.00
Sat.	1	12	6.3472	.3405	6.4167	5.75	6.83
	2	12	5.8264	.7093	5.9583	4.58	7.00
	3	12	5.9028	.4562	5.7083	5.33	6.58

P.S. : Problem Statements

Ql: Quality of ideas

Qn: Quantity of ideas

Sat.: Satisfaction

Group 1: Groups trained in the modified PRPS process

Group 2: Groups trained in the traditional PRPS process

Group 3: Groups who do not have any training program.

Therefore, the research hypothesis (H_1) is:

In the population, there is a significant difference among the groups trained in a modified public relations problem solving (PRPS) process, the groups trained in a traditional PRPS process, and the groups without any training program when they are compared simultaneously on the quality of problem statements, the quantity of ideas about strategies, the quality of ideas about strategies, and satisfaction.

The multivariate analysis of variance for the four variables revealed a significant multivariate effect for type of training programs, Wilks' lambda = .46, $F(8, 60) = 3.57$; $p < .01$.

Univariate Analyses of Variance

The results of the MANOVA indicated an overall F test which is statistically significant. Therefore, univariate F tests were applied to determine if a relationship existed between the independent variable and dependent variables. The results of the univariate tests for each criterion and post hoc procedures are reported in the next sub-sections.

Quality of the Problem Statements

Results were analyzed using a one-way ANOVA between-groups design. This analysis revealed a significant effect for problem statements, $F(2, 33) = 6.015$; $p < .006$. Therefore, the null hypothesis was rejected. The ANOVA summary is displayed in Table 2. Tukey's HSD test showed that problem statements developed by subjects trained in the modified PRPS process and the traditional PRPS process are significantly better than problem statements developed by the subjects in the control

groups ($p < .01$). However, there were no significant differences between the modified PRPS process ($\bar{x} = 4.71$) and the traditional PRPS process ($\bar{x} = 4.54$).

Table 2

ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and the Problem Statements

Source	df	SS	MS	F
Type of training programs	2	17.181	8.590	6.015 *
Within groups	33	47.125	1.428	
Total	35	64.306		

Note: N = 36

* $p < .01$

Quantity of ideas about Strategies

Results were analyzed using a one-way ANOVA between-groups design. This analysis revealed a significant effect for the quantity of ideas, $F(2, 33) = 5.871$; $p < .007$. Therefore, the null hypothesis was rejected. The ANOVA summary is displayed in Table 3. Tukey's HSD test showed that the number of ideas generated in subjects trained in the modified PRPS is significantly greater than that of ideas generated by the subjects trained in the tradition PRPS and subjects in the control groups, respectively ($p < .01$). There were no significant differences between the number of

ideas generated by subjects trained in the traditional PRPS ($\bar{x} = 20.33$) and in the control groups ($\bar{x} = 16.67$).

Table 3

ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and the Quantity of Ideas

Source	df	SS	MS	F
Type of training programs	2	2438.22	1219.11	5.871 *
Within groups	33	6852.00	207.64	
Total	35	9290.22		

Note: N = 36

* $p < .01$

Quality of Ideas

As mentioned in the data analysis section, ratings were summed for each idea to calculate average quality scores across groups for each condition although the inter-rater reliability was too low to compare the quality of ideas produced by the three groups, and one-way analysis of variance (ANOVA) was conducted to compare the three groups.

This analysis revealed a non-significant effect for the quality of ideas, $F(2, 33) = .31$; $p < .735$. Therefore, this research fails to reject the null hypothesis. The ANOVA summary is displayed in Table 4.

Table 4

ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and the Quality of Ideas

Source	df	SS	MS	F
Type of training programs	2	.116	5.8E-02	.311
Within groups	33	6.134	.186	
Total	35	6.250		

Note: N = 36

$p > .05$

A separate analysis indicated that the difference in the quality of ideas evaluated by rater 1 was not significant at the .01 level, $F(2, 33) = 4.790$; $p < .015$. The study rejects the null hypothesis at $\alpha = .01$. However, there was a significant effect at $\alpha = .05$, (realizing that the actual error rate was about .1).

Tukey's HSD test showed, however, that ideas produced by subjects trained in the traditional PRPS process and in the control groups are significantly better than ideas produced by the subjects trained in the modified PRPS ($p < .05$). There was no significant differences in the quality of ideas between subjects trained in the traditional PRPS process and in the control groups.

The difference in the quality of ideas evaluated by rater 2 was not significant at the .05 level, $F(2, 33) = 1.569$; $p < .223$. The study reject the null hypothesis at $\alpha = .05$. The ANOVA summary is displayed in Table 5.

Table 5

ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and the Quality of Ideas (Rater 1 & 2)

Source	df	SS	MS	F
Ql 1	2	3.747	1.873	4.790 *
Within groups	33	12.907	.391	
Total	35	16.654		
Ql 2	2	2.080	1.040	1.569
Within groups	33	21.870	.663	
Total	35	23.951		

Note: N = 36

p > .05

Ql 1: Quality of ideas evaluated by rater 1

Ql 2: Quality of ideas evaluated by rater 2

Satisfaction

Results were analyzed using a one-way ANOVA between-groups design. This analysis revealed that there was no significant effect for satisfaction at $\alpha = .01$, $F(2, 33) = 2.566$; $p < .044$ —that is, the study fails to reject the null hypothesis at $\alpha = .01$. However, there was a significant effect at $\alpha = .05$, (realizing that the actual error rate was about .1). Therefore, the null hypothesis was rejected at $\alpha = .05$ level. The ANOVA summary is displayed in Table 6. Tukey’s HSD test showed that subjects

trained in the modified PRPS scored significantly higher on satisfaction than did subjects trained in the tradition PRPS ($p < .05$). There were no significant differences between subjects trained in the modified PRPS and those in the control groups. There were also no significant differences between subjects trained in the traditional PRPS ($\bar{x} = 5.82$) and in the control groups ($\bar{x} = 5.90$).

Table 6

ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and Satisfaction

Source	df	SS	MS	F
Type of training programs	2	1.899	.949	3.443 *
Within groups	33	9.099	.276	
Total	35	10.997		

Note: N = 36

* $p < .05$

The present study asked four questions of the participants to measure their satisfaction levels. They were asked if they felt free to participate and were satisfied with the quantity of ideas generated by their groups, the quality of ideas generated by their group, and the process used by their group.

The four questions in the satisfaction questionnaire are as follows:

1. To what extent did you feel free to participate and contribute your ideas?
2. How satisfied are you with the quantity of ideas generated by your groups?
3. How satisfied are you with the quality of ideas generated by your group?
4. In general, how satisfied were you with the process used by your group?

Each item was analyzed to find if there are differences between groups, using one way ANOVA, between groups design. This analysis revealed significant effects for satisfaction on perceived freedom to participate ($F(2,33) = 4.679; p < .016$) and satisfaction on the quantity of ideas ($F(2, 33) = 4.942; p < .013$) at $\alpha = .05$ level. The ANOVA summary is displayed in Table 7. Tukey's HSD test showed that subjects trained in the modified PRPS process scored significantly higher on "perceived freedom to participate" than did subjects trained in the traditional PRPS process ($p < .05$). The test also showed that subjects trained in the modified PRPS process scored significantly higher on the satisfaction on the quantity of ideas than did subjects trained in the PRPS process ($p < .05$). There were no significant differences between subjects trained in the modified PRPS and those in the control groups. There were also no significant differences between subjects trained in the traditional PRPS and in the control groups.

Table 7

ANOVA Summary Table for Study Investigating the Relationship Between Type of Training Programs and Satisfaction on Perceived Freedom to Participate, Quantity of Ideas, Quality of Ideas, and Process

Source	df	SS	MS	F
Perceived Freedom to Participate	2	1.284	.642	4.679 *
Within Groups	33	4.528	.137	
Total	35	5.812		
Quantity of Ideas	2	6.889	3.444	4.942*
Within Groups	33	23.000	.697	
Total	35	29.889		
Quality of Idea	2	.599	.299	.602
Within Groups	33	16.393	.497	
Total	35	16.997		
Process	2	1.062	.531	1.415
Within Groups	33	12.380	.375	
Total	35	13.441		

Note: N = 36

* $p < .05$

The study also calculated Pearson correlation coefficients to see if there is a correlation between items in the questionnaire. The study revealed that participants' satisfaction level on "perceived freedom to participate" was positively related to their satisfaction levels on the quantity and quality of ideas generated and the process used by them. Participants' satisfaction level on "perceived freedom to participate" had a strong correlation with their satisfaction level on the process used by the participants while it had a moderately strong correlation with satisfaction levels on the quantity and quality of ideas generated by them.

The study also finds that participants' satisfaction level with the quantity of ideas generated by them is strongly related to their satisfaction levels with the quality of ideas and the process used by them. Participant's satisfaction levels on the process used and the quality produced by them have a strong correlation. The Correlation Matrix is displayed in Table 8.

Table 8

Correlation Matrix Between Satisfaction Levels on Perceived Freedom to Participate, Quantity of Ideas, Quality of Ideas, and Process

Simple Statistics				
Variable	N	Mean	Std Dev	
ITEM 1	36	6.3796	.4075	
ITEM 2	36	5.7222	.9241	
ITEM 3	36	5.8241	.6969	
ITEM 4	36	6.1759	.6197	

	1	2	3	4
Item 1	1.000 .0			
Item 2	.482 .003	1.000 .0		
Item 3	.399 .016	.686 .000	1.000 .0	
Item 4	.683 .000	.681 .000	.625 .000	1.000

Reliability Coefficients 4 items

Alpha = .8322

Item 1: Satisfaction on “perceived freedom to participate”

Item 2: Satisfaction on the quantity of ideas produced

Item 3: Satisfaction on the quality of ideas produced

Item 4: Satisfaction on the process used

CHAPTER 5

Discussion and Recommendations

Discussion

When public relations practitioners solve problems, they usually use a public relations problem solving (PRPS) process which is similar to the creative problem solving (CPS) process. A typical public relations problem solving process is as follows: problem identification, situation analysis, problem definition, publics, program goals and objectives, strategies and tactics, selection, timetable and budgeting, action and communication, and evaluation. The CPS process has also six stages: objective finding, fact finding, problem finding, idea finding, solution finding, and acceptance finding. The main difference between the typical PRPS and the CPS process is that CPS uses divergent and convergent activities at each stage, while PRPS does not.

The researcher contends that the impact of public relations programs and campaigns will be increased if public relations practitioners apply divergent and convergent activities in CPS to their PRPS process as decision making procedures. Therefore, the researcher proposed a modified public relations problem solving process for effective public relations programs and campaigns by adding decision making procedures such as divergent and convergent activities to the traditional public relations problem solving process. As decision making procedures of PRPS processes, the modified PRPS applied CPS techniques to some steps of the traditional PRPS process such as problem identification, situation analysis, problem definition (statements), strategies and tactics, selection, and timetable and budgeting.

The present study tested only situation analysis, problem statements, and strategies steps of the modified PRPS to assess if the decision making procedures could increase the effects of public relations programs and campaigns—that is, the study tested if the quality of problem statements, the quantity of ideas about strategies, the quality of the ideas about strategies, and the level of participants' satisfaction increased when subjects used divergent and convergent activities as decision making procedures during the public relations problem solving process.

Quality of the Problem Statements

The quality of the problem statements developed by each group or subject in the control and treatment groups were compared. The following hypothesis was tested:

The null hypothesis (H_0) is:

H_0 : There is no significant difference in quality of problem statements produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

Results of the study suggest rejecting the null hypothesis—that is, there is a significant difference in the quality of problem statements produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those who without any training program. Tukey's HSD test shows that problem statements developed by subjects trained in the modified PRPS process and the traditional PRPS process are significantly better than problem statements developed by the subjects in the control groups ($p < .01$). However, there is no significant differences between the modified PRPS process and the traditional PRPS process.

As mentioned in the literature review section, public relations practitioners need to conduct a systematic analysis of the situation about a public relations problem to gather all the background information and data about the internal and external environments of their organizations. Based on this background information and data concerning the internal and external environments, they then make a problem statement. When public relations practitioners make a problem statement, they can use Five Ws and One H. First, they need to answer following questions through the background information and data collected: What is the source of concern? Where is the problem? When is it a problem? Who is involved or affected? How are they involved or affected? Why is this a concern to the organization and its publics (Cutlip, Center, & Broom, 1994).

As an aside, it is not easy for public relations practitioners to develop a problem statement directly from the information and data collected because they usually have a large amount of the information and data related to their problems. Therefore, the researcher believes that public relations practitioners need CPS techniques such as divergent and convergent activities to answer these questions systematically in order to develop a problem statement.

Even so, this study could not provide all the necessary information and data about the case problem because of the time limitation of the research. All subjects in the study simply received a two-page summary of the situation and developed problem statements based on this information. As a result, both groups trained in the modified and the traditional PRPS process could make problem statements easily in the limited time. It might be that this is the reason there was no significant difference

in quality of the problem statements produced between groups trained in the modified and the traditional PRPS processes.

Quantity of Ideas about Strategies

The study also compared the quantity of ideas about public relations strategies generated by each group of subjects in the control and experimental groups.

The null hypothesis (H_0) is as follows:

H_0 : There is no significant difference in quantity of ideas of strategies generated among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

The results of the study reveals that there is a significant difference in the quantity of ideas about strategies for public relations programs or campaigns produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program. The results of the study also indicate that groups trained in the modified PRPS process generated significantly more ideas than groups trained in the traditional PRPS process and in the control groups. This result is consistent with previous literature on creative problem solving. For example, Stein (1974) studied the effectiveness of brainstorming and found that deferring judgment results in a larger number of ideas than do other procedures that emphasize evaluation. Firestien and McCowan (1988) also studied the effect of training in creative problem solving and contend that trained groups participate more, produce more ideas, make group climate more friendly, and criticize ideas less. Smith (1993) states that psychological safety in problem solving groups is an important factor in ideational productivity. He says that people who feel safe seem to produce more

ideas. That is, he says that critical and evaluative behaviors decreased the number of ideas, while positive, supportive behavior increased the quantity of ideas produced.

Creative problem solvers generate a large quantity of ideas during divergent activities because they do not evaluate others' ideas and allow for ridiculous ideas. Osborn's brainstorming rules encourage them to generate lots of ideas. Groups in the modified PRPS process were trained to produce a large quantity of ideas. They were taught not to evaluate or criticize others' ideas until later when they converged ideas. They were asked to generate as many ideas as they could during divergent activities. As a result, they could produce a large number of ideas. However, groups trained in the traditional PRPS process and in the control groups did not produce as many ideas because they spent their time criticizing and evaluating others' ideas.

Quality of Ideas about Strategies

This study tried to compare the quality of ideas about strategies generated by each group in the control and treatment groups. The null (H_0) is as follows:

H_0 : There is no significant difference in quality of ideas of strategies produced among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program.

Although the inter-rater reliability was low, one-way analysis of variance (ANOVA) was conducted to compare the three groups. This analysis revealed a non-significant effect for the quality of ideas.

Firestien (1987) also tested to ascertain if there is a difference in quality of ideas developed between groups trained in creative problem solving and groups not trained in CPS. His findings are very similar to the findings of the present study. The

inter-rater reliability of his study was extremely low. Therefore, the raters' score were analyzed separately. The results of his study indicated that there are no significant differences between the mean quality score of treatment and control groups on quality of ideas generated.

The difference between Firestien's study and this study is that there is a significant difference in the quality of ideas evaluated by rater 1 among the three groups. Besides, a post hoc analysis shows that ideas produced by subjects trained in the traditional PRPS process and in the control groups are significantly better than ideas produced by the subjects trained in the modified PRPS .

The present study used two judges: one in academia and one in public relations field. One reason the inter-rater reliability of the present study was so low could be different perspectives about strategies of the public relations campaigns between academicians and practitioners. Another reason could be the vagueness of the criteria for evaluation. The criteria of evaluation were mass appeal, cost, time, uniqueness, and feasibility. Although these terms are very subjective, the researcher did not give the judges a definition of them. Therefore, the meanings of these terms could be ambiguous for the two judges.

All groups in this study used 30 minutes in order to generate ideas of strategies to promote the museum. Thirty minutes were not enough for subjects trained in the modified PRPS process to do divergent and convergent activities—that is, they did not have enough time to evaluate their ideas developed during the divergent activities. It might be that this is the reason why ideas produced by subjects

trained in the traditional PRPS process and in the control groups are significantly better than ideas produced by the subjects trained in the modified PRPS.

Satisfaction

Satisfaction levels of individuals in the control and experimental groups were compared. The null hypothesis (H_0) is as follows:

H_0 : There is no significant difference in satisfaction levels among groups trained in a modified PRPS, those trained in traditional PRPS, and those without any training program about the overall problem solving processes.

The present study asked four questions to the participants to measure their satisfaction levels. They were asked if they felt free to participate and if they were satisfied with the quantity of ideas generated by their groups, the quality of ideas generated by their group, and the process used by their group. The results of the study indicate that there is a significant effect for satisfaction at $\alpha = .05$. That is, there is a significant difference in satisfaction levels between groups trained in a modified PRPS, those trained in traditional PRPS, and those who do not have any training program about the overall problem solving processes.

Results of the present study show that the satisfaction levels of groups trained in the modified PRPS process and those trained in the traditional PRPS process were significantly different. However, there was no significant difference between groups trained in the modified PRPS process and the control groups.

This analysis of each item in the satisfaction questionnaire reveals significant effects for satisfaction levels on “perceived freedom to participate” and the quantity of ideas. The study indicates that subjects trained in the modified PRPS process scores

significantly higher on “perceived freedom to participate” than do subjects trained in the tradition PRPS. The study also shows that subjects trained in the modified PRPS process scores significantly higher on satisfaction with the quantity of ideas than do subjects trained in the PRPS process. In addition, the study reveals that participants’ satisfaction level on “perceived freedom to participate” is positively related to their satisfaction level with the quantity and quality of ideas generated and the process used.

Marston and Hecht (1992) contend that group members are dissatisfied when they feel they are not allowed to participate or that the participation is unequal. They are most satisfied when they feel included in the discussion and perceive that they have a free, unfettered opportunity to participate. Heslin and Dunphy (1964) state that actual participation rates are less important than the perception of freedom to interact. Subjects trained in the modified PRPS process might feel free to participate in the group discussion due to Osborn’s brainstorming rules that they learned in the training session (e.g., quantity breeds quality; defer all judgment; the more ideas groups list, the greater are the odds that groups will resolve their problem). These rules are very important when groups generate ideas. Groups cannot produce many ideas if they spend time criticizing and evaluating the ideas (VanGundy, 1995). Group members who learned CPS techniques are encouraged to generate any wild ideas and are taught not to interrupt other people when they generate ideas. Therefore, groups members trained in the modified PRPS process might feel free to participate in and be satisfied with the group discussion. As a result, they produce many more ideas.

However, subjects trained in the traditional PRPS process were less satisfied with their groups members when they generated ideas than subjects trained in the modified PRPS process. Some subjects trained in the traditional PRPS process interrupted others in their group to evaluate their ideas or dominate the discussion when others generate ideas because they do not know CPS techniques or divergent and convergent activities. As a result, some might be reluctant to generate ideas when others evaluate their ideas or dominate the discussion.

Additionally, the study shows that there is no significant difference between subjects trained in the modified PRPS and those in the control groups. The control groups did not learn any problem solving processes before they solved their problems. That means that they might not have any psychological burden about the quality and quantity of the outcomes they produced. Therefore, they might be satisfied with their group activities.

If so, why is group member satisfaction important in small group communication? Marston and Hecht (1992) answer this question: “satisfaction is an important outcome in small groups” (pp.237) and “is associated with many of the most important processes involved in small group communication” (pp.245). They define successful groups as “those that use effective procedures to achieve their goals” (pp. 245) and say that “successful groups are satisfied and, in turn, satisfaction provides an emotional foundation for future success” (pp. 245). That is, groups can be more productive when they pay more attention to the satisfaction of their group members.

To sum up, the results of the study indicate that groups trained in the modified PRPS process generate significantly more ideas than groups trained in the traditional PRPS and the control groups. The results show, however, that ideas produced by subjects trained in the traditional PRPS process and in the control groups are significantly better than ideas produced by the subjects trained in the modified PRPS.

The results show that subjects trained in the modified PRPS process are more satisfied with their small group communication than subjects trained in the traditional process. The study reveals that subjects trained in the modified PRPS process are more satisfied with their perception of freedom to participate and the quantity of ideas generated by their groups than subjects trained in the traditional PRPS. In addition, the study reveals that participants' satisfaction level on "perceived freedom to participate" is positively related to their satisfaction level with the quantity and quality of ideas generated and the process used.

Although results of the present study indicate that there is no significant difference in the quality of problem statements produced between groups trained in a modified PRPS and those trained in traditional PRPS, the researcher believes that the CPS process would have had an effect on problem statements if subjects had more information and data related to their problems. In general, then, it can be concluded that training in techniques of divergent and convergent activities in CPS has a significant effect on public relations problem solving processes.

Limitations of the Study

The research design has some limitations. Subjects were undergraduate students enrolled in two undergraduate courses, Principles of Communication and

Public Speaking during the Spring 1998 semester at the University of Oklahoma.

They are not public relations practitioners. Therefore, the results of this study may or may not be different from those of studies which use public relations practitioners as subjects.

Public relations practitioners need all the information and data collected about the internal and external environments through extensive situation analysis for their public relations programs and campaigns. They develop problem statements, objectives, and strategies of the public relations programs based on this information. However, this study could not give all the information and data about the case problem because of the time limitation. The subjects of the study only received a two-page summary of the situation as the background information. This is also a limitation of this study.

The researcher analyzed power to find an adequate sample size. When the research wishes power = .70 at $\alpha = .05$ and anticipates a moderate effect size, 42 groups per condition are required for this study (Stevens, 1996). That means that the present study needed at least 378 subjects to obtain sufficient power. However, this study could use 12 groups per condition which are total 108 subjects. This is another limitation of this study.

Recommendations for Future Research

Little research has been conducted on the application of CPS techniques to public relations problem solving processes. As mentioned above, results of the present study indicate that training in techniques of divergent and convergent activities in CPS

have an effect on public relations problem solving processes. Therefore, the continuation of research in this field is recommended.

The researcher suggests a 10-step modified public relations problem solving process. The present study tested only three steps of the process. Other studies could examine the effect of CPS techniques on other steps of the process such as problem identification, selection, and time and budgeting.

As mentioned in the limitation section of the study, the present study used 12 groups in each condition as subjects. Future research should use more than 42 groups in each condition to obtain sufficient power. The present study also allowed 30 minutes for treatment groups A to develop problem statements. The amount of time for problem statements was not enough for treatment A groups to do divergent and convergent activities. Therefore, future research should use more than 30 minutes for groups trained in the modified PRPS process to produce problem statements.

The present study used a hypothetical case, a two-page summary of situation, and college students as subjects. The results of research using a real case, a real amount of information about the situation, and real public relations practitioners as subjects might or might not be different from the findings of the present study. Therefore, other studies could use a real case using public relations practitioners as subjects.

The present study could not compare the quality of ideas generated by the three groups because the inter-rater reliability was extremely low. One of reasons for the low inter-rater reliability could be the lack of clear definitions of evaluation

criteria. Future research needs to define evaluation criteria clearly for judges to evaluate the quality of ideas.

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Appendix 1

< A Traditional Public Relations Problem Solving Process Training Program >

Public Relations Problems

Organizations and publics have reciprocal relationships with each other. Decisions made by an organization may have consequences upon publics. When publics learn about these consequences, they often take actions that have consequences upon the organization. Those consequences upon one another create a public relations problem. To solve the public relations problem, the organization needs communication programs (Grunig & Hunt, 1984).

Public relations people communicate with both management and publics to solve their public relations problems. In communicating with publics, public relations people conduct opinion surveys or interview people to learn how the publics view the organization. They also use mass communication or interpersonal communication to explain their organizations to publics. Public relations people also communicate with management to provide it with public opinions about the organization so that management has the benefit of that knowledge when making decisions. They also need to know the decisions and behaviors of management to explain those decisions and behaviors to the publics (Grunig & Hunt, 1984). Public relations scholars Broom and Dozier (1990) define a public relations problem as “a condition in which someone thinks there is a gap between what is perceived and what is desired” (p.24), which is similar to MacCrimmon and Taylor’s definition. That is, public relations people try to close the gap between what organizations and publics perceive and what organizations and publics desire by using communication programs.

Wilcox et al. (1995) grouped these public relations problems into three categories as follows:

1. *Overcoming a negative perception of an organization or product.*

Some examples of these negative perceptions that Wilcox et al. suggest are:

- a. Resistance by the public to company products on the basis of price, quality, or company behavior—for example, word-of-mouth assertions that a local manufacturing company is damaging the environment by secretly dumping toxic waste material in a nearby hill.
- b. Belief expressed by security analysts that a manufacturing company's production equipment has become outdated, making the firm lose ground competitively.
- c. Evidence that employees believe their company lacks concern for their interests.
- d. Complaints from patients about what they perceive as excessively high hospital bills.
- e. A decline in membership of a professional association (Wilcox et al. pp.182-3).

2. *Conducting a specific, one-time project.* Typical problems in the one-time project category that a public relations specialist must define and attempt to solve are as follows:

- a. Organize a citizens' campaign demanding that the city council adopt an ordinance banning smoking in public buildings and restaurants.
- b. Introduce a new product.
- c. Conduct a fund drive for a hospital expansion.
- d. Enlist employee input and support for a major revision of company medical benefits.
- e. Obtain shareholder approval for acquisition of another company (Wilcox et al., p. 183).

3. *Developing or expanding a continuing program to create or maintain a favorable situation.* The following are common examples of continuing program objectives:

- a. Maintain community confidence that a company is a good corporate citizen with a sense of social responsibility.
- b. Satisfy employees that the company is a good place to work. Retention of trained employees is a constant management problem.
- c. Convince householders that their city's recycling program is achieving significant results and encourage them to increase their contributions to it.
- d. Raise funds on an annual basis to keep human welfare programs like those of the American Red Cross or American Heart Association functioning.

- e. Supply the media with a steady flow of newsworthy information about the employer and answer their requests promptly and openly (Wilcox, et al, pp. 149-151).

< Public Relations Problem Solving Process >

The public relations problem solving processes can be combined as follows:

1. Problem Identification
2. Situation Analysis
3. Problem Definition
4. Publics
5. Program Goals and Objectives
6. Strategies and Tactics
7. Selection
8. Budgeting and Timetable
9. Action and Communication
10. Evaluation

Problem Identification

The first step in the public relations problem solving process is to identify public relations problems. Public relations practitioners must identify whether there are problems in the organization. Problem identification starts with informal, unsystematic monitoring of the environment. After public relations practitioners find a potential problem through informal and opportunistic scanning of the environment,

they use more formal and systematic observation to explore, confirm, and describe the problem (Broom & Dozier, 1990). Proactive public relations practitioners can find many problems through environmental scanning while they are still small enough to permit corrective action and communication before becoming major public issues (Cutlip, Center, & Broom, 1994).

Situation Analysis

After identifying problems, public relations practitioners must understand the problems. Public relations practitioners must get at cause and effect quickly. Therefore, they should conduct a systematic analysis of the situation. According to Cutlip, Center, and Broom (1994), “situation analysis research gives practitioners and their employers and clients the timely, complete, and accurate information needed to understand the problem and to serve as a basis for decision making” (p.326). A situation analysis contains all the background information and data collected about the internal and external environments. The background information and data can be used to define and refine the problem statement. They also must be used as resources for establishing program goals and objectives and developing strategies and tactics to achieve goals and objectives.

Problem Definition (Problem Statement)

After figuring out the situation, public relations practitioners must define problems clearly. They must make a problem statement that summarizes what was learned about the situation. According to Broom and Dozier (1990), the form and content of the problem statement is most critical in the strategic planning process. The problem statement should describe “What’s happening now?” It describes “a situation

in specific and measurable terms” (Cutlip, Center, & Broom, 1994, p.322). It details most of or all the following:

What is the source of concern?

Where is this a problem?

When is it a problem?

Who is involved or affected?

How are they involved or affected?

Why is this a concern to the organization and its publics? (Cutlip, Center, & Broom, 1994, pp.322).

To redefine the problem statement, public relations practitioners need to carry out all kinds of research during the situation analysis phase. To illustrate how research is used in the public relations problem definition process, Broom and Dozier (1990) suggest the case of a regional blood bank with the problem, “We simply need more donors.” They think that the problem statement does not describe the current situation in a specific and measurable terms, so that they use the problem definition process as follows:

First, they question the initial problem statement: “We simply need more donors”. After having interviews with the director and key staff members and reviewing copies of letters from hospitals describing the consequences of the demand-supply problem and copies of internal memos detailing staff reassignments during the crisis situations, Broom and Dozier detect a blood supply and demand problem. Second, they refine and sharpen the problem statement. Through a survey of records

and shipment logs covering the past two years, they find that there is a blood supply-demand problem, but only in June, July, August, and December, and the shortfall is about 100 units each of those four months. Third, they expand their understanding of the problem situation. For example, additional reviews of orders and shipment records indicate that not only does demand go up during the four months, but the number of units collected drops. In addition, detailed study of the collection records uncovers the finding that the blood mobile does not operate on the university and college campuses in the region during summer months. Fourth, they identify the forces for and against solving the problem. To do that, they do the internal analysis through a study of staffing, policies, and procedures of the blood bank. They find that the staff schedules for the previous twelve months that show vacation time is taken during the summer months. Externally, increased traffic during summer vacation and Christmas periods correlates with increased numbers of highway accidents and hospital emergency room admission, as well as increased blood demand from the blood bank. Finally, they restate the problem definition. Armed with a more detailed understanding of the problem situation, they rephrase the problem statement as follows:

During the months of June, July, August, and December, demand for blood exceeds blood bank supplies by approximately 100 units each month. The blood bank's inability to fulfill its supply mission causes critical blood shortages for emergencies at hospitals in the region, postponements of elective surgeries, increased costs of transferring blood among hospitals, and diversion of blood bank staff effort away

from donor recruitment and blood collection activities (Broom & Dozier, p. 29).

Broom and Dozier (1990) indicate that this version details a) *what*—demand for blood exceeds supply by an average of 100 units; b) *where*—the region served by the blood bank; c) *when*—June, July, August, and December; d) *who*—emergency and surgery patients at the region's hospitals, the hospital and blood bank staffs; e) *how*—increases risks to hospital patients, decreases hospitals' ability to meet patient needs, increase costs, and takes blood bank staff away from other activities; and f) *why*—concern about blood bank's ability to fulfill its mission of providing for the region's blood need.

This sharpened problem statement focuses attention on current conditions and motives the program of corrective action and communication (Broom & Dozier, 1990, pp.29).

Cutlip, Center, and Broom (1994) suggested some examples of problem statements as follows:

Only 5 percent of new graduates join the alumni association during the first year following graduation, compared with 21 percent of all graduates, resulting in lost contact and reduced support for the university (p.322).

In the case of a fund-raising effort for a new youth center, the problem could be stated as: *The building fund is \$200,000 short of the annual needed to complete and equip the new gymnasium by the planned June 1 opening.* Or, if

you had worked for one of the major oil companies a several years ago, you might have been concerned about the “divestiture problem”: *A plurality (47 percent) of Americans agree with proposals to break up each of the major oil companies into four separate and competing operating companies, thus encouraging some in Congress to vote in favor of divesting legislation (pp.322-323).*

Strategies and Tactics

After establishing objectives, public relations managers must generate ideas about strategies and tactics to meet the criteria of the objectives. In public relations practice, “strategy typically refers to the overall concept, approach, or general plan for the program designed to achieve a goal. Tactics refer to the operational level: the actual events, media, and methods used to implement the strategy” (Cutlip, Center, & Broom, p.354). These strategies and tactics develop from the findings of the situation analysis and are consistent with the objectives of the program.

Ramsey (1994) provides examples of both based on the seatbelt example. The strategy for reaching 1,000 college students with information on seatbelt safety is to use The Oklahoma Daily (the university newspaper of the University of Oklahoma) because this newspaper reaches most of the OU students. The tactic for the strategy is to ask for the editor of the Oklahoma Daily to assign a Daily writer to do an explanatory story. The strategy for enrolling at least 100 college students in support groups for driving safety is to work with other groups on campus supporting safety programs—to form informal coalitions—to help set up, promote, and recruit for these sessions. Tactics are to help Greek houses plan support groups from the beginning of

the semester, with refreshments; to work with the various activity directors in setting up sessions. Also, to help arrange for a guest speaker from the highway department and for a colorful brochure with a question and answer section to sustain the interest of the groups (Ramsey, 1994).

Selection

After generating ideas about strategies and tactics, public relations practitioners should review and evaluate alternatives and select some alternatives to implement. The chosen alternatives should be the best solution of the problem. Grunig and Hunt (1984) suggest previous experience as referent criteria to eliminate some alternatives. If public relations managers have previous experience on the problem, they can use the experience for their decision making because they know that certain alternatives have worked better in the past than others. Grunig and Hunt (1984) also say that value or attitudes may become referent criteria because public relations practitioners will not use certain alternatives if they conflict with their professional values. After selecting alternatives, public relations practitioners should confirm that the selected behaviors will work and are the best alternatives. In this segment, public relations practitioners should consider whether anything can go wrong. If they conclude that the risk is small, they can confirm the decision (Grunig & Hunt, 1984).

<Case Study>

- **As public relations people for the Oklahoma Chapter of the Mothers Against Drunk Driving (MADD). Develop a campaign plan for the prevention of drunk driving.**

<A Campaign Proposal for the Prevention of Drunk Driving>

<Problem Identification>

Each year, lots of innocent Americans are killed and injured by drunk drivers. Many young Oklahoman people are victims of the accidents caused by drunk drivers.

- #### <Situation>

Drunk driving is one of the most serious crime in the United States. Each year, 25,000 American die and 1.5 million are injured by drunk drivers. Alcohol-related highway crashes are the leading cause of death for adolescents and young adults in the U.S.A. More than 11 million American families have seen a member killed or seriously injured by a drunk driver in the past 10 years. In Oklahoma, more than half of all vehicle accidents involve drunk drivers. In 1996, 5,620 people in the Oklahoma are injured by drunk drivers, and 370 people were died. Among the injured, 1,350 people were young adults under age of 25. Among the fatality, 93 people are young adults.

However, because drunk driving laws are very weak, compared with the result of the accident related to the drunk drivers, homicide by drunk driving has become America's socially acceptable crime of violence. In addition, because of poor enforcement of good laws, lenient court decision, varying driver licensing sanction,

and a poorly informed public, drunk drivers are given special status in America society. They kill or injure innocent people, but they receive little or no punishment.

As of January, 1997, there are 2,725,438 driver license holders which issued by the Oklahoma State. Among them, 971, 478 drivers are under the age of 25. However, the results of a survey research indicate that most of young adults in Oklahoma don't realize how much the traffic accidents caused by drunk drivers are serious. Despite the fact that 1.2 million people were injured by drunk drivers in 1996, 60 % of respondents think that the number of the injured by drunk drivers are only 100,000 in 1996. Only 13 % of young people know that about 1 million people are injured. In addition, most of young people (73 %) don't know the Oklahoma state legal blood concentration (BAC) level (0.10 BAC). The results indicate that most of young adults (71 %) have experienced driving drunk. The results also indicate that most young (68 %) drink alcohol beverages at parties or social gatherings, while 28 % of young adults usually drink at bars or restaurants. Respondents say that they usually drink alcohol beverages during weekends (81%) and holidays (62%) and at nighttime (71%).

< A Public Relations Problem Statement >

Use Five W's and one H.

What is the source of concern?

Where is this a problem?

When is it a problem?

Who is involved or affected?

How are they involved or affected?

Why is this a concern to the organization and its publics?

- Statement One thousand three hundreds fifty young people under 25 in the Oklahoma State are injured and 93 young people are killed by the accidents caused by drunk drivers every year. However, most young Oklahoman people don't realize how much the traffic accidents caused by drunk drivers are serious. Most young Oklahoman people (71%) have experienced driving drunk. Most young Oklahoman people (73%) don't know the Oklahoma state legal blood concentration (BAC).

Publics

- 1 *Primary publics: college students in Oklahoma.*
- 2 *Secondary publics: high school students, young adults under 25 who are not students and adults*
- 3 *Tertiary publics: teachers, mothers, bar owners, family members of students.*

Program Goals and Objectives

- *Program goals: To decrease the number of young people who are injured or killed by the accidents caused by drunk drivers.*
- *Program Objective 1: To increase the percentage of college students in Oklahoma who are aware that about 1 million people are injured by the drunk driver from 13 % to 60 % by December, 1997.*

2. Idea Generation about Strategies for the Objective

- 1) Attach posters, in which a young beautiful girl injured by a drunk driver appeal to young adults not to drive drunk, to gyms in colleges.
- 2) Send pamphlets, in which the number of the dead and the injured caused by drunk drivers is calculated, to college dormitory in the Oklahoma State.
- 3) Send radio PSAs about the drunk drive to radio stations in Oklahoma.
- 4) Have lectures on the drunk drive at colleges in Oklahoma.
- 5) Mail pamphlets and posters to fraternities and sororities houses in the colleges in the Oklahoma state.
- 6) Attach posters to college cafeterias.

- 7) Mail pamphlets and poster to bars and restaurants around college campuses
- 8) Send posters to health clubs and malls
- 9) Send letters about the drunk drive to disk jockeys of rock, country and rap radio stations
- 10) Make a homepage about the drunk driving at WWW
- 11) Hold the prevention of drunk driving week at colleges.
- 12) Send press releases on the drunk driving to college newspapers.
- 13) Hold a parade about drunk driving at colleges.

3. Idea Selection: Select the best three ideas.

- 1) Attach posters to college cafeterias.
- 2) Make a homepage about the drunk driving at WWW
- 3) Send press releases on the drunk driving to college newspapers.

<Exercise>

Program Objective 2: To decrease the percentage of college students in Oklahoma who have experienced driving drunk from 73 to 43 by December, 1997.

<Appendix 2>
<A Creative Problem Solving Process Training Program>

Steps for divergent and convergent activities in CPS can be applied to identify public relations problem areas in organizations, to find the relevant information about public relations problems among the internal and external factors, to describe public relation problem statements, to generate ideas about strategies and tactics of public relations programs or campaigns, to select best alternatives of the ideas, and to develop an action plan

Therefore, a modified public relations problem solving process is as follows

1) Problem Identification:

- A Three-Step Process
 1. *Converge, generating potential problem topics.*
 2. *Identify the most relevant or important problem topics (hits).*
 3. *Selecting the one hit that is most important to you.*

2) Situation Analysis:

- Topics in a Situation Analysis: 1. Internal Factors. 2. External Factors
- A three step process
 1. *Diverge, generating a list of everything you know about the problem from the situation analysts. Use Five W's and One H: Who? What? Where? When? Why? How? Then answer each question.*
 2. *Converge, identifying hits among the responses.*
 3. *Then, if necessary, group your hits into common categories known as hot spots.*

3) Problem Definition:

** A Two-Step Process*

1. *Review all the hits in the situation analysis and use each hit as a stimulus to redefine the original problem statement in the problem identification. Use these stimuli to generate a list of problem statements.*
2. *Converge and select one statement using the criteria of 5W1H and the effects of campaign.*

4) Publics:

- Target Publics

- 1 Primary publics
- 2 Secondary publics
- 3 Tertiary publics.

5) Program Goals and Objectives

- Program goals. The desired state
- Program Objectives:
 - 1 give focus and direction to developing program activities
 2. provide guidance and motivation to those working in the program, and,
 3. spell out the criterion for assessing program impact.

6) Strategies and Tactics:

- *A Three-Step Process*

1. *Withhold judgment and generate a list of all possible ideas. Use formal idea-generation techniques to promote ideas.*

2. *Converge and identify idea hits.*
3. *Select the best ideas or categories of ideas, using categories such as mass appeal, cost or time involved and feasibility.*

7) Selection:

- A Four-Step Process

1. *Generate evaluation criteria.*
2. *If needed, transform the hits within the category into more workable solutions (concept expansion and development).*
3. *If there are too many criteria, select most important ones.*
4. *Use the criteria to select the best solution(s). If time is available, use a weighted decision matrix. Or rate each solution (1 = low potential, 5 = high potential) across all the criteria.*

8) Timetable and Budgeting:

- * *An Action Plan*

- A Five-Step Process

1. *List potential implementation obstacles and ways to overcome them (Develop both preventive actions and contingency backup plans).*
2. *Select most important implementation obstacles.*
3. *Generate an action plan to implement your solution.*
4. *Evaluate your action plan and make any needed improvement.*

* Timetable

1. Chronicle lists. 2. Milestones. 3. Timetables 4. Gantt Charts, or 5. PERT network

* Categories of Expense

1. Salaries and benefits 2. Production 3. Equipment 4. Overhead 5. Special project costs 6. Travel 7. Other costs

9) Action and Communication:

1. Write press release. 2. Prepare house organs, magazines, newsletters, publications. 3. Prepare institutional advertisements 4. Make informal contacts with newsmen. 5. Counsel management or administrators on public opinion toward their organizations 6. Stage events, tours, open house 7. Prepare tapes, films, and audiovisual material. 8. Write speeches 9. Contact governmental offices. 10. Hold press conferences.

10) Evaluation:

* Objectives and Evaluation Methods

1. Communication: Press clippings & content analysis of clips
2. Retention of messages: Readability studies, multiple choice comprehension.
3. Acceptance of beliefs: Likert-type scale on survey that lists "agree-disagree" questions.
4. Agreement of attitude: Likert-type scale that lists questions that measure strength of agreement/ disagreement (SA, MA, N, MD, SD)

- 5 Behavior Question respondent either personally or on questionnaire about behaviors.

For this study, a training program for a modified PRPS will emphasize divergent and convergent activities at each stage including idea generation techniques, and how to apply these steps to the PRPS processes. The public relations campaign case is a campaign for the prevention of drunk driving. This program teaches how to apply a three-step process in CPS fact finding to analyze a public relations problem situation effectively, a two-step process in CPS problem finding to define a public relation problem statement clearly, and a three-step process in CPS idea finding to generate ideas for strategies for public relations programs' and campaigns' objectives. The final activity is to select the most promising ideas.

<Case Study>

A Campaign Proposal for the Prevention of Drunk Driving

*** As public relations people for the Oklahoma Chapter of the Mothers Against Drunk Driving (MADD). Develop a campaign plan for the prevention of drunk driving.**

<Problem Identification>

Each year, lots of innocent Americans are killed and injured by drunk drivers. Many young Oklahoman people are victims of the accidents caused by drunk drivers.

<Situation>

Drunk driving is one of the most serious crime in the United States. Each year, 25,000 American die and 1.5 million are injured by drunk drivers. Alcohol-related highway crashes are the leading cause of death for adolescents and young adults in the U.S.A. More than 11 million American families have seen a member killed or seriously injured by a drunk driver in the past 10 years. In Oklahoma, more than half of all vehicle accidents involve drunk drivers. In 1996, 5,620 people in the Oklahoma are injured by drunk drivers, and 370 people were died. Among the injured, 1,350 people were young adults under age of 25. Among the fatality, 93 people are young adults.

However, because drunk driving laws are very weak, compared with the result of the accident related to the drunk drivers, homicide by drunk driving has become

America's socially acceptable crime of violence. In addition, because of poor enforcement of good laws, lenient court decision, varying driver licensing sanction, and a poorly informed public, drunk drivers are given special status in America society. They kill or injure innocent people, but they receive little or no punishment.

As of January, 1997, there are 2,725,438 driver license holders which issued by the Oklahoma State. Among them, 971, 478 drivers are under the age of 25. However, the results of a survey research indicate that most of young adults in Oklahoma don't realize how much the traffic accidents caused by drunk drivers are serious. Despite the fact that 1.2 million people were injured by drunk drivers in 1996, 60 % of respondents think that the number of the injured by drunk drivers are only 100,000 in 1996 Only 13 % of young people know that about 1 million people are injured. In addition, most of young people (73 %) don't know the Oklahoma state legal blood concentration (BAC) level (0.10 BAC). The results indicate that most of young adults (71 %) have experienced driving drunk. The results also indicate that most young (68 %) drink alcohol beverages at parties or social gatherings, while 28 % of young adults usually drink at bars or restaurants. Respondents say that they usually drink alcohol beverages during weekends (81%) and holidays (62%) and at nighttime (71%).

<Problem Statement>

I. A Three-Step Process for Public Relations Situation Analysis.

- A Two-Step Process

1. Diverge, generating a list of everything you know about the problem. Use Five W's and one H: Who? What? Where? When? Why? How Then answer each question.
2. Converge, identifying hits among the response.

Application of the Three-Step Process to PRPS Situation Analysis

1. *Diverge, generating a list of everything you know about the problem. Use Five W's and one H: Who? What? Where? When? Why? How? Then answer each question.*

What is the source of concern?

Where is this a problem?

When is it a problem?

Who is involved or affected?

How are they involved or affected?

Why is this a concern to the organization and its publics?

★ **What** is the source of concern?

- Each year, 25,000 American die and 1.5 million are injured by drunk drivers.
- Alcohol-related highway crashes are the leading cause of death for adolescents and young adults in the U.S.A..
- In 1996, 5,620 people in the Oklahoma are injured by drunk drivers, and 370 Oklahoman people were died.

- Drunk driving laws are very weak.
- Americans treat traffic accidents caused by drunk drivers as socially acceptable crime of violence.

★ **Where** is this a problem?

- In the U.S.A.
- In Oklahoma
- On the highway
- At the party
- At the bar
- At social gatherings
- At restaurants

★ **When** is it a problem?

- Holidays
- Weekends
- Night time

★ **Who** is involved or affected?

- Young adults under 25
- College students
- High school students
- Middle school students
- Adults over 25

★ **How** are they involved or affected?

- Drunk drivers kill innocent people and themselves.
- Drunk drivers injure people and themselves

★ **Why** is this a concern to the organization and its publics?

- More than half of all vehicle accidents in Oklahoma involve drunk drivers.
- 370 Oklahomans were died in a year.
- 5,620 Oklahoman were injured by drunk drivers in 1996.
- Among the injured Oklahomans, 1,350 people were young adults under age of 25.
- Among the dead, 93 people are young Oklahoman adults.
- Most young Oklahoman people (71%) have experienced driving drunk.
- Most young Oklahoman people don't realize how much the traffic accidents caused by drunk drivers are serious.
- Most young Oklahoman people (73%) don't know the Oklahoma state legal blood concentration (BAC)

2. *Converge, identifying hits among the response.*

★ **What** is the source of concern?

- 25,000 American die and 1.5 million are injured by drunk drivers.
- 5,620 people in the Oklahoma are injured by drunk drivers, and 370 Oklahoman people were died.

★ **Where** is this a problem?

- In America
- In Oklahoma

★ **When** is it a problem?

- Each year
- 1996

★ **Who** is involved or affected?

- Young adult under 25
- College students
- High school students

★ **How** are they involved or affected?

- Kill innocent people and themselves
- Injure people and themselves

★ **Why** is this a concern to the organization and its publics?

- Among the injured Oklahomans, 1350 people were young adults under age of 25.
- Among the dead, 93 people are young Okalahoman adults.
- Most young Oklahoman people don't realize how much the traffic accidents caused by drunk drivers are serious.
- Most young Oklahoman people (73%) don't know the Oklahoma state legal blood concentration (BAC).
- Most young Oklahoman people (71%) have experienced driving drunk.

II. A Two-Step Process for Public Relations Problem Statements.

* A Two-Step Process

1. Review all the hits in the situation analysis and use each hit as a stimulus to redefine your original problem statement in the problem identification.
Use these stimuli to generate a list of problem statement.
2. Converge and select one statement using the criteria of 5W1H and the effects of the campaign (Use majority rule to select one statement).

*** Application of the Two-Step to the Public Relations Problem Statements**

1. Review all hits in the situation analysis and use each hit as a stimulus to redefine your original problem statement in the problem identification. Use these stimuli to generate a list of problem statements.

- Statement 1: One thousand three hundreds fifty young Oklahoman people under 25 (*who*) in the Oklahoma State (*where*) are injured and 93 young Oklahoma people are killed by the accidents caused by drunk drivers (*what*) every year (*when*). However, most young Oklahoman people don't realize how much the traffic accidents caused by drunk drivers are serious. Most young Oklahoman people (71%) have experienced driving drunk. Most young Oklahoman people (73%) don't know the Oklahoma state legal blood concentration (BAC) (*why*).
- Statements 2: : Each year (*when*), 25,000 American (*who*) die and 1.5 million are injured by drunk drivers (*why*). Alcohol-related highway crashes are the leading cause of death for adolescents and young adults in the U.S.A (*what*). Three hundred seventy Oklahomans (*who*) were died in a year (*when*). Fifty six hundred twenty Oklahoman were injured by drunk drivers (*what*). However, most young Oklahoman people (73%) don't know the Oklahoma state legal blood concentration (BAC) (*why*).

2. *Converge and select one statement using the criteria of 5W1H, likelihood of stimulating many ideas., and the effects of the campaign* (When your members select one statement, please use _____).

- **Statement 1**: One thousand three hundreds fifty young people under 25 in the Oklahoma State are injured and 93 young people are killed by the accidents caused by drunk drivers every year. However, most young Oklahoman people don't realize how much the traffic accidents caused by drunk drivers are serious. Most young Oklahoman people (71%) have experienced driving drunk. Most young Oklahoman people (73%) don't know the Oklahoma state legal blood concentration (BAC).

Publics

1. *Primary publics: college students in Oklahoma.*
2. *Secondary publics: high school students, young adults under 25 who are not students and adults*
3. *Tertiary publics: teachers, mothers, bar owners, family members of students.*

Program Goals and Objectives

- *Program goals: To decrease the number of young people who are injured or killed by the accidents caused by drunk drivers.*
- *Program Objective 1:
To increase the percentage of college students in Oklahoma who are aware that about 1 million people are injured by the drink driver from 13 % to 60 % by December, 1997.*

3) Idea Generation about Strategies for the Objective

A Three-Step Process for Strategies of Public Relations Programs or Campaigns.

- A Three-Step Process
 1. Withhold judgment and generate a list of all possible ideas.
 2. Converge and identify idea hit.
 3. Select the best ideas or categories of idea, using criteria such as mass appeal, cost or time involved, and feasibility.

- **Application of the three-step process**

Strategies for the objective 1: To increase the percentage of college students in Oklahoma who are aware that about 1 million people are injured by the drunk driver from 13 % to 60 % by December, 1997.

1. Withhold judgment and generate a list of all possible ideas.

- 1) Attach posters, in which a young beautiful girl injured by a drunk driver appeal to young adults not to drive drunk, to gyms in colleges.
- 2) Send pamphlets, in which the number of the dead and the injured caused by drunk drivers is calculated, to college dormitory in the Oklahoma State.
- 3) Send radio PSAs about the drunk drive to radio stations in Oklahoma.
- 4) Have lectures on the drunk drive at colleges in Oklahoma.
- 5) Mail pamphlets and posters to fraternities and sororities houses in the colleges in the Oklahoma state.
- 6) Attach posters to college cafeterias.
- 7) Mail pamphlets and poster to bars and restaurants around college campuses.
- 8) Send posters to health clubs and malls.
- 9) Send letters about the drunk drive to disk jockeys of rock, country and rap radio stations.
- 10) Make a homepage about the drunk driving at WWW.
- 11) Hold the prevention of drunk driving week at colleges.
- 12) Send press releases on the drunk driving to college newspapers.

13) Hold a parade about drunk driving at colleges.

2. *Converge and identify idea hit* (After reviewing the ideas generated above, please circle the numbers of ideas selected as good ideas for this campaign. When your group members select ideas, please use)

- 1) Attach posters, in which a young beautiful girl injured by a drunk driver appeal to young adults not to drive drunk, to gyms in colleges.
- 2) Send radio PSAs about the drunk drive to radio stations in Oklahoma.
- 3) Mail pamphlets and posters to fraternities and sororities houses in the colleges in the Oklahoma state.
- 4) Attach posters to college cafeterias.
- 5) Make a homepage about the drunk driving at WWW.
- 6) Send press releases on the drunk driving to college newspapers.
- 7) Hold a parade about drunk driving at colleges.

3. *Select the best ideas or categories of idea, using criteria such as mass appeal, cost or time involved, and feasibility..*

- 1) Attach posters to college cafeterias.
- 2) Make a homepage about the drunk driving at WWW.
- 3) Send press releases on the drunk driving to college newspapers.

<Exercise>

Strategies for the Objective 2: *To decrease the percentage of college students in Oklahoma who have experienced driving drunk from 73 to 43 by December, 1997.*

<Appendix 3>

<The Case Problem>

You are employees at XYZ Associates, a public relations firm in Oklahoma City, Oklahoma. One day, in October, the University of Oklahoma asked XYZ Associates for a campaign proposal for the following campaign. Therefore, the XYZ senior account executive comes to your office and asks your group to prepare a campaign plan for the following campaign.

As public relations practitioners working for the public relation agency, review the problem identification and situation analysis, and please develop a problem statement and generate ideas about strategies for the campaign with your group members.

Oklahoma Museum of Natural History University Campaign

1) Problem Identification

The University of Oklahoma is currently conducting a campaign to promote the Oklahoma Museum of Natural History (the Stovall Museum). The OMNH has the largest collection among museums in the region. The University of Oklahoma is currently building a new facility to house the collections. However, many people do not know the OMNH is the largest museum of its kind in the region. Therefore, communities across the state are organizing to carry out local campaign activities to promote the museum. Although OU is actually a part of the Norman community, we believe it has unique characteristics that warrant special attention. Therefore, we are interested in developing a community campaign plan for OU which will be carried out during the spring semester of 1998.

2) Situation

The public relations agency carried out survey and focus group research to understand the target publics' awareness of, attitudes toward, and behavior concerning the Oklahoma Museum of Natural History (OMNH). The results of the survey indicate that most students (79%) are aware that the OMNH exists and is located on campus. The survey indicates that 95 % of respondents say they are interested in visiting the OMNH. However, only 21% of students reported that they have been to the museum while 62 % of faculty have. Thirty five percent of staffs have been to the museum. While 69 % of visitors usually visited the museum during weekdays, only 31 % visitors have been there during weekends. Among the respondents, only 17 % of visitors have been the museum during summer and winter breaks.

On the average, only 35 % of the students are aware that OMNH has the largest collection in the region, while 48% of alumni and faculty are aware of this.

While 99% of faculty and staff are aware that OMNH will have a new building, only 68 % of the students are aware.

Surprisingly, many students (50%) say they know of the museum by seeing the building. Few respondents say they heard of OMNH through news articles (10%) or advertising (6%). Also, many students say they heard of the museum through word of mouth: friends, family, professor, Greek, and so on. Some people credited this survey with their first exposure. Other mentioned school field trips.

The research also shows that over the past three years there have been 35 articles about the OMNH in local newspapers, including the Daily Oklahoma, Norman Transcript, and the Oklahoma Daily.

Among OMNH visitors, 91.6% say that they enjoyed their visit very much. Some respondents say that they enjoyed the display of dinosaurs (47%), Indian artifacts (23%), and ancient culture (14%). Some respondents say they were very impressed by the collections, but wished there were more exhibits. Others complain the museum is too small/crowded and needs more parking.

The results of the survey about students' mass media consuming behavior show that most students enjoy listening to radio. One a weekday, about 80% of female students listen to radio for more than two hour. They usually listen to radio from 9:00 a.m. to 12:00 noon (40%) and 7:00 p.m. until 11:00 p.m. (34%).

The results also show that students rarely read newspapers and magazines. Forty three percent of respondents don't read newspapers at all, or just read for less than ten minutes per day. Forty nine percent of respondents read magazines for less than one hour per week.

The results also find that students usually get public service information from direct mails (51%), pamphlets (45%), and billboards (44%). The results also indicate that most students exercise (37%) or watch television (24 %) in their spare time. Students spend their spare time at gyms (22%), malls (10%), friend's houses (10%), fraternity or sorority houses (10%), movie theaters (8%), bars (6%) and so on.

Dear Group A Members:

The case provided is about a public relations campaign. After reading the case problem identification and situation sections, please brainstorm with your group members to develop a problem statement, generate ideas about strategies for the public relations campaign, and select the best three ideas. Do not discuss with members of other groups how to solve the problems. You may use scratch paper as you generate ideas.

To record the ideas that your group members generate, choose a recorder among your group members. Have the recorder write down your group ideas on the paper provided, not on the scratch paper. Please develop a statement and generate ideas in the limited time.

When your members have developed a problem statement, generated their ideas, and selected the best three ideas, refer to the fact-sheets to follow the steps that you have learned in the training sessions. Every group member please fill out the satisfaction questionnaire at the end of the experiment. If you have any question, please feel free to ask to the research assistant in your room.

Thank you for your cooperation.

Group Number: _____

Name and Course Number:

_____ **Comm.** _____ **Sec.** _____
_____ **Comm.** _____ **Sec.** _____
_____ **Comm.** _____ **Sec.** _____

3) Situation Analysis and Problem Statement (30 minutes)

After reading the above information, please develop a problem statement of the campaign with your group members (You may use the scratch paper).

<Situation Analysis>

1. *Diverge, generating a list of everything you know about the problem. Use Five W's and one H: Who? What? Where? When? Why? How? Then answer each question.*

- **What** is the source of concern?

- **Where** is this a problem?

Group Number: _____

< A Public Relations Problem Statement >

A two-step process can be used to define a public relations problem statement clearly.

*** A Two-Step Process**

1. Review all the hits in the situation analysis and use each hit as a stimulus to redefine your original problem statement in the problem identification. Use these stimuli to generate a list of problem statements.

Group Number: _____

2. Converge and select one statement using the criteria of 5W1H and effects of the campaign (Use majority rule to select one statement).

Group Number: _____

4) Publics

- Primary public: Students.
- Secondary publics: Faculty, staff, family members of students, friends of students,
- Tertiary Publics: Norman area people and businesses associated closely OU.

5) Program Goal

- To promote the Stovall Museum to OU students.

6) Program Objective

- **To increase the percentage of students who are aware that OMNH has the largest collection in the region from 35 to 75 percent by May 31, 1998.**

7) Ideas of Strategies (20 minutes)

Based on the above information, please brainstorm as many ideas as possible about strategies to promote the Stovall Museum to OU students (Use the steps learned in the training session).

- 1) **Withhold judgment** and generate a list of all possible ideas.

2) Converge and identify idea hit (After reviewing the ideas generated above, please circle the numbers of ideas selected as good ideas for this campaign. When your group members select ideas, please use majority rule)(10 minutes).

3) Selection of Strategies (5 minutes)

Please choose the best three ideas among the ideas selected (At this time, please use mass appeal, cost, time, uniqueness, and feasibility as criteria).

1.

2.

3.

Dear Group B Members:

The case provided is about a public relations campaign. After reading the case problem identification and situation sections, please brainstorm with your group members to develop a problem statement, generate ideas about strategies for the public relations campaign, and select the best three ideas. Do not discuss with members of other groups how to solve the problems. You may use scratch paper as you generate ideas.

To record the ideas that your group members generate, choose a recorder among your group members. Have the recorder write down your group ideas on the paper provided, not on the scratch paper. Please develop a statement and generate ideas in the limited time.

When your members have developed a problem statement, generated their ideas, and selected the best three ideas, refer to the fact-sheets to understand how to develop public relations problem statements. At the end of the experiment, every member please fill out the satisfaction questionnaire. If you have any question, please feel free to ask to the research assistant in your room.

Thank you for your cooperation.

Group Number: _____

Name and Course Number:

_____ **Comm.** _____ **Sec.** _____
_____ **Comm.** _____ **Sec.** _____
_____ **Comm.** _____ **Sec.** _____

3) Problem Statement (30 minutes)

Based on these information, please develop a problem statement of the campaign with your group members (To analyze the situation, you may use scratch paper).

* Hint: Use Five W's and one H.

What is the source of concern?

Where is this a problem?

When is it a problem?

Who is involved or affected?

How are they involved or affected?

Why is this a concern to the organization and its publics?

Group Number: _____

4) Publics

- Primary public: Students.
- Secondary publics: Family members of students, friends of students, faculty, and staff.
- Tertiary Publics: Norman area people and businesses associated closely OU.

5) Program Goal

- To promote the Stovall Museum to OU students..

6) Program Objective

- **To increase the percentage of students who are aware that OMNH has the largest collection in the region from 35 to 75 percent by May 31, 1998.**

7) Ideas of Strategies (20 minutes)

Based on the above information, please brainstorm as many ideas as possible about strategies to promote the Stovall Museum to OU students.

8) Selection of Strategies (15 minutes)

Please choose the best three ideas among the ideas generated.

1.

2.

3.

Dear Group C Members:

The case provided is about a public relations campaign. After reading the case problem identification and situation sections, please brainstorm with your group members to develop a problem statement, generate ideas about strategies for the public relations campaign, and select the best three ideas. Do not discuss with members of other groups how to solve the problems. You may use scratch paper as you generate ideas.

To record the ideas that your group members generate, please choose a recorder among your group members. Have the recorder write down your group ideas on the paper provided, not on the scratch paper. Please develop a statement and generate ideas in the limited time. At the end of the experiment, every group member please fill out the satisfaction questionnaire.

Thank you for your cooperation.

Group Number: _____

Name and Course Number:

_____ **Comm.** _____ **Sec.** _____

_____ **Comm.** _____ **Sec.** _____

_____ **Comm.** _____ **Sec.** _____

3) Problem Statement (30 minutes)

Based on these information, please develop a problem statement of the campaign with your group members (To develop a statement, you may use scratch paper).

Group Number: _____

7) Ideas of Strategies (20 minutes)

Based on the above information, please brainstorm as many ideas as possible about strategies to promote the Stovall Museum to OU students.

8) Selection of Strategies (15 minutes)

Please choose the best three ideas among the ideas generated.

1.

2.

3.

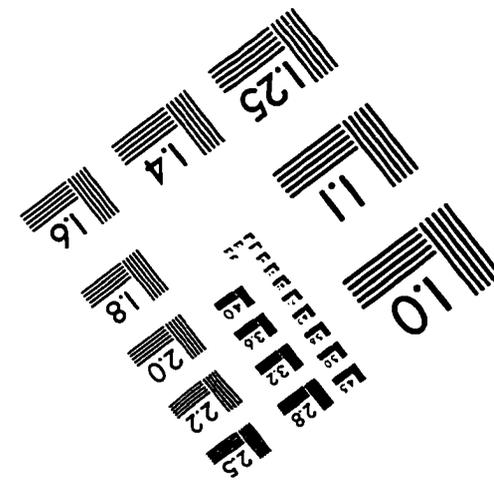
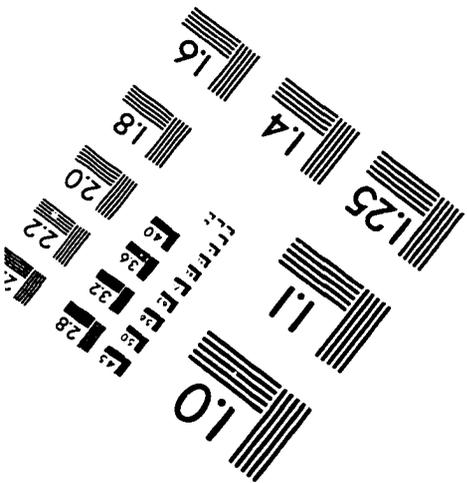
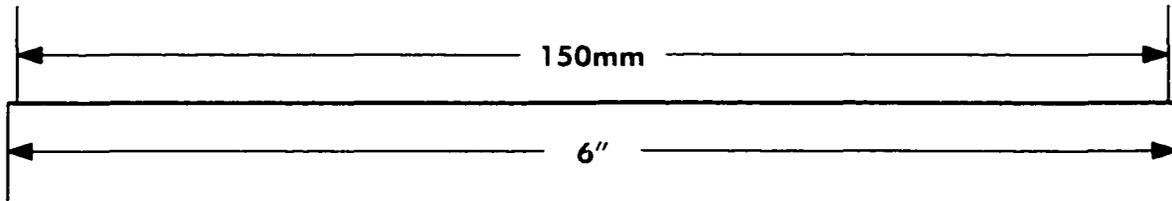
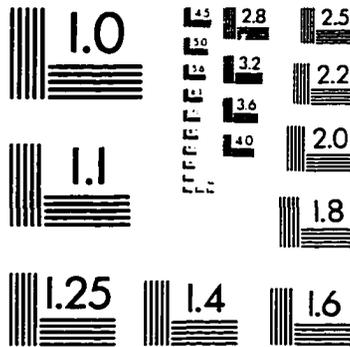
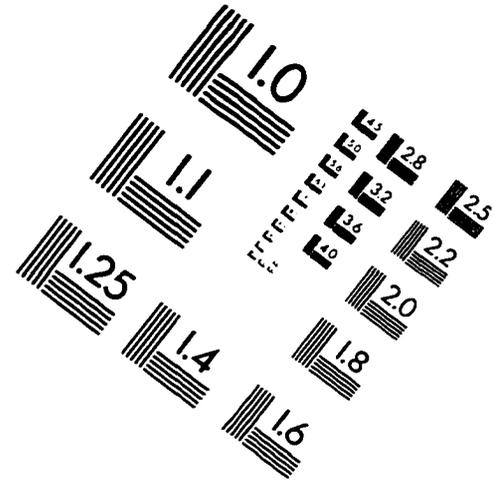
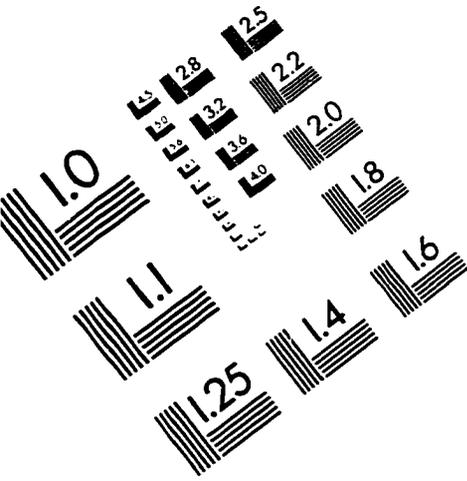
Group Number: _____

Satisfaction Questionnaire

Please circle the number that corresponds to your feeling most closely (Every member please fill out this questionnaire).

1. To what extent did you feel free to participate **Very Dissatisfied** **Very Satisfied**
and contribute your ideas? 1----2----3----4----5----6----7
2. How satisfied are you with the quantity of
ideas generated by your groups? 1----2----3----4----5----6----7
3. How satisfied are you with the quality of ideas
generated by your group? 1----2----3----4----5----6----7
4. In general, how satisfied were you with
the process used by your group? 1----2----3----4----5----6----7

IMAGE EVALUATION TEST TARGET (QA-3)



APPLIED IMAGE, Inc
 1653 East Main Street
 Rochester, NY 14609 USA
 Phone: 716/482-0300
 Fax: 716/288-5989

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