

CONFLICT MANAGEMENT BY DEPARTMENT HEADS  
AT LAND GRANT UNIVERSITIES

By

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Submitted to the Faculty of the Graduate College  
of the Oklahoma State University  
in partial fulfillment of the requirements  
for the Degree of  
DOCTOR OF PHILOSOPHY  
July, 1984

Thesis  
1984D  
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## ACKNOWLEDGMENTS

I wish to express my sincere gratitude to the members of my dissertation committee, Dean Beverly Crabtree, Dr. Beulah Hirschlein and Dr. Thomas Karman for their helpful suggestions, time and encouragement. In particular, I wish to thank Dr. Richard Dodder for his advice and expertise on the statistical analyses in the study. Special appreciation goes to Dr. Elaine Jorgenson, department head and major adviser for her unfailing support and guidance during my doctoral program.

My thanks go to members of the faculty and graduate students in the College of Home Economics, Oklahoma State University, for their encouragement and friendship, and to Mary Lou Wheeler for her time and patience shown while typing this dissertation. Further appreciation is extended to the Ernest Oppenheimer Memorial Trust Fund, South Africa, for their financial support during my studies.

Although my father was not able to see this endeavor through to its completion, I am deeply grateful to both my parents for providing the many educational opportunities that made this effort possible. Finally, my sincere appreciation goes to my husband, Peter, and our children, Jeremy, Trevor and Cindy May, who made this, as all things, worthwhile.

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## CHAPTER I

### INTRODUCTION

Conflict is a very complex concept. In its broadest aspect, it is seen as a condition in which the values and goals of two or more parties are incompatible in a particular sphere of interaction (Chesler, Crowfoot and Bryant, 1978). Conflict can range in intensity from a minor difference of opinion to war between nations.

Anyone who regularly reads a weekly news magazine is aware of its unsettling effect. It often seems that the pages are filled more with accounts of violent conflicts or threats of war than with anything else . . . . Indeed, conflict seems omnipresent (Austin and Worchel, 1979, p. 49).

Conflicts are an inevitable part of life. In a pluralistic, heterogeneous society, conflict is experienced on a continuum from an individual's internal conflict to a whole society's externally voiced, multifaceted conflict. As a microcosm of the larger society, an educational institution or any institution for that matter, reflects that same conflict (Frey, 1979). The sources and types of conflict present in higher education are varied and come from both extremes of this continuum. This study focuses on interpersonal conflict in the workplace.

Administrators serving as heads of academic units, such as deans and department heads, find themselves in the optimum positions for managing conflict because of their boundary roles in the organization.

In their boundary roles, administrators are required to represent and communicate information about the positions and beliefs of people both within and outside the unit or organization. The department heads are also the "eye" through which the faculty and staff learn about the outside environment to which they are required to adapt. The accuracy and value of this information can help determine the quality of solutions and decisions reached in the department. A boundary role position requires the maintenance of "dual membership" of both groups and, as such, is in a prime position to actively manage conflict for good or inadvertently give rise to debilitating conflict. The frequency of dealing across organizational boundaries has been shown to be associated with conflict, stress and frustration (Holmes and Lamm, 1979).

Department heads are the people who handle conflict firsthand between faculty-students, faculty-faculty and faculty-hierarchy or institution. Conflict between faculty members and students may be started by students complaining about grading systems or teaching performance, while faculty may charge students with cheating, plagiarism or absenteeism. Conflict between faculty members may result from personality clashes, perceived inequities in rewards, workloads, academic values, practice of discipline and unwritten traditions. Further, conflict between employer and employee at departmental level may arise over such matters as promotion, tenure, merit pay, work assignments, working conditions and annual evaluations (Tucker, 1981). It would be of great benefit if department heads were able to manage conflict satisfactorily.

Smart and Elton (1976) summarized the importance of the role that department heads play in managing conflict.

Department chairman occupy a pivotal role in the administrative process of post-secondary institutions. They stand in the sensitive area between an educational system that is continually under pressure for efficient management and a learning environment whose members search for truth and meaning and desire great freedom and flexibility (p. 42).

Indeed, research has indicated that such boundary positions are most likely to produce conflict, particularly if the production of innovative solutions to non-routine problems and the responsibility for the work of others are involved (Thomas and Bennis, 1972).

The challenge to academic department heads is the management of conflict in order to "maintain a moderate amount of conflict to attain an optimum level of organizational effectiveness" (Rahim and Bonoma, 1979, p. 1325). This involves correctly diagnosing the source of the conflict, clearly defining organizational goals related to the conflict, and effectively directing the situation toward change and resolution.

The major problem in conflict management is determining what constitutes effective direction. There are theories about "good" conflict management. Some are limited to specific kinds of organizations, some are related to group dynamics and counseling, while others involve major war and peace issues (Intriligator, 1982). There is some research in educational organizations about conflict issues, overt causes of conflict and the parties involved (Corwin, 1963; Hollander, 1980; Hughes and Robertson, 1980; Knapp, 1979). However, there is still a significant lack of research on the success of the various means of reducing or managing conflict in education. This suggests the need to study

conflict management to determine how successful outcomes can be achieved, particularly in educational work environments.

#### Need for the Study

Societal conflicts, in the 1980's, are impacting on higher education. According to Chesler, Crowfoot and Bryant (1978), the major societal conflicts include 1) citizen expectations, 2) cultural values of equality and justice, and 3) funding and inflation. Funding alone can produce major conflicts. For example, how can the university respond to societal demands for increased product excellence with lower resource expenditure? The predicted or actual loss of revenue for higher education and the subsequent enforced changes in the working environment can be expected to increase the conflict between major groups, units and people at an institution for higher education (Hollander, 1980). When the size of the pie is reduced, there is more conflict over who gets how much of the total stake (Luthans, 1977). Thus, the incidence of conflict in education is expected to increase.

An earlier study found that 20 percent of managerial time was spent resolving or dealing with conflict (Thomas and Schmidt, 1976). In addition, dealing with personnel was found to be the most taxing and time consuming activity of an academic administrator (Litherland, 1975). Thus, finding effective ways of handling conflict would benefit all levels in academe. Once conflict develops to the point where mediation by a third party is required, whether in the form of a colleague, due process or litigation, the management of such conflict becomes very expensive in terms of time, money and energy. At this stage, conflict is always a lose-lose situation where the goals of neither parties are met.

Better management of the conflict at the initial level would be less dysfunctional (Smart and Elton, 1976).

Some studies concerning the conflict management behavior of school principals have been conducted, but a search of the literature reveals a dearth of studies directed at finding out how university academic department heads manage, control and resolve conflict. More research needs to be conducted at this level of management in universities.

In addition, more information is needed about effective organizational and interpersonal conflict management. Studies have been conducted which give insight into the conflict process and its management, but these are often restricted to the business or industrial environment in which the studies took place. More recently, some research on specific aspects of conflict in education has been reported (Knapp, 1982; Sone, 1983), but much needs to be done before generalizations can be made.

#### Statement of the Problem

Conflict is expected to increase and in order to stay ahead, academic department heads should be very effective conflict managers. Although the positive value of effective conflict management behavior is generally accepted, there has been little research to ascertain current practices, particularly with regard to department heads in higher education. In addition, valid and reliable instruments with which to collect data on conflict management are required. The aspects which this study addresses relate to the evaluation of the reliability of the Johnston instrument (1982) and an assessment of the conflict management of academic department heads in selected subject areas in



large land grant universities. More specifically, differences in current practices across specific conflict situations and across subject matter areas needs to be assessed. An examination of the relationships between the behaviors, the frequency of conflict experienced, and the self-perceived effectiveness in the management of specific types of conflict situations is also required.

### Objectives

The main purposes of this study were to ascertain whether there were differences in conflict management between department heads in home economics and those from other selected departments at land grant universities; and determine the associations among the conflict management behaviors used, the frequency of conflict, and the self-perceived effectiveness of these behaviors.

More specifically, the objectives of this study were to:

1. Ascertain whether the conflict management factors of accommodating, bargaining, collaborating, forcing and withdrawing, were similar to those in the Johnston study (1982).
2. Determine the relationships among conflict management behavior, situational theory and the demographic factors of sex, age, years of experience, size of department and subject matter area.
3. Determine the differences between home economics department heads and other academic department heads in relation to conflict management behavior, frequency of conflict and perceived effectiveness of conflict management.
4. Determine the relationship between conflict management behavior, the frequency of conflict and perceived effectiveness of the behavior.

## Hypotheses

Using data obtained from a national survey of department heads at large land grant universities, the following hypotheses were tested in relation to conflict management.

1. The conflict management behavior factors produced by the Johnston instrument on two occasions are similar.
2. There are no significant differences in the conflict management behavior of academic department heads when dealing with various categories of conflict situations.
3. There are no significant differences in conflict management behavior among department heads classified by
  - a. sex
  - b. age
  - c. years of experience as department head
  - d. academic subject matter area (home economics or other).
4. There are no significant differences between home economics department heads and other academic department heads, while controlling for demographic variables, with regard to
  - a. conflict management behavior
  - b. frequency of role function and hierarchy conflict
  - d. effectiveness of managing role function and hierarchy conflict.
5. There is no significant relationship between
  - a. conflict management behavior and the frequency of conflict
  - b. conflict management behavior and the perceived effectiveness of conflict management

- c. frequency of conflict and perceived effectiveness of conflict management.

### Assumptions

The following assumptions were made in planning and conducting the study:

1. The potential for organizational conflict will be similar for all department heads at the same university.
2. All department heads have experienced conflict in the workplace and are able to report accurately on their handling style and the frequency of conflict.
3. Conflict management behavior can be measured using an indirect measure.
4. Department heads can project experiences accurately to situations of conflict not personally experienced.
5. All department heads perform all eight role functions of an academic administrator and have some idea of what they involve.
6. Department heads are able to evaluate their own effectiveness in managing conflict accurately.

### Limitations of the Study

This study is limited to selected department heads at land grant universities with an enrollment of over 20,000 and a home economics unit. The department heads have more than one year of administrative experience and a faculty of more than five. Results cannot be generalized to a wider population. The instrument relies on projected behavior and self perceptions of conflict management and its

effectiveness from other viewpoints. External evaluations of conflict management behaviors from other such viewpoints were not included in the study.

### Definition of Terms

These definitions are specific to this study and are essential for understanding the concepts used.

Academic Department or Unit used in this study is the administrative unit in a university that is involved with teaching undergraduate students.

Conflict is a situation where there are real or perceived differences between two parties whose goals seem to be mutually exclusive (Filley, 1975).

Conflict Management Style is the mode of dealing with situations of conflict. This behavior can be described on two basic dimensions: 1) assertiveness, the extent to which the person attempts to satisfy his own concerns; 2) cooperativeness, the extent to which the person attempts to satisfy the other person's concerns. These two dimensions are used to define five conflict management behaviors: accommodating, bargaining, collaborating, forcing or withdrawing (Thomas, 1978, Blake and Mouton, 1978). Complete descriptions of these behaviors are to be found in Chapter II.

Department Head is the person appointed to be responsible for the administration, supervision and academic leadership of a department or academic unit reporting to a chief administrator or dean for that unit. This includes chairpersons (Eble, 1978).

Hierarchy is the term used to describe the variation in superior subordinate power distribution in a university. For example, the hierarchy that a department head is involved with includes central administration, the dean or immediate superior, other department heads, faculty and staff, students, and others such as alumni and employers.

Home Economics refers to one or a number of academic departments sometimes housed in a college of home economics, human ecology, or other similar name, which are associated with this field of study. It includes departments of family relations, child development, foods, nutrition and institutional management, consumer studies, housing, interior studies, home management, home economics education, clothing, textiles or merchandising. In this study, the concept did not include restaurant and hotel administration, food technology, interior design in other colleges or textile technology.

Role Functions are those functions identified which comprise the duties of an academic administrator (Litherland, 1975). These functions are the following:

- a. Educational Programming - the duties of participating on curriculum committees, recommending specific curriculum changes, maintaining familiarity with course contents, and other activities related to the subject matter taught.
- b. External Relations - meeting with alumni, secondary school personnel, business and community leaders, working with legislative or political contacts, and visiting with parents and prospective students, and duties relating to people outside the university organization.

- c. Financial Affairs - the duties of budget development, grant and proposal writing development, supervising accounting procedures and seeking funds from sources outside the university, and financial reporting about the program.
- d. Institutional Functions - meetings with administrators of other academic units, meetings with central administration and campus wide meetings and duties relating to campus wide functions.
- e. Personnel Function - participating on faculty committees within the unit, meeting with individual faculty members, evaluating performance for promotions and tenure, mediating and managing interpersonal conflicts, giving recognition for creativity and innovation and other such duties.
- f. Physical Facilities - allocating space, initiating requests for maintenance or improvements, planning new facilities, and other activities related to the physical facilities.
- g. Professional Leadership and Research - publishing research, long range planning for the unit, serving in professional organizations, reading professional literature, preparing, conducting and presenting research at professional meetings, and other similar activities.
- h. Student Affairs - advising students, teaching, sponsoring student organizations, and counseling students on academic or career problems, recordkeeping and such duties (Litherland, 1975).

Situation generally refers to the description of unresolved conflict presented at the beginning of each scenario in the instrument,

for which alternative solutions need to be selected. On the other hand, Item refers to the individual variables or the possible alternative behaviors to be selected for managing the conflict situations as provided in part one of the instrument. (See Appendix A.)

Subject Matter Area is the field of study or subject area, generally taught at an institute of higher learning such as a university.

Subject Matter Group is the dichotomous academic affiliation of the department head - could be home economics or non-home economics.

### Summary

This chapter presented a background against which a study of conflict management was planned and conducted. Topics included in the chapter dealt with the nature of organizational conflict, the necessity of obtaining more empirical information about its management, and a brief description of the study. The descriptions included the objectives, hypotheses and definitions of the concepts used.

## CHAPTER II

### REVIEW OF LITERATURE

#### Introduction

Conflict has been researched in studies as divergent as those relating to organizational structure, experimental gaming, psychological behavior, small group dynamics, social conflict, family conflict, cross-cultural and international relations (Thomas, 1976; Wilson and Jerrell, 1981; Intriligator, 1982). As a result, there is a wide range of meanings and operational definitions in publications which include emotions, perceptions, behaviors, situations, processes and structures (Pondy, 1967; Luthans, 1977; Thomas, 1976; Intriligator, 1982).

The main concern in this chapter is to find empirical information in relation to conflict as may be experienced in academic departments in higher education. The specific aspects of conflict included in this chapter are the theoretical context of this study; on conflict in higher education; and what situational variables have an influence on these behaviors; and lastly, the methodologies used to study conflict management behavior.

According to Tucker (1981), a disagreement becomes a conflict when it goes beyond the normal intellectual differences that characterize academic life, and is accompanied by emotions of fear, frustration, anxiety or anger. More specifically, conflict is seen as "a process which includes the perceptions, emotions, behaviors, and outcomes . . .



and which begins when one party perceives that the other has frustrated or is about to frustrate, some concern of his" (Thomas, 1976, p. 891). Interpersonal conflict, then, includes the concepts of perception, incompatible goals and aroused emotion.

The role of conflict in organizations has traditionally been seen as a disruptive, unsettling process which needs to be prevented or resolved as quickly as possible. Conflict was seen as a symptom of poor management and a failure of leadership, and as such needed to be eliminated before it became too destructive. However, the philosophy about conflict has changed. The behavioral view accepts that conflict is inevitable, but it needs to be reduced, resolved, or at best, turned to a problem-solving function. The major scapegoat for the conflict is often seen as the organizational structure which needs to be changed through integrative decision making to become a better place in which to work. The integrationist view also accepts the inevitability of conflict as an inherent part of change, but sees the necessity of conflict leading to better solutions, innovation and the better attainment of organizational goals. There is also an optimal level of conflict which encourages functional and productive qualities. A balance between excessive destructive conflict and complete harmony (boredom) or overcontrol must be maintained (Robbins, 1978; Luthans, 1977; Huse, 1979; Wilson and Jerrell, 1981). Therefore, conflict needs to be managed to maximize the functional effects and minimize the disruptive effects of conflict.

#### Theoretical Framework of Conflict Management

The traditional view of resolving conflict stimulated research

dealing with the prevention or reduction of conflict rather than its management. Efforts to resolve organizational conflict in early research rested on "mechanical" approaches, such as separating antagonistic parties or changing the reporting structures for each person; and "legalistic" approaches, where the conflict was resolved by being judged by the highest common authority within the institution, by collective bargaining or by resorting to the courts. However, a series of quasi-experiments conducted by Blake and Mouton (1979), show that these approaches fail to deal with the underlying feelings of competition or conflict which resurfaced at a later time.

These researchers report greater success with using intact groups rather than a spokesperson, using collaboration rather than third party adjudication, and re-establishing cooperative contact between the parties. They also find that correcting misperceptions, formulating superordinate goals with the parties, reassessing the means of reaching the goals with both parties, and using checkpoints to establish progress towards reaching mutual goals are successful (Blake and Mouton, 1979).

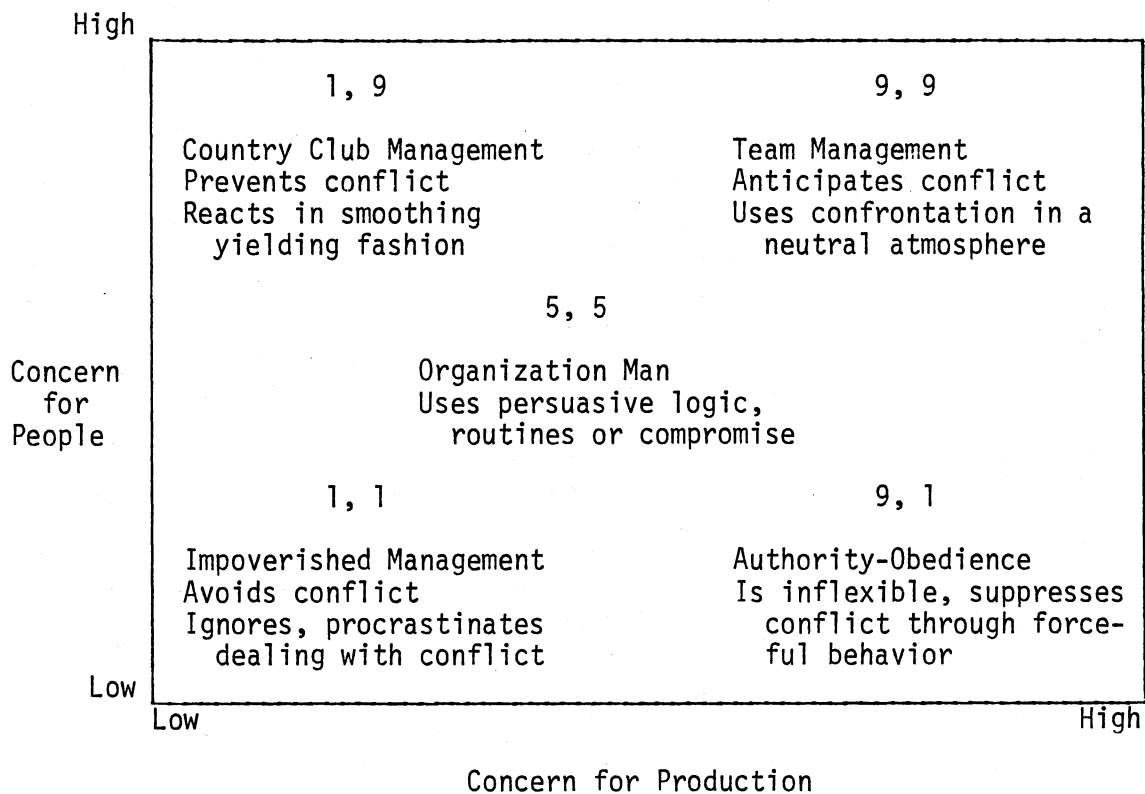
These findings substantiate some of the theories described below, but there is no general theory of the processes, origin or dynamics of conflict. There is also no agreement across or within disciplines (Wehr, 1979). Because of the lack of a unified theory, numerous models and definitions have been developed within the organizational conflict literature.

### Selected Theories of Conflict

#### Management Behavior

Blake and Mouton (1978) discuss conflict management as an element

of the managerial "boss behavior." They describe a conflict managerial style in terms of two underlying attitudes of the manager: concern for people and concern for production as shown below.



Source: Blake and Mouton, The New Managerial Grid (1978).

Figure 1. The Managerial Grid

Based upon their research, Blake and Mouton (1978) show that "team management" (9, 9) type of management is the only effective way to handle conflict. By anticipating conflict, steps can be taken to insure understanding and agreement before the parties take up rigid positions.

When conflict appears, facts and data are used as tools to counteract any misconceptions. Confrontation, where the conflict is brought into the open, to be discussed by both parties in a neutral atmosphere, is the recommended way of seeking a creative solution.

Likert and Likert (1976) recommend an organizational system based on understanding others' points of view; joint problem-solving; open, truthful, effective channels of communication; and the use of consensus to resolve conflict so that there is full acceptance and implementation of solutions. They recommend collaboration as a system-wide strategy for dealing with conflict, as a result of numerous studies documenting the success of this style in business, industry and a few studies in education.

Another way of viewing conflict management is in terms of a lose-lose, win-lose and win-win outcome (Filley, 1975; Luthans, 1977). The lose-lose approach includes such actions as compromise, splitting the difference, bribery, making deals, resorting to bureaucratic rules or a third party mediation to resolve conflict. For example, when the department head asks the dean to arbitrate a conflict issue, rather than discussing the issue with the second party concerned, then the dean will often select the middle course or use the "rules" to determine the outcome. This action may mean that both parties may obtain only a part of what they sought. In addition, the emphasis is often on disagreements as to the means of doing something, while the end goals of the parties are not clarified. A lose-lose outcome is anticipated.

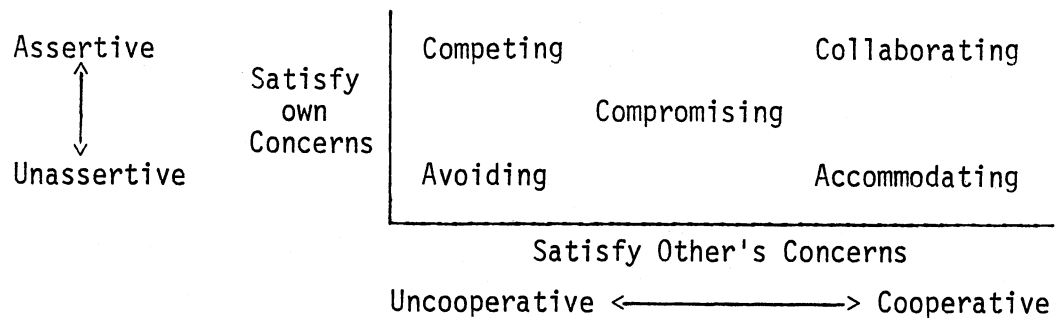
The win-lose approach is very common in today's competitive culture where energies are directed towards others in an atmosphere of victory or defeat. The emphasis is on conflict resolution in the short term.

Examples of win-lose approaches are where power and authority vested in one party is exercised using reward and punishment tactics (I'm the boss and you do what I say); where one party responds selectively to suggestions or issues (There is no acknowledgment of a good idea and the proposer loses); where majority rule splits the group into winners and losers, or where a loud vocal minority overrule the others who would then be the losers (Filley, 1975).

The win-win strategy is aimed at using energies creatively to solve problems rather than beating the other party. Consensus and integrative (participative) decision-making are two forms of this approach (Luthans, 1977). After reviewing relevant research, Filley (1975) concludes that "'win-win' strategies (where the total payoff, not the individual payoff, is the measure of success) are associated with better judgments, favorable organization experience and more favorable bargains" (p. 33).

Using the analysis of semantic differential scales obtained in two experimental studies, Ruble and Thomas (1976) developed a two-dimensional view of conflict management which considers the parties' intentions in a conflict situation: cooperativeness (attempting to satisfy the other party's concerns) and assertiveness (attempting to satisfy one's own concerns). The conflict management styles are plotted on these two dimensions in Figure 2.

Avoiding or withdrawing (unassertive, uncooperative behavior) is seen as a repression of emotional reactions, ignoring all or certain types of conflict situations, or leaving the situation. Avoidance is a survival tactic involving sidestepping an issue or postponing any action until "things may change."



Source: T. Ruble, and K. Thomas, "Support for Two-Dimensional Model of Conflict Behavior," Organization Behavior and Human Performance (1976).

Figure 2. Five Conflict Management Behaviors

Accommodating or smoothing (unassertive, cooperative) strategies try to cool the situation by delaying, by yielding to the other point of view and preventing emotional outbursts. It is also identified with soothing the other person and seeking harmony.

Competing or forcing (assertive, uncooperative behavior) is an attempt to attain one's own concerns at the other party's expense, by overpowering the other through argument, authority, threats or physical force. It might mean "standing up for your own rights" or defending your position.

Collaborating or confrontation (assertive, cooperative) strategies try to satisfy the concerns of both parties. The parties concerned confront the disagreements and use problem solving to find solutions. Collaborating means jointly identifying the underlying concerns and seeking creative alternatives that benefit both parties.

The remaining conflict management behavior, compromising or bargaining, is intermediate in both assertiveness and cooperativeness. Compromising behavior seeks partial satisfaction through mutual

sacrifice by both parties. It might mean splitting the difference, exchanging concessions, or seeking a quick middle ground position (Kilmann and Thomas, 1977).

Thomas (1976) includes an integrative function where the size of the reward has increased, and a distributive dimension where the reward is divided. Satisfaction with the outcome is proportionally divided. He also acknowledges additional factors that determine the selection of a conflict management behavior, such as the size and function of the stakes (reward), commonality of interests and values, resource consumption (cost/benefit ratios of time and energy spent in dealing with the conflict), and changes in human resources.

In a later study, Thomas (1978), with Robbins (1978) stress the use of a repertoire of conflict management behaviors based upon a diagnosis of the situation and the choice of a functional solution. Both Derr (1978) and Thomas, Jamieson and Moore (1978) state that confrontation (collaboration) is not always a successful conflict management strategy. This is contrary to the earlier viewpoints expressed by Kilmann and Thomas (1975) and Blake and Mouton (1978).

The theories discussed above, have much in common in that there are four or five basic strategies used in dealing with conflict. They differ in that conflict management behavior is ascribed mainly to personality and attitudes (Blake and Mouton, 1978); to the organizational system (Likert and Likert, 1976); and to the situation in which conflict occurs (Thomas, 1979). In addition, some advocate a single optimal method of managing conflict. The goodness and usefulness of conflict management behavior must be judged according to the outcomes of the conflict situation. As Derr (1978) states:

Conflict modes must be tailored to the actual motives, issues, and organizational circumstances of the conflict parties. Inappropriate application of collaboration or other modes by a conflict manager, is apt to be ineffective at best - and destructive to one or both parties or to the organization at worst (p. 82).

There is a need for additional research in the situational use of conflict management techniques in order to develop the contingency theory (Thomas, Jamieson, and Moore, 1978).

### Conflict Management in Higher Education

Peltason, president of the American Council of Education, states that there is a surprising lack of published materials about the position of department heads. The position is an important one as "an institution can run for a long time with an inept president, but not with inept chairpersons" (Forward by Peltason in Tucker, 1981, p. XI).

Peltason identifies three characteristics of department heads that have become apparent during the last 10 years. With the increasing complexity of universities, more decisions are being made by department heads; the selection of department heads is based more on academic considerations or the person's reputation as a scholar than on management qualifications; and thirdly, the position of department head is often the first rung of the administrative ladder and solid grounding in administration can pay lasting dividends (Tucker, 1981).

Tucker (1981) states that department heads should become knowledgeable in management techniques and enhance their effectiveness by developing the interpersonal skills necessary to implement the management processes. An essential skill that managers need is one of managing conflict. Baldrige (1971) suggests that the primary task of a manager is to minimize and effectively control conflict. Yet conflict,



according to many department heads is "something that happens in someone else's department" (Tucker, 1981, p. 175). Department heads need to be concerned about conflict within their department because once it occurs, it tends to fester, become divisive, wastes time and effort that would be better used in creative endeavors. Conflict often develops a dynamic and logic of its own, and can polarize a department, forcing members into competing groups. Department heads need to learn to deal with conflict and "fulfill one of the most difficult requirements of their role" (Tucker, 1981, p. 175). Thomas and Schmidt's findings (1976) show that approximately 20 percent of top and middle management's time is spent in dealing with some form of conflict. Groves (cited by Steers, 1981) reports that handling conflict is a major predictor of managerial success and effectiveness. Both of these findings underscore the importance of good conflict management.

When diagnosing a conflict, the department head should analyze the situation, decide whether to intervene or not, and strive to reduce conflict or channel it creatively. For this to occur, the department head needs to develop a clear idea about the parties' basic attitudes toward the conflict and the stakes that are involved. If the conflicting parties can be made to believe that an agreement is possible or if the stakes can be lowered, then the department head is more likely to settle the dispute. High stakes tend to be concerned with promotion, tenure and status in the department, while low stakes might include a large office, allocation of secretarial services or travel funds. However, these stakes are highly subjective and will vary among situations. Conflict over low stakes is easier to resolve than conflict over high stakes (Blake, Shepard, and Mouton, 1964; Tucker, 1981).

Lee and Bowen (1975) and Wilson and Jerrell (1981) note that as resources become more scarce, the frequency of conflict increases and effective management skills become more critical. As Hollander (1980) notes, many of the arbitration cases in higher education are those where financial problems at an institution have caused drastic organizational changes. High levels of frustration and conflict result from decisions made to reorganize administration, combine units or discontinue programs without forewarning or consultation with those concerned.

Sources of conflict in the university are shown to be related to differences in organizational goals, or in means to achieve these goals; the allocation of scarce resources; differences in values and perceptions and interpretations; poor communication; lack of or poor job descriptions; and psychological needs such as power, status and group membership (Thomas, 1976; Walton and Dutton, 1969; Huse, 1979; Hollander, 1980; Wilson and Jerrell, 1981; Watson and Nelson, 1982). For example, Watson and Nelson (1982) suggest that differences in perspective related to recruitment and retention patterns may be undercurrents to seemingly unrelated issues, such as academic quality, grade inflation, the relative importance of teaching and research, or the mission of the university. This may become more prevalent in the 80's with the predicted loss of revenue for higher education, the lower student numbers and the greying of the faculty.

The majority of the studies in the educational literature seem to be related to the resolution of conflict. However, in a classic study involving approximately 1,500 teachers, Corwin (1963) finds the following significant results: 1) professionalism of the faculty

(synonymous with personal autonomy) is directly associated with organizational tension and conflict; 2) conflict, except for major incidents, contributes to the morale of the teachers; 3) individual work satisfaction increases with the individual conflict rate; and 4) individual conflict rate declines with increased interaction with the principal. This is one of the few studies documenting the positive aspects of conflict in education.

### Factors Influencing Conflict Management

Conflicts do not occur in a vacuum. Conflicts occur in a framework of conditions that generate frustrations, limit outcomes, and otherwise influence conflict. Research has shown that conflict management is affected by numerous factors.

Studies have been conducted to see whether the organizational structure and the power differentials it causes, have an effect on conflict and its management; what makes conflict management effective; whether effective conflict management is better achieved by one specific handling method or by the contingency approach; and whether selected demographic factors are important.

### Organizational Climate, Structure and Size

Renwick (1975) studied the sources of interpersonal conflict that occurred on the job. She reports that it is essential to take the organizational climate into consideration when interpreting the conflict management results.

Lawrence and Lorsch (1967) studied the resolution of conflicts in organizations. They find that different goals, different time

orientations, different interpersonal orientations and the formality of the organizational structure lead to different attitudes and ways of thinking. This increases the incidence of conflict and affects its resolution. Some firms create the role of "integrator" to act as liaison between departments. If the organizational climate permits people to disagree with their superiors without jeopardizing their careers and no department has greater influence in the decision making process, then the integrators are more successful. In addition, effective integrators are more able to openly confront parties with whom they disagree rather than smooth over differences or unilaterally force a decision.

This is further substantiated in some studies conducted in universities. Nursing faculty and students select collaborating as most characteristic of their own behavior, followed by compromise (Davis, 1979). Yet in another study of nursing faculty using the Thomas-Kilmann instrument, deans of nursing use compromising behavior most often when dealing with conflict, followed by collaboration (Woodtli, 1983). In contrast, Johnston (1982), using the Johnston Conflict Management Assessment Instrument, finds that deans of home economics use collaborating behavior most often, followed by bargaining. In all these studies, avoiding or withdrawing is reported as being least often used. Thus the type of academic department and the rank within the department may influence conflict management behaviors.

On the other hand, in a comparison of conflict management by project managers in education, business and the military, Stoycheff (1980) finds the rank orders of preferred methods of conflict management to be substantially similar. These are confrontation, smoothing, compromise,

withdrawal and lastly forcing behavior. The intensities of conflict are highest in business and lowest in education. Business ranks schedules as the major source of conflict, the military ranks priorities highest while education ranks personalities the highest. This may indicate that the type of conflict varies greatly between organizations, but not the conflict management behaviors.

The size of a unit or organization is also shown to influence conflict. "As a group grows, potential for conflict increases" (Rahim and Bonoma, 1979, p. 1333). This increased incidence of conflict is ascribed partly to increased competitive potential within an organization. Competition tends to prevent collaboration, an important activity in conflict management (Thomas, Jamieson and Moore, 1978).

Conclusions made by Corwin (1969) from a survey of staff conflict in 28 public schools in three states, support the traditionally accepted beliefs about the connection between organizational complexity and conflict. As the school becomes structurally differentiated into more distinct subunits, both the rate of authority problems and the rate of conflict between teachers and administration increase.

Substantiating these findings, Woodtli (1983) finds that as the number of faculty in nursing colleges increases to more than 20, collaboration is used significantly less as a conflict management strategy. The sources of conflict are also perceived to be more disruptive. However, in other studies, the size of an individual department or unit in an organization shows no significant effect on the type of conflict, the conflict management behavior or the frequency of conflict (Chester, 1983; Johnston, 1982).

There does not appear to be substantial evidence about the effect of the organizational structure, climate or size on conflict management behavior. Yet, there is greater support for the organizational influence on the frequency and type of conflict.

### Power Related Conflict Management

Several studies have investigated the relevancy of power as a source to manage conflict. This relates to studies investigating superior-subordinate conflict where one party has more power than the other. Robbins (1974) reports:

. . . low and moderate levels of power, made up of formal and informal authority, can assist in improving coordination and, therefore, work to reduce conflict. But where power is excessive, as perceived by a less powerful group, one may expect it to be challenged, causing increased conflict (p. 48).

The use of power in a conflict situation, or a forcing type of management behavior, is considered effective as a back-up style from the organization's standpoint because it gets things done (Lawrence and Lorsch, 1967). It is also characteristic of competition between peers, particularly when resources are scarce (Corwin, 1963). However, teachers perceive authoritative, influential or coercive behavior of principals as conflict (Muth, 1973).

Withdrawal (or the abdication of power) is a frequent response to conflict.. Kahn and Boulding (1964) report that this behavior resulted in a subsequent reduction of collaborative solutions to conflict.

Some researchers study conflict management from this power differential viewpoint. Renwick (1975) examines perceptions of conflict behaviors from both the subordinate's and superior's view in superior-subordinate dyads from diverse departments of two large manufacturing

firms. Information is solicited on both self perception, and perception of the other's conflict behavior in the dyad. Renwick reports that the perception of the second party's conflict resolution methods are more similar to their own methods than to those self-perceived by that party. This is also reported in a study by Thomas and Walton (1971) who ascribe this to selective perception, looking for the behavior that is expected.

Knapp (1979) finds significant agreement among principals' perceptions of their actual conflict management behavior with superiors, peers and teachers. This is similar to their superiors' and teachers' perceptions of the principals' optimal behaviors. The principals agree that they use accommodating behavior with superiors (and teachers), compromising behavior with peers, and competing with teachers. Teachers think that collaboration should be the optimal way for principals to manage conflict. Knapps' major finding is that conflict management styles are dependent upon who the second party to the conflict is.

Substantiating this, Hughes and Robertson (1980) in their study of school principals' conflict management find that conflict with a more powerful second party is generally handled using the "unilateral decision strategy." They report using "joint decision making" with those with less power (teachers, parents and students). The principal is more likely to evaluate the conflict as being constructive when the power differential is greatest in his/her favor. A limitation of this study is the selection of terminology for the various conflict management strategies offered. This may influence responses accordingly.

Sone (1981) examines the perceptions of superior-subordinate conflict management from business administration graduate students, all of

whom had managerial experience. Intercorrelations among the five conflict management behaviors indicates that collaborating is positively correlated with compromising, but negatively related to competing and avoiding behaviors. Some differences in conflict management behaviors are evident when the subjects consider themselves to be superiors rather than subordinates but these are not statistically significant.

Johnston's study of home economics deans (1982) does not support the changing use of conflict management techniques according to who the conflicting party is: superiors, faculty, students or external relations. The deans report consistency in their use of collaborating and bargaining behaviors.

Gagliarducci (1983) in his study of elementary school principals and their attitudes toward collective bargaining contracts, finds that principals with a positive attitude towards the contracts feel less threatened. They tend to use collaboration and compromise more often in managing conflict. Principals with a negative attitude tend to use avoidance more often. In the latter situation, the principals feel their power is being eroded and react accordingly.

Derr (1978) reports that the distribution of power is basic to the management of the conflict situation, as well as to the origin of the conflict. Thus, although power seems to play a role in the selection of the particular conflict management behavior used, it is unclear as to whether the power itself or a person's attitude towards that power has the major influence.

#### Conflict Management Related to Effectiveness

Relationships between conflict management behaviors and academic



deans' managerial effectiveness are studied by Garnier (1981) at five Canadian Universities. The effectiveness of the behavior is judged by other academic officers, department heads and faculty members. Findings include that problem solving (collaboration) is perceived as the most effective behavior in dealing with conflict on substantive issues, but is not the most used. Compromising is the most used behavior but it is perceived as being only slightly effective. Forcing as a dominant behavior is seen as ineffective, but as an occasional behavior, it is seen as slightly effective. Smoothing is seen as neutral behavior, while withdrawing is ineffective. However, withdrawing is seen as a convenient way of dealing with personal or trivial issues.

Burke (1970) uses the Lawrence and Lorsch questionnaire based upon the five conflict behaviors of Blake and Mouton (1964). He asks managers to describe their perceptions of how they, as subordinates and their immediate superiors deal constructively with conflict between them. Generally, withdrawing and forcing behaviors are seen as negatively related to the constructive handling of conflict. Compromising and smoothing behaviors are sometimes seen positively or negatively as constructive behavior. Problem solving is commonly seen as positive. However, only one side of the conflict situation (from the subordinate's view) is analyzed. Burke also obtains written descriptions of conflict resolved well and less well. Content analysis is conducted and the strategies coded into one of the five conflict management behaviors. Confrontation is found to be effective, while forcing and withdrawing behaviors are ineffective in resolving conflict constructively.

Lawrence and Lorsch (1967) examine the managerial use and effect of three conflict management behaviors: confrontation (collaboration),

forcing and smoothing. They report that high performing organizations use confrontation the most while medium and low performing organizations use smoothing more frequently. Low performing organizations use forcing the least. The researchers conclude that forcing behavior is sometimes effective as a backup strategy, while smoothing should be avoided.

In the Johnston study of home economics deans (1982), collaborating is reported as the most common style of conflict management by those who feel they are effective conflict managers. No other behaviors are related to their reported effectiveness.

Burke (1970) explains how the same conflict management behavior could be both functional and dysfunctional. When forcing is perceived as effective behavior, the respondents are "winners" of a win-lose conflict. Where forcing behavior is seen as ineffective, the respondents are "losers" in a win-lose conflict. As Pondy (1967) observed, judgments of the functionality of conflict management behaviors depend upon the outcome criteria chosen. Seemingly conflicting research results may be a function of the outcome criteria selected: personal interests or organizational interests. Many authors agree that there are aspects of these areas that are incompatible with each other, even though some congruency on the personal and organizational goals may exist (Chesler, Crowfoot and Bryant, 1978; Derr, 1978; Filley, 1975; Robbins, 1978; Thomas, Jamieson and Moore, 1978).

#### Situational Use of Conflict Management

Thomas (1979) suggests that most individuals have repertoires of conflict management behaviors which give them some flexibility in dealing with different situations. However, research shows that there

is some consistency across situations, depending upon personal characteristics. Thus, people who use more competitive behavior tend to be more analytic and less feeling (Kilmann and Thomas, 1975) and have lower affiliation needs (Blake and Mouton, 1978). On the other hand, people who use more collaboration or problem-solving are likely to be more extroverted, and task oriented (Kilmann and Thomas, 1975; Blake and Mouton, 1978). Experimental evidence suggests that the higher the stakes, or the greater the threat perceived, the more likely the person will be to resort to similar defensive behavior irrespective of the situation (Terhune, 1970).

Renwick's study (1975) tends to support the idea of choosing conflict management behavior based on the root problem. Confrontation is used when differences in knowledge or factual material exist between the parties. In personality clashes, smoothing and compromising are most often used. When topics such as salary, performance and organizational policies and procedures are the source of conflict, the manager uses problem solving and compromise behaviors. Thus the conflict management behavior used by the manager is somewhat determined by the topic and source of disagreement. However, Renwick's (1977) later research does not substantiate this.

Filley (1975) suggests that the greater the stakes involved, the greater the likelihood of using forcing and collaboration. On the other hand, withdrawing and smoothing behavior are successfully used when stakes are low.

Woodtli's data (1983) does not support the premise that conflict management depends on the situation. In this case, the situational variable is the most or least disruptive source of conflict. This

finding, which indicates that individuals tend to have one predominant way of dealing with conflict, supports the research findings of Blake and Mouton (1964), Renwick (1977) and earlier writings of Thomas (1976).

A study by Hughes and Robertson (1980) describes school principals' conflicts and how they are managed. Eighty percent of the principals report they had one general conflict management strategy, and approximately 63 percent of these identify that approach as "joint problem solving." However, approximately one-third of the principals report that their own behavior depends on the conflict situation. In analyzing open descriptions of actual conflict, the unilateral administrative decision is identified as the dominant conflict strategy with central administration or where the authority of the principal is in question. Although "joint problem solving" is the dominant conflict management style reported, only 36 percent of the principals actually used this behavior. It is used most often when dealing with teachers, parents or students (subordinates) and leads to improved relationships.

Therefore, although it seems logical to discuss conflict management behavior in terms of the situational variables, research shows that managers tend to use a style that suits their own personalities. However, new research may show that effective managers of conflict are those who use a wider range of behaviors. This has not been studied.

#### Demographic Variables

Factors which relate specifically to the personal variables of the conflict managers are found to influence conflict management behavior and the incidence of conflict. Studies relating to the variables of

age, years of experience as an administrator, and sex will be discussed.

### Age

In an earlier study, Sampson and Kardush (1965) found that females become more competitive with age, while males become more accommodative. However, Chester (1983) reports no significant relationships in students between age and conflict management style used. The age range in this study is rather limited though. Neither Johnston (1982) nor Woodtli (1983) in their studies of academic deans find any change in conflict management behavior with age.

Corwin (1963) reports that the frequency of individual conflict declines with age. No other research is available to corroborate this finding.

### Years of Experience as an Administrator

No significant relationships are found between conflict management behavior and the length of time in office by deans of home economics or nursing (Johnston, 1982; Woodtli, 1983). This is in contrast to the findings of Garnier (1980) who reports a strong positive correlation between accommodating behavior and years in office as dean.

Corwin's survey of 1,500 teachers (1963) reveals that the less experienced the administrator or teacher in a school, the greater the likelihood of conflict within the organization. However, in a later study, years spent in administration do not play a role in the amount of conflict experienced by school principals (Hughes and Robertson, 1980).

## Sex

Many studies have been conducted to ascertain the differences in managerial style between men and women; few, however, have determined differences in conflict management behavior. Compared to men, women were perceived as less capable of handling employee conflicts (Dipboye, Arvey and Terpstra, 1977; Terborg, 1977). Schein (1973, 1975) and Teglasi (1978) have shown that these beliefs were strongly held by both male and female managers.

Gray-Little (1974) found indications that women viewed confrontation with authority as less acceptable than men. Consequently, they appear to associate less aggressive approaches with the constructive use of conflict with their superiors. Other studies of managerial superior-subordinate conflict (Burke, 1970; Renwick, 1975, 1977) show differences from the male and female subordinate view. These reveal that both male and female subordinates with male superiors describe themselves as preferring to rely on compromise, confrontation and then smoothing. Females report no differences in their descriptions of male or female superiors' conflict management behavior. Female subordinates see smoothing and confrontation as more positive behavior while only the males have negative perceptions towards withdrawing behavior.

Sone (1981) studied the female and male superiors' self perceptions of conflict management behaviors. He reports that there are no differences between male and female uses of competing and compromising behaviors. Both sexes are of similar aggressive and conciliatory behavior in settling conflict. However, women are more accommodating of disagreements with subordinates and more deferring than their male counterparts.

Baxter and Shepherd (1978) categorize managers into masculine, androgenous or female role identity groups. They find that feminine people disapprove of competition more than others. Masculine people differentiate less between liked and disliked others in their competitive behavior. Conflicts with others that were liked (as opposed to disliked) are managed with less competition and more accommodation, collaboration and compromise for all types of sex role identity groups studied.

This greater use of competing behavior by men is supported by findings of Chester (1983) and Knapp (1979). In addition, female teachers feel that compromising behavior is optimal for dealing with conflict involving peers and superiors more than male teachers did (Knapp, 1979).

On the other hand, there are no differences between male and female deans of home economics on the conflict management behaviors except for bargaining behavior (Johnston, 1982). Female deans use bargaining behavior significantly more often.

With regard to the frequency of conflict, Corwin (1963) finds that men report higher rates of conflict with women than vice versa. In a later study (Hughes and Robertson, 1980), male principals report conflicts equally with men and women. On the other hand, women principals report twice as many conflicts with the male dominated central office administration.

Fishel and Pottker (1975) in their review of studies of male and female school principals' administrative performances, report that women principals are more effective at resolving conflict with staff members. They also have a better, closer communication with their teachers and are better at reconciling conflicting demands.

There are many studies on gender differences regarding conflict behavior within the context of experimental gaming research. These laboratory studies generally use cooperation-conflict situations but the literature reveals a confusing picture. This is possibly due to the changing socialization and roles of women in society, and the differences in the nature of the specific experimental variables introduced into the studies. They also use undergraduates exclusively, and the potential conflict behaviors are limited to cooperation-competition. In the work-world, there are potentially more choices of behavior available (Terhune, 1970; Blake and Mouton, 1978; Thomas, 1978). Nevertheless, recent findings in general substantiate those of the studies conducted in the work place. Men chose to compete, while women tend to cooperate, especially when working with other women (Becker and Miles, 1978; Lindsfold, McElwain and Wayner, 1977).

#### Research Reflecting the Methodology Used to Study Conflict Management

From reviewing the literature, it seems that descriptive and analytic survey research were the most usual methods of collecting data on conflict management behavior. Those commonly used are personally administered or mailed questionnaires and/or interviews. Self perception of the behaviors seem to be the most generally relied upon technique. Occasionally, a case study, observation in the work place or content analysis of unstructured descriptions are conducted.

In the majority of pertinent studies found, original instruments are used, specific to the objectives of the particular study. It seems that the optimal way of data collection is to use indirect techniques.



Subjects are given either specific descriptions of unresolved conflict in the work place or are asked to imagine any or a specific conflict situation they have experienced. Forced choice or Likert-type scale responses are required as to the likelihood of using the alternative behaviors offered (Renwick, 1975; Kilmann and Thomas, 1975; Knapp, 1979; Sone, 1983; Johnston, 1982).

In many of these surveys, a test for reliability or validity is not reported. Sone (1981) reports only the test-retest reliability (a satisfactory value of .83). However, the Thomas-Kilmann (T-K) Instrument scores are compared to earlier instruments: the Hall Conflict Management survey and the set of proverbs used by Lawrence and Lorsch (Kilmann and Thomas, 1975). All are administered in random order to the same group of subjects. The T-K Instrument compares favorably in technical qualities such as reliability and freedom from bias. In addition, two equivalent groups completed the T-K Instrument, one from the personal point of view and the other from the social desirability angle. These are substantially different and social desirability as a factor influencing the instrument scores is, therefore, ruled out. Reliability is determined using Kuder-Richardson 20 procedure (to determine internal consistency) and the T-K Instrument rated highest.

The literature also suggests that research about organizational conflict is best conducted in the work place itself rather than in experimental laboratory situations. Many experimental studies in psychology approached the study of conflict by manipulating dyads or small groups in a laboratory setting. Subjects are given problems to solve, games to play, decisions to make while the outcomes,

interventions, training or a confederate's opinions are controlled (Tjosvold and Johnson, 1978; Alexander, 1979; Falk and Falk, 1981; Komorita and Lapworth, 1982). It is not known, however, how generalizable the results of these studies are to an organizational setting.

A variety of field studies in organizational conflict is evident in the literature. However, results are difficult to interpret because of specific situational variables. Job stress, unit size, type of organization, organizational structure, job function and the like, are often major determinants of conflict (Likert and Likert, 1976). Some researchers observe conflict management by participating in facilitative workshops where both the parties involved in a genuine conflict are present. Descriptive data are collected on the progress of collaboration or confrontation (Hill, 1982; Blake, Shepard, and Mouton, 1964). However, little conclusive evidence is obtained as to successful strategies.

In other studies of the behavior of naturally formed groups, observational data on factors influencing conflict are confirmed by instruments measuring sociometric choices, stereotype ratings, perceptions of others. These are administered during conflict and again after the introduction of an experimental variable (Sherif, 1958; Worchel, Axom, Ferris, Samaha, and Schweizer, 1978). The conflicts are not organizational.

Ideally, documented observation of the actual conflicts and their management would be recommended, but the limitations of time, finances and the necessity of large numbers of such case studies before any generalizations are possible, limit its use. Thus, research reports most often describe the use of the mailed or personally administered

questionnaire, with the incorporation of indirect data collection techniques. Very little validation of the instruments appears to have been conducted (Garnier, 1980).

#### Summary

The literature review reveals a scarcity of research investigating interpersonal conflict management in higher education. What is revealed is the empirical substantiation of portions of conflict management theory, but no comprehensive explanation of what constitutes effective conflict management behavior.

Currently, the experimental and observational data are limited to providing some initial answers to these issues. The descriptive data provide good coverage in some areas of conflict management behavior, particularly in relation to the process of conflict management, the specific behaviors used by managers, and the potential sources of conflict. Some uncertainty still exists as to the roles of various factors in conflict management behavior.

## CHAPTER III

### PROCEDURE

#### Introduction

This study was conducted to assess the conflict management behavior of academic department heads. The first two objectives of the study were to compare the conflict management behavior factors produced by the Johnston instrument (1982) on two different populations and to compare the conflict management behavior by home economics department heads with that of other academic department heads. Other objectives were to determine relationships between the conflict management behaviors and the conflict situations, the demographic variables, and the frequency and perceived effectiveness of dealing with conflict.

#### Design of the Study

In this study the descriptive type of research design was used because it "describes and systematically interprets the facts and characteristics of a given population or area of interest, factually and accurately" (Isaac and Michael, 1981, p. 46). Descriptive research is primarily concerned with functional relationships of variables that exist or have already occurred. Best (1981) stated that descriptive design is "concerned with hypothesis formulation and testing, the analysis of the relationships between non-manipulated variables, and

the development of generalizations" (p. 24). The facts sought in this study concern the types of conflict management behaviors used by department heads and the frequency and effectiveness thereof.

According to Isaac and Michael (1981), "Research authorities . . . are not in agreement on what constitutes descriptive research and often broaden the term to include all forms of research except historical and experimental" (p. 46). They suggest that within this broad context, descriptive designs can be further subdivided into a number of types. Survey research is one such type.

Survey studies "collect detailed factual information that describe existing phenomena, make comparisons and determine what others are doing with similar problems or situations" (Isaac and Michael, 1981, p. 46). Kerlinger (1973) defined survey research as follows:

Survey research studies large and small populations by selecting and studying samples chosen from the populations to discover the relative incidence, distribution, and interrelations of sociological and psychological variables (p. 410).

In this survey research study, information was gathered concerning the existing conditions of conflict management behavior, the frequency of conflict and the perceived effectiveness of the behavior. Other existing conditions were the demographic characteristics of the subjects. The descriptive survey research investigated the associations among these conditions, but it did not evaluate the variables nor make any cause and effect conclusions as is typical of other types of research designs (Best, 1981).

#### Population

The population for this study was selected academic department

heads from large land grant universities across the continental United States. The names of the 72 land grant universities were obtained from a brochure published by the National Association of State Universities and Land Grant Colleges (NASULGC) (undated). Each university's total student enrollment was obtained from the Yearbook of Higher Education (Marquis, 1982). This information yielded 23 universities in the continental United States which had a unit of home economics and 20,000 students or more on one campus. A listing of the academic department heads was also obtained from the 1982-83 Yearbook of Higher Education (Marquis, 1982) and the latest university catalogs. Of the 1650 department heads identified from these two sources, 80 were in home economics. According to Krejcie and Morgan (1970), 309 subjects would be needed to represent a population of  $N=1570$ . Three hundred and twenty non-home economics department heads were then randomly selected by computer. In addition, the 80 home economics department heads from land grant universities meeting the criteria of school population were selected to serve as a comparison group.

Responses from all department heads who had held their positions for more than one year and who had more than five faculty members in their departments were analyzed. These criteria were used to exclude, from the study, department heads who were inexperienced and who had perhaps not yet developed a style of dealing with conflict, and those in very small departments who could conceivably manage conflict differently.

In summary, the population comprised academic department heads from land grant universities with over 20,000 students and with home economics units. The department heads had more than one year's

experience as an administrator and had more than five faculty in their departments.

### Instrument

The Johnston instrument (1982), an indirect measure of conflict management behavior, was selected as Part I of the questionnaire in this study (Appendix A). The instrument had previously been used to assess conflict management behavior of senior administrative officers, (deans and associate deans) of home economics units belonging to the Association of Administrators in Home Economics (AAHE). It consisted of 16 descriptions of conflict situations representing eight role functions found in higher education (as determined by Litherland, 1975). The role functions included in the instrument were educational programming, external relations, financial affairs, institutional functions, personnel, physical facilities, professional leadership and research, and student affairs. The classification of the situations by role function can be seen in Table XVIII of Appendix B.

Each situation in the instrument portrayed a potential unresolved conflict in the workplace. Five conflict management behaviors were presented as possible solutions to the conflict. They were accommodating, bargaining, collaborating, forcing and withdrawing. Each behavior alternative was accompanied by a five point scale on which the subjects could indicate how likely or unlikely they were to use each behavior to deal with the situation. The placement of the conflict management behavior alternatives within each situation is presented in Table XIX of Appendix B. These alternatives required the subjects to project themselves into a situation of unresolved conflict related to the work environment.

Part II of the questionnaire comprised direct statements about the type of behavior exhibited when dealing with conflict. Data were requested on the frequency and perceived effectiveness of using the previously mentioned five conflict management behaviors. Part III requested responses in relation to conflict with the eight academic role functions and Part IV requested responses in relation to the organizational hierarchy with which the department head worked. Part V of the questionnaire identified demographic variables that, according to previous research, bore some relationship to conflict management behavior. An institutional code was included on the instrument itself to identify the university to facilitate follow-up procedures. (See Appendix A.)

In order to validate the questionnaire, it was used as a guide in conducting personal interviews with six department heads at Oklahoma State University. These department heads were selected by the dean of the college. Three heads were from departments which were considered comparatively conflict-free while three experienced much conflict based on the dean's perception. During the interviews, the department heads completed the questionnaire and were also asked to describe three major conflicts that had occurred in their departments during the previous two years. The verbal descriptions of the conflicts experienced by the department heads compared well with their responses on the questionnaire. The demographics of the department heads, the interview procedure and the comparisons of the verbal and questionnaire responses are presented in Appendix C.



## Data Collection

Instruments were mailed to the 400 department heads selected from the 23 large land grant universities. The cover letters addressed to the department heads stressed the value of their participation in the survey. A pre-addressed stamped envelope was included in order to evoke a good response and minimize sampling error. To improve the response, follow-up letters and a second copy of the questionnaire were mailed to the non-respondents after five weeks. Copies of the correspondence are shown in Appendix D.

The major disadvantage of a mailed questionnaire is the lack of control over the non-respondents and a possible nonrepresentative return. Such surveys tap subjects who are cooperative. A non-response of greater than 20 percent raises serious questions about the sampling bias and sampling error (Kerlinger, 1973). In other words, were those who responded different from those who did not respond?

A correction technique often recommended is to select a small random sample of the non-respondents and personally interview them to obtain the missing data (Isaac and Michael, 1981). Analysis of these data would reveal any important trends among the non-respondents. In the Johnston study, this procedure was followed and no difference between the two groups was found. Such a procedure is costly, time consuming and often ineffective (Kerlinger, 1973). Kerlinger recommended obtaining census data or other outside information and comparing them with the data obtained from the respondents. In this study, the demographic data of those who did respond to the questionnaire were compared to similar data obtained from the Fact Book for Academic

Administrators: 1981-82 (Anderson, 1981). The home economics department heads were compared to those who took part in the AAHE Salary Survey: 1982-83 - subject matter unit heads at land grant universities (1862 type). These data were almost complete since 113 out of 115 institutions responded. This comparison is reported in Chapter IV.

Questionnaires were returned by 279 of the 400 department heads in the randomly selected sample (a 70% return rate), but 69 returns could not be used. Thirty-eight of these 69 were from department heads who did not meet the selection criteria, while others had incomplete data or were returned with no data. The adjusted response rate was 67 percent. The reasons for returning no data were stated as a) too busy to participate, b) acting department head or recently appointed in the position, c) no longer an independent department because of organizational change. Table XXI in Appendix E presents the distribution of responses by mailings and by amount of data provided.

#### Analysis of the Data

On receipt of the completed instruments, each institutional code was checked on a master code list. The data received was noted in order to keep a record of the returns. Data were punched directly onto computer cards from the questionnaire and checked. The names of the departments were categorized into two groups, based on whether they were home economics related or not. This dichotomy, of home economics or non-home economics departments, formed a basis for subsequent analytic procedures.

The statistical procedures used in this study were based on the assumption that the data were of interval measure.

In measuring attitudes and self-perceptions, although the scales may be basically ordinal, one can with considerable assurance often assume equality of interval. This is particularly valid where there are at least two or more measures of the same variable and where their relationship approaches linearity (Kerlinger, 1973, p. 440).

Because there were multiple measures of each behavior in the instrument and the measures were substantively related, the scales were assumed to approximate interval equality fairly well.

Other assumptions upon which the statistical analyses were based were that the data had a normal distribution about the mean for each variable, equal variance about the mean, were continuous and there was a large N in every category (Kerlinger, 1973).

The analysis of the data was conducted in three phases. The first phase involved factor analysis procedures in order to compare the factor loadings obtained from two similar studies. Phase two also contained factor analysis procedures. These were used to determine the structure of the scales needed to conduct further analyses. The third phase was concerned with testing the null hypotheses.

#### Phase One: Factor Analysis Procedures

Factor analysis procedures can be used to analyze patterns of inter-correlation among the behavioral items in order to isolate dimensions related to the patterns and allow meaning to be attached to each of these dimensions (Isaac and Michael, 1981). In this study factor analysis was conducted on the situational data from Part I of the questionnaire. Although Kerlinger (1973) suggested that the number of variables used in a factor analysis should be in the range of ten subjects per variable, it was decided to conduct the initial factor analysis on all 80 variables (referred to as items), although the N was

only 210. This gave an idea of what the possible factor patterns would be. For the factor analysis, the Statistical Analysis System computer package (SAS, 1982) that computed the direct method of factoring, the principal factor solution, communalities and the explained variances for a factor analytic model was used with the maximum number of factors set at eight. The resulting factor loadings were then rotated by Varimax procedures (orthogonal rotation).

Cattell (1978) stated that superior analytic properties were obtained when relatively homogenous items were factored together. The factor analysis averaged out distortions of the concepts. High factor loadings provided an indication of which items correlated best with the factor and the extent of that correlation. These procedures were used to identify those items which best measured the same construct, that is the specific conflict management behavior. The items were then separated into five groups which were expected to measure the five conflict management behaviors.

In order to compare the factors extracted from the current study with those from the Johnston study (1982) (hypothesis 1), the same eight Johnston situations (40 items) were submitted to the factor analysis procedure. The resultant matrix was compared to that obtained in the Johnston study. According to Cattell (1978), a statistical test to compare two sets of factors is a vexing question where there were no accurately known distributions. This causes a problem in determining the significance of loading differences on the same factor obtained on two occasions using the same variables. "Some 'factorists' resultingly adopt a psychometric position and consider the results as descriptive of the sample without inference to any population" (Cattell, 1978,

p. 479). The first factors extracted in the current and the Johnston studies were, therefore, compared qualitatively.

### Phase Two: Factor Analysis Procedures

In order to improve the strength of the factors, numerous other combinations of items from the current study were submitted to factor analysis. The factor loadings were used as the basis for these combinations, and the same criteria that Johnston had used were retained, namely, that each situation be maintained in its entirety and that each role function be represented once in the final selection. This procedure would identify factor scales which would give measures of eight items each for assessing the conflict management behaviors of accommodating, bargaining, collaborating, forcing and withdrawing.

Factor analysis was also conducted to determine measures relating to the frequency and effectiveness of using specific conflict management behaviors, frequency of experiencing conflict and the effectiveness of conflict management behavior. On the basis of the factor loadings, scales were developed to assess the scores on these variables using the mean of the factored items for each variable. These scales were subsequently used in further statistical analyses. Factor analysis insured construct validity during the research process as factor analysis is the most powerful method of construct validation (Kerlinger, 1973).

Cattell (1978) suggested that 'prominent' concepts could be those in one factor with a minimum loading of .70 because 50 percent of the variables' variance is accounted for by that factor. However, he also said that 'salient' concepts should be recognized as firm constructs

with .30 to .40 loadings if these were different from the loadings on other factors. For example, "10 salients each at .30 level can give as valid an estimate as two at .70 level" (Cattell, 1978, p. 485). Factor loadings of .30 were therefore acceptable in this study.

In order to estimate the internal consistency of the conflict management behavior factors used in subsequent scales, Kuder-Richardson Formula 20 (KR-20) was applied to the data. This test was based on the average correlation among items weighted by the number of items. The following formula was used:

$$KR-20 = \frac{k\bar{r}}{1 + (k-1)\bar{r}}$$

where

k = number of items, and

$\bar{r}$  = means of the correlations (Nunnally, 1978).

### Phase Three: Testing the Null Hypotheses

Kendall's coefficient of concordance, W, was computed to determine the significance of the rank orders of the means of the conflict management behaviors across situational variables (Hypothesis 2). The following formula was used to compute W:

$$W = s / (1/12 K^2(N^3 - N))$$

where

s = sum of squares of the observed deviation from the mean of the ranks,

k = number of ranked sets,

N = number of items ranked, and

$1/12 k^2(N^3-N)$  = maximum possible sum of the squared deviations (Siegel, 1956, p. 231). Significance was determined by converting  $W$  to an approximately Chi-square distribution, where  $\chi^2 = k(N-1)W$  and degrees of freedom =  $N-1$ . The critical value for significance was obtained from Chi-square tables.

Analysis of variance and the  $F$  test were conducted to determine the significance of the differences between the conflict management behaviors as they related to the various demographic variables. Significant differences between the means of the behaviors was determined using the Duncan Multiple Range test. Analysis of variance was also used to determine whether heads in home economics departments would use the conflict management behaviors differently, would experience different frequencies of conflict, or would perceive their effectiveness differently from department heads in other academic departments. Because there were not the same number of subjects within the demographic categories and in the two subject areas, these were controlled for in the analyses.

Pearson's product-moment correlation coefficient (Pearson's  $r$ ) was used to test the final hypothesis. The relationships between the conflict management behaviors and the frequency and effectiveness of conflict management were assessed. The correlations showed the extent to which certain behaviors would or would not be selected together when dealing with conflict. Correlations were also used to determine the relationship and its significance between the behavior and frequency of conflict, between the behavior and its effectiveness, and between the frequency of conflict and the perceived effectiveness of management of the conflict. The significance of the findings were

determined according to the critical value of  $r$  for the degrees of freedom in the study.

All procedures were conducted using the Statistical Analysis System (SAS Institute, 1982) computer package. A conservative estimate of probability ( $p < .05$ ) was used. This meant that making a Type 1 error, that of rejecting a true null hypothesis erroneously, would be less than five times in a hundred. Tests where significance was found at the more conservative level of .01 were also reported.



## CHAPTER IV

### RESULTS AND DISCUSSION

This chapter presents the findings of the study. First, the sample is described and includes a comparison with the population to indicate the representativeness of the sample. Next the results of the factor analyses for phases one and two of the study are presented. These scales relate to the conflict management behaviors, the frequency of conflict and perceptions of effectiveness. Phase three includes the tests for the null hypotheses.

The results of the analyses of the situational data are discussed. The results of the analyses of variance and correlational procedures are also presented. These reflect the conflict management behaviors and their relationships to demographic variables; and a comparison of these behaviors between home economics department heads and other academic department heads. Last, the results relating the conflict management behaviors to the frequency of conflict and the perceived effectiveness of dealing with conflict are discussed.

#### Description of the Sample

The academic department heads who formed the sample in this study, were described in terms relating to their academic affiliation, sex, age, years of experience and the number of faculty in their departments. (See Table I.) These demographic variables were selected for their expected influence on conflict management.

TABLE I  
 DEMOGRAPHIC DESCRIPTION OF THE TOTAL SAMPLE  
 (N=210)

Variable	Category	Frequency <sup>a</sup>	Percentage
Academic Affiliation	Home Economics	47	22.5
	Sciences/Agriculture	47	22.5
	Humanities	34	16.0
	Education	28	13.0
	Engineering	19	9.0
	Art, Drama, Architecture	18	8.5
	Business	17	8.0
Sex	Female	40	19.0
	Male	167	81.0
Age	30 or less	0	0.0
	31-40	14	6.5
	41-50	89	42.5
	51-60	81	39.0
	60+	25	12.0
Years of Experience	2-3	59	29.0
	4-6	59	29.0
	7-12	47	23.0
	13+	38	19.0
Number of Faculty in Department	5-10	48	23.0
	11-20	70	33.5
	21-30	41	20.0
	31+	49	23.5

<sup>a</sup>Where frequencies do not total 210, the missing responses were omitted from the questionnaire.

From the 210 responses received from randomly selected departments in large land grant universities which had undergraduate programs, 47 were from home economics department heads. The rest, approximately 78 percent, came from other academic colleges. The academic colleges represented in the sample were agriculture and sciences, humanities, education, engineering, art, drama, and architecture and business.

Nineteen percent of the sample was female and 81 percent of the department heads were male. No department heads were younger than 30, the largest number (89) being between 41 and 50 years of age. Fifty-eight percent of the respondents had six or fewer years of experience as head of a department, with the mode being two to three years. On the other hand, the maximum experience reported was 26 years. The 34 department heads who had less than two years experience were considered to be inexperienced and were not included in this study.

Although the size of the academic departments varied, they were fairly evenly distributed across categories of number of faculty present. Thirty-three percent of the departments fell within the modal range of 11 to 20 faculty. The four department heads reporting fewer than five faculty members were not used in this study.

These sample descriptors were compared to the population of department heads from which this sample was drawn. According to 1981-82 Fact Book for Academic Administrators (Anderson, 1981), 9.4 percent of the population were women. In this study, 19 percent of the department heads were women. This difference was due to the sampling design. The reader is alerted to a representation of women twice the proportion in the population as a whole.

In examining home economics department heads, a percentage comparison between the sample and the population was conducted (Table XXI, Appendix E). There was little difference in the representation of the sample from the population reflected in the AAHE Survey of Faculty Salaries: 1982-83. The sample appeared to be more experienced but this was due to the exclusion of those with less than two years experience from the sample.

#### Discussion of Factor Analysis Procedures Relating to Phase I and Phase II

Factor analysis procedures were conducted to assess the reliability of the conflict management behavior instrument by comparing the factors obtained in this study with those from the Johnston study (1982). This constituted Phase one of the research. Factor analysis was also conducted to determine the best scales for use in testing the null hypotheses. The development of these scales formed Phase two of the research, while Phase three involved the application of these scales in testing the null hypotheses.

Initial factor analysis, using all the data from all 16 situations in the instrument, produced five important factors. The factors represented each of the five conflict management behaviors as delineated in the literature; namely, accommodating, bargaining, collaborating, forcing, and withdrawing. The first factors contained items related to collaborating and its antithesis, withdrawing. The subsequent factors were less clear. The next factors could be identified as accommodating (with some withdrawing), forcing with some bargaining, and bargaining with accommodating. These factors did not load clearly

and, therefore, further factoring was conducted using each type of behavior independently as recommended by Cattell (1978).

The criteria for reporting the results were as follows: For each type of behavior, a factor loading of .30 as recommended by Cattell (1978) was deemed an acceptable value. The higher the value, the better that item correlated with the other items and the factor. The percent of the variance explained was a summary measure indicating how much of the variance explained by the factors in the model was represented by the specific factored behavior. The larger the explained variance, the more representative of the behavior the factor was.

All factor analyses were conducted using the SAS computer package (SAS Institute, 1982). The factoring options used were the principal axis factor procedure with the varimax orthogonal rotation.

#### Phase One: Comparison of Conflict Management Behavior Factors

The purpose of comparing the conflict management behavior factors extracted from data obtained in the present study with those from the Johnston study was to assess the reliability of the instrument. Would the factors emerge the same on two occasions using samples from two different populations? If the constructs being measured were the same, then the loadings would be similar irrespective of the population. However, the scores on the scales subsequently developed from the factors would reflect the variations in the behaviors being measured.

Thus factor analysis was conducted to compare the conflict management behavior factors produced by the Johnston instrument on two occasions (Hypothesis 1). The identical five sets of eight items that

Johnston had identified as producing the highest factor loadings for each conflict management behavior were submitted to factor analysis. The values obtained, presented in Table II, were not as high as those in the Johnston study. The highest and lowest loading values did not fall on the same items in the two studies, although the correlation patterns for factors representing collaborating, forcing and withdrawing behaviors were fairly similar. However, bargaining behavior, where one of the items correlated negatively with the factor, was unacceptable and poorly represented. The results of the varimax rotation confirmed that the bargaining factor was not an appropriate measure, but that the eight items in each of the other factors were acceptable, although not impressively similar.

To find explanations for the differences between the factor loadings from the two studies, it was necessary to examine the data distributions. Factor analysis is based upon the statistical assumption that each item had a normal distribution of data. In the Johnston study, the data were approximately normally distributed for all conflict management behaviors except withdrawing behavior. In the present study, there were distribution differences. These will be discussed with each individual factor representing the conflict management behavior.

#### Accommodating Behavior

The factors representing accommodating behavior were not very similar in the comparison of the first factors extracted from the conflict situations in two separate studies. Two of the items from the present study loaded at less than .30 while all eight items from the Johnston study loaded near or above the .30 level. The lowest and

TABLE II  
 A COMPARISON OF FIRST FACTORS FROM THE GREEN<sup>a</sup> AND JOHNSTON<sup>b</sup> STUDIES  
 USING THE SAME SITUATIONS<sup>c</sup>

Situation Number	Factor Loadings									
	Accommodating Green Johnston		Bargaining Green Johnston		Collaborating Green Johnston		Forcing Green Johnston		Withdrawing Green Johnston	
2	.53	.34	.40	.30	.57	.44	.42	.63	.23	.28
6	.57	.29	.26	.46	.48	.24	.45	.44	.35	.31
11	.23	.51	.45	.52	.64	.62	.60	.55	.51	.65
12	.43	.60	.72	.68	.53	.60	.55	.50	.69	.46
13	.48	.42	.24	.44	.63	.50	.22	.23	.56	.66
14	.19	.61	.45	.44	.58	.66	.53	.54	.72	.65
15	.67	.60	-.30	.38	.61	.66	.55	.67	.60	.59
16	.66	.44	.25	.49	.58	.55	.47	.55	.37	.51
Explained Variance %	58.20	59.00	28.20	43.60	56.00	69.00	37.20	68.00	51.00	66.00

<sup>a</sup>Factor loadings obtained using the Green data

<sup>b</sup>Factor loadings obtained using the Johnston data

<sup>c</sup>Situations refer to Part I of the instrument in Appendix A.

highest factor loadings were not on the same items in the two studies. This could be due to differences between the two populations. The variance explained by the factors was similar, 58.2 and 59.0 (Table II).

The distributions in the present study were approximately normal but tended toward a left skew. This indicated that the majority did not favor using accommodating behavior when dealing with conflict. The exceptions to this were situations 11 (financial affairs) and 14 (physical facilities) which had virtually even distributions. Both of these items would be influenced by the heterogeneity of the population. Home economics often has the smallest budget on campuses (Vaughn, 1978), and this may lead to greater similarities of available resources in the Johnston study. Thus, both items 11 and 14 have accommodating alternatives requiring a supply room or money readily available from another source. Should these not have been available (more likely in home economics), the selection from the remaining alternative conflict management behaviors would vary more widely. The items would then potentially load better on this factor as was exhibited in the Johnston study.

#### Bargaining Behavior

Bargaining behavior did not load satisfactorily in the present study. The explained variance of 28.5 percent was considerably lower than the 43.6 percent explained by the same first factor in the Johnston study. In addition, the bargaining item in situation 15 (student affairs) did not factor positively with the other items showing that this item did not measure the same construct as all the other items. Only four items loaded above .30 in this study, while all items in the



Johnston factor loaded above .30. The only similarity between the factors was the highest loading on situation 12 (institutional functions) for both studies (Table II).

Possible explanations for the lack of similarity between the two studies were that the statistical assumption that each item have a normal distribution of data was not met by the data in this study. Approximately normal or slightly left skew distributions predominated but two right skewed distributions resulted in situations 14 (physical facilities) and 15 (student affairs). The right skew indicated that the majority of department heads would use this behavior. The negatively loaded item "supporting a faculty member's decision as to course changes" (situation 15) evoked different responses from department heads than from deans of home economics.

### Collaborating Behavior

The factors representing collaborating behavior appeared to be fairly similar in both studies (Table II). Both the collaborating factors explained a satisfactory percent of the variation, although the Johnston data explained the larger amount, 69 percent. All eight factor loadings were above .40 level in the present study, as were seven of the eight items in the Johnston study. Item 6 (external relations) had the lowest value in both studies, but the highest loadings fell on different items. The items with values near or above .60 in both studies, however, were very similar.

The distributions of the items all tended to be skewed to the right. This indicated a general willingness by department heads to use collaborating behavior. The low value for situation 6 (external

relations) in both the studies may have been due to the social nature of the situation being different from the other work related conflict situations.

### Forcing Behavior

With forcing behavior, there was a large discrepancy between the two studies. The factor from the current study explained 37.2 percent of the variance explained by all the factors, while the Johnston study factor explained 68.0 percent. Only one item, from situation 13 (personnel function) in both studies loaded below the .30 level, but the highest loadings were not on the same items. However, the loadings between the two studies were fairly similar (Table II).

In the current study, only situation 13 (personnel function) had a right skewed data distribution. The other distributions approximated normal or exhibited a left skew tendency. This implied that the department heads preferred not to use forcing behavior as a way to manage conflict situations. The exception was "to be firm in withholding promotion when the criteria for promotion were not met." Both populations agreed that this way of using policy to justify a conflict decision was a more useful forcing type of behavior.

### Withdrawing Behavior

Withdrawing behavior appeared to be similarly represented in the first factors from the two studies (Table II). These factors explained 51.0 and 66.0 percent of the variance in the present and the Johnston study, respectively. Seven of the eight items loaded above the .30 level with the lowest value on item 2 (educational programming) for

both studies. However, the highest loadings were not on the same items.

In the present study, the distributions for these items were predominantly left skewed. Very few department heads were likely to choose this behavior when dealing with conflict. The exception was item 2 (educational programming) where a near normal distribution occurred. Johnston had previously suggested changing this item and the present study confirms this need. Possible explanations of discrepancies between the item loadings from the two studies may have been related to the differences between home economics and other departments. For example, item 12 (institutional functions) related to increasing research funding. While there is an acknowledged need for this in home economics (McFarland, 1978), there may not be the same need in agriculture, sciences, engineering or other historically research oriented disciplines. The large discrepancies in the loadings on this item may reflect the differences between the two populations in the two studies.

#### Summary: Phase One

Differences in organizational policies and structures between the two subject matter areas would influence the interpretation of the items (Renwick, 1975; Likert and Likert, 1976). Cattell (1978) substantiated this by stating that a "clearer factor structure, and one with higher loadings and better factor score estimation will be obtained by factoring a group whose members are largely of one type" (p. 512). The heterogeneity of the population from which the sample was drawn, randomly from a wide range of departments, made the extraction of factors less clear than in the Johnston study where all the respondents were in

home economics colleges. Differences in the factor loadings between the two studies may also have been influenced by the differences between the senior administrator and academic department head responses.

In an effort to improve the strength of the factors, numerous other combinations of items from the present study were submitted to factor analysis. The criteria of the Johnston study were retained, namely, that each situation be maintained in its entirety and that each role function be represented once in the final selection. It happened that the best measures for each conflict management behavior were the same as those in the Johnston study, with the one low factor loading situation changed. Thus, the abridged Johnston instrument held up well when used with two separate populations. Hypothesis one, of similar factors in two studies, was accepted except for bargaining behavior factors.

#### Phase Two: The Development of Measurement Scales

It was necessary to develop a single value to indicate a measure of each of the concepts essential for testing the null hypotheses. Factor analysis was conducted to show whether items which were expected to relate to each other did correlate with each other to form one factor. The mean of those items which formed a single first factor with all factor loadings over .30 were used together in a scale. Factor analyses were, therefore, conducted to develop scales for each conflict management behavior, for the frequency and effectiveness of each behavior, for the frequency and effectiveness of managing role function conflict, and for the frequency and effectiveness of managing hierarchy conflict. Eleven scales in all were developed.

### Conflict Management Behavior Factors

Scales were developed to assess each conflict management behavior - accommodating, bargaining, collaborating, forcing and withdrawing. The best first factors representing the conflict management behaviors were the same as those in the Johnston study with one exception. Situation 3 was substituted for situation 15. Both situations dealt with student affairs. The present (Green) conflict management behavior factors were chosen for use in further analyses because of the improved bargaining behavior scale.

As can be seen in Table III, the factor loadings on the five conflict management behaviors were adequate but not exceptional. Collaborating behavior was the best measure in that all factor loadings were above the .30 level and the factor explained almost 70 percent of the variation. The bargaining factor was a less valid measure of that behavior and this must be borne in mind when interpreting the further analyses. The use of factors as a basis for a measurement scale representing each of the behaviors was confirmed by the estimated internal consistency and reliability values.

#### Accommodating Behavior

The factor loadings representing accommodating behavior are presented in Table III. The variance explained by this factor was 56.3 percent. Seven of the eight items loaded above the .30 level. The KR-20 value of .50 indicated an adequate reliability and internal consistency for this factor from an exploratory instrument.

The distributions of the data for these items were slightly left skewed. This indicated that department heads would not often select

TABLE III  
 FIRST FACTORS OF THE FIVE CONFLICT MANAGEMENT BEHAVIORS  
 (GREEN FACTORS)

Situation Number	Factor Loadings				
	Accommodating	Bargaining	Collaborating	Forcing	Withdrawing
2	.53	.32	.56	.46	.21
3	.43	.33	.35	.41	.53
6	.57	.13	.51	.39	.39
11	.30	.54	.70	.56	.53
12	.48	.63	.55	.57	.65
13	.49	.29	.59	.35	.54
14	.23	.59	.58	.52	.74
16	.64	.03	.64	.51	.40
Explained Variance %	56.30	28.50	69.50	45.60	50.00

this type of behavior when dealing with the eight conflict situations. They would tend to be very cooperative, but unassertive and yield readily to another's point of view.

#### Bargaining Behavior

Table III presents the second factor identified as bargaining behavior. The items included in the bargaining scale did not represent that behavior well. There were two values below the acceptable level of .30 and only 28.5 percent of the variance was explained. In addition, the reliability and internal consistency was .26 which was below acceptable levels.

The data distributions for these items indicated that department heads would be likely to use those aspects of bargaining behavior represented by the items fairly often. They would be somewhat assertive, and cooperative in dealing with these conflict situations. They would be fairly likely to compromise, split the difference or find a middle ground solution.

#### Collaborating Behavior

The factor loadings for the collaborating factor are given in Table III. All eight items loaded above the .30 level, and 69.5 percent of the variance was explained by this factor. This scale was accordingly judged a good measure of collaboration, substantiated by a KR-20 value of .69.

The distribution of data showed that the majority of department heads were most likely to select this behavior when dealing with conflict. They would be assertive and cooperative in a problem-solving

way and work with the conflicting parties to satisfy the goals of those concerned.

### Forcing Behavior

Forcing behavior factored satisfactorily with all values above the .30 level and four of these above the .50 level (Table III). This factor explained 45.6 percent of the variance and had a KR-20 value of .51. This factor was judged to be a useful measure of forcing behavior.

The data distribution showed that department heads were fairly evenly divided in their inclination to use forcing behavior in dealing with the eight conflict situations. This assertive, uncooperative and competitive behavior, where the department heads pursued their own goals, or used their power to insure their own position, would probably be most used when they could win and least used when they might lose.

### Withdrawing Behavior

The factor loadings for this fifth factor are presented in Table III. All but one item loaded above the .30 level and 50 percent of the variance was explained. This factor was judged an appropriate measure of withdrawing behavior. Reliability and internal consistency of these items were satisfactory, as indicated by a KR-20 value of .59.

The data distribution showed that department heads did not select to use withdrawing very often as a way of managing conflict. To avoid a conflict situation, postponing action or delegating the handling of the situation were the types of behaviors that department heads were least likely to select. Thus, their scores on the withdrawing behavior scale would be low.



Scales for Frequency and Effectiveness  
of Conflict Management as Determined  
by Factor Analysis

Factor analysis procedures were conducted to determine the composition of scales which were intended to represent the reported frequency of conflict experienced. Parts II, III, IV of the questionnaire (Appendix A) requested information regarding the frequency and effectiveness of using the five conflict management behaviors to deal with conflict, of role function conflict and of hierarchy conflict. Each item was rated from five (frequently) to one (rarely) as to the frequency of the conflict behaviors or conflict occurring. Each item was also rated similarly as to the effectiveness of the behavior used in dealing with conflict.

Frequency of Conflict Management Behaviors

As can be seen in Table IV, each conflict management behavior formed its own factor with a value of .30 or higher and accommodating and withdrawing behaviors factoring together. This was supported by the varimax rotation of the factors. Accommodating and withdrawing behaviors were likely to be rated similarly. Collaborating would tend to be rated highly when the other behaviors were rated as rarely used, and vice versa. The first factor explained 54.83 percent of the variation explained by both factors.

Factor II after rotation in Table IV, similarly shows that when forcing behavior was rated high, then bargaining behavior tended to be rated as seldom used, and vice versa. These results could therefore not be combined in a single scale. These findings substantiate

TABLE IV  
 FACTOR LOADINGS FOR THE FREQUENCY AND EFFECTIVENESS  
 OF CONFLICT MANAGEMENT BEHAVIORS

Variables	Factor Loading Factor I	Orthogonal Rotation Factor I    Factor II	
Frequency of Conflict Management Behavior			
Accommodating	-.55	.50	.38
Bargaining	.29	-.40	.72
Collaborating	.67	-.70	.14
Forcing	.34	-.25	-.70
Withdrawing	-.69	.68	.09
Effectiveness of Conflict Management Behavior			
Accommodating	.58	.62	.12
Bargaining	.57	.70	-.02
Collaborating	.59	.64	.11
Forcing	.42	.31	.88
Withdrawing	.62	.32	.64

those of Renwick (1977) and Sone (1983). They also support the theories of when these behaviors were likely to be used in relation to the other behaviors (Blake and Mouton, 1978; Thomas, 1978).

#### Effectiveness of Conflict Management Behaviors

When all five types of conflict management behavior were factored together, the items were positively related to each other at a factor load above .30 (Table IV). The factor explained 60.5 percent of the variance. This indicated that all the behaviors were reported as being used in a similarly effective manner, however, on orthogonally rotating the factors, forcing and withdrawing formed a subfactor together, while accommodating, bargaining and collaborating formed a second subfactor. This indicated some difference in the effectiveness ratings between the two subfactors. From the distributions of the data, forcing and withdrawing were rated as less effective behaviors than the other three.

#### Frequency of Role Function Conflict

From Table V, it may be noted that all items loaded positively on the first factor related to the frequency of role function conflict. All the items loaded above the .30 level and explained 72.1 percent of the variation. Because of this, a single scale, comprised of the means of the scores from all the frequency of role function conflict items, could be used in further analyses. This scale was considered a valid measure of the frequency of role function conflict.

Orthogonal rotation of the factors produced two subfactors. The first of these contained items relating to educational programming, external relations, personnel function, professional leadership and

TABLE V  
 FACTOR LOADINGS FOR FREQUENCY OF CONFLICT  
 BY ROLE FUNCTION AND HIERARCHY SCALES

Variable	Factor Loading Factor I	Orthogonal Rotation Factor I    Factor II	
<b>Role Function Conflict</b>			
Educational Programming	.49	.63	.02
External Relations	.59	.46	.36
Financial Affairs	.64	.32	.62
Institutional Functions	.58	.24	.63
Personnel Function	.73	.53	.51
Physical Facilities	.39	-.17	.80
Professional Leadership and Research	.63	.75	.08
Student Affairs	.68	.71	.22
<b>Hierarchy Conflict</b>			
Your Dean	.43	.75	-.21
Other Department Heads	.57	.64	.13
Faculty in your Department	.66	.64	.26
Students	.68	.60	.35
Alumni	.65	.16	.82
Employers of Graduates	.59	.06	.83

student affairs. The other subfactor contained items relating to financial affairs, institutional functions and physical facilities. Distribution of the data indicated an approximately normal curve for the first subfactor relating to departmental business. The second subfactor contained items involving wider university functions. The latter were rated as generally producing more conflicts than those relating to departmental affairs.

The items reported as causing the most role function conflict were financial affairs, personnel and then physical facilities (means were 3.57, 3.44 and 3.30 with the possible maximum score of 5). The least frequent cause of conflict was the role function of external relations (mean = 2.34).

#### Frequency of Hierarchy Conflict

The factor loadings and orthogonal rotation values are presented in Table V. Once again, all items loaded positively and above .30 on the first factor. This factor explained 64.6 percent of the variance. Therefore, a scale for the frequency of hierarchy conflict could be compiled from all the items in this section. It would be considered a valid measure.

Orthogonal rotation of these factors produced two subfactors. The first contained items involving conflict relating specifically to the university's internal hierarchy. The second subfactor contained items relating to people outside the university hierarchy (alumni and employers of graduates). The data distributions indicated the department heads' extreme lack of conflict with these people.

The mean scores reflect the distributions in that the most frequent cause of conflict was faculty (mean = 3.14). The least frequent cause of hierarchy conflict was the category of employers of graduates (mean = 1.33 on the 5 point scale).

### Effectiveness of Managing Role

#### Function Conflict

Once again, factor analysis produced a first factor on which all role function items loaded both positively and also well above the .30 level (Table VI). This factor explained 67.3 percent of the variance. A scaled based upon this factor to measure the role function conflict was considered valid for use in further analyses.

Orthogonal rotation of the factors produced two subfactors. They contained the same items as obtained after rotation of the frequency of role function conflict factors. These related to departmental and wider university functions. The data distributions indicated less effective conflict management of conflicts relating to the wider university functions. These were situations where department heads would have felt they had less power and were less in command of the situation. Substantiating this, the least effective role function conflict was reportedly dealing with physical facilities (mean = 3.50). The most effectively managed conflict was educational programming (mean = 4.14).

### Effectiveness of Managing Hierarchy Conflict

All items loaded positively and well above the .30 level on the first factor representing effectiveness in managing hierarchy conflict

TABLE VI  
 FACTOR LOADINGS FOR THE EFFECTIVENESS OF CONFLICT  
 MANAGEMENT BY ROLE FUNCTION  
 AND HIERARCHY SCALES

Variable	Factor Loading Factor I	Orthogonal Rotation Factor I    Factor II	
<b>Role Function Conflict</b>			
Educational Programming	.58	.61	.12
External Relations	.63	.50	.38
Financial Affairs	.46	.09	.69
Institutional Functions	.58	.34	.52
Personnel Function	.57	.67	.03
Physical Facilities	.41	-.05	.80
Professional Leadership and Research	.57	.63	.10
Student Affairs	.56	.66	.04
<b>Hierarchy Conflict</b>			
Your Dean	.53	.60	.15
Other Department Heads	.63	.72	.15
Faculty in your Department	.56	.75	.04
Students	.69	.61	.36
Alumni	.77	.19	.91
Employers of Graduates	.76	.17	.92

(Table VI). The loadings indicated high intercorrelation of the items and explained 70.85 percent of the variance. The scale to measure this effectiveness, based upon this factor, was considered valid for use in further analyses.

Two subfactors were identified from the varimax rotation procedure. The first dealt with conflict within the university hierarchy and the second related to the effectiveness of managing conflict with outsiders. The data distribution indicated that department heads felt they were less effective conflict managers when dealing with outsiders than with those within the university hierarchy. The least effective management of hierarchy conflict involved faculty (mean = 4.10) while the most effectively managed conflict was that involving students (mean = 4.23).

#### Phase Three: Testing the Null Hypotheses

Four null hypotheses were tested for statistical significance using the scales previously described. The scores on the scales indicating the conflict management behaviors were tested to see if the use of the behaviors differed according to the situation described, the subject matter area of the department head or other demographic characteristics. Differences between home economics department heads and other department heads were assessed by using the scales representing the frequency of role function and hierarchy conflict, and also the perceived effectiveness of dealing with role function and hierarchy conflict. Finally, relationships among all these scales were determined.



## The Situational Use of Conflict

### Management Behaviors

Collaboration was reported as the most used behavior (mean = 4.16, maximum score = 5). Used slightly less than this was bargaining behavior (mean = 3.38). Forcing and accommodating behaviors followed with means of 2.82 and 2.23 respectively. Withdrawing behavior was least likely to be used (mean = 1.68). These data, however, did not differentiate among the various conflict situations. (See all situations in Table VII.)

Comparison of the scores on the five conflict management behavior scales revealed that collaboration was scored highest by 185 department heads. Nine respondents scored highest on bargaining and another five on forcing behavior. Withdrawing behavior was highest for only one department head. None scored highest on accommodating behavior. Thus, these scores indicated little variety among department heads as the conflict management behavior most likely to be used.

Twenty-three department heads scored the maximum (5) on collaborating behavior, with six each scoring the maximum on bargaining and forcing behaviors. For accommodating behavior, two people and for withdrawing, one person scored the maximum of five. These department heads reported that they were most likely to use the same particular behavior for all eight role function situations, indicating a lack of variability in their conflict management.

In order to test whether the conflict management behavior varied according to the conflict situation (Hypothesis two), Kendall's coefficient of concordance (W) was used. Kendall's W was a statistical

TABLE VII  
 MEANS AND RANKS OF CONFLICT MANAGEMENT BEHAVIORS  
 ACROSS ROLE FUNCTION SITUATIONS

Situation Number <sup>a</sup>	Accommodating		Bargaining		Collaborating		Forcing		Withdrawing	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
All Situations	2.23		3.38		4.16		2.82		1.68	
2	1.40	5	2.46	4	3.99	1	3.09	3	3.13	2
3	1.75	4	2.29	3	3.44	1	2.52	2	1.19	5
6	2.07	5	3.74	2	3.86	1	2.31	3	2.06	4
11	3.39	3	3.57	2	4.31	1	2.27	4	1.23	5
12	2.43	4	3.24	2	4.55	1	2.67	3	1.23	5
13	1.68	4	3.61	3	4.35	1	3.77	2	1.45	5
14	3.16	3	4.19	1	4.17	2	2.26	4	1.23	5
16	1.79	<u>4</u>	3.30	<u>2</u>	4.12	<u>1</u>	3.00	<u>3</u>	1.51	<u>5</u>
Totals		32		19		9		22		36

<sup>a</sup>Situation refers to Part I of the instrument (Appendix A).

test to determine the relationship among sets of ranks. It was used to assess whether department heads used the same ranks of the five conflict management behavior means across all the conflict situations.

As shown in Table VII, the means of the conflict management behavior items were ranked across the role function situations selected from the factor scales. Kendall's W (.74) was significant ( $p < .01$ ) when converted to an approximate Chi-square value ( $\chi^2 = 23.68$ ,  $df = 4$ ). This meant that the rank order of the means was essentially the same across all situations. The department heads were likely to use the same behaviors to manage conflict irrespective of the type of role function conflict.

Kendall's W was also used to test whether there were significant differences in the conflict management behaviors used by department heads when in conflict with superiors, faculty, students, and outsiders (Table VIII). The situations described in Part one of the questionnaire were classified according to the second party in the conflict. Once again, Kendall's W (.91) was significant ( $p < .05$ ) when converted to the approximate Chi-square value necessary to determine significance ( $\chi^2 = 14.56$ ,  $df = 4$ ). This indicated agreement between the ranked means irrespective of the other party involved in the conflict, whether superior, peer or subordinate.

Thus, hypothesis two, the test of difference of conflict management behaviors between both the situations and the hierarchy level of the second party to the conflict, was accepted. This showed that academic department heads used conflict management behavior consistently across situations, whether classified by role function or by the people involved in the conflict.

TABLE VIII  
 MEANS AND RANKS OF CONFLICT MANAGEMENT BEHAVIORS  
 ACROSS HIERARCHY SITUATIONS

Hierarchy Variables	Accommodating		Bargaining		Collaborating		Forcing		Withdrawing	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Superiors	2.43	4	3.24	2	4.55	1	2.67	3	1.23	5
Faculty	2.50	4	3.67	2	4.24	1	2.82	3	1.35	5
Students	1.57	5	2.37	3	3.71	1	2.80	2	2.16	4
Outsiders	2.07	<u>5</u>	3.74	<u>2</u>	3.86	<u>1</u>	2.31	<u>3</u>	2.06	<u>4</u>
Totals		18		9		4		11		18

Conflict Management Behavior by  
Demographic Characteristics

One way analysis of variance and Duncan's multiple range test were conducted to assess whether the differences in conflict management behaviors between department heads of various sexes, ages, years of experience as administrators, numbers of faculty in the departments and academic subject matter areas (home economics or non-home economics) were significantly different (Hypothesis three). Consequently, 25 separate analyses were conducted, relating each of the five conflict management behaviors to each of the five demographic variables mentioned above. The means for the conflict management behavior scores by each variable are presented in Table IX. The analysis of variance results may be found in Table XXIII in Appendix E.

There were no significant differences in the use of accommodating behavior by department heads in the various demographic categories. Irrespective of changes in demographic characteristics, department heads were likely to use accommodating behavior similarly.

Only one demographic variable was significant for bargaining behavior according to the Duncan test ( $p < .05$ ). The means of bargaining behavior were significantly lower for department heads with 2-3 years of experience. These department heads used bargaining behavior less than department heads with more years of administrative experience.

Four of the five comparisons for collaborating behavior were significant. The means on collaborating behavior for department heads in home economics were significantly different ( $F = 5.10, p = .02$ ) from those in other subject matter areas. Department heads in home economics collaborated more often than those not in home economics.

TABLE IX  
MEAN VALUES OF CONFLICT MANAGEMENT BEHAVIOR BY SELECTED DEMOGRAPHIC VARIABLES

Variable	Accommodating	Bargaining	Collaborating	Forcing	Withdrawing
Academic Affiliation					
Home Economics	2.15	3.49	4.33*	2.79	1.63
~Home Economics	2.26	3.35	4.11	2.82	1.69
Sex					
Female	2.17	3.50	4.34*	2.76	1.56
Male	2.25	3.35	4.12	2.83	1.71
Age					
31-40	2.56	3.36	4.09	2.87	1.46
41-50	2.22	3.33	4.21	2.79	1.73
51-60	2.16	3.34	4.04	2.84	1.70
61+	2.45	3.63	4.39*	2.83	1.55
Number of Faculty					
5-10	2.34	3.45	4.27	2.77	1.65
11-20	2.19	3.35	4.16	2.82	1.61
21-30	2.33	3.33	4.13	2.83	1.61
31+	2.11	3.40	4.08	2.86	1.85*
Years of Experience					
2-3	2.22	3.24*	4.02*	2.76	1.81
4-6	2.20	3.33	4.21	2.71	1.58
7-12	2.25	3.53	4.22	2.85	1.66
13+	2.25	3.41	4.27	3.02	1.63

Maximum mean score = 5

\*p < .05 according to the Duncan multiple range test

Similarly, there were differences in collaborating behavior by sex ( $F = 4.72, p = .03$ ) and by age ( $F = 2.77, p = .04$ ). Women were more likely to collaborate than men when dealing with conflict. Department heads reported using collaborating more often when they were over 60 years of age. According to the Duncan test, less experienced department heads (with 2-3 years of administrative experience) reported using collaborating behavior significantly less ( $p < .05$ ) than those with greater experience. Therefore there were significant differences in the use of collaborating behavior among the categories of demographic variables.

There were no significant differences in the use of forcing behavior by department heads in the various demographic categories. Irrespective of changes in the demographic characteristics, department heads were likely to use forcing behavior similarly.

For withdrawing behavior, there was one significant finding. According to the Duncan test, the means of withdrawing behavior were significantly greater when the department contained more than 30 faculty members. In other words, department heads withdrew from conflict situations more often when departments were very large.

Thus the null hypothesis of no significant differences between conflict management behaviors and selected demographic variables was rejected for collaborating behavior. It was not rejected for the other conflict management behaviors.

#### Conflict Management by Home Economics and Other Department Heads

A two way analysis of variance was conducted to determine whether

there were significant differences in conflict management behaviors between home economics department heads and other department heads (Hypothesis Four (a)). Because the two subject matter groups were unequal, the decision was made to test this hypothesis by statistically equating the numbers of department heads in the two groups. By controlling for the specific demographic variables, it could be ascertained whether apparent differences in conflict management behavior were due to the differences in subject matter group with no contamination from uneven numbers in the demographic categories.

It can be seen in Table X and Tables XXIV to XXXI (Appendix E) that there were no significant differences in the conflict management behaviors between home economics department heads and those not in home economics, when the differences in demographic variables were controlled. Thus, irrespective of the sex, age, administrative experience of the department head, or number of faculty in the department, the conflict management behavior used remained essentially the same in the two subject matter groups.

There was one significant finding, a main effect of age on collaborating behavior ( $F = 2.65, p = .04$ ). The means of collaborating behavior by the different age groups indicated that department heads over age 60 were more likely to use collaborating behavior consistently across the two subject matter groups (Table X). In other words, in both home economics and other departments, the heads were more likely to use collaborating behavior after age 60 than when younger.

Hypothesis four (a) was therefore accepted. There were no significant differences in conflict management behavior between



TABLE X  
 MANAGEMENT BEHAVIOR MEANS USED BETWEEN HOME ECONOMICS AND  
 NON-HOME ECONOMICS DEPARTMENT HEADS BY AGE

Variable	Accommodating	Bargaining	Collaborating	Forcing	Withdrawing
<b>Academic Affiliation</b>					
Home Economics	2.18	3.48	4.26	2.81	1.66
~Home Economics	2.25	3.34	4.13	2.82	1.68
<b>Age</b>					
31-40	2.45	3.36	4.09	2.87	1.46
41-50	2.22	3.33	4.21	2.79	1.73
51-60	2.16	3.34	4.04	2.84	1.70
61+	2.36	3.63	4.39 <sup>a</sup>	2.83	1.55
<b>Interaction of Department by Age</b>					
HE * 31-40	2.06	3.56	4.06	2.84	1.56
HE * 41-50	2.03	3.31	4.26	2.76	1.60
HE * 51-60	2.19	3.42	4.26	2.96	1.78
HE * 61+	2.57	3.91	4.34	2.58	1.59
~HE * 31-40	2.63	3.28	4.10	2.88	1.41
~HE * 41-50	2.72	3.34	4.20	2.80	1.76
~HE * 51-60	2.16	3.31	3.99	2.81	1.67
~HE * 61+	2.27	3.49	4.42	2.95	1.54

<sup>a</sup> p < .05

department heads from the home economics and other subject matter areas. This was supported by the main effect of age on collaborating behavior.

### Frequency and Effectiveness of Conflict

#### Management by Demographic Variables

The means of the frequency and effectiveness of conflict management for department heads from home economics and other departments by demographic variables can be seen in Tables XI to XIV. Using a two way analysis of variance to control for variations in personal characteristics between the two subject matter groups, the null hypothesis of no significant differences between the two subject matter areas when controlling for demographic variables was tested with regard to 1) the frequency of role function and hierarchy conflict and 2) the effectiveness of managing role function and hierarchy conflict.

The analyses of variance showed no significant main effects in the frequency or effectiveness of conflict managed between department heads from home economics and other departments. See Tables XXXII to XXV in Appendix E. Generally, home economics department heads reported a tendency toward experiencing slightly fewer conflicts and being more effective in managing conflicts as can be seen in the means tables (Tables XI to XIV).

There were no significant findings in relation to men and women in the two subject matter groups on the frequency or effectiveness of managing conflicts. Thus, irrespective of whether role function or hierarchy conflict was involved, the sexes experienced conflict equally

TABLE XI  
 A COMPARISON OF CONFLICT FREQUENCY AND EFFECTIVENESS  
 OF MANAGEMENT BEHAVIOR MEANS  
 BY DEPARTMENT AND SEX

Variable	Frequency of		Effectiveness of	
	Role Conflict	Function Hierarchy Conflict	Role Conflict	Function Hierarchy Conflict
Academic Affiliation				
Home Economics	2.77	2.04	3.90	4.19
Home Economics	2.89	2.13	3.88	4.14
Sex				
Female	2.70	2.13	3.91	4.18
Male	2.90	2.10	3.88	4.15
Interaction of Department by Sex				
Home Economics * Female	2.70	2.09	3.90	4.17
Home Economics * Male	2.88	1.96	3.90	4.22
Home Economics * Female	2.73	2.22	3.94	4.19
Home Economics * Male	2.90	2.12	3.87	4.14

TABLE XII  
 A COMPARISON OF CONFLICT FREQUENCY AND EFFECTIVENESS OF  
 MANAGEMENT BEHAVIOR MEANS BY  
 DEPARTMENT AND AGE

Variable	Frequency of		Effectiveness of	
	Role Function Conflict	Hierarchy Conflict	Role Function Conflict	Hierarchy Conflict
Academic Affiliation				
Home Economics	2.77	2.04	3.90	4.19
~Home Economics	2.89	2.13	3.87	4.14
Age				
31-40	2.95	2.30	3.86	4.26
41-50	2.89	2.18	3.91	4.13
51-60	2.94	2.08	3.87	4.14
61+	2.47 <sup>a</sup>	1.85 <sup>b</sup>	3.82	4.15
Interaction of Department and Age				
Home Economics * 31-40	3.19	2.25	3.53	4.15
Home Economics * 41-50	2.93	2.07	3.93	4.13
Home Economics * 51-60	2.67	2.00	3.93	4.20
Home Economics * 61+	2.45	1.96	3.94	4.33
~Home Economics * 31-40	2.86	2.32	3.99	4.30
~Home Economics * 41-50	2.88	2.21	3.91	4.13
~Home Economics * 51-60	3.02	2.10	3.85	4.13
~Home Economics * 61+	2.47	1.80	3.76	4.07

<sup>a</sup>p < .05

<sup>b</sup>p < .06

TABLE XIII  
 A COMPARISON OF CONFLICT FREQUENCY AND EFFECTIVENESS  
 OF MANAGEMENT BEHAVIOR MEANS BY DEPARTMENT  
 AND YEARS OF ADMINISTRATIVE EXPERIENCE

Variable	Function of		Effectiveness of	
	Role Conflict	Function Hierarchy Conflict	Role Conflict	Function Hierarchy Conflict
Academic Affiliation				
Home Economics	2.77	2.04	3.90	4.19
~Home Economics	2.91	2.14	3.88	4.14
Years of Experience				
2-3	2.83	2.19	3.81	4.05
4-6	3.10 <sup>a</sup>	2.17	4.01 <sup>a</sup>	4.24
7-12	2.75	2.01	3.89	4.27
13+	2.76	2.06	3.80	4.02 <sup>a</sup>
Interaction of Department by Years of Experience				
Home Economics * 2-3	2.83	2.44	3.81	3.91 <sup>b</sup>
Home Economics * 4-6	3.10	1.97	3.98	4.29
Home Economics * 7-12	2.45	1.86	3.81	4.15
Home Economics * 13+	2.75	2.14	4.02	4.43
~Home Economics * 2-3	2.83	2.15	3.81	4.07
~Home Economics * 4-6	3.10	2.29	4.02	4.22
~Home Economics * 7-12	2.91	2.08	3.93	4.33
~Home Economics * 13+	2.76	2.04	3.75	3.92

The same lettered numbers are significantly different from the unlettered numbers in the same grouping.

<sup>a</sup> p < .05

<sup>b</sup> p < .05 for the whole interaction

TABLE XIV  
A COMPARISON OF CONFLICT FREQUENCY AND EFFECTIVENESS  
OF MANAGEMENT BEHAVIOR MEANS BY DEPARTMENT  
AND SIZE OF DEPARTMENT

Variable	Frequency of		Effectiveness of	
	Role Conflict	Function Hierarchy Conflict	Role Conflict	Function Hierarchy Conflict
Academic Affiliation				
Home Economics	2.77	2.04	3.90	4.19
~Home Economics	2.90	2.13	3.87	4.13
Number of Faculty				
5-10	2.83	2.18	3.85	4.18
11-20	2.88	2.00	3.88	4.20
21-30	2.97	2.21	3.90	4.02
31+	2.83	2.12	3.89	4.14
Interaction of Department by Faculty Numbers				
Home Economics * 5-10	2.56	1.89 <sup>a</sup>	3.80	4.19
Home Economics * 11-20	2.76	2.01	3.89	4.20
Home Economics * 21-30	3.28	2.56	3.92	4.06
Home Economics * 31+	2.40	1.63	4.08	4.40
~Home Economics * 5-10	2.90	2.25	3.86	4.18
~Home Economics * 11-20	2.94	2.00	3.88	4.20
~Home Economics * 21-30	2.90	2.12	3.89	4.01
~Home Economics * 31+	2.88	2.18	3.87	4.11

<sup>a</sup>p < .01 for the whole interaction

often and they perceived themselves as equally effective in both subject matter groups (Table XI).

There were significant main effects of age on the frequency of role function conflict ( $F = 3.05, p = .03$ ) and on hierarchy conflict ( $F = 2.49, p = .06$ ). Refer to Tables XXXII and XXXIII in Appendix E. Department heads over age 60 reported less conflict with both role function and hierarchy conflict than their younger peers across the two subject matter groups. On the other hand, there were no differences between age groups with respect to their perceived effectiveness of managing role function or hierarchy conflicts (Table XII). Interaction between the variables was not significant. In other words, department heads in both home economics and other subject matter areas of any age would have similar incidences of conflict (fewer over age 60) and be equally effective in managing conflict.

In relation to years of administrative experience, there were significant main effects across the subject matter groups with regard to the frequency of role function conflict ( $F = 2.92, p = .03$ ) and the effectiveness of managing role function conflict ( $F = 2.52, p = .05$ ). See Tables XXXII and XXXIV in Appendix E. Department heads with 4-6 years of administrative experience across subject matter groups reported significantly more role function conflict, yet they perceived themselves as also being more effective in managing this conflict (Table XIII). There were no significant findings concerned with the frequency of hierarchy conflict. Interaction between the subject matter groups and the years of administrative experience was significant ( $F = 2.53, p = .05$ ) with regard to the perceived effectiveness of managing hierarchy conflicts (Table XXXV in Appendix E). Both groups of department heads

perceived themselves as tending to be static in their effectiveness as managers of hierarchy conflict with increasing administrative experience. Yet the least experienced home economics department heads (2-3 years) and the most experienced other department heads (13+ years) reported being less effective managers of hierarchy conflict.

There were no significant main effects of the size of the department on the frequency and perceived effectiveness of conflict management. Neither were there significant interactions concerned with the effectiveness of managing role function or hierarchy conflict. Yet there was a significant interaction ( $F = 3.38, p = .01$ ) between the department heads in the two subject matter groups and the number of faculty in the department with regard to the frequency of hierarchy conflict (Table XXXIII, Appendix E). Home economics department heads reported an increasing frequency of hierarchy conflict with increasing faculty numbers until there were more than 30 faculty present. Thereafter, the frequency of conflict declined. On the other hand, the non-home economics department heads reported the highest frequency of hierarchy conflict with 5-10 members of faculty (Table XIV). This implied that department heads in home economics experienced the most hierarchy conflict with fairly large faculty numbers, while those in other departments experienced the most conflict with small departments. This significant interaction was not found in relation to the frequency of role function conflict.

Hypothesis four (b) of no significant differences between home economics department heads and other academic department heads with regard to the frequency of role function and hierarchy conflict was, therefore, accepted except for the interaction of subject matter area



and size of the department on the frequency of hierarchy conflict. Department heads from home economics and other departments experienced role function and hierarchy conflict with similar frequency. This was supported by the significant main effects findings concerning age and both types of conflict, and administrative experience and role function conflict across both subject matter groups.

Hypothesis four (c) of no differences between home economics department heads and other academic department heads with regard to the effectiveness of managing role function and hierarchy conflict was also accepted except for the interaction of subject matter group, and administrative experience on the effectiveness of managing hierarchy conflict. Department heads from home economics and other subject matter areas were of similar effectiveness in managing conflict. This was supported by the main effect finding of administrative experience and role function conflict across both subject matter groups.

Relationships Between Conflict Management Behaviors, Frequency of Conflict and the Perceived Effectiveness of Managing Conflict

A final objective of this research was to determine what relationships existed between 1) the likelihood of a specific conflict management behavior being used and the frequency of conflict experienced, 2) the likelihood of a specific conflict management behavior being used and the perceived effectiveness of managing conflict; and 3) the frequency of conflict experienced and the perceived effectiveness of

managing conflict (hypotheses five (a), five (b) and five (c)).

Pearson's  $r$  correlation coefficients for the variables are presented in Tables XV and XVI.

As can be seen in Table XV, there were no significant correlations between the five conflict management behaviors and the frequency of role function conflict. Similarly, there was no relationship between the conflict management behaviors and the frequency of hierarchy conflict. This meant that it was unlikely that the greater use of any one of the behaviors could be associated with an increasing or decreasing incidence of conflict, or with a specific type of conflict.

On the other hand, there were significant positive correlations in relation to the effectiveness of managing both role function and hierarchy conflicts. Greater effectiveness in dealing with role function conflict was related to the increased use of bargaining ( $r = .24$ ) and collaborating ( $r = .26$ ) conflict management behaviors. Similarly, but to a lesser extent, greater effectiveness in dealing with hierarchy conflict was related to the increased use of bargaining ( $r = .17$ ) and collaborating ( $r = .17$ ) behaviors. Thus, less effective conflict management was reported by those department heads less likely to use bargaining and collaborating behaviors. No significant relationships were found for accommodating, forcing and withdrawing behaviors and the effectiveness of the department heads' management of both role function and hierarchy conflicts.

The null hypotheses of no relationship between the conflict management behaviors and the frequency and effectiveness of managing conflict was accepted, except for the positive relationships of bargaining and

TABLE XV

PEARSON  $r$  CORRELATIONS FOR CONFLICT MANAGEMENT BEHAVIORS  
AND FREQUENCY OF CONFLICT AND EFFECTIVENESS OF CONFLICT  
MANAGEMENT FOR ROLE FUNCTIONS AND HIERARCHY

Conflict Manage- ment Behavior	Frequency of Conflict with		Effectiveness of Conflict Management with	
	Role Functions	Hierarchy	Role Functions	Hierarchy
Accommodating	-.01	.08	.06	-.04
Bargaining	-.02	-.09	.24*	.17*
Collaborating	-.04	-.04	.26*	.17*
Forcing	-.04	.01	-.03	-.02
Withdrawing	-.01	-.01	-.05	-.06

\* $p < .01$  with  $N = 206$

TABLE XVI  
 PEARSON  $r$  CORRELATIONS FOR THE FREQUENCY OF  
 CONFLICT AND THE EFFECTIVENESS  
 OF CONFLICT MANAGEMENT

Frequency of Conflict with	Effectiveness of Conflict Management Behavior with	
	Role Function	Hierarchy
Role Function	-.09	-.19*
Hierarchy	-.16*	-.27*

\* $p < .05$

collaborating behaviors to the effectiveness of both role function and hierarchy conflict management.

Pearson  $r$  correlations revealed a generally significant negative relationship between the frequency of conflict and the effectiveness of conflict management with both role function and hierarchy conflict (Table XVI). All but one of the four relationships were significant ( $p < .05$ ). The effectiveness of managing role function conflict was reported as not being significantly related to the frequency of this type of conflict ( $r = -.09$ ). However, the effectiveness of managing hierarchy conflict did correlate significantly with the frequency of hierarchy conflict ( $r = -.16$ ). Similarly, greater effectiveness of managing hierarchy conflict was significantly associated with decreasing incidence of both role function ( $r = -.19$ ) and hierarchy ( $r = -.27$ ) conflict. The degree of relationship indicated a slight tendency for department heads to rate their effectiveness as conflict managers lower as the frequency of conflict increased. The null hypothesis of no relationship between the frequency and effectiveness of conflict management was, therefore, rejected.

In summary, the findings of the study revealed that the factors representing the conflict management behaviors in phase one had adequate reliability. The scales developed in phase two were satisfactory measures of conflict management behavior, the frequency of conflict experienced and the effectiveness of managing conflict. The null hypotheses, tested in phase three, showed that a) conflict management behavior did not vary according to the situations; b) there were some significant differences in the conflict management behaviors for demographic variables, but none between home economics department heads

and other academic department heads when demographic differences were controlled for; c) there were some significant differences between the two subject matter groups relating to the frequency of experiencing conflict and the perceived effectiveness of managing conflict; and d) there were significant relationships between the conflict management behaviors, the frequency of conflict and the perceived effectiveness of managing conflict.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Summary and Discussion

This study was conducted to assess the conflict management behavior of academic department heads in large land grant universities. A summary of the research, a discussion of the practical implications of the findings and recommendations for further study are included in this chapter.

#### Problem Statement

With the current and projected financial constraints in higher education, the incidence of conflict is expected to increase. Academic department heads in their boundary role in the university are the prime people to manage conflict at the inception level. Department heads, however, usually lack training in administrative skills, particularly in conflict management. The conflict management behavior used by these academic leaders was assessed so that appropriate future development programs could be planned.

#### Objectives

The objectives of this study were to a) compare the conflict management behavior factors of the studies conducted by the author and

Johnston (1982); b) assess the conflict management behavior of academic department heads in relation to situational theory and demographic variables; c) analyze the differences in conflict management behavior between department heads in home economics and other departments; and d) assess the frequency of conflict and the self-perceived effectiveness of managing conflict.

### Hypotheses

Five hypotheses were defined for this study. The first hypothesis related to the comparison of conflict management behavior factors between two different studies. The second hypothesis was concerned with the situational use of conflict management behavior. Two further hypotheses related to the differences in demographic variables on the conflict management behavior of department heads and the differences between home economics and other department heads in the frequency and effectiveness of conflict management. The last hypothesis concerned the relationships among the conflict management behaviors, the frequency of conflict and the perceived effectiveness of managing conflict. Hypotheses two, three, four and five were null hypotheses.

### Survey Population

Academic department heads in 23 continental USA land grant universities with over 20,000 students and a department or college of home economics were selected as the survey population. Department heads with less than two years experience and with fewer than five faculty members in their departments were not included in the population. A



census of the 80 home economics department heads was taken while a random sample of 320 other department heads was selected.

### Instrument

The questionnaire used to collect the data on conflict management contained five parts (Appendix A). Part I was an indirect instrument which required department heads to project themselves into hypothetical unresolved conflict situations. The heads then rated five alternative behaviors of accommodating, bargaining, collaborating, forcing and withdrawing, with respect to the likelihood of their use. Eight of these situations, identified by factor analysis procedures, were used in the data analysis. Parts II, III and IV provided information on the frequency and effectiveness of using the conflict management behaviors, the frequency and effectiveness in the management of role function and hierarchy conflict, respectively. The final part of the questionnaire dealt with demographic characteristics. In order to validate the instrument, department heads were interviewed using it as the interview guide.

### Data Collection

The questionnaire, cover letter and preaddressed return envelope were mailed to 400 academic department heads. A second similar mailing was made to those who had not responded to the first mailing. This resulted in a 70 percent response rate. The respondents, once the population was redefined, formed 67 percent of the sample surveyed. The sample's demographic characteristics were compared to those of the population obtained from other sources.

### Analysis Procedures

The analyses were conducted in three phases. Phase one was factor analysis to compare the conflict management behavior factors obtained in this and the Johnston study (hypothesis one). Phase two involved further factor analysis procedures to provide the basis for scales representing conflict management behaviors, role function and hierarchy conflict to be used in subsequent analyses. Similarly, scales representing the effectiveness of the same aspects of conflict management were also developed in this phase. Kuder-Richardson formula 20 was used to indicate the reliability and internal consistency of the conflict management behavior scales.

In phase three, Kendall's coefficient of concordance ( $W$ ), analysis of variance, Duncan's multiple range test and Pearson's correlation coefficient were used to test the null hypotheses. Statistical Analysis Systems (SAS Institute, 1982) computer package was used to conduct the data analyses. The statistical tests and their relationship to the hypotheses are presented in Table XVII.

### Discussion of the Results

Phase One. The comparison of the conflict management behavior factors produced in the two studies revealed that, except for bargaining behavior, the factors were similar. If the statistical assumption of a normal distribution about the mean for each item had been met by the data in this study, even greater similarity may have been obtained. The poor factor loading of certain items in both studies indicated a need for further revision of the instrument.

TABLE XVII  
SUMMARY OF CONCLUSIONS FOR HYPOTHESES

Hypothesis	Statistical Test	Conclusion
1. The factors produced by the same instrument on two occasions are similar.	Factor Analysis	Accepted except for bargaining
2. There are no significant differences in conflict management behavior by department heads when dealing with various conflict situations.	Kendall's W	Accepted
3. There is no significant difference in conflict management behaviors of department heads classified by: <ul style="list-style-type: none"> <li>a. sex</li> <li>b. age</li> <li>c. experience as department head</li> <li>d. size of department</li> <li>e. subject matter area</li> </ul>	AOV Duncan's Multiple Range	Rejected for: Collaborating Collaborating Collaborating, bargaining Withdrawing Collaborating
4. There are no significant differences between home economics department heads and other department heads, while controlling for demographic variables, with regard to: <ul style="list-style-type: none"> <li>a. conflict management behavior</li> <li>b. frequency of conflict</li> <li>c. effectiveness of behavior</li> </ul>	Two-way AOV	Accepted Rejected for size Rejected for experience
5. There is no significant relationship between: <ul style="list-style-type: none"> <li>a. conflict management behavior and frequency of conflict</li> <li>b. conflict management behavior and effectiveness of behavior</li> <li>c. frequency of conflict and effectiveness of behavior</li> </ul>	Pearson's r	Accepted Rejected for bargaining and collaborating Rejected

Phase Two. The factors representing the conflict management behaviors of accommodating, bargaining, collaborating, forcing and withdrawing in this study were adequate measures (KR-20 = .45 to .70). Bargaining, however, was not a reliable internally consistent construct (KR-20 = .29). The factors representing the frequency of conflict and effectiveness of managing conflict were found to be acceptable measures of these constructs.

Phase Three. Collaborating was identified as the conflict management behavior that was most likely to be used by academic department heads. Bargaining and forcing were the next most used behaviors, while accommodating and withdrawing were the least used. This supported the findings of both Renwick (1975) who studied conflict in business, and Johnston (1982) who studied senior administrative officers in home economics. However, Woodtli (1983) reported that compromise (synonymous with bargaining behavior) was the dominant conflict management behavior of deans of nursing. The overwhelming preference for collaboration in the present study may have been due to the possible positive undertones of the wording on the instrument. Statements made by department heads during interviews supported the predominance of the use of collaborating over bargaining behavior. They reported that, failing the success of this behavior, they would then opt for one or the other behaviors "depending on the situation." The occasions when collaboration would not be attempted were when time was critical, or where a precedent for solving such a conflict had already been set in the particular department. As reported by Hughes and Robertson (1980) and Garnier (1980), the behavior selected by respondents was not necessarily the behavior actually used. This touches on the influence of social

desirability on the responses to the instrument. This was not addressed in this study. Prior training in conflict management as an influence on the use of collaboration is unlikely. As Hirschlein (1978) and Tucker (1981) reported, department heads were the administrators least likely to have undergone any administrative training or formal development programs.

The frequency of conflict varied according to the source of that conflict. Conflict with role functions within the department occurred less frequently than conflict with the wider university functions of financial affairs and physical facilities. On the other hand, conflict with people within the university occurred more often than with alumni and employers of graduates, that is, external publics. This supports the finding that the frequency of conflict is related to the source of the conflict (Corwin, 1963; Renwick, 1975). The most frequent conflict occurred with the faculty and the role functions of financial affairs and personnel. This result was supported by Litherland (1975) who found that personnel was the most demanding function for deans of home economics. Hollander (1980) further reported that as financial resources became scarce in higher education, the incidence of conflict increased. Therefore, both the administrative levels of deans and department heads frequently experienced conflict with finances and faculty.

Department heads perceived that they were very effective at managing hierarchy conflict (a mean score of 4.1 on a scale with a maximum of 5) and less effective at managing role function conflict (mean score 3.8). This confidence in their conflict management abilities was in contrast to reports by Wilson and Jerrell (1981) and Watson and Nelson (1982). These authors suggested that an improvement in conflict

management in higher education was necessary. Department heads felt least effective at managing conflicts with the role functions of physical facilities and finances. These were situations where department heads would have felt they had less power and were less in command of the situation. As Hughes and Robertson (1980) reported, school principals viewed conflict management as successful when the power differential was greatest in their favor and vice versa. During the interviews the department heads voiced reservations about their perceptions of effective conflict management. Was the behavior effective when it kept the peace, when it accomplished the department head's goals, when it increased faculty productivity, or when it led to greater faculty job satisfaction? This concept was not specified in the instrument and only the reported self-perception of effectiveness was assessed.

Analysis of the conflict management behaviors across situations relating to the role function conflicts, and relating to the hierarchical structure did not show that the behavior used changed according to the situational attributes. These findings were similar to those obtained by Johnston (1982) and Woodtli (1983) in their studies of deans of home economics and nursing respectively. The results revealed that the frequency of conflict and the perceived effectiveness of managing conflict varied according to the situation, but that the conflict management behavior did not vary. This finding was substantiated by the studies of Kilman and Thomas (1975) and Blake and Mouton (1978). Conflict situations may have tended to make department heads defensive and they resorted to their most secure behavior (Terhune, 1970; Filley, 1975). Researchers recommend that managers develop a wide repertoire of comfortable conflict management behaviors and use the particular

behavior warranted by the situation (Derr, 1978; Thomas, Jamieson and Moore, 1978).

In the present study, collaborating behavior was found to be more likely to be used by department heads in home economics, by women, by those over age 60, and by department heads with 4-6 years of administrative experience. Thus, the finding by Becker and Miles (1978) that women tended to cooperate and collaborate more than men was substantiated in this study. With 68 percent of the department heads in home economics being women, this could explain their greater use of collaborating behavior. An explanation for the increased use of collaborating by department heads over age 60 could be that people become less competitive or aggressive with age. In addition, 4-6 years of administrative experience may teach department heads that collaboration leads to successful conflict management.

Bargaining behavior was selected more often by those with over 12 years of administrative experience, perhaps because these department heads had learned to compromise. Withdrawing was reported as the more likely behavior by department heads with more than 30 faculty members. In large departments, conflict management could possibly be delegated more readily. It must be remembered, however, that the bargaining behavior scale was a less reliable measure. This may also have accounted for the lack of significance of this measure for most of this study, contrary to the findings of others (Renwick, 1975; Knapp, 1979; Johnston, 1982; Sone, 1983, Woodtli, 1983).

Once the variation in numbers between categories within home economics and others had been controlled for, there were no significant differences in the conflict management behavior between the two subject

matter areas. However, the frequency of role function conflict differed between home economics and other department heads according to the size of the department, in that there was most hierarchy conflict in home economics with larger departments (21-30 faculty) while department heads in other subject matter areas experienced most conflict in small departments (5-10 faculty). The perceived effectiveness of managing conflict varied with years of administrative experience between the two subject matter groups. Home economics department heads with two to three years experience reported feeling less effective in managing hierarchy conflict while department heads from other subject matter areas with more than 12 years of administrative experience felt less effective in dealing with hierarchy conflict.

The decreased conflict reported by department heads over age 60 by both subject matter groups may have been due to a changing attitude toward conflict as suggested by Watson and Nelson (1982). In addition, department heads from both subject matter areas reported the greatest incidence of conflict and perceived their conflict management behavior to be most effective with 4-6 years of administrative experience. After 12 years of experience, they felt they were less effective conflict managers. During the interviews conducted, it was suggested that when department heads felt they had mastered their jobs, after 4-6 years, their confidence spread to include their conflict management abilities. With greater experience, however, they became more realistic about their conflict management effectiveness, as was reflected in the declining scores. It was also suggested that decisions made in the earlier years of leadership may have antagonized some



faculty and subsequently resulted in more disruptive conflict that was more difficult to manage.

Collaboration and bargaining behaviors were related to the effectiveness of managing conflict. The more department heads were likely to use these behaviors, the greater they perceived their effectiveness of conflict management. The finding about the effectiveness of collaborating behavior was similarly reported by Burke (1970), Filley (1975) and Blake and Mouton (1978). Although these studies agreed on the effectiveness of collaborating behavior, Derr (1978) stated that the inappropriate use of collaborating behavior could be ineffective or even destructive. Further research is needed to determine the accuracy of this statement.

The perception of effectiveness was negatively related to the frequency of conflict. In other words, when conflict occurred often, department heads tended to view themselves as less effective conflict managers. This led the author to believe that the department heads associated their ineffectiveness with a lack of success at preventing conflict. This implied that department heads still adhered to the traditional view that conflict needed to be prevented at all costs (Robbins, 1974). Development of conflict management skills would benefit these administrators in this respect, by changing their attitudes toward conflict so that they may become better active managers of functional conflict.

#### Conclusions and Implications

The findings and conclusions of this study led the author to make the following statements as to the use of the questionnaire and the value of the research findings.

1. The instrument seems to be an adequate measure of conflict management. It should be further refined to identify the use of conflict management behaviors more precisely. Factor loading values of the different conflict management behavior constructs could be improved especially for bargaining behavior. The scale representing collaborating behavior was a very good measure.

2. The use of the instrument as a self-scored exercise, as recommended by Johnston (1982), would allow department heads to explore their individual profiles of conflict management behavior to indicate their repertoire of conflict management skills. Although group data were used in the study, the implication is that department heads used collaborating behavior for all situations, while withdrawing and accommodating behaviors were seldom selected. In addition, a large proportion of the sample used only one dominant conflict management style. If department heads are interested in improving their conflict management skills, they should become aware of their own conflict management behavior.

3. Department heads should be aware that all five conflict management behaviors are potentially useful. They should be encouraged to increase their knowledge of dysfunctional conflict and to develop their understanding of the appropriate use of each conflict management behavior. This implication is based on the findings of this study that department heads tended to use the same sequence of behaviors across all conflict situations, which included situations where superiors, peers and subordinates were involved.

4. The differences in conflict management behavior between home economics and other department heads were not significant. Any

statements made about conflict management behavior apply equally to both subject matter groups.

5. Differences in conflict management between senior administrators of home economics and department heads of selected academic departments are difficult to pinpoint. Because of the differences in the instrument found through factor analysis, the apparent greater use of forcing behavior by deans may have been due either to the instrumentation or to the difference in populations themselves.

6. Department heads need to give more attention to developing their conflict management skills. The findings indicated insignificant changes in effectiveness with increasing years of administrative experience. Those department heads with 4-6 years of experience reported being the most effective conflict managers. Those with more than 12 years experience felt less effective. Thus, this study indicates that department heads do not perceive themselves as becoming better conflict managers with increasing years of administrative experience. Administrator development programs in conflict management may be necessary to improve the situation.

7. The majority of department heads in this study has less than six years of administrative experience. This may be due to the inclusion of department chairs with short durations in office. However, the reported perception of decreasing effectiveness of conflict management after 12 years may be an indication that there is an optimum length of time in office during which a department head is more effective at managing conflict. On the other hand, it may indicate that there is greater realism in the perception of successful conflict management after 12 years.

8. Effectiveness in managing conflict was rated higher when dealing with hierarchy conflict than when coping with the role function conflicts. This finding may indicate that department heads need more guidance in dealing with role function conflicts, specifically of finances, physical facilities and personnel.

9. Department heads should be aware of the functional value of conflict and reduce their tendency of wanting to prevent conflict. This implication is based on the finding that when there was less conflict, department heads felt they were more effective conflict managers. They need to learn to manage conflict constructively for the benefit of all parties in the long run, rather than just trying to prevent it.

#### Recommendations for Further Research

This study was undertaken to determine significant associations in relation to conflict management. Further studies based upon the following recommendations would provide academic department heads with data helpful in determining the information most needed in order to be optimal conflict managers.

1. This study was limited to large land grant universities. Further similar studies should be conducted to include state universities, small universities, private colleges, junior colleges and other specialized colleges to provide a broader base of information concerning conflict management in different educational institutions.

2. This study masked the variability between the department heads from the many subject matter areas. By studying specific professional academic groups, greater insight into the conflict related matters peculiar to each group could be obtained.

3. Further studies of the relationships between conflict management and additional variables not included in this study would indicate what other aspects were important to the understanding of conflict management. Examples of these additional variables could be organizational aspects such as prior conflict management training, power structure and institutional structure, job satisfaction, productivity, change rate or organizational climate. Personal aspects could be educational background, family heritage, personality characteristics, locus of control, leadership style and others.

4. The questionnaire should be evaluated in terms of the social desirability of the responses evoked. With such evaluation, it would then be possible to determine whether the scores obtained using the questionnaire related to the reality of the conflict managed or to the behavior the respondent believed was socially acceptable.

5. The instrument should be tested using only the eight situations identified through factor analysis. This abridged instrument should be evaluated on the same population as in this study, to assess the effect of the modifications on the factor loadings.

6. Some way of objectively viewing the conflict process and its management is desirable. This study assessed the self-reported behaviors, frequency of conflict and effectiveness of its management. Some kind of content analysis of conflict from a number of viewpoints, structured observation by trained observers of conflicts in progress, or interviews with the parties involved, is required.

7. Other theory bases need to be explored for greater precision. There is a possibility that the situations selected in this study were too similar to differentiate between the critical elements calling for

contingency behavior. More research is needed to identify these critical elements.

8. In addition, research needs to be conducted to assess the essential balance between conflict prevention and conflict management. More specifically, the conflict management competencies that together make up each conflict management behavior need to be determined in relation to the educational environment, personal job satisfaction and work productivity.

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## APPENDICES

APPENDIX A

THE INSTRUMENT

Code \_\_\_\_\_

## CONFLICT MANAGEMENT ASSESSMENT INSTRUMENT

## Part I.

Described below are a number of situations involving CONFLICT. For each alternative following the situation, please circle the number that indicates how likely or unlikely it is that you would use that way of dealing with the conflict. Please think of yourself as having to deal with each conflict situation, even if it is not related to your present administrative role.

1. You need another full-time faculty member in order to carry out the programming of your unit, however central administration does not recognize this need.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would use whatever strategy was necessary to gain the faculty position.
5	4	3	2	1	B.	I would concede to the wishes of central administration and try to get by with the present faculty.
5	4	3	2	1	C.	I would postpone the request until later.
5	4	3	2	1	D.	I would discuss goals for future programming with central administration in order to work out a beneficial solution.
5	4	3	2	1	E.	I would work for an additional half-time faculty position for this year.

2. Although students express dissatisfaction with some of the curriculum, saying it is not relevant to future job performance, faculty feel that the existing programs are of high quality and relevant.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would meet with students and faculty to clarify course objectives.
5	4	3	2	1	B.	I would retain the existing programs and try to convince the students of its benefits.
5	4	3	2	1	C.	I would appoint a task force to work out a compromise.
5	4	3	2	1	D.	I would try to make the students happy by making more of the program elective.
5	4	3	2	1	E.	I would assign a committee to study the problem.



3. The student organization officers request that you support a proposal to dismiss classes the afternoon before homecoming in order that the students and faculty might participate more fully.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would sign the proposal to help the students.
5	4	3	2	1	B.	I would announce that their proposal was out of line with university policy and could not be supported.
5	4	3	2	1	C.	I would propose that faculty give out of class assignments for that day as an alternative to reporting to class.
5	4	3	2	1	D.	I would postpone the discussion.
5	4	3	2	1	E.	I would meet with the students to identify objectives and find other alternatives to increase the participation.

4. Although early estimates suggest that a much needed addition to your building will not be possible this year, no final decisions about capital improvement funds have been made.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would avoid making any requests.
5	4	3	2	1	B.	I would pursue the request until I had a commitment for the addition.
5	4	3	2	1	C.	I would accept the fact that funds for the addition are lacking and make my request another year.
5	4	3	2	1	D.	I would confer with the budget committee to work out a realistic proposal.
5	4	3	2	1	E.	I would seek space in an existing building and work for the addition later.

5. Faculty are requesting reimbursement for meals for university guests.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would tell faculty that I can pay for guest meals from unrestricted funds.
5	4	3	2	1	B.	I would send the requests to the Dean for attention.
5	4	3	2	1	C.	I would call a faculty meeting to review the reimbursement policies and to clarify the problem.
5	4	3	2	1	D.	I would send a memo to all faculty stating that no reimbursement will be made for guest meals.
5	4	3	2	1	E.	I would suggest that faculty incur the cost until alternative funding can be found.

6. While at a community social gathering you heard your discipline being criticized for its emphasis on traditional approaches.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would agree that the discipline should have other emphases.
5	4	3	2	1	B.	I would tell the group that it has an outdated view of the discipline.
5	4	3	2	1	C.	I would start a discussion to clarify the uniqueness of the discipline.
5	4	3	2	1	D.	I would acknowledge a traditional emphasis and explain contemporary dimensions.
5	4	3	2	1	E.	I would let the comment go by unnoticed.

7. Another unit of the university has asked for the same additional space you wish to acquire for implementing your program.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would try to convince the other unit of my greater need for the additional space.
5	4	3	2	1	B.	I would wait for a decision from central administration.
5	4	3	2	1	C.	I would propose that the units identify objectives for the use of the space and use it cooperatively.
5	4	3	2	1	D.	I would support the other unit's request if they would support my request for a different space allocation.
5	4	3	2	1	E.	I would try to be considerate of the other unit's request.

8. The president of your university, in a personal memo, indicates that a research publication is expected from each faculty and administrator.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would meet with faculty and administrators to develop research publication goals.
5	4	3	2	1	B.	I would immediately drop all other projects and work on a research article.
5	4	3	2	1	C.	I would require all faculty to submit research articles for publication.
5	4	3	2	1	D.	I would give up some of my other goals in order to publish.
5	4	3	2	1	E.	I would ignore the memo and try to publish according to my own schedule.

9. Another department is teaching a new course that duplicates a course taught in your unit.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would refrain from discussing the courses.
5	4	3	2	1	B.	I would approach the University Curriculum Committee with a statement of my objection to the new course.
5	4	3	2	1	C.	I would work for a plan whereby the course is alternately offered by our two units.
5	4	3	2	1	D.	I would discuss objectives of both courses with all faculty concerned, in working for a solution to benefit both units.
5	4	3	2	1	E.	I would acknowledge the common concerns of the two units.

10. Although your unit needs more scholarships, a rich donor insists on making a large gift for a student lounge.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would ask the donor to consider modifications in the lounge renovation plan in order to reserve funds for a scholarship.
5	4	3	2	1	B.	I would avoid any discussion of the use of the gift.
5	4	3	2	1	C.	I would accept and use all the gift for the lounge.
5	4	3	2	1	D.	I would insist that the gift be given with no strings attached as to its use.
5	4	3	2	1	E.	I would discuss unit goals with the donor and seek support for our scholarship program.

11. Upon receiving preliminary plans from faculty, you realize that you will not be able to fund five travel requests, although policy for your unit states that monies for travel will be given to those who are presenting papers at national conferences.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would find funds from other sources, including my own travel allocation, so all faculty could have travel money.
5	4	3	2	1	B.	I would honor requests as they come in, until all funds were depleted.
5	4	3	2	1	C.	I would share all travel monies equally, even if it does not cover all expenses.
5	4	3	2	1	D.	I would work with faculty to find a solution that benefits each person involved.
5	4	3	2	1	E.	I would act as if there were no problem and wait to see what might happen later in the year.

12. Central administration is asking you to double research funding from external sources in the next five years.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would meet with faculty and administration to develop a plan for seeking funding.
5	4	3	2	1	B.	I would sacrifice part of my vacation time to work on research proposals.
5	4	3	2	1	C.	I would take no immediate action and hope for some increase in funds.
5	4	3	2	1	D.	I would reduce committee assignments in order to free time for proposal writing.
5	4	3	2	1	E.	I would require each faculty member to increase the number of proposals submitted each year.

13. Although a faculty member is being recommended for promotion, in your judgment the individual does not meet the criteria.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would attempt to give recognition to the individual, yet withhold promotion at this time.
5	4	3	2	1	B.	I would meet with the faculty member to clarify goals and plan faculty development activities.
5	4	3	2	1	C.	I would postpone the decision.
5	4	3	2	1	D.	I would be firm in withholding the recommendation for promotion.
5	4	3	2	1	E.	I would go along with the recommendation for promotion.

14. Two members of the academic faculty feel a lack of privacy exists in dealing with student problems because they must share office space.

Very Likely					Very Unlikely	
5	4	3	2	1	A.	I would try to convince the faculty that there is no other alternative available.
5	4	3	2	1	B.	I would work with faculty on a space utilization survey aimed at locating additional space for their use.
5	4	3	2	1	C.	I would postpone discussion until more room becomes available.
5	4	3	2	1	D.	I would give up a supply room to make a faculty office.
5	4	3	2	1	E.	Assuming that no additional space can be found, I would offer to install a room divider.

15. Student evaluations indicate dissatisfaction with a faculty member's course.

Very Likely					Very Unlikely		
5	4	3	2	1	A.	I would tell the students that the faculty member knows the subject best.	
5	4	3	2	1	B.	I would confer with the faculty member to clarify the problems with the course.	
5	4	3	2	1	C.	I would let the issue ride, and hope that it takes care of itself.	
5	4	3	2	1	D.	I would let the faculty member know that the course should be changed to make the students happy.	
5	4	3	2	1	E.	I would pass on students' recommendations, but support the faculty member's decisions as to course changes.	

16. The faculty feel you spend so much time participating in professional organizations that you are not available when needed.

Very Likely					Very Unlikely		
5	4	3	2	1	A.	I would refrain from discussing my activities.	
5	4	3	2	1	B.	I would work with faculty to find a division of responsibilities that will benefit everyone concerned.	
5	4	3	2	1	C.	I would continue to pursue my professional leadership goals in spite of faculty complaints.	
5	4	3	2	1	D.	I would give up some of my professional activities in order to be available.	
5	4	3	2	1	E.	I would do whatever is necessary to make the faculty satisfied.	

## Part II.

On the left hand side, please assess how frequently you use the following types of behavior when dealing with conflict.

On the right hand side, please assess how effectively you use these behaviors in conflict situations.

Often					Rarely					Well					Poorly				
5	4	3	2	1	A.	Accommodating (unassertive behavior which soothes and seeks harmony)				5	4	3	2	1					
5	4	3	2	1	B.	Avoiding (suitable behavior which ignores conflict and delays taking action)				5	4	3	2	1					
5	4	3	2	1	C.	Bargaining (compromising behavior through mutual concessions)				5	4	3	2	1					
5	4	3	2	1	D.	Collaborating (cooperative behavior which confronts the situation to find a solution)				5	4	3	2	1					
5	4	3	2	1	E.	Competing (assertive behavior which keeps the situation under control in the interests of the university)				5	4	3	2	1					

## Part III.

On the left hand side, please assess how frequently the following role functions of an administrator cause you conflict.

On the right hand side, please assess how effectively you manage conflict in the following role functions of an administrator.

Often					Rarely					Well					Poorly				
5	4	3	2	1	A.	Educational programming				5	4	3	2	1					
5	4	3	2	1	B.	External relations				5	4	3	2	1					
5	4	3	2	1	C.	Financial affairs				5	4	3	2	1					
5	4	3	2	1	D.	Institutional functions				5	4	3	2	1					
5	4	3	2	1	E.	Personnel functions				5	4	3	2	1					
5	4	3	2	1	F.	Physical facilities				5	4	3	2	1					
5	4	3	2	1	G.	Professional leadership and research				5	4	3	2	1					
5	4	3	2	1	H.	Student affairs				5	4	3	2	1					

## Part IV.

On the left hand side, please assess how frequently you have to deal with conflict with the following groups of people.

On the right hand side, please assess how effectively you manage conflicts with these people.

Often					Rarely		Well					Poorly
5	4	3	2	1		A. Your Dean	5	4	3	2	1	
5	4	3	2	1		B. Other department heads	5	4	3	2	1	
5	4	3	2	1		C. Faculty in your department	5	4	3	2	1	
5	4	3	2	1		D. Students	5	4	3	2	1	
5	4	3	2	1		E. Alumni	5	4	3	2	1	
5	4	3	2	1		F. Employers of graduates	5	4	3	2	1	

## Part V.

1. Age: \_\_\_\_\_ 30 or under  
 \_\_\_\_\_ 31 - 40  
 \_\_\_\_\_ 41 - 50  
 \_\_\_\_\_ 51 - 60  
 \_\_\_\_\_ 61 or over
2. Sex: \_\_\_\_\_ female  
 \_\_\_\_\_ male
3. Number of faculty in your department:  
 \_\_\_\_\_ less than 5  
 \_\_\_\_\_ 5 - 10  
 \_\_\_\_\_ 11 - 20  
 \_\_\_\_\_ 21 - 30  
 \_\_\_\_\_ 31 or more
4. Name of your department:  
 \_\_\_\_\_  
 Academic College:  
 \_\_\_\_\_
5. Number of years at department head level:  
 \_\_\_\_\_
6. Major field at highest degree:  
 \_\_\_\_\_
7. Do you consider conflict management to be an important aspect of your role as department head?  
 \_\_\_\_\_ yes      \_\_\_\_\_ no

PLEASE RETURN THE QUESTIONNAIRE IN THE SELF-ADDRESSED STAMPED ENVELOPE BY OCTOBER 21, 1983.  
 YOUR TIME AND EFFORT IN RESPONDING TO THIS SURVEY ARE GREATLY APPRECIATED.

THANK YOU!

APPENDIX B

CLASSIFICATIONS OF PART ONE OF THE INSTRUMENT BY  
ROLE FUNCTION AND BY BEHAVIOR ALTERNATIVES



TABLE XVIII  
CLASSIFICATION OF SITUATIONS IN PART I OF THE  
INSTRUMENT BY ROLE FUNCTION

Role Functions	Conflict Situations <sup>a</sup>
Educational Programming	2, 9
External Relations	6, 10
Financial Affairs	4, 11
Institutional Functions	1, 12
Personnel Function	5, 13
Physical Facilities	7, 14
Professional Leadership and Research	8, 16
Student Affairs	3, 15

<sup>a</sup>Numbers refer to the conflict situations in the instrument in Appendix A.

TABLE XIX  
 THE PLACEMENT OF CONFLICT MANAGEMENT BEHAVIOR  
 ALTERNATIVES WITHIN THE INSTRUMENT

Conflict Situation <sup>a</sup>	Situational Alternatives				
	Accommodating	Bargaining	Collaborating	Forcing	Withdrawing
1	B	E	D	A	C
2	D	C	A	B	E
3	A	C	E	B	D
4	C	E	D	B	A
5	A	E	C	D	B
6	A	D	C	B	E
7	E	D	C	A	B
8	B	D	A	C	E
9	E	C	D	B	A
10	C	A	E	D	B
11	A	C	D	B	E
12	B	D	A	E	C
13	E	A	B	D	C
14	D	E	B	A	C
15	D	E	B	A	C
16	E	D	B	C	A

<sup>a</sup>Numbers refer to the conflict situations in the instrument in Appendix A.

APPENDIX C

DESCRIPTION OF THE INTERVIEW

PROCEDURES AND RESULTS

In order to test the instrument used in this study, it served to guide interviews with department heads on the local campus. One week in January, 1984 was set aside to conduct interviews with selected department heads in the College of Arts and Sciences at Oklahoma State University. The department heads were selected because of the reported conflict or lack of it in their departments. Each interview lasted approximately one to one and a half hours and was conducted in the office of the head, virtually without interruption. The interviews were tape recorded to ensure the accuracy of the record keeping.

The instrument used was the same as that in a national survey of department heads on their conflict management styles. In addition, the heads of department were asked to describe their three most significant conflicts of the previous two years. In order to validate the instrument by comparing how conflict had actually been managed with responses on the questionnaire, it was felt that there would be less undue influence of the questionnaire on the subsequent descriptions if the unstructured description came first. But, it took so long for the person to relax and interact that the order was reversed. Then with the unstructured discussion afterwards, thoughts flowed freely, the responses seemed more accurate, and there were no references to what had been on the questionnaire.

Qualitative analysis of the unstructured descriptions of conflict and the responses to the questionnaire was conducted with regard to:

1. the identity of the second party
2. the conflict issue
3. the actual processes used in the situation
4. the aftermath and whether the conflict had been effectively handled.

## Results

The sample of six was comprised of one woman and five men, two aged between 31-40 and four between 41-50. The department size varied from 5-10 faculty to more than 30 faculty (Table XX), and the years of experience ranged from two to nine with almost all having two-three years in the assignment. All department heads were in the College of Arts and Sciences with four being in humanities and two being in sciences. This is similar to the demographic proportions of the sample in the main study.

Reactions to the questionnaire itself included statements about the pertinence of the situations in Part 1 to the current climate at the university, the length of time it took to complete Part 1, and that some department heads had a vice-head in charge of student affairs and, therefore, some of the items were not relevant for them.

Analysis of the descriptions of conflict which occurred in the departments showed that the identity of the second party was the same as identified in the questionnaire as causing conflict most frequently.

The core issue was identified, in all cases, as the same as that rated highly on the questionnaire, viz personnel, faculty and in one instance, students. The actual processes used to deal with the conflict correlated with the overt behaviors specified in part 2 of the questionnaire. In assessing the aftermath of the conflict, there was much variation in responses as to effectiveness in keeping the peace, or effectiveness in accomplishing the goal. Generally, they felt they dealt with the conflict well to fairly well and this agreed with their ratings of between 4 and 5 on parts 3 and 4 of the questionnaire.

The respondents did respond accurately to the questionnaire. Evidence of this was that the unstructured descriptions of actual conflict managed corresponded to the ratings on the questionnaire.

TABLE XX  
DESCRIPTION OF THE SUB-SAMPLE

Variable	Category	Frequency
Sex	Female	1
	Male	5
Age	31-40	2
	41-50	4
Size of Department (Number of Faculty)	5-10	2
	11-20	2
	21-30	1
	31 or more	1
Years of Experience	2-3	5
	4-6	0
	7-12	1
Academic Group	Humanities	4
	Sciences	2

APPENDIX D  
CORRESPONDENCE

## O K L A H O M A   S T A T E   U N I V E R S I T Y

Department of Home Economics Education  
and Community Services

Dear Department Head:

Since department heads are the people who are most involved with the various groups within universities, you have been selected to help assess the conflict management skills of academic department heads. Please complete the enclosed questionnaire on conflict management. The results will provide information useful in the preparation of department heads in higher education.

It should take about twenty minutes to complete the questionnaire. Previous reactions indicated that administrators found the questions to be interesting and helpful in reflecting on their personal styles of conflict management.

The information you provide will be strictly confidential. Your name will not appear on the questionnaire nor be connected with any of the findings. A code number is used only to identify the institution and to facilitate follow-up procedures.

Your participation is needed to make this a meaningful study. I know you are a busy person, so I have tried to make the questionnaire as concise as possible. Please return your completed questionnaire in the envelope provided by OCTOBER 21, 1983. Thank you for your assistance. I look forward to hearing from you soon.

Sincerely,

(Signed)

Maryann Green,  
Graduate Student

(Signed)

Elaine D. Jorgenson, Ed.D.  
Thesis Adviser

Enclosures

## O K L A H O M A   S T A T E   U N I V E R S I T Y

Department of Home Economics Education  
and Community Services

Dear Department Head,

Recently I mailed a questionnaire to you that I am using to collect data for a study on Conflict Management by Department Heads at Land Grant Universities. Since I have no record of your participation, I would like to encourage you to complete the questionnaire at your earliest convenience and return it to me in the envelope supplied.

The response to date has been gratifying but I would like to include your input too. I know that you, as a department head, are a very busy person. For this reason, I have enclosed a second questionnaire for your use.

I would appreciate receiving your response by December 9, 1983. If you have already completed and mailed the questionnaire, please consider this letter a sincere thank you for your participation.

Sincerely,

(Signed)

Maryann Green  
Graduate Student

(Signed)

Dr. Elaine Jorgenson, Ed.D.  
Head of Home Economics Education and  
Community Services



10759 E. Admiral Pl.  
Lot 148  
Tulsa, Oklahoma 74116  
Feb. 15, 1983

Ms. Mary Ann Green  
Oklahoma State University  
Stillwater, Oklahoma 74078

Dear Ms. Green;

I am writing in regard to the use of the Conflict Management Assessment Instrument (CMAI), in your study. You may use the instrument for your doctoral research with proper documentation credit and revisions as approved by your committee. Please send me a copy of the instrument as you intend to use it.

Best wishes in your work.

Sincerely,

(Signed)

Carolyn S. Johnston, Ph.D.

APPENDIX E

ADDITIONAL TABLES

TABLE XXI  
DISTRIBUTION OF RESPONSES BY AMOUNT OF DATA PROVIDED

Amount of Data Provided	Number of Responses		Total
	First <sup>a</sup> Mailing	Second <sup>b</sup> Mailing	
Complete data <sup>c</sup>	168	42	210 <sup>d</sup>
Not applicable/ Partial data	30	14	44
No data	<u>12</u>	<u>13</u>	<u>25</u>
Total	210	69	279 <sup>e</sup>

<sup>a</sup>October 1 - November 8

<sup>b</sup>November 10 - December 20

<sup>c</sup>Usable data

<sup>d</sup>Usable responses were 53 percent of sample surveyed (400) but 67 percent of the adjusted sample.

<sup>e</sup>70 percent return

TABLE XXII

COMPARISON BETWEEN THE SAMPLE OF HOME ECONOMICS  
DEPARTMENT HEADS AND POPULATION DEMOGRAPHICS

Category	Value	Sample %	Population <sup>a</sup> %	Value <sup>b</sup>
Sex	Female	68.0	69.0	
	Male	32.0	31.0	
Age	30 and under	0	0	Under 30
	31-40	10.5	6.0	30-39
	41-50	32.0	44.0	40-49
	51-60	36.0	32.0	50-59
	Over 60	21.5	18.0	60 and over
Years Experience	Less than 5	23.4	37.5	
	5-9	40.4	36.4	
	10-19	29.8	21.6	
	20 or more	6.4	4.5	
Size of Department	6-10 faculty	21.0	17.0	Undergraduate students
	11-20	49.0	47.8	Less than 500 students
	21-30	15.0	20.2	500-999 students
	Over 30	15.0	15.0	1000-1499 students 1500 or more students
Highest Degree	Home Economics	75.0	83.0	
	~Home Economics	25.0	17.0	

<sup>a</sup>Data obtained from the 1982-83 Association of Administrators in Home Economics - Salary Study.

<sup>b</sup>Where the categories were different from the current study, the alternates are provided.

TABLE XXIII

SUMMARY OF ONE-WAY ANALYSIS OF VARIANCE FOR THE CONFLICT  
MANAGEMENT BEHAVIOR BY DEMOGRAPHIC VARIABLES

Source	df	Sum of Squares	F	Probability
<u>Accommodating</u>				
Department <sup>a</sup>	1	.45	1.28	.26
Sex	1	.21	.57	.45
Age	3	1.36	1.28	.28
Experience	3	.08	.08	.96
Size	3	1.73	1.64	.18
<u>Bargaining</u>				
Department	1	.51	1.39	.24
Sex	1	.63	1.71	.19
Age	3	2.08	1.95	.12
Experience	3	2.11	2.08	.10
Size	3	.49	.45	.72
<u>Collaborating</u>				
Department	1	1.72	5.10	.02 <sup>b</sup>
Sex	1	1.59	4.72	.03 <sup>b</sup>
Age	3	2.79	2.77	.04 <sup>b</sup>
Experience	3	1.90	1.93	.12
Size	3	.93	.90	.45
<u>Forcing</u>				
Department	1	.05	.09	.77
Sex	1	.15	.26	.61
Age	3	.15	.08	.96
Experience	3	2.43	1.43	.23
Size	3	.17	.10	.96
<u>Withdrawing</u>				
Department	1	.15	.53	.47
Sex	1	.62	2.08	.15
Age	3	1.13	1.27	.29
Experience	3	1.59	1.89	.13
Size	3	1.91	2.18	.09

<sup>a</sup>Home economics and non-home economics departments

<sup>b</sup> $p < .05$

TABLE XXIV  
 SUMMARY OF ANALYSIS OF VARIANCE FOR ACCOMMODATING BEHAVIOR  
 BETWEEN HOME ECONOMICS AND OTHER DEPARTMENT HEADS

Source	df	Sum of Squares	F	Probability
Department	1	.18	.51	.48
Sex	1	.07	.20	.65
Dept. * Sex	1	.23	.64	.42
Total	194	69.18	.45	.72
Department	1	.16	.47	.49
Age of Head	3	1.45	1.38	.25
Dept. * Age	3	1.88	1.78	.15
Total	196	69.90	1.42	.20
Department	1	.18	.52	.47
Size of Dept.	3	1.74	1.63	.18
Dept. * Size	3	.50	.46	.71
Total	195	69.53	.97	.45
Department	1	.14	.42	.52
Experience	3	.10	.10	.96
Dept.* Experience	3	.76	.77	.51
Total	191	61.16	.43	.88

TABLE XXV

SUMMARY OF ANALYSIS OF VARIANCE FOR BARGAINING BEHAVIOR  
BETWEEN HOME ECONOMICS AND OTHER DEPARTMENT HEADS

Source	df	Sum of Squares	F	Probability
Department	1	.60	1.75	.19
Sex	1	.28	.83	.36
Dept. * Sex	1	.00	.00	.98
Total	204	69.47	.86	.47
Department	1	.65	1.97	.16
Age of Head	3	1.63	1.65	.18
Dept. * Age	3	.84	.85	.47
Total	206	68.73	1.35	.23
Department	1	.56	1.72	.19
Size	3	.59	.60	.62
Dept. * Size	3	.53	.54	.66
Total	205	66.48	.73	.65
Department	1	.70	2.21	.14
Experience	3	1.98	2.09	.10
Dept.* Experience	3	1.04	1.09	.35
Total	200	64.73	1.68	.11

TABLE XXVI

SUMMARY OF ANALYSIS OF VARIANCE FOR COLLABORATING BEHAVIOR  
 BETWEEN HOME ECONOMICS AND OTHER DEPARTMENT HEADS

Source	df	Sum of Squares	F	Probability
Department	1	.58	1.70	.19
Sex	1	1.02	3.01	.08
Dept. * Sex	1	.08	.23	.63
Total	206	70.66	1.65	.18
Department	1	.56	1.67	.20
Age	3	2.68	2.65	.04*
Dept. * Age	3	.63	.62	.61
Total	208	71.56	1.64	.12
Department	1	.53	1.54	.22
Size	3	.88	.84	.47
Dept. * Size	3	.56	.53	.66
Total	207	71.27	.81	.58
Department	1	.44	1.34	.25
Experience	3	1.66	1.68	.17
Dept.* Experience	3	.70	.70	.56
Total	202	67.14	1.21	.30

\*p < .05



TABLE XXVII

SUMMARY OF ANALYSIS OF VARIANCE FOR FORCING BEHAVIOR  
BETWEEN HOME ECONOMICS AND OTHER DEPARTMENT HEADS

Source	df	Sum of Squares	F	Probability
Department	1	.01	.01	.93
Sex	1	.18	.30	.59
Dept. * Sex	1	.00	.00	.95
Total	203	118.71	.10	.95
Department	1	.01	.01	.93
Age	3	.15	.09	.96
Dept. * Age	3	1.09	.61	.61
Total	205	119.01	.30	.95
Department	1	.00	.01	.94
Size	3	.17	.09	.96
Dept. * Size	3	.61	.34	.80
Total	204	118.98	.19	.99
Department	1	.00	.00	.95
Experience	3	2.43	1.42	.24
Dept.* Experience	3	1.06	.62	.61
Total	199	113.47	.87	.53

TABLE XXVIII

SUMMARY OF ANALYSIS OF VARIANCE FOR WITHDRAWING BEHAVIOR  
 BETWEEN HOME ECONOMICS AND OTHER DEPARTMENT HEADS

Source	df	Sum of Squares	F	Probability
Department	1	.02	.05	.82
Sex	1	.71	2.38	.12
Dept. * Sex	1	.00	.00	.97
Total	194	57.93	.81	.49
Department	1	.02	.06	.81
Age	3	1.11	1.24	.30
Dept. * Sex	3	.55	.62	.61
Total	196	58.15	.80	.59
Department	1	.01	.05	.83
Size	3	1.92	2.16	.09
Dept. * Size	3	.45	.50	.69
Total	195	58.04	1.15	.34
Department	1	.01	.03	.87
Experience	3	1.59	1.85	.14
Dept.* Experience	3	.09	.10	.95
Total	192	54.73	.84	.56

TABLE XXIX

A COMPARISON OF CONFLICT MANAGEMENT BEHAVIOR MEANS BETWEEN  
HOME ECONOMICS AND OTHER DEPARTMENT HEADS BY SEX

Variable	Accommodating	Bargaining	Collaborating	Forcing	Withdrawing
<u>Department</u>					
Home Economics	2.18	3.48	4.26	2.81	1.66
~Home Economics	2.25	3.35	4.13	2.82	1.68
<u>Sex</u>					
Female	2.17	3.50	4.34	2.76	1.56
Male	2.25	3.35	4.12	2.83	1.71
<u>Interaction</u>					
Home Economics * Female	2.20	3.52	4.32	2.78	1.59
~Home Economics * Female	2.10	3.45	4.38	2.73	1.51
Home Economics * Male	2.15	3.41	2.17	2.86	1.76
~Home Economics * Male	2.26	3.34	4.11	2.83	1.70

TABLE XXX

A COMPARISON OF CONFLICT MANAGEMENT BEHAVIOR MEANS BETWEEN  
HOME ECONOMICS AND OTHER DEPARTMENT HEADS BY EXPERIENCE

Variables	Accommodating	Bargaining	Collaborating	Forcing	Withdrawing
<u>Department</u>					
Home Economics	2.18	3.48	4.26	2.81	1.66
~Home Economics	2.25	3.35	4.13	2.82	1.68
<u>Experience</u>					
2-3 years	2.22	3.24	4.02	2.76	1.81
4-6 years	2.20	3.33	4.21	2.71	1.58
7-12 years	2.25	3.53	4.22	2.85	1.66
13+ years	2.25	3.41	4.27	3.02	1.63
<u>Interaction</u>					
HE * 2-3	2.36	3.55	4.00	3.03	1.89
HE * 4-6	2.06	3.29	4.16	2.71	1.55
HE * 7-12	2.14	3.54	4.44	2.76	1.69
HE * 13+	2.34	3.66	4.34	2.88	1.63
~HE * 2-3	2.20	3.20	4.03	2.71	1.80
~HE * 4-6	2.25	3.35	4.23	2.71	1.60
~HE * 7-12	2.30	3.53	4.18	2.90	1.64
~HE * 13+	2.23	3.36	4.18	3.05	1.63

TABLE XXXI

A COMPARISON OF CONFLICT MANAGEMENT BEHAVIOR MEANS BETWEEN  
HOME ECONOMICS AND OTHER DEPARTMENT HEADS BY SIZE

Variable	Accommodating	Bargaining	Collaborating	Forcing	Withdrawing
<u>Department</u>					
Home Economics	2.18	3.48	4.26	2.81	1.66
~Home Economics	2.25	3.35	4.13	2.82	1.68
<u>Size</u>					
5-10	2.34	3.45	4.27	2.77	1.65
11-20	2.19	3.35	4.16	2.82	1.61
21-30	2.33	3.33	4.13	2.83	1.61
30+	2.11	3.40	4.08	2.86	1.85
<u>Interaction</u>					
HE * 5-10	2.09	3.69	4.53	2.81	1.63
HE * 11-20	2.16	3.44	4.20	2.78	1.58
HE * 21-30	2.30	3.48	4.10	3.03	1.81
HE * 30+	2.20	3.28	4.30	2.63	1.88
~HE * 5-10	2.40	3.40	4.21	2.76	1.65
~HE * 11-20	2.21	3.30	4.14	2.85	1.63
~HE * 21-30	2.34	3.29	4.13	2.81	1.56
~HE * 30+	2.10	3.41	4.06	2.85	1.85

TABLE XXXII  
 SUMMARY OF ANALYSIS OF VARIANCE FOR FREQUENCY OF  
 ROLE FUNCTION CONFLICT BY DEMOGRAPHIC VARIABLES

Source	df	Sum of Squares	F	Probability
Department	1	.45	.90	.35
Sex	1	.70	1.39	.24
Dept. * Sex	1	.00	.00	.97
Total	205	103.31	.76	.52
Department	1	.49	1.01	.32
Age	3	4.47	3.05	.03*
Dept. * Age	3	1.63	1.12	.34
Total	207	104.14	1.93	.06
Department	1	.64	1.32	.25
Experience	3	4.26	2.92	.03*
Dept.* Experience	3	1.50	1.03	.38
Total	201	100.99	1.88	.07
Department	1	.59	1.13	.27
Size	3	.69	.47	.71
Dept. * Size	3	2.58	1.77	.15
Total	206	100.64	1.13	.34

\*p < .05

TABLE XXXIII

SUMMARY OF ANALYSIS OF VARIANCE FOR FREQUENCY OF  
HIERARCHY CONFLICT BY DEMOGRAPHIC VARIABLES

Source	df	Sum of Squares	F	Probability
Department	1	.28	.80	.37
Sex	1	.29	.82	.37
Dept. * Sex	1	.00	.00	.92
Total	204	71.65	.55	.66
Department	1	.30	.86	.35
Age	1	2.57	2.49	.06
Dept. * Age	1	.35	.34	.80
Total	207	71.99	1.34	.23
Department	1	.36	1.05	.31
Experience	3	1.01	.97	.41
Dept.* Experience	3	1.72	1.65	.18
Total	201	70.52	1.27	.27
Department	1	.31	.94	.33
Size	3	1.27	1.26	.29
Dept. * Size	3	3.40	3.38	.02*
Total	206	71.79	2.12	.04*

\*p &lt; .05

TABLE XXXIV  
 SUMMARY OF ANALYSIS OF VARIANCE FOR EFFECTIVENESS  
 OF MANAGING ROLE FUNCTION CONFLICT  
 BY DEMOGRAPHIC VARIABLES

Source	df	Sum of Squares	F	Probability
Department	1	.01	.05	.82
Sex	1	.04	.17	.68
Dept. * Sex	1	.02	.10	.75
Total	203	41.81	.11	.95
Department	1	.02	.09	.77
Age	3	.20	.33	.81
Dept. * Age	3	.82	1.33	.27
Total	205	41.89	.72	.66
Department	1	.01	.04	.85
Experience	3	1.51	2.52	.06
Dept.* Experience	3	.55	.91	.44
Total	199	40.49	1.47	.18
Department	1	.02	.09	.77
Size	3	.08	.12	.94
Dept. * Size	3	.20	.32	.81
Total	205	41.89	.20	.98



TABLE XXXV  
 SUMMARY OF ANALYSIS OF VARIANCE FOR THE EFFECTIVENESS  
 OF MANAGING HIERARCHY CONFLICT  
 BY DEMOGRAPHIC VARIABLES

Source	df	Sum of Squares	F	Probability
Department	1	.28	.80	.37
Sex	1	.29	.82	.37
Dept. * Sex	1	.00	.00	.92
Total	204	71.65	.55	.66
Department	1	.12	.40	.53
Age	3	.17	.20	.90
Dept. * Age	3	.41	.48	.70
Total	205	57.18	.35	.93
Department	1	.11	.39	.53
Experience	3	2.23	2.75	.04*
Dept.* Experience	3	2.05	2.53	.05*
Total	199	56.22	2.32	.03*
Department	1	.14	.49	.48
Size	3	.87	1.04	.38
Dept. * Size	3	.31	.37	.78
Total	204	56.45	.67	.70

\*p < .05

VITA

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