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CONFLICT COMMUNICATION AND THE USE OF QUALITY MANAGEMENT

PRACTICES IN ACADEMIC DEPARTMENTS

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by

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ABSTRACT

This dissertation examined conflict communication and quality management practices in four academic departments at a large public research institution. Four conflict communication styles were identified, including interactive equality, supportive dissension, suppression, and deconstructive dissension. Three conflict types were observed, all having an identity element: task, process, and relationship conflict. Further, five quality management domains were identified, including systems thinking, strong leadership and decision making, focus on continuous renewal, faculty development and generativity, and stakeholder engagement.

Constructive conflict communication patterns and quality management practices are two important processes in the development of an academic department. Both co-exist in a mutually reinforcing developmental framework. The goal of each process is the same: to enhance departmental effectiveness. Supportive dissension and interactive equality may be the developmental tasks that departments need to master in order to achieve the cooperation and learning recommended by Deming (1993) in his framework of profound knowledge. Conversely, quality management practices may be the developmental tasks best suited to enhancing supportive dissension and interactive equality. It also appears that an important aspect of their successful interaction is strong leadership that facilitates systems thinking.

This dissertation employed descriptive case study methodology (Yin, 2003). Data collection included the following methods: survey, interview, observation, and document analysis. Pattern matching (Campbell, 1975) served to reveal the degree to which the

data matched the patterns for each study variable as suggested by face negotiation theory and cooperative conflict theory. Tenets of both theories, with the exception of their propositions regarding the use of cooperating, yielding, and avoiding conflict styles, received support.

Significant differences among departments surfaced in the degree to which the three conflict types were present and also in the degree to which the departments used quality management practices. Departmental differences for the use of conflict communication styles also emerged. Additionally, significant differences in the ways tenured and non-tenured faculty viewed their departments' use of the two quality constructs of information and analysis and process excellence were in evidence.

The developmental framework proposed in this dissertation provides indicators that can be used to recognize the organizational structures and processes that are critical to the development of quality management and constructive conflict patterns. The framework also provides guidelines for conflict management, including when to increase, maintain, or reduce conflict. Leaders and accreditors could use the indicators as they work to facilitate positive change in academic departments. This positive change could, in turn, enhance the quality of teaching, research, and service to the benefit of future generations and society at large.

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Chapter 1

Introduction and Literature Review

The research described in this dissertation examined conflict communication and quality management practices within academic departments at a large public research institution. Depending on circumstances related to styles and types of conflict (De Dreu, 1997; Tjosvold, 1991), conflict can have both positive and negative effects on organizational productivity. It is possible that constructive conflict communication plays an important role in helping to develop quality practices in academic departments. Developing the use of these practices is important, since they may facilitate the improvement of teaching, research, and service, which, in turn, can benefit future generations and enhance the contribution that higher education makes to society.

This research used as a theoretical framework two theories related to conflict communication and quality management practices. Face negotiation theory (Ting-Toomey, 1988; Ting-Toomey & Kurogi, 1998) predicts that face (social identity) threats influence the escalation of conflict and, thereby, make conflict more difficult to resolve. Cooperative conflict theory (Deutsch, 1949b, 1973, 2000) advances the view that cooperative, interdependent goals influence constructive conflict behavior. The case study methodology used in this research enabled an in-depth analysis of communication patterns in different settings that confirmed many propositions of the two theories and provided additional insights that extend the theories.

Conflict is one of the most pervasive types of communicative behavior in today's society (Canary, Cupach, & Messman, 1995). It is an important matter for organizations, in light of estimates that supervisors spend up to 20% of their time dealing with conflicts (Thomas & Schmidt, 1976). Indeed, the constructive management and resolution of conflict has been called the skill most important for organizational effectiveness (Tjosvold & Johnson, 1989). In the field of communication, there has been considerable interest in the study of conflict between individuals (Roloff & Soule, 2002), as well as within groups and organizations (Rahim, 2001). For this dissertation, conflict refers to "the incompatibility, incongruence, or disagreement among the members of a group or its subgroups regarding goals, functions, or activities of the group" (Rahim, 2001, p. 143).

Despite an impressive volume of research on conflict communication, there remain several areas in which further research is warranted. These include the clarification of conflict styles and types, as well as the nature of the relationship between conflict communication and the use of quality management practices in higher education.

The first line of inquiry warranting further study is the explication of conflict styles. Several different typologies of two, three, and five styles exist (see Rahim, 2001), and little effort has been made to integrate them (Janssen & Van de Vliert, 1996). Several conflict researchers have recommended that to enhance our knowledge of conflict styles their work should be supplemented with observational studies of actual conflict incidents (De Dreu & Weingart, 2003b; Oetzel, Myers, Meares, & Lara, 2003; Oetzel & Ting-Toomey, 2003).

A second line of inquiry that has been neglected until recently involves the clarification of conflict types and their differences. Most conflict research has either not

distinguished among types of conflict or has divided the types into two categories: cognitive and affective. Jehn (1997, 2000) has recently identified a third type of conflict, which she calls process conflict. Others have described what may be a fourth type of conflict based on identity (Rothman, 1997).

A third area with unanswered questions involves the nature of quality management practices in academic departments, and the relationship between conflict and the use of quality practices. The use of constructive conflict communication has positively influenced organizational decision making, creativity, and productivity (Tjosvold, 1991, 1997); however, research linking conflict to quality management practices is not in evidence. Conversely, researchers interested in quality practices have uncovered a relationship between such practices and productivity but appear to have not included conflict communication as a variable in their studies.

This dissertation uses the term “quality management practices” to describe a set of formal activities developed to enhance organizational excellence. In a recent review, Sousa and Voss (2002) claim that there is now substantial agreement concerning what constitutes the practices of quality management and that the Malcolm Baldrige National Quality Award framework includes these practices. For this research, the conception of quality management stemmed from a version of the Malcolm Baldrige National Quality Award customized for research universities that includes practices of leadership, strategic planning, external focus, information and analysis, faculty/staff and workplace focus, process effectiveness, and outcomes and achievements (Ruben, 2001).

Many colleges and universities started using quality management practices in the late 1980s and early 1990s. A decade later, there continues to be recognition that the use

of quality management is necessary in higher education in light of years of declining state support and demands for increases in efficiency, accountability, and assessment (Massy, 2003; Ruben, 2004; Wergin, 2003). The National Consortium for Continuous Improvement in Higher Education, begun in 1999, quadrupled in size to over 80 member organizations in less than three years (NCCI, 2002).

There is increasing pressure on those in higher education to enhance teaching and learning outcomes through the use of quality practices, such as assessment. In his often-cited report of scholarship reconsidered, Ernest Boyer (1990) called on faculty to include the scholarship of teaching in a balanced set of functions that entails research, integration, and application. He exhorted faculty to work collaboratively to enhance teaching and learning. However, if faculty have difficulty in their interactions, they will be less likely to succeed in such efforts.

A confirmation of the positive role of constructive conflict communication in academic departments would give us knowledge that could be put to practical use to sustain quality management practices in higher education. This could, in turn, enhance the quality of teaching, learning, research, and service in these institutions. This information would be particularly valuable for those in positions of leadership, since they generally can exercise more influence in respect to organizational change (Barge, 1994; Eisenberg, Andrews, Murphy, & Laine-Timmerman, 1999) and the use of quality practices (Flynn & Saladin, 2001).

Theoretical Framework

The remainder of this chapter includes a summary of the theoretical framework of this study, as well as the research and literature related to conflict and quality practices in higher education. Further, it presents the three research questions grounded in the integrated theoretical framework suggested by previous research addressed.

The identification of a theoretical framework is central to research design. The theoretical framework one chooses chosen reflects the researcher's epistemological preferences. Theories guide decisions a researcher makes through all phases of a research project and serve as a lens through which to view the phenomena studied. Deetz (1992) suggests that theory serves three basic functions: "directing attention, organizing experience, and enabling useful responses" (p. 71).

Two theoretical frameworks underlie the research described in this dissertation: face negotiation theory and the theory of cooperative conflict. Face negotiation theory is communication-based; cooperative conflict theory is from social psychology. Both have direct relevance to conflict and the use of quality practices and, therefore, can contribute to our understanding of communicative interaction related to these constructs.

Face Negotiation Theory

Face negotiation is the focus of a communication theory developed by Stella Ting-Toomey to describe and explain differences in the way we respond to conflict on the basis of our cultural backgrounds (Ting-Toomey, 1988; Ting-Toomey & Kurogi, 1998). Face is a metaphor for our public identity, or self-image, and is an important

element of social situations throughout the world. Specifically, face is “a projected image of one’s self in a relational situation” (Ting-Toomey, 1988, p. 215). All individuals want others to see themselves in a certain way, even though they may not be consciously aware of this desire. Ting-Toomey conceives of face negotiation as the communication strategies individuals use to uphold their own positive image (self-face) and to support or challenge another person’s (other-face), as well as the image both parties hold of the relationship (mutual-face), in conflict situations (Oetzel, Ting-Toomey, Yokochi, Masumoto, & Takai, 2000). There are two principles implicit in face negotiation theory. First, the face concern principle has to do with the relative degree of concern an individual has for self-face, other-face, or mutual-face. Second, the face need principle has to do with concern for autonomy, that is, negative face, and concern for inclusion, or positive face.

Face is involved in all types of conflict, because in any conflict interaction individuals will encounter the choice of protecting their own self-interests, those of the other person, and/or the interests of the relationship itself. When a person’s face is threatened during conflict, the consequences may include reduced flexibility on the part of the person whose face is threatened and an increased likelihood of impasse (Folger, Poole, & Stutman, 2001). When face threatening issues are salient, the focus shifts from the issue on which the conflict originally centered toward the face issues, which makes it more likely that the conflict will escalate into a destructive cycle of interaction that both parties view negatively.

Ting-Toomey (1988) originally considered face negotiation theory as a way to explain differences in conflict communication styles stemming from cultural preferences

for individualism versus collectivism. She proposed that those in cultures best described as collectivistic would be more likely to seek to uphold other-face rather than self-face, with the opposite's being true in individualistic cultures.

Face negotiation theory builds on the five-style dual-concern framework developed by Rahim (2001) and is based on the degree to which a person is concerned with self-interest, as well as with the interests of others. The five styles are problem solving (also called integrating, collaborating, or cooperating), forcing (also called competing or dominating), avoiding (also called suppressing or withdrawing), yielding (also called obliging, accommodating, or smoothing) and compromising (Putnam & Poole, 1987; Rahim, 2001). The theory posits that collectivistic cultures favor the avoiding, yielding, and compromising styles; in contrast, individualistic cultures reputedly favor forcing and problem solving styles (Ting-Toomey, 1988).

After several years of research, Ting-Toomey has revised the theory. It presently posits that the degree to which people see themselves as autonomous (independent; self-face) or connected to others (interdependent; other-face) is a better predictor of conflict interaction than their cultural or ethnic background (Ting-Toomey & Kurogi, 1998). She also has added the concept of power to the theory to explain communicative differences based on the cultural dimension of power distance. She proposes that individuals of different status levels in low power distance cultures (where differences in treatment based on status are less accepted) are more likely to use the forcing style to resolve conflict, whereas in high power distance cultures those in lower-status roles may use styles such as yielding.

A recent cross-cultural empirical test of the revised face negotiation theory supported much of the theory (Oetzel & Ting-Toomey, 2002). Self-face concern was positively associated with the dominating conflict style, and other-face concern was associated positively with the avoiding and integrating conflict styles. The present study drew on the propositions in face negotiation theory that pertain to conflict interaction styles at a cultural level, as opposed to the individual level. These are further detailed later in this chapter.

Face negotiation theory provides an interesting way to view the relationship between conflict and quality practices because of the centrality of identity issues and perceived connectedness to others. We know that self-identity or social identity issues are often salient when individuals, groups, or organizations are characterized by different types of diversity (Rothman, 1997). Both identity and perceived connectedness to others are also a central focus of cooperative conflict theory.

Theory of Cooperative Conflict

Morton Deutsch (1949b; 1973; 2000) developed a theory to describe the effects on conflict of both cooperation and competition. Crucial to the theory is the concept of goal interdependence. Goal interdependence is a condition in which people view achievement of their goals as contingent on the successful achievement of others (sometimes called promotive interdependence) or on the failure of others to achieve theirs (sometimes called contrient interdependence). When people view themselves as promotively interdependent, they believe the achievement of their own goals will

promote the success of the other person's goals. Conversely, the contritely interdependent belief is that one person cannot achieve his or her goals unless the other person does not. The independent view is that an individual's goal achievement has no effect on the other person's goal achievement. Goal interdependence and independence have similarities to the constructs of individualism versus collectivism and autonomy versus interdependence, which are central to face negotiation theory.

According to the theory, goal interdependence determines the likelihood of either cooperative or competitive action. Research has shown that cooperative action leads to greater group productivity and better interpersonal relations than does competitive action (Deutsch, 2000). Cooperative action, according to Deutsch and others, is a product of constructive controversy, which includes developing and expressing ideas, questioning and understanding, integrating and creating, and agreeing and implementing (Tjosvold, 1997). It shares similarities with the problem solving conflict style that promotes rational discussion, giving and seeking genuine information, empathy, and equality (Folger et al., 2001; Rahim, 2001).

Cooperative conflict theory is also relevant to the study of conflicts between people from different cultures (Tjosvold, 1997). Even groups engaged in identity-based conflicts stemming from differences between cultures reportedly engage in constructive resolution of conflicts when they begin to see themselves as promotively interdependent (Rothman, 1997).

Deutsch's efforts to identify the antecedents of constructive and destructive consequences of conflict gave rise to his "crude law of social relations" (Deutsch, 1973). This holds that processes and consequences of interaction are self-reinforcing, e.g.,

constructive interaction gives rise to further constructive interaction. In a recent publication where Deutsch (2003) reflects on the cumulative accomplishments of conflict research and suggests that this crude law describes only the phenotype (observable characteristics whose differences are caused by environmental factors) of cooperative and competitive behavior. He recommends further study of an interdisciplinary nature to gain an understanding of the genotype (groups of the same type that set the reaction to the environment) apart from their environmental influences (Deutsch, 2003).

Conflict Communication Styles

Dual Concern Style Framework

The dual-concern framework originated with Rahim (2001) in expanding on the superordinate goal model proposed by Blake and Mouton (1992). The dual-concern framework considers the degree to which a person is concerned with self-interest and the interests of others. The five styles outlined within the framework include: problem solving (also called integrating, collaborating, or cooperating); forcing (also called competing or dominating); avoiding (also called suppressing or withdrawing); yielding (also called obliging, conceding, accommodating, or smoothing); and compromising (Putnam & Poole, 1987; Rahim, 2001).

Problem solving. This style reflects a high degree of self-interest as well as a high degree of interest in others. It is characterized by rational discussion, giving and seeking genuine information, empathy, and equality. Face negotiation theory posits that people in

individualistic cultures and those who view themselves as independent use the style more than those in collectivistic cultures and those that view themselves as interdependent, and that the style is characterized by both high self-face and other-face concern (Ting-Toomey & Kurogi, 1998).

Recent research testing face negotiation theory has supported the association of other-face concern with the problem solving style (Oetzel et al., 2003; Oetzel & Ting-Toomey, 2003). The theory's prediction for high self-face concern was not supported (Oetzel & Ting-Toomey, 2003), but the problem solving style was associated positively with mutual-face (Oetzel et al., 2003).

The problem solving style also has relevance within the cooperative conflict theory. In tests of the theory, Tjosvold (1997) found that problem solving, together with compromising, comprised a cooperative conflict style.

Forcing. This style, within the dual-concern framework, reflects high concern for self and low concern for others. Face negotiation theory posits that those from individualistic cultures use the style more (Ting-Toomey & Kurogi, 1998), but this was not supported in recent research (Oetzel & Ting-Toomey, 2003). The prediction that it is associated positively with self-face concern has, however, received support (Oetzel & Ting-Toomey, 2003). The style clustered with emotional expression and passive aggression. When a face threat is present, this influences the likelihood of escalation and takes the focus away from task issues.

Avoiding. This style reflects low self-concern and low concern for others. Although it has not been confirmed, it has been suggested that avoiding could be used for differing goals. Face negotiation theory posits that those from collectivistic cultures use

the style more frequently than do those from individualistic cultures (Ting-Toomey & Kurogi, 1998). The theory also posits a high concern for both mutual and other-face (Ting-Toomey & Kurogi, 1998). Other face concern reportedly is positively associated with use of the avoiding style (Oetzel et al., 2003; Oetzel & Ting-Toomey, 2003).

The consequences of using an avoiding style can be either constructive or destructive. If a face threat is present, the use of this style may lead to escalation more so than would the use of problem solving or yielding.

Yielding. In the dual-concern framework those exhibiting this style show low self-concern and high concern for others. Face negotiation theory posits that those from collectivistic cultures favor it and that use of the style reflects both mutual and other-face concern. Research has confirmed its positive association with both other-face concern and mutual-face concern (Oetzel et al., 2003). If a face threat is present, the use of this style is less apt to result in escalation than either forcing or avoiding.

Compromising. This style is a product of moderate self and other concern in the dual-concern framework. Face negotiation theory predicts greater use by individuals from collectivistic cultures, and by those favoring mutual and other-face concerns (Ting-Toomey & Kurogi, 1998). Tests have confirmed the association with mutual and other-face concerns (Oetzel et al., 2003).

The compromising style also has relevance within the cooperative conflict theory. In tests of the theory, Tjosvold (1997) determined that compromising, in conjunction with problem solving, comprises a cooperative conflict style. Oetzel et al. (2003) also have described the combination of compromising and problem solving as a cooperative conflict style.

Goal Interdependence

Originating with Deutsch (1949a,; 1949b), a two-style typology of cooperativeness and competitiveness has been prominent in the conflict styles literature for some time. The two styles are based on the degree to which individuals perceive themselves to be promotively interdependent or contritely interdependent in respect to achievement of their individual goals, and are often called constructive controversy and destructive controversy. A third condition, independence, arises when individuals do not perceive that respective achievement of their goals is linked.

Constructive controversy. Group members who perceive themselves to be promotively interdependent reportedly discuss conflicts by means that show constructive controversy behavior, which, in turn, contributes to problem solving and effective coordination (Etherington & Tjosvold, 1998; Nauta & Sanders, 2000). The constructive controversy style involves developing and expressing ideas, questioning and understanding, integrating and creating, and agreeing and implementing (Tjosvold, 1997). Individuals using this style need the ability to conduct open discussions, feel empathy for one another, integrate their views, and reach agreement. Cooperative action promotes open-minded discussion and consideration of opposing views, which can lead to effective solutions (Tjosvold, 1997; Tjosvold & Morishima, 1999). Additionally, believing in mutually beneficial goals leads to the willingness to enhance one another's power and capacity to accomplish their goals (Deutsch, 2003). Organizations that encourage collective goals are more likely to find smaller perceived goal differences among groups that comprise them (Nauta & Sanders, 2001). If people believe their goals

are positively linked, it is much easier to resolve conflicts that arise (Tjosvold, 1997).

When they start cooperating, this promotes trust, which, in turn, promotes greater cooperation (Johnson & Johnson, 1990). Use of this style, then, results in greater group productivity and better interpersonal relations.

Destructive controversy. Deutsch's theory of cooperative conflict posits that when individuals perceive themselves to be contritely interdependent, their communication regarding conflict can lead to competition and ultimately destructive outcomes. It appears that competition promotes limited communication, which, in turn, may lead to greater competition (Johnson & Johnson, 1990). Individuals perceive that they will win by force or deception. This style increases attention to differences, which facilitates misperception and suspicion.

Individualistic. If group members believe that achievement of their individual goals is independent, constructive conflict theory posits that they will be indifferent when a conflict occurs (Deutsch, 1949a, 1949b, 2000). This means that more than likely they will not become engaged when disagreements occur in their groups.

Conflict Communication Types

Until the past decade, much of the research on conflict communication did not distinguish among types of conflict. When types were noted, they often fell into the two categories of affective and cognitive. Jehn (1995; 1997; 2000) has proposed the division of conflict types into three categories of relationship, task, and process conflict.

Relationship Conflict

When conflict centers on relationship issues, it often becomes destructive and can result in turnover and dissatisfaction among the members of organizations (Tjosvold, 1991, 1997). Relationship conflict is interpersonal in nature and reportedly is consistently detrimental. It is easy for relationship conflict to escalate into something that takes on a life of its own. For instance, once hurtful conversation occurs, it may be difficult to change the attributions one makes about another person. Individuals find themselves being suspicious of the other person's motives, even if the situation seems innocuous. It is possible that in the workplace, even if individuals expect to stay in the job for a long time, they may not have the investment in relationships that they do, say, with a spouse, to give them the motivation to repair the relationship. Therefore, the cycle of conflict may continue until one of the individuals leaves the organization.

In a study of conflict in workgroups, Jehn (1995) noted that successful groups had norms reinforcing the avoidance of relationship conflict. Those groups that had norms encouraging open communication about relationship conflict experienced negative impact of such conflict and their members' ability to deal with it.

Task Conflict

The utility of conflict has been studied extensively. In those studies that have differentiated among types of conflicts, a moderate level of conflict concerning tasks has proved to be beneficial to group and organizational outcomes (Tjosvold, 1991, 1997). Constructive outcomes of task conflict include creativity, innovative solutions, effective

decision making, social change, and the adjustment of norms (De Dreu, 1997; De Dreu & Weingart, 2003a; Johnson, Johnson, & Tjosvold, 2000; Tjosvold, 1991).

In light of the potentially beneficial consequences of conflict involving task issues, some researchers suggest that this type of conflict be generated when it is not otherwise present (De Dreu, 1997). A danger inherent in the purposeful generation of conflict is that it is possible for task conflict to change focus and become the sort of relationship conflict that has negative consequences. It can be difficult to keep conflict at the task level unless shared goals and strong organizational norms supporting cooperative engagement in task conflict are present (Barge, 1994).

Although in the past few years there has been much agreement in research literature concerning the utility of moderate levels of task conflict, the authors of a recent meta-analysis caution that more research is needed to reach definitive conclusions about the positive consequences of conflict (De Dreu & Weingart, 2003b). De Dreu and Weingart's analysis uncovered several studies in which the relationship between task conflict and performance was positive, but the average correlation across all studies included in the meta-analysis was negative and significant. They speculate that task conflict may have positive effects on performance only if high levels of trust, openness, psychological safety, and goal interdependence are present. Their speculations align with those of cooperative conflict theory, which predicts that promotive interdependence induces constructive conflict behavior. Face negotiation theory reinforces the speculation, since it predicts that face threats lead to the escalation of conflict and shift focus from task-related issues, which makes conflict more difficult to manage and resolve. One can assume that the environment DeDreu and Weingart (2003b)

characterize as having high levels of trust, openness, and psychological safety is related more to face-supporting behavior than face-threatening behavior.

Process Conflict

In a qualitative analysis of conflict types within six organizational work teams, Jehn (1997; 2000) identified a third distinct type of conflict related to process that had not been previously delineated by others. She indicates that “process conflict centers on task strategy and delegation of duties and resources” (Jehn, 2000, p. 57). In short, it relates to differences in how parties feel they should enact particular tasks. In an academic department, this might manifest itself as a disagreement about who should teach a particular course, or which specialty should be considered when a vacancy occurs and possibilities for new hires are being considered. Jehn (2000) determined that process conflict is often detrimental to performance and can lead to relationship conflict if not resolved.

Identity Conflict

A fourth type of conflict based on self identity and social identity issues is what Rothman (1997) defines as being “about who we really are and what we care about most deeply” (p. xiii), with roots “in the articulation of, and the threats or frustrations to, people’s collective need for dignity, recognition, safety, control, purpose, and efficacy” (p. 7). Affect is very much present in identity conflict; therefore, one could presume that

it would be destructive since relationship conflict, also affective in nature, reportedly is destructive. The tenets of face negotiation theory are relevant to identity conflict since face is a representation of an individual's social identity.

Rothman (1997) asserts that when identity issues are involved, traditional methods of managing conflict are inadequate and may even strengthen the negative effects of the conflict. He recommends engaging identity-based conflicts in a controlled way by extending the amount of time up front to clarify the opposing solutions and identity needs in a way that supports face needs and then reaching cooperation by means of communicative behavior similar to what Deutsch (2000) describes.

Quality Management Practices in Academic Departments

In the late 1980s and early 1990s, a number of colleges and universities in the United States started using quality management practices. This coincides with the period in which the Malcolm Baldrige National Quality Award was introduced for business use. Penn State is one of several universities that started the active use of quality practices during this timeframe and continue this use to the present time in both academic and administrative units. The pursuit of excellence is nothing new to higher education (Ruben, 1995); therefore, it is not surprising that interest in quality management practices continues within the higher education community.

Two of the most prominent quality management theorists are W. Edwards Deming (1986; 1993) and Joseph P. Juran (1988; 1992). Their work, which is primarily of a prescriptive nature, served as the original basis for the Baldrige framework and is

widely used by practitioners as a guide to the implementation of quality management practices.

Although the practice of quality management is widespread in higher education, as well as in other sectors, until the past decade few empirical research studies had emerged to establish its value (Flynn, Schroeder, & Sakakibara, 1994). A recent examination of doctoral dissertation topics revealed that not until the early 1990s did the impact of quality management on performance and the development of theoretical foundations for quality management practices come into existence as objects of scholarly attention (Jack, Stephens, & Evans, 2001).

There now is substantial agreement concerning the constructs that comprise quality management in the business context. The Malcolm Baldrige National Quality Award addresses these constructs (Dean & Bowen, 1994; Sousa & Voss, 2002). Several analyses involving the seven categories in the Baldrige framework provide evidence of the validity of relationships among the categories (Flynn & Saladin, 2001). The categories are interdependent, and have multiple linkages that together form a system.

Although the business sector has apparently converged on the Baldrige framework as a means to operationalize quality management, the higher education community has not reached this same level of agreement. A version of the Malcolm Baldrige National Quality Award, customized for research institutions, has been developed at Rutgers University and is now in use at several institutions as an instrument to assess quality practices (Ruben, 2001). This instrument, entitled Excellence in Higher Education, has seven categories that are similar to those in the Baldrige set: leadership,

strategic planning, external focus, information and analysis, faculty/staff and workplace focus, process effectiveness, and outcomes and achievements (Ruben, 2001).

Leadership

This category comprises two elements: organizational leadership and public and professional leadership and citizenship. Organizational leadership includes the senior leader's personal involvement in the creation and maintenance of the unit's mission, vision, values, and goals. It also includes consideration of the way in which leaders help promote collaboration and cooperation, as well as organizational and personal learning and engagement with stakeholders. The assessment of leadership effectiveness is an additional factor in this category (Ruben, 2001).

The second element in the leadership category is public and professional leadership and responsibility. It includes consideration of the extent to which leaders share their expertise within the campus community, as well as the local community and society (Ruben, 2001).

Strategic Planning

This category includes elements of both plan development and plan implementation. In terms of plan development, factors include the use of assessment data, the engagement of internal and external stakeholders, and the degree to which two-way communication and coordination is used. For plan implementation, important

elements include the way in which action steps are synchronized and completed, and the way in which progress is measured (Ruben, 2001).

External Focus

This category centers on the degree of engagement a unit has with its stakeholders. Academic departments typically recognize a number of stakeholder groups including, but not limited to, students, alumni, industry, citizens, and government. Departments that are highly engaged with their stakeholders are aware of their needs and expectations and have prioritized the different groups of stakeholders and their needs to enable them to focus on what they can realistically address. The category of external focus also includes the degree to which a department works to enhance relationships with its stakeholders and assesses their satisfaction with the programs and services they receive. Further, the category includes the degree to which the unit anticipates the future needs of its stakeholders (Ruben, 2001).

Information and Analysis

This category includes the ways in which a unit gathers and uses data and information to assess and improve. Performance assessment is the first element. It includes a unit's use of performance indicators, and peer comparison, as determinants of improvement opportunities. Information management, the second element, includes the

way in which information and data is coordinated and disseminated, as well as the analysis and use of data to improve (Ruben, 2001).

Faculty/Staff and Workplace Focus

This category includes unit-level work systems planning, or the way in which plans for recruitment, compensation, professional development and other factors are organized and administered. It also includes the ways in which education, training, and professional development foster individual performance, as well as the ways in which faculty and staff well-being and satisfaction are promoted and measured (Ruben, 2001).

Process Effectiveness

This category relates to the identification of processes that are critical to the mission of the department, as well as the ways in which the unit designs, supports, standardizes, documents, and monitors these processes. An example of a mission-critical process in an academic department is curriculum renewal. The category also includes the same actions undertaken for support processes, which are the ones necessary to the running of the organization, but not always visible to stakeholders (Ruben, 2001). An example of a support process is the recruitment of faculty.

Outcomes and Achievements

This category includes the documentation of results achieved for key programs, services and activities. For an academic department, a key program result would be student learning outcomes. The category further includes results for stakeholder relationships and satisfaction, as well as faculty/staff and workplace climate. Finally, it includes outcomes and achievements for organizational effectiveness for leadership, planning, information and analysis, and support processes (Ruben, 2001).

The Higher Education Context

The research for this dissertation drew on the seven categories in the Excellence in Higher Education framework as an initial operationalization of quality management practices in higher education. Practitioners have successfully used the Excellence in Higher Education framework to assess quality practices at several research universities.

At least one study within the higher education context identified quality practices that were described somewhat differently. In interviews with 360 faculty from 15 institutions, one team identified departments with a focus on academic quality as sharing eight characteristics: open communication, frequent interaction, tolerance of differences, generational equity, workload equity, evaluation of teaching, balanced incentives, and effective department chairs (Massy, Wilger, & Colbeck, 1994). It is striking that many of the eight practices Massy and his colleagues uncovered are relevant to the management of the four types of conflict highlighted earlier. Additionally, it is interesting that they were not able to find evidence of the use of three prominent quality practices: (a) a focus

on stakeholders, (b) concern for continuous improvement, and (c) the use of data for decision making.

Rationale and Research Questions

The research for this dissertation addressed three questions, centering on conflict styles, conflict types, and quality management practices. The questions and bases for them are detailed below.

Conflict Styles

The first line of inquiry warranting further study is the explication of conflict styles. Definitions of styles abound, and little effort has been made to integrate the typologies that exist (Janssen & Van de Vliert, 1996). Much of the research has been conducted on the basis of pre-determined definitions of conflict styles. Several researchers have recommended that to enhance knowledge of conflict styles extant work should be supplemented with observational studies of actual conflict incidents (De Dreu & Weingart, 2003b; Oetzel et al., 2003; Oetzel & Ting-Toomey, 2003). Indeed, the very foundation of research into conflict styles is being challenged as the result of a recent study revealing that people from individualistic and collectivistic cultures interpret the conventional meaning of all styles but forcing differently (Cai & Fink, 2002). Because of the need to clarify the different styles of conflict mentioned in the literature, the first research question for this study was:

RQ₁ What are the observed and self-reported conflict communication styles in academic departments in a research university, and how do they differ among departments?

Conflict Types

There is much that remains unknown about both the form and consequences of different types of conflict interaction. For example, in a recent meta-analysis, conflicting results concerning the value of stimulating moderate levels of task conflict surfaced (De Dreu & Weingart, 2003b).

It would be useful to clarify the form and consequences of conflict types. As a result of such clarification, it might be possible to better advise groups regarding the types of conflict that should be reinforced to achieve positive outcomes. Conversely, groups could be advised concerning the types of conflict that should be prevented or minimized to avoid destructive consequences. Given current ambiguities about types of conflict communication, the second research question was:

RQ₂ What are the observed and self-reported conflict communication types in academic departments in a research university, and how do they differ among departments?

Quality Management Practices

Several authors have identified a need for more detailed research involving quality management (Sousa & Voss, 2002). In particular, case studies of the use of quality management practices in different contexts and under differing levels of task uncertainty are lacking (Sitkin, Sutcliffe, & Schroeder, 1994). It is possible that quality

management practices are operationalized differently in higher education than they are in other sectors.

The present research drew on the seven categories in the Excellence in Higher Education framework to operationalize quality management practices in higher education. The seven categories do not explicitly make reference to conflict communication, but the theory behind the practices has elements that may be related to conflict communication. Two of the concepts underlying Deming's (1993) quality management system emphasize the importance of internal and external cooperation and a continuous cycle of learning. Instances in which Deming and Deutsch (2000) referenced one another's work, however, are not in evidence. It is nevertheless possible that Deutsch's theory of cooperative conflict could be used to predict the circumstances under which Deming's concepts of cooperation and learning would be successfully exhibited. One of the premises of the quality management theory underlying the Deming management method "concerns the creation of an organizational system that fosters cooperation and learning for facilitating the implementation of process management practices" (Anderson, Rungtusanatham, & Schroeder, 1994, p. 473). It would be interesting to examine this premise in relation to constructive conflict communication. It can be inferred that Deming did not look favorably on conflict, in that his only reference to conflict is as follows: "Harm comes from internal competition and conflict, and from the fear that is thereby generated" (Deming, 1993, p. 85).

Juran (1988; 1992) briefly mentions constructive conflict in his writings concerning product development in which he lists means of resolving differences. He describes constructive conflict as a way to identify creative solutions but not a process for

constructive conflict communication. Because he mentions constructive conflict in the context of product development, one can infer that he may be aware of the potential for constructive conflict to enhance creativity. An expansion of knowledge concerning the relationship of constructive conflict to quality management practices possibly would enhance the theoretical significance of both constructs. In light of this possibility, the final research question addressed was:

RQ₃ What are the observed and self-reported quality management practices in academic departments in a research university, and how do they differ among departments?

This chapter has summarized scholarly literature related to conflict styles and types, as well as quality management in higher education. The two theories whose propositions were used to inform the study and guide the analytic strategy were described. Finally, three research questions were provided along with a rationale for their use. Chapter 2 describes the methods used in the study.

Chapter 2

Methods and Procedures

This chapter includes details concerning the approach and methods used to investigate the three research questions described in Chapter 1. The information presented pertains to the study participants, procedures, measures, and data analysis. To answer the three research questions, the investigation incorporated a descriptive type case study methodology with theoretical replication (Yin, 2003). The variables studied for each participating department were to be described in as much depth as the methods allowed, so that comparing the empirical results to the propositions in face negotiation theory and cooperative conflict theory would allow for trustworthy analysis and conclusions. To achieve this required several methods of data collection, including surveys, interviews, observations, and document analysis.

The Researcher's Role and Ethical Considerations

In communication, scholars hold diverse worldviews, ranging from positivist to interpretivist. At the positivist end of the continuum, scholars tend to believe there is one reality that can be discovered, that it is possible for the researcher to serve a completely neutral role that does not affect the objects under scrutiny. In contrast, those favoring the interpretivist worldview see reality as being socially constructed. They acknowledge multiple perspectives on reality and meaning and also the impact of the researcher on the research and participants. In this research, the investigator's worldview was

interpretivist. Thus, designing and conducting this research entailed consideration of the impact the researcher's presence, as well as her personal belief and values, might have on the data to be collected.

When making initial contact with the department heads, care was taken to ensure that they knew the research was not connected in any way to the investigator's professional role at the university in the Office of the Provost and that no information concerning their departments or identity would be shared with anyone except her thesis advisor. This was also mentioned during introductions at the start of meetings that were observed, and in the individual interviews. The promise of confidentiality was crucial to uphold; therefore some data are reported in the aggregate in the results section of this dissertation to help ensure that the departments could not be identified.

In addition to professional role, the investigator's personal values and beliefs that had the potential to influence the research were considered. After years of working with academic departments and other groups, she had identified practices she believed resulted in constructive group outcomes, for example, the belief that under appropriate circumstances, the use of structured communication practices enhances group outcomes. The investigator took care to bracket, or consciously set aside, these beliefs to maintain an open mind when identifying participants' views.

Another variable important in qualitative research is reactivity, or the influence the research has on participants simply by being present. The investigator's role during departmental meetings was as a non-participating observer. A total of eight departmental meetings were observed, and reactivity was minimized by her placement in an unobtrusive location in the back or corner of the meeting rooms.

Participants and Procedures

Sampling entailed use of the critical case method, whereby exemplar groups are chosen that ideally will yield the most data (Miller-Day, 2001b). A purposeful sampling strategy was used to select four academic departments at Penn State University that provided the greatest opportunity to learn about differences in the communication of dissent between academic departments using different levels of quality management practices. The use of four departments enabled theoretical replication, whereby the different case reports were compared for predictive responses (Yin, 2003).

To maximize dependability of the study, an attempt was made to identify four departments of similar size that all had similar disciplinary groupings of either hard-pure, hard-applied, soft-pure, or soft-applied (Becher & Trowler, 2001). Disciplines in the hard-pure and hard-applied areas have a greater level of agreement concerning disciplinary paradigms, so choosing four departments with the same disciplinary grouping presumably would minimize the possibility of confounding the results with effects based on disciplinary differences.

The recommendations of the Executive Director of Penn State's Office of Planning and Institutional Assessment served in identifying a list of academic departments that had demonstrated sustained use of quality practices. The executive director identified nine potential departments and ranked their level of quality management as "just starting" (some use) and "intermediate" (much use). Faculty demographic data were then obtained from the websites of the six "intermediate" departments, as were data from three additional applied social science departments.

The investigator determined how closely departments met the desired criteria of known level of quality practice (two with no use of quality management practices and two with sustained use), size (10-20 tenured and tenure-track faculty), gender mix (one quarter to one half women), and discipline (applied social science). From this analysis, she initially selected the six best meeting the criteria.

Gaining Entry and Consent

Following approval by the Institutional Review Board (see Appendix A), the investigator met with department heads of six of the departments most closely meeting the criteria to request participation. They were provided with the consent form, interview protocol, and survey instrument. After consulting with their faculty, two department heads declined participation for reasons of timing (this was four weeks before the end of the spring 2003 semester) and upcoming leadership changes. Four department heads agreed to participate, so an email message was then sent to all tenured and tenure track faculty in those departments to provide information about the study (see Appendix B).

The four participating departments fully met the criteria of applied social science and known level of quality management use. However, two did not meet the criteria for department size of 10-20 tenured or tenure track faculty, with one department slightly under and one over that range. Further, two departments did not meet the criteria for gender mix of one quarter to one half women, with one department slightly under and one slightly over that range.

There were a total of 79 tenured and tenure-track faculty in the four departments. Of these, 36 participated in the survey, for a response rate of 46%. A total of 27 faculty participated in interviews, equaling 34% of the total population of 79 faculty members. Detailed participant demographics appear in Table 1.

Table 1: Participant Information

Total faculty within the subject departments (N = 79)	n	% of n
Male	55	69.6%
Female	24	30.4%
Assistant Professor	19	24.1%
Associate Professor	18	22.8%
Full Professor	42	53.2%
Nontenured (tenure track only)	20	25.3%
Tenured	59	74.7%
Survey participants N = 36 (46% response rate)	n	% of n
Male	22	61.1%
Female	14	38.9%
Assistant Professor	8	22.9%
Associate Professor	7	20.0%
Full Professor	20	57.1%
Nontenured (tenure track only)	10	28.6%
Tenured	25	71.4%
Age	30-39 = 9 40-49 = 10 50-59 = 13 60-64 = 3	25.7% 28.6% 37.1% 8.6%
Graduation	1960-69 = 1 1970-79 = 8 1980-89 = 11 1990-99 = 11 2000-02 = 3	9% 23.5% 32.4% 32.4% 8.8%
Duration in department	1-7 years = 16 8-17 = 10 18-30 = 7	48.5% 30.3% 21.2%
Interview participants N = 27 (34% of total population)	N	% of n
Male	18	66.7%
Female	9	33.3%
Assistant Professor	7	25.9%
Associate Professor	3	11.1%
Full Professor	17	63.0%
Nontenured (tenure track only)	8	29.6%
Tenured	19	70.4%

Interviews With Key Informants

To start the research in each department, a second interview involving the protocol in Appendix C was conducted with the department head. This facilitated the discovery of his or her unique perspective on conflict communication and the use of quality practices within the department, and the determination of which departments might yield the most data.

The interview protocol was developed based on a matrix of interview question options recommending the creation of general questions in the domains of behavior, opinion, feeling, knowledge, sensory, and demographic/background (Miller-Day, 2001a). Depending on the research questions, one should ask about the past, present, and future for each of the domains. For this study, it was important to determine faculty perceptions about the present situation in their departments, and to hear stories about past events related to conflict communication and quality management that they thought were emblematic of the current situation.

During the initial interview with the department head, each was asked for recommendations of others who should be interviewed as key informants. A snowball sampling approach was then used to identify additional faculty for interviews, by asking each interviewee for recommendations and inviting those who received multiple recommendations. A total of 31 interviews were conducted with 27 faculty. The interviews ranged from 30 to 90 minutes and averaged just less than 60 minutes. The percentage of tenured and tenure-track faculty interviewed in each department ranged

from 30.0% to 42.8%, including 30.0% of the faculty in department one, 42.8% in department two, 42.8% in department three, and 31.6% in department four.

The protocol in Appendix C was used for each interview. The investigator took detailed notes during the interviews and transcribed the notes as soon as possible after each interview.

Meeting Observation

Two faculty meetings in each department were observed to develop a sense of faculty interaction. Observations were guided by the patterns predicted in face negotiation theory and constructive conflict theory, as well as by the practices in quality management. Notes taken during the meetings were transcribed as soon as possible after the meetings. After meetings the investigator talked briefly with the department head about his perception of the meeting and the degree to which he thought the interaction was typical of other meetings. In addition to this serving as a form of member checking, it helped to verify that reactivity was not a significant factor. Any meeting minutes produced from the meetings were also reviewed to verify facts. The decision concerning which meetings to observe was limited in two of the departments by the fact that by this time it was early April and they did not have any other meetings scheduled until fall semester.

Following the transcription of the meeting notes, the investigator created a contact summary sheet for each visit that consisted of a listing of primary impressions, a summary of information pertaining to each of the research questions, and any remaining

or new questions to be resolved in subsequent contacts (Miles & Huberman, 1994). This summary provided the source for additional theoretical memos to capture current thinking about the data.

Research Journal

The investigator kept a journal of theoretical memos involving ideas and general impressions about the departments and ongoing findings. In it she noted decisions made throughout the process of gathering and analyzing data and writing results. These memos served as another data source coded during the qualitative analysis phase of the research.

Documents

The investigator selected for review departmental documents and records that were related to the research questions. These included departmental histories, minutes of past departmental meetings, websites, strategic plans, teaching enhancement plans, and records of improvement projects, such as curriculum renewal. Summaries of the information related to the research questions were then written for use as another data source.

Measures

The investigator sent an email note to all tenured and tenure track faculty in each department (see Appendix B) inviting them to complete an anonymous web-based

questionnaire containing close-ended and open-ended questions addressing conflict and the use of quality practices. Each department had a different password to ensure that it would be possible to identify the department. One week after sending the first note, the investigator sent a reminder. The reminder led to a sufficient response rate of 44%, so it was not necessary to send further reminders.

The questionnaire, developed with the aid of several sources, consisted of both open-ended and close-ended items (see Appendix D for the survey subscales). The quality management subscales were adapted from the Excellence in Higher Education framework and related to the seven dimensions of leadership, strategic planning, external focus, information and analysis, faculty/staff and workplace focus, process effectiveness, and outcomes and achievements (Ruben, 2001). The reliability of these subscales had not been established. The Dutch Test for Conflict Handling was used for conflict style subscales, and alphas were reported at: yielding .65, compromising .66, forcing .70, problem solving .68, and avoiding .73 (De Dreu, Evers, Beersma, Kluwer, & Nauta, 2001). Jehn's conflict type subscales were used to measure conflict types, with alphas reported at .92 for relationship conflict and .87 for task conflict (1995). An alpha for process conflict was not available. Subscales concerning face issues and goals came from Dr. Dean Tjosvold (personal communication, November 19, 2002). A previously reported reliability coefficient for the goals subscale was .84 (Tjosvold & Sun, 2000); the reliability of the subscale for face had not been established.

An expert panel evaluated the questionnaire prior to distribution to the case study sites. The panel consisted of Dr. Jon Nussbaum (the investigator's doctoral advisor), Dr. Dennis Gouran, Dr. Michelle Miller-Day, Dr. Michael Dooris, and Dr. Brent Ruben.

Drs. Nussbaum, Gouran, and Miller-Day had knowledge of both qualitative and quantitative communication research, as well as the communication variables to be studied. Dr. Dooris had expertise in quantitative and qualitative research in higher education, as well as organizational theory as it applies to higher education. Dr. Ruben had expertise in quality management in higher education, as well as quantitative and qualitative communication research.

Panel members provided comments relating to the content of the items and the completion time, which ranged from 10-40 minutes. The feedback led to revision of several items including demographic categories to maximize anonymity.

Data Analysis

The general strategy used for data analysis was to compare data obtained to theoretical propositions. Each collection method yielded different types of data that permitted characterization of various perceptions of conflict communication and related behaviors, as well as quality management practices.

Analysis of Textual Data

Analysis was initiated with department one because the faculty seemed to be active in quality management, and presumably would generate a large variety of codes. The first step was to organize the data and become familiar with it. The investigator

reread all interview notes, field observation notes, theoretical memos, survey comments, and departmental documents, and noted impressions in theoretical memos.

The second step entailed open coding of the textual data garnered from all sources in accordance with the constant comparison method (see Glaser & Strauss, 1967). This involved looking for units of data, or codes, by reading each piece of data line by line, while conducting a provisional running analysis and interpretation that compared the first code with subsequent codes. For this research, a code was a label given to a unit of data derived directly from responses. Open coding led to axial coding, which consisted of collapsing codes into domains. For this research, domains were categories, or groups of codes. The investigator noted the relevance to developing domains and compared the contents of the code with other data similarly categorized. While coding, the investigator created a codebook to describe each code and domain. Reasons were noted for making changes to combine and delete codes. As new ideas and categories became apparent, additional codes were added and organized into domains. The initial coding of department one's data included 62 codes that were organized into nine domains of leadership, focus on stakeholders, information and analysis, faculty/workplace focus, process effectiveness, goals, conflict styles, conflict types, and face support.

Next, the investigator coded the data for department two because it seemingly was least like department one. Finishing the coding for department two resulted in an additional 33 codes, for a total of 95 codes. Further, the domain of face threats was added, leading to a total of 10 domains. See Table 2 for a listing of these codes and domains.

Table 2: Code List Following Coding of Data From Departments 1 and 2

<p>Leadership Head keeps confidences Effective dept head Satisfied dept head Head walks hallways Head is trusted Head associated with turnaround Steady stream of information Efficient dept meetings No regular meetings Inefficient meetings</p> <p>Face Threats Conscious of rank Friendly but distracted Feeling slighted Don't have time for one another Aversion to meetings Poor listening Direct insult</p> <p>Focus on Stakeholders External focus Stakeholder relationships</p> <p>Information and Analysis Benchmarking r.e. enrollment Individual input Performance indicators Research the issue Decisions delegated to committees Data based decision making Consensus decision making Share info on budget openly Decisions made outside mtgs with few Decisions by email</p> <p>Faculty/Workplace Focus Mentoring Faculty workshops on teaching Bulletin boards in hallway Faculty/staff development</p> <p>Process Effectiveness Head suggests teaching improvements Peer observation Frequent discussions about teaching Focus on continuous improvement Evidence of teaching problems Pressure to focus only on top-level Change seen negatively</p> <p>Goals Promotive interdependence Discuss integration of different objectives Dept focused on goals Not thinking of good of the whole Disconnected</p>	<p>Conflict Styles Unwilling to yield Voice dissenting opinions Mediation by dept head Anger Meet halfway Head teaches people to articulate differences No grudges Devil's advocate Lots of connections with one another Deal with conflict right away Committees talk it through Free to speak up Head presents other perspective Draw people out to get all opinions Don't face up to many decisions Hesitant to bring up sore subjects Defensiveness Hollowed collegiality Prejudging Suppress conflict</p> <p>Conflict Types Personal topics Position types Personality conflict Politically charged topics Generation gap conflict Budget tensions Allocation of resources Tension about tenure process Tensions about change in college and dept Tensions about time</p> <p>Face Support Treat each other well Respect one another Equality Find out what others are doing Face support Frequent meetings Everyone here a lot Effective meetings Friendly and helpful Lively, fun meetings People care about each other Trust one another Line of constraint Humor Fully informed Very social faculty Know each other well Collegiality Use of process procedures Don't socialize a lot Respect each other's thinking</p>
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Following this initial pattern analysis of data from departments one and two the investigator coded the data from departments three and four. Shortly after starting this coding, she determined that theoretical saturation had been reached, meaning the data were repeating themselves and no new themes were appearing. Eleven codes were added to those identified for departments one and two, for a total of 106 codes in 10 domains. See Table 3 for a listing of these codes and domains.

Table 3: Code List Following Coding of Data From Departments 3 and 4

<p>Leadership Head keeps confidences Effective dept head Satisfied dept head Head walks hallways Head is trusted Local champion of reconciliation Steady stream of information Efficient dept meetings No regular meetings Inefficient meetings One-way communication with little discussion Discussion closure</p> <p>Face Threats Conscious of rank Friendly but distracted Feeling slighted Don't have time for one another Aversion to meetings Poor listening Direct insult Implied put-down Raised voices</p> <p>Focus on Stakeholders External focus Stakeholder relationships</p> <p>Information and Analysis Benchmarking r.e. enrollment Individual input Performance indicators Research the issue Decisions delegated to committees Data based decision making Consensus decision making Share info on budget openly Decisions made outside mtgs with few Decisions by email Decisions made by voting</p> <p>Faculty/Workplace Focus Mentoring Faculty workshops on teaching Bulletin boards in hallway Faculty/staff development Lack discussion skills</p> <p>Process Effectiveness Head suggests teaching improvements Peer observation Frequent discussions about teaching Focus on continuous improvement Evidence of teaching problems Pressure to focus only on top-level Change seen negatively</p> <p>Goals Promotive interdependence Discuss integration of different objectives Dept focused on goals Not thinking of good of the whole Disconnected United against common enemy Participatory strategic planning Conitrient interdependence</p>	<p>Conflict Styles Unwilling to yield Voice dissenting opinions Mediation by dept head Anger Meet halfway Head teaches people to articulate differences No grudges Devil's advocate Lots of connections with one another Deal with conflict right away Committees talk it through Free to speak up Head presents other perspective Draw people out to get all opinions Don't face up to many decisions Hesitant to bring up sore subjects Defensiveness Hollowed collegiality Prejudging Suppress conflict Confrontational</p> <p>Conflict Types Personal topics Position types Personality conflict Politically charged topics Generation gap conflict Budget tensions Allocation of resources Tension about tenure process Tensions about change in college and dept Tensions about time Program differences</p> <p>Face Support Treat each other well Respect one another Equality Find out what others are doing Face support Frequent meetings Everyone here a lot Effective meetings Friendly and helpful Lively, fun meetings People care about each other Trust one another Line of constraint Humor Fully informed Very social faculty Know each other well Collegiality Use of process procedures Don't socialize a lot Respect each other's thinking</p>
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Cross Case Analysis

While coding the data from departments three and four, the investigator began the process of cross case analysis. For the duration of the data analysis, recursive analysis served in alternating between single-case and cross-case analysis. This permitted the identification of linkages among items to create a theoretical model (see Miles & Huberman, 1994). Recursive analysis entails moving back and forth between the parts and the whole to help one consider different aspects of the data and deepen his or her understanding. Over time, one gains additional insights that provide a fresh look at the data. The previously-generated theoretical memos proved to be particularly helpful for recursive analysis.

Pattern matching served to reveal the degree to which the data for each study variable corresponded to expectations suggested by face negotiation theory and cooperative conflict theory (Campbell, 1975). Campbell describes pattern matching as a way to test theory in case study research, “with degrees of freedom coming from the multiple implications of any one theory” (Campbell, 1975, p. 182). Patterns suggested by face negotiation theory were the types of conflict styles used in relation to face threats and face support. For cooperative conflict theory, patterns were the three types of goal-related interdependence (cooperative, competitive, independent) in relation to constructive or destructive styles of conflict behavior. Pattern matches were noted, as well as the examples that did not fit the patterns suggested by the theories. Differences

between the departments were also noted since they differed in their use of quality practices.

Both theories have propositions suggesting that the perception of promotive interdependence leads to constructive conflict communication, so the data were examined to determine whether a majority of the communicative behavior reported in any of the departments could be classified as constructive conflict communication and, if so, whether these departments also described themselves in ways suggesting a perception of promotive interdependence.

The first phase of the pattern analysis was based on the interpretive data from departments one and two, the two departments that were initially thought to be the most dissimilar in terms of conflict communication and use of quality management practices. All but one of the domains that emerged from the coding of data from departments one and two included codes representing both the positive and negative valence of the domain. For example, the domain labeled “face support,” which later was labeled as the interactive equality conflict style, contained the code “equality,” and represented the status that was significant to the faculty in department one. It also contained the code “rankism,” which described essentially the opposite end of the scale from equality. These represented a dialectical tension that was identified as a pattern. The seven most visible dialectical tensions that were noted were (a) Equal status and respect vs. rankism; (b) Listening vs. pre-judging; (c) Facing issues head on vs. avoiding; (d) Connected vs. disconnected; (e) Feeling fully informed vs. out of the loop; (f) Holding each other accountable vs. no accountability to one another; and (g) Departmentally initiated vs.

externally initiated renewal efforts. Tensions a, b, and c fell into conflict communication style domains, and d, e, f, and g were in quality management domains.

The initial expectation was that departments one and four used the most quality management practices, with departments two and three using less quality management practices. To test this assumption, the investigator compared the codes from departments one and four to note overlap. The results showed that department four shared only 50.85% of the department one codes. The numerical data showed that they were close to opposite ends of the scale in many of the domains. This discovery led to consideration of the possibility that the use of quality management practices could be considered along a developmental continuum with dimensions consisting of the primary domains of codes.

Through a combination of constant comparison method, recursive analysis, and pattern matching with theoretical propositions the codes listed in Table 3 were consolidated. This consisted of: re-reading the data coded at each node; studying the assays of each of the sets that had been created for tenure status, department, and gender; and conducting node searches to look for patterns in node intersection and proximity. The numbers of codes per department for each of the 10 domains were then quantified. Since there were large differences in department size, percentages were calculated for each domain by department combination. This facilitated additional cross-case analysis and resulted in the structure exhibited in Table 4. It consisted of 45 codes in 10 domains, and was much closer to the final framework described in Chapter 3.

Table 4: Code List Following Initial Cross Case Analysis

Leadership, decision making, and information sharing Consensus decision w/broad discussion Use of data Extensive information sharing Participatory strategic planning Decisions w/o broad discussion	Constructive Dissension Not crossing the line Mediation by dept head Devil's advocate Deal with conflict right away Use of process procedures Differing opinions
Stakeholder engagement Stakeholder needs identification Stakeholder relationships	Destructive Dissension Unwilling to yield Anger Raised voices Implied put-down Direct insult Poor listening Bully
Faculty development/generativity Mentoring/generativity Faculty/staff development Tension about tenure process	Avoidance One-way communication with little disc Lack of discussion closure Don't face up to many decisions Hesitant to bring up sore subjects
Focus on continuous improvement Process improvement Program excellence Teaching excellence	Conflict Types Different disciplinary values Generational differences Personality conflict Resource allocation
Systems Thinking Promotive interdependence Disconnected Mutual responsibility	
Workplace climate Respect/trust Equality Rankism Take time for meetings Meeting rarely held Like/care for each other Rarely socialize together Socialize frequently	

Analysis of Survey Data

The numeric data from the questionnaire were analyzed using two nonparametric statistical tests recommended for ordinal level data. These were the Mann-Whitney U , which indicates whether two groups come from populations with different distributions

and is the nonparametric analog of the t -test, and the Kruskal-Wallis H test, which is the nonparametric analog of one-way analysis of variance and enables one to detect differences in distribution location for multiple independent samples (F. Williams, 1992).

Nonparametric tests are often used when nominal or ordinal level data are being analyzed (F. Williams, 1992). There were several additional reasons for using nonparametric tests. First, there was a large variance in department size with one department being over three times larger than another. Second, data were from a non-random sample. Third, the total number of respondents was 36, which is just over the minimum number of 30 considered appropriate for parametric statistics. Fourth, when exploring the data via case summaries to review distributions, it was discovered that several distributions showed skewness (departure from normality) at levels outside the acceptable range of +1 to -1. Nonparametric tests are “distribution free” tests and do not require the assumption of a normal distribution (Healey, 2002).

Prior to conducting the tests to examine differences, it was necessary to organize the data and define the variables. Data from the demographic questions were consolidated and coded at the nominal level to facilitate analysis. For instance, the survey question for age used eleven response categories in five-year increments ranging from 25-29 to 75 or above. Reviewing the distribution of the data for this question made it apparent that it could be recoded to four categories of 30-39, 40-49, 50-59, and 60-64. These were then given labels of 1-4. Data for the question concerning the individual's highest degree were recoded as 1 = Ph.D. and 2 = other.

After organizing the data and labeling the individual variables, average scores were created for each of the clusters of study variables. This resulted in indexes for three

types of conflict, five styles, goal interdependence, face, and seven quality management practices. An index combining the seven quality management variables was also included. The use of scores for indexes is common practice in the social sciences. For purposes of the statistical analyses, summated scores were used to rank all respondents for a given variable cluster. The rank of each person in a cohort was the unit of analysis. The summed ranks in a cohort divided by the number produced a mean rank (Babbie, Halley, & Zaino, 2003).

The next step was to explore the data and identify descriptive statistics for each index and each department. Case summaries were created with the N, mean, median, sum, range, standard deviation, skewness, % of Total Sum, and % of total N. Mann-Whitney *U* and Kruskal-Wallis tests were then conducted to determine differences among departments for the various indexes and to determine differences for tenure status and gender. These were subsequently compared against the code percentages that had previously been generated for each department to integrate these data into the cross case analysis.

During the course of the analysis, the investigator took care to use a systematic process to help ensure validity, or transferability, and reliability, or trustworthiness, of the findings. These elements are detailed next.

Internal Validity, External Validity, and Reliability

Internal validity. Qualitative research is often characterized by high internal validity, or accuracy of findings, due in large part to the credibility established by the

researcher. Credibility is established over time with onsite research, member checking, and data triangulation. Triangulation is one way to provide multiple perspectives on the study (LeCompte & Schensul, 1999).

This study employed three different mechanisms by which to help ensure internal validity. First, data triangulation was enabled through the use of multiple sources, including interviews, observation, surveys, and documents. Second, theory triangulation permitted comparison and contrast of the implications of both the face negotiation theory and the constructive conflict theory. Third, internal validity was enhanced by use of three rating sources. One source was the Executive Director of the Office of Planning and Institutional Assessment at Penn State, who rated nine departments for their level of quality development. The confidentiality of the participating departments' identity was preserved because she was not told which of the nine departments she rated became participants. A second source was the investigator's rating of the departments on the developmental framework created during data analysis. Third, faculty in the four departments self-rated their use of quality management practices and conflict communication.

External Validity. In qualitative research, external validity is the degree to which the findings can be transferred to other settings, rather than the degree to which they can be generalized to the population from which they are drawn. To help ensure external validity of this research, the investigator took care to document and describe data collection, analysis, and interpretation methods so that other researchers could duplicate the methods.

Reliability. One important aspect of any research is its dependability and consistency, defined as its reliability or trustworthiness (see Lincoln & Guba, 1985). For this research, interrater reliability was calculated to test the internal consistency of the coding scheme. After the structure listed in Table 4 emerged through analysis, a colleague from Penn State assisted in determining the trustworthiness of the coding. This individual had training and experience in social science research. He received the codebook and instruction about the meaning of the codes. Approximately 3% of the passages coded for conflict types, conflict styles, and quality management practices were then randomly selected for testing. The index of interrater reliability was percentage of agreement. Agreements of 80% or better are seen as acceptable, and the level for this coding framework was sufficiently high at 91.4%, 98.6%, and 94.2% respectively for types, styles, and quality management practices.

Further, the Cronbach's alpha was calculated for each survey subscale to test internal consistency. All but three of the subscales had an acceptable rating of .70 or greater. For the quality management subscales, the Cronbach's alpha was as follows: leadership .92, planning .81, external focus .89, information and analysis .91, workplace .89, process .72, and outcomes .72. The alpha for the face subscale was .87. The goals subscale had an unacceptable alpha of .27. Estimated reliability of the conflict types was as follows: relationship conflict .92, task conflict .79, and process conflict .80. Alphas for the conflict styles were fairly low but similar to or higher than DeDreu's results except for problem solving, for which his results revealed an alpha of .68. For this study, the yielding style alpha was .65, compromising .76, problem solving .63, avoiding .75, and forcing style .75.

In addition to interrater reliability and Cronbach's alpha, another indicator of reliability is the presence of an audit trail. Therefore, the principal investigator maintained the journal mentioned previously, in which she recorded notes regarding results, explanations of concepts, and details of decisions made during the process.

This chapter has summarized the details of methods and procedures used in the study. The next chapter highlights key results.

Chapter 3

Results

The academic style of conflict is so interesting. Mean attacking statements made in academic style with big words. The tone is fine, but the words are insulting. They view it as an opportunity to be mean and demonstrate how much smarter they are. It's power.

-Junior faculty interview participant, department four

This chapter summarizes results of the study. For each research question, the chapter presents results from the interpretive portion of the study obtained through interviews, meeting observation, and document analysis first and then a comparison with survey results. As mentioned in Chapter 2, inductive analysis of data from interviews, meeting observation, and document analysis permitted identification of four domains of conflict styles. Three of the conflict styles, “supportive dissension,” “destructive dissension,” and “suppression,” share characteristics with the dual-concern styles defined in previous scholarship as problem solving, forcing, and avoiding, although the styles identified in this study varied in ways mentioned in the next section. The fourth style was “interactive equality.” This style comprises elements of self-face support, other-face support, and mutual-face support, including respect, trust, equality, caring, frequent interaction and information sharing, “not crossing the line of reason,” and resolving potentially destructive differences right away. Not crossing the line of reason bears some resemblance to elements of the dual-concern style called avoiding.

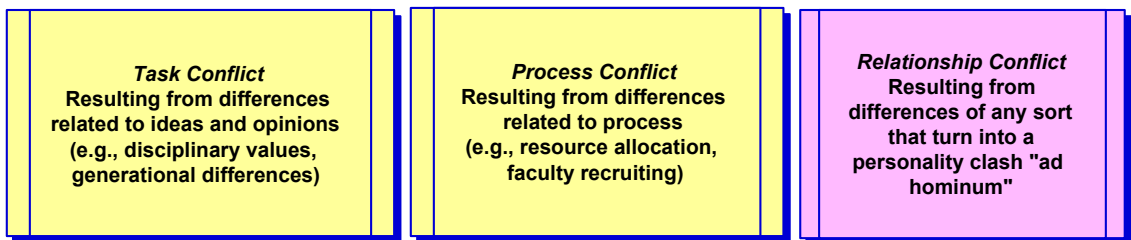
In addition to the four conflict styles, three domains of conflict types were in evidence, including relationship, task, and process conflict. These types support Karen Jehn's (1997, 2000) findings in her study of group conflict over the past decade, but the

differences of opinion classified as process and task conflict occurred in relation to issues that were uniquely personal. Further, identity issues underlay all three, which could be exclusive to higher education. The matters of concern were disciplinary values, resource allocation for faculty hiring decisions, and generational/cohort differences based on tenure status.

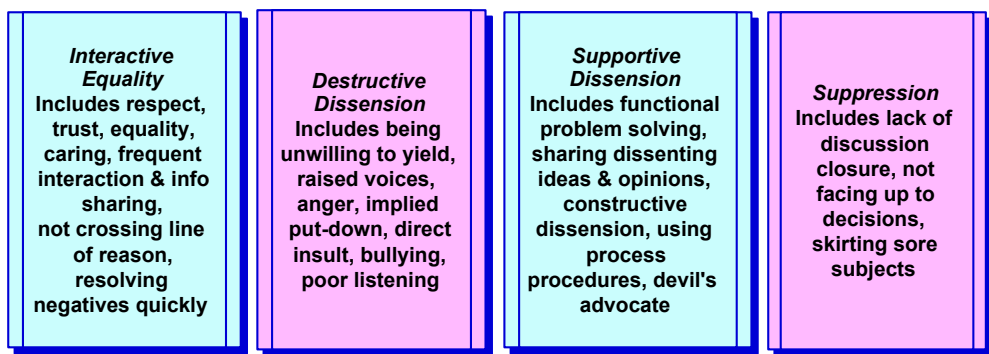
Finally, five domains representing a quality management system emerged. These include “systems thinking,” “leadership and decision making,” “focus on continuous renewal,” “faculty development and generativity,” and “stakeholder engagement.” The five included the elements of the Baldrige-based Excellence in Higher Education framework and extended the framework by articulating additional practices that were observed to be crucial to effective interaction--systems thinking, decision making, continuous renewal and experimentation regarding learning outcomes, and generativity.

Figure 1 illustrates the three themes and eleven domains that emerged. Following is a more detailed description of them and their operationalization in terms of quotations from participants, examples from field notes, and survey results. Differences between departments for conflict styles, types, and quality management practices are noted as well.

Conflict Communication Types



Conflict Communication Styles



Quality Management System

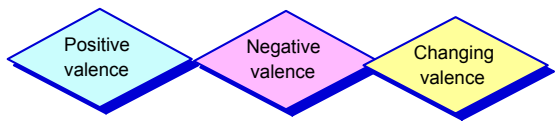
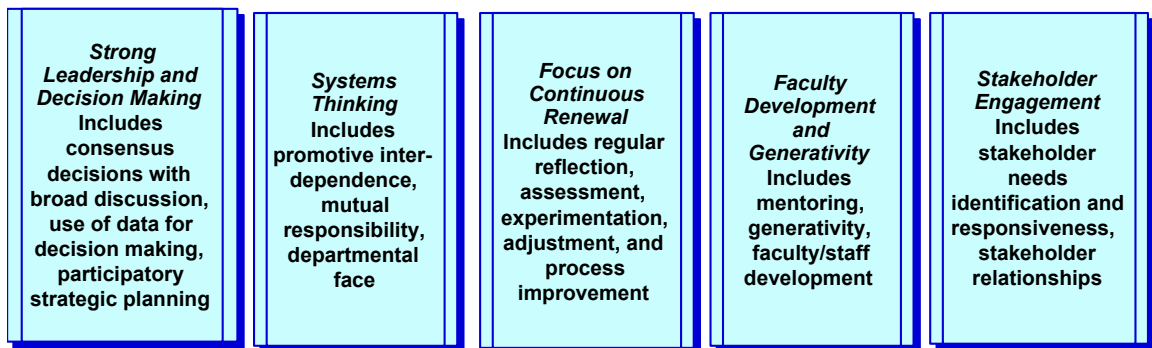


Figure 1: Domains of Conflict Styles and Types, and Quality Management

Conflict Communication Styles

The intent in addressing Research Question 1 was to determine the nature of, and differences in, observed and self-reported conflict communication styles in four academic departments. The questionnaire asked participants to rate the degree to which they thought yielding, forcing, compromising, problem solving, and avoiding characterized faculty interaction in their departments.

This study was descriptive in nature. The first research question focused on whether participants defined and manifested conflict in ways that are different from the five styles noted. This did indeed prove to be the case, as four conflict styles emerged. The style most frequently observed and reported across all departments was interactive equality, followed by destructive dissension, supportive dissension, and suppression.

Interactive Equality Conflict Style

The reason we were so good, and continued to be so good, was because he (Joe Paterno) forces you to develop an inner love among the players. It is much harder to give up on your buddy than it is to give up on your coach...our camaraderie existed because of the kind of coach and the kind of person Joe was.

Dr. David Joyner, in Johnson and Johnson (1990, p. 9).

Interactive equality is a newly identified style that involves frequent, respectful interaction in which all faculty, indeed all department members, are treated as equals. Mutual respect, caring for one another, and trust are evident. The central task is to

interact frequently in a manner in which faculty are accorded equal status and respect, as well as to ensure that the line of reason is not crossed. This style is distinct from the five traditional styles described in Chapter 1 because it includes communicative actions of frequent interaction, resolving negatives quickly, and honoring the line of reason. Using this conflict communication style supports quality management practices; particularly in the domains of systems thinking, faculty development and generativity, and stakeholder engagement.

Honoring the line of reason means that parties *do* interact to resolve a conflict, rather than avoid discussion of the topic. They take action to address the issue so that it does not start festering and potentially poison relationships. In that sense, it is different from the dual-concern style of avoiding, which implies that no action is taken. However, honoring the line of reason does include the avoidance of any communication that others could perceive as not being civil and respectful. The parties remain civil to one another while also indicating respect for the other. If relationship conflict or the potential for it occurs, action to resolve the matter quickly is forthcoming.

Comparing the percentage of codes in each department for each domain revealed that department one had the largest percentage of its codes in this domain (28.42%), followed by department three (21.18%). Department four was a distant third (7.53%) followed by department two (5.74%).

Of the four new styles, interactive equality is most different from the five traditional styles based on dual-concerns for self and others. However, it does include an element of the avoiding style, so it was appropriate to consider the survey results for avoiding when identifying results for interactive equality. A Kruskal-Wallis analysis of

variance (ANOVA) revealed that based on self-reports use of the avoiding style did not significantly differ across departments; $\chi^2(3) = 4.206, p = .240$. However, response patterns for the avoiding style within each department were similar to those noted in codes for interactive equality, with department one being highest, followed by departments three, four, and two, respectively. The mean rank of the scores in the Kruskal-Wallis ANOVA for department one was 22.17, department three 20.00, department four 16.47, and department two 12.00. For the Kruskal-Wallis test, H is reported unless the study includes more than three groups or the sample size is larger than five for at least one group. If either of those conditions are met, χ^2 is reported (Morgan, Reichert, & Harrison, 2002). Therefore, the Kruskal-Wallis test results in this dissertation reported the χ^2 statistic rather than the H , since there were four study groups and all but one of the group samples exceeded five participants.

The Mann-Whitney U test revealed one difference that bordered on being significant at the $p < .05$ level for the avoiding style. Department one ($n = 9$) reported more frequent use of the avoidance style different from department two ($n = 6$), $U = 11.500, p = .06$.

In summary, all four departments exhibited a conflict style called interactive equality that appeared to be distinct from the five dual-concern conflict styles of problem solving, yielding, compromising, forcing, or avoiding. The next style to be described, destructive dissension, includes aspects of the forcing style as well as additional elements.

Destructive Dissension Conflict Style

Destructive dissension includes being unwilling to yield, speaking with raised voices, anger, implied put-downs, direct insults, bullying, and poor listening. All departments had a fairly low percentage of codes in this area. Use of the style was reported in interviews, but was only noted in one of the eight faculty meetings observed, and in that case, it was manifested as raised voices and poor listening. The latter was operationalized as numerous side conversations and individuals speaking at the same time.

The central developmental task for the destructive dissension style is to learn to honor a line of reason by maintaining face support for self and others and, thus, avoid face-threatening communication. It has some similarities to the traditional style called forcing that may be manifested as speaking with raised voices and bullying. It is distinct from forcing, in that it also includes implied put-downs, direct insults, and poor listening. All three indicate disrespect that is communicated in a face-threatening manner.

Department four at 3.77% had the largest percentage of codes for this style. The second highest was department two at 1.72%. Department three had 1.17%, and department one had none. Stories in department four attributed the root cause of this type of destructive interaction to three people. In department three, the destructive interaction was attributed to one person, and in department two the most damaging destructive dissension was reportedly limited to one incident.

Forcing is the dual-concern style with some similarities to the destructive dissension style, so survey results for forcing were analyzed in conjunction with

destructive dissension codes. A Kruskal-Wallis analysis of variance (ANOVA) revealed that the four departments did not differ significantly in their reported use of the forcing style, $\chi^2(3) = .786, p = .853$. The mean rank for department four was highest at 18.97, followed by department two at 17.33, department one at 15.67, and department three at 15.50. A Mann-Whitney *U* test did not reveal any significant differences between pairs of departments.

The destructive dissension style implies disagreement that results in face-threatening communication with negative consequences. The next style to be discussed, supportive dissension, entails disagreement that is communicated with face support and has positive consequences. It includes an identity element and also elements that complement quality management practices.

Supportive Dissension Conflict Style

Supportive dissension includes disagreements with which interactants deal in a constructive manner and result in positive outcomes. Process procedures are used when appropriate to facilitate the task (Sunwolf & Seibold, 1999). The devil's advocate role is present. Faculty learn to articulate their position and are able to discuss politically charged topics in a constructive manner. The central competency for use of this style is the constructive sharing and consideration of differing opinions.

All four departments were fairly low on supportive dissension. Department one had the highest proportion of codes at 5.46%. Department two had 2.29%, followed by department four at 1.71% and department three at 1.17%.

The dual-concern style most similar to supportive dissension is problem solving, which includes support for self-face and other-face. The supportive dissension style differs from problem solving, however, in that it also includes mutual-face support. Being able to use this style is important for the successful implementation of quality management practices, especially in the domains of focusing on continuous renewal and leadership and decision making.

A Kruskal-Wallis ANOVA of survey results on the problem solving style showed no significant differences among the departments, $\chi^2(3) = 2.470, p = 2.47$, but the pattern differed from that for supportive dissension in coding percentages. Department four had the highest mean rank at 20.02, followed by department two at 17.17, department one at 14.89, and department three at 12.50.

In summary, the supportive dissension style differs from the dual-concern style of problem solving in that it also includes concern for mutual-face. Coding results for supportive dissension exhibited a pattern different from that for the survey results for problem solving, even though the differences across units did not differ significantly for either style. The last style to be reported, suppression, also differs from the dual-concern style for which it is most similar.

Suppression Conflict Style

The suppression conflict style exhibits a lack of discussion closure, not facing issues head on, and skirting of sore subjects. The central task for those that have adopted it is to learn how to face issues head on. All but department one had a high percentage of

codes for suppression. Department two had the highest percentage of codes at 14.94%, followed by department three at 11.76%, department four at 10.27%, and department one at 1.64%.

Avoiding is the traditional style closest to suppression. A Kruskal-Wallis ANOVA of survey results for the avoiding style showed no significant differences among departments at the $p < .05$ level, $\chi^2(3) = 4.206, p = .240$, but the pattern did differ from that found for suppression in coding percentages. For avoidance, department one ranked highest, followed respectively by department three, four, and two.

The difference in pattern makes sense and with a larger sample might prove to reveal significant results. As mentioned under the discussion of the interactive equality style earlier in this section, avoiding was interpreted as being part of that new style because it includes the communicative act of not crossing the line of reason. A major conceptual difference between avoiding and suppression is that suppression has negative consequences, whereas avoiding has potentially positive consequences, since it entails not crossing the line of reason.

Yielding and Compromising Styles

The styles of compromising and yielding do not have direct parallels in the new typology. They were not in that sense deemed accurate descriptors of the styles in evidence. A Kruskal-Wallis ANOVA of survey results for the yielding style showed no significant differences among departments, nor did the test for the compromising style.

Domains for Face and Goals

Face support is an important element of the styles of interactive equality and supportive dissension. Both include self and other-face support, as well as support for mutual-face. In coding results, departments one and three were highest on interactive equality, leadership and decision making, and stakeholder engagement.

A Kruskal-Wallis ANOVA of survey results for face support revealed significant differences among departments for this domain, $\chi^2(3) = 14.828, p = .002$. Mean ranks were highest for department two at 26.44, followed by department three at 23.67, one at 22.89, and four at 11.09.

A Mann-Whitney U test revealed that department one ($n = 9$) ranked significantly higher on the face index than department four ($n = 16$), $U = 20.50, p = .003$. Department two ($n = 8$) was also significantly higher than department four, $U = 12.50, p = .002$. However, department two showed an unacceptably high level of negative skewness on the face index at -1.416 , so one should interpret these results with caution. The differences between department three ($n = 3$) and department four fell just short of being significant, $U = 12.50, p = .08$.

The collaborative goals survey index had a low level of reliability; hence, survey results for it are not reported. However, the domain of systems thinking within the quality management theme does include the element of promotive interdependence, so qualitative results are reported for collaborative goals.

Figure 2 illustrates the percentage of codes in each department for each of the four newly defined conflict styles. Table 5 shows survey results for the dual-concern conflict

styles and face concern. Table 6 shows the significant differences for the styles and face indices.

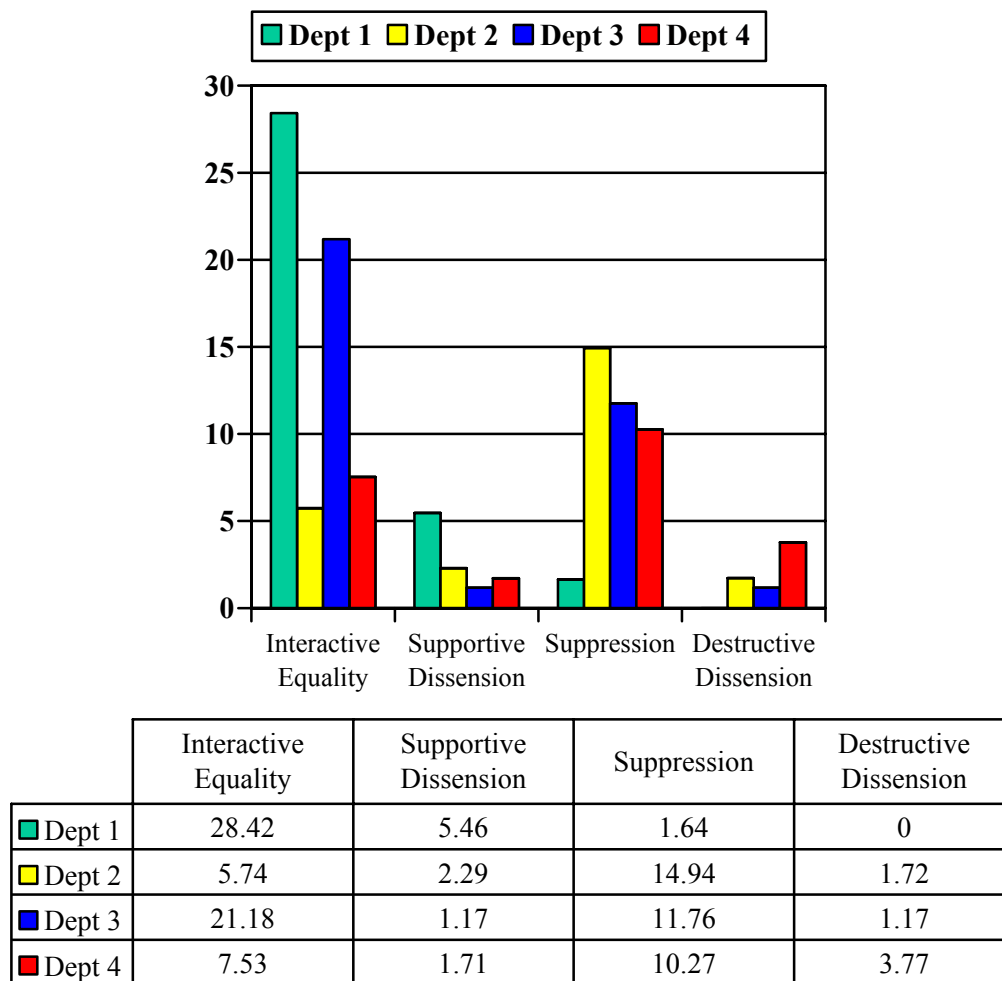


Figure 2: Code Percentages for Newly Defined Conflict Styles

Table 5: Survey Results for Conflict Styles and Face

STYLE	DEPT_NO	N	Mean Rank	χ^2	df	<i>p</i>
Avoiding	Dept 1	9	22.17			
	Dept 2	6	12.00			
	Dept 3	3	20.00			
	Dept 4	16	16.47			
	Total	34		4.206	3	.240
Compromising	Dept 1	9	14.67			
	Dept 2	6	12.00			
	Dept 3	3	14.17			
	Dept 4	16	21.78			
	Total	34		5.909	3	.116
Forcing	Dept 1	9	15.67			
	Dept 2	6	17.33			
	Dept 3	3	15.50			
	Dept 4	16	18.97			
	Total	34		.786	3	.853
Problem Solving	Dept 1	9	14.89			
	Dept 2	6	17.17			
	Dept 3	3	12.50			
	Dept 4	16	20.03			
	Total	34		2.470	3	.481
Yielding	Dept 1	9	16.67			
	Dept 2	6	15.33			
	Dept 3	3	18.17			
	Dept 4	16	18.66			
	Total	34		.587	3	.899
Face	Dept 1	9	22.89			
	Dept 2	8	26.44			
	Dept 3	3	23.67			
	Dept 4	16	11.09			
	Total	36		14.828	3	.002

Source: Survey Results, Kruskal-Wallis Test, Grouping Variable: DEPT_NO

 Table 6: Significant Differences: Conflict Styles and Face

	DEPT_PAIR	<i>U</i>	<i>p</i>
Avoiding	Dept 1 & 2	11.50	.06
Face	Dept 1 & 4	20.50	.003
	Dept 2 & 4	12.50	.002

Source: Survey Results, Mann-Whitney *U* Test, Grouping Variable: DEPT_NO

Departmental Profiles for Conflict Styles

Department One

Department one exhibited the highest levels of the two constructive conflict styles: interactive equality and supportive dissension. It also exhibited the lowest levels for the two destructive conflict styles of destructive dissension and suppression. A description of the way in which the conflict styles were operationalized in department one follows.

Interactive equality. One of the investigator's theoretical memos with impressions of department one included the following notation that was later interpreted as being descriptive of the interactive equality conflict communication style:

They seem to enjoy a culture of respect, equality, trust, and humor. There are no stars, no preferential treatment--they really like and respect one another. They trust each other to do their homework, and listen with care to what the people considering an issue have to say.

The head in department one has made an effort to emphasize equality and to minimize status differences. Apparently, he verbally reminds faculty and staff that there are no status differences in the department. One senior faculty member said, "It is frowned on to have a caste system of people at different levels, ranks, appointment, gender, or ethnicity." Faculty in department one mentioned and exhibited a high degree of trust for one another. One senior faculty member said, "There's lots of trust that you're doing the job you're supposed to be doing."

Several remarked that they "feel fully informed" about what's happening in the department and the college. Their head regularly sends emails and walks the halls to talk with them in person. When visiting this department, the investigator observed each time a lively atmosphere in which faculty gathered in small groups and were talking to one another. Students were also talking with faculty.

The faculty (and staff) in department one interact frequently. They socialize frequently-- "spending time getting to know each other outside work," as one senior faculty member explained. They hold monthly meetings scheduled a year in advance and open to everyone in the department. One junior faculty member said, "The meetings are collegial, task-oriented, down to business, and positive. They're lively and fun with a professional atmosphere. We do a good job of making decisions." In referring to the monthly meetings, one senior faculty member said, "With such a diverse faculty, we need to meet to find out what others are doing." The meetings are limited to one hour. Their

department head effectively and efficiently led the two observed. A junior faculty member said this about their meetings: “People need to be allowed to voice disagreement. We need dissent. Nobody is snooty in our meetings. We work to resolve disagreements.”

An important part of the interactive equality style is not crossing the line of reason and resolving negatives quickly. One junior faculty member said, “People treat each other cordially. A few have a history, but it isn’t allowed to bubble over. There’s a positive expectation.” Stories of instances in which relational conflict had occurred or was about to occur were shared, and these stories, without exception, were coupled with an example of how the department head dealt with the situation quickly to resolve it. One senior faculty member described the head’s action in a situation in which a faculty member had said something that was seen as offensive as, “It was a delicate subject communicated in a way that was supportive.”

Destructive dissension. There were no instances of destructive dissension observed or reported in department one. Instead, instances were shared in which a potential personality clash arose and the department head worked to ensure that the individuals resolved the issue right away. A senior faculty member quipped, “We don’t have many witches and warlocks here.”

Supportive dissension. Department one faculty used the supportive dissension style to discuss differences of opinion about a proposed policy change related to graduate student admissions. The department’s graduate committee had thoroughly discussed the issue and was bringing a recommendation to the monthly faculty meeting for departmental consensus. About the committee discussion, one senior faculty member

later noted, “We can have an intellectual debate. We can be innocent and naïve in coming to a conclusion, and people won’t hold it against you. We had a vigorous discussion about this issue. Differences were shared.” Many other interview and survey comments echoed these sentiments, for example, “We have the confidence to bring up different points of view.”

One of the investigator’s journal entries included the following observation:

They think it’s good to have a lively, fast paced meeting where many different opinions are raised. Their department head makes sure everyone gets a word in. Both meetings observed had at least 15 people but everyone was able to get a word in.

Suppression. The percentage of codes department one had regarding suppression were the lowest of the four departments. In contrast, survey results indicated a moderate level of avoiding that was the highest of the four departments. This illustrates their constructive use of avoidance as part of the interactive equality style of not crossing the line of reason, while addressing differences when they arise rather than suppressing them.

Department Two

Coding results for department two showed a mix of constructive and destructive conflict communication styles. The faculty exhibited the lowest level of interactive equality and the highest level of suppression, along with the second highest level of supportive dissension and destructive dissension.

Interactive equality. Compared with the other three departments, department two had the lowest percentage of codes representing the interactive equality style, with 5.74% reflecting instances of this style. The characteristics of interactive equality not observed

or self-reported were frequent interaction and equality. Instead, they described infrequent interaction and what the investigator labeled “rankism.”

The prevailing concern in department two was time and the lack thereof. This perception of a time deficit seems to have led members to minimize both formal and informal interaction. One senior faculty member described the department as “meeting adverse.” Visiting this department showed no evidence of faculty in the hallways or leaning in each other’s doorways talking, as was the case in departments one and four. In fact, the majority of their office doors were closed. One senior faculty member said, “The department doesn’t have many meetings. Less than it should. There seems to be an aversion to meetings. Groups need a chance to get together for discourse and to vent. It doesn’t happen here.”

When they do interact, faculty in the department reportedly exhibit respect for one another; as one senior faculty member noted, “We treat each other in a warm and courteous manner. We aren’t people who don’t talk to one another. The political factions aren’t as overt.” Another senior faculty member said, “We do some socializing--there is a family feeling. We like each other. But it’s hard to keep the good feeling when we barely see each other.” The investigator’s field notes from one meeting observation included the comment that, “Afterwards, ... [the department head] told me he thought they exhibited respect for one another. I had noted respect but also some contradictions, including several side conversations throughout the meeting and several instances of voices being raised.”

Rankism was more prevalent than equality. One full professor commented, “Full professors get a much sweeter deal for teaching preferences--the assistant professors

think we lack teaching equity.” Field notes from both meetings observed for department two indicated that junior faculty talked much less frequently than did senior faculty.

Several constructive aspects of the interactive equality style were apparent in department two. For instance, there was a norm to not cross the line of reason. A senior faculty member remarked, “It’s frowned upon to be rude, offensive, or socially aggressive. People are civil—I view this as a plus. There’s no interest in hurting each other.” Examples of respect for one another mentioned earlier in this section also are indicators of the presence of some use of the interactive equality style.

Destructive dissension. One senior faculty member in department two defined conflict as “emotion—personalizing a problem.” Heightened emotion, exhibited as raised voices, was evident in one of the two meetings in department two. Additionally, in interviews, two separate faculty related an incident that occurred less than a month earlier during a discussion about assigning graduate students to courses. Evidently one senior faculty member said something that another interpreted as a direct insult, and the interaction reportedly degenerated into raised voices, anger, and poor listening.

Supportive dissension. The level of supportive dissension in department two was second only to department one. A senior faculty member in department two stated, “We promote constructive disagreements.” A survey comment about departmental conflict echoed this: “It is important to note, however, that this tension is productive and often intentionally maintained.” During meeting observations, the investigator observed the sharing of dissenting ideas and opinions regarding several different topics. Additionally, interviewees mentioned that it was common practice for two particular senior faculty members to query others in an attempt to elicit additional opinions. One junior faculty

member said, “We are encouraged to participate . . . [Two senior faculty members] are observant of process and call people out.” Process procedures were also in evidence in department two—an example being that ranking was used to aid in making a decision about hiring. One survey comment made by a senior faculty member was:

We routinely have disagreements about who are the best faculty candidates to hire. We discuss and compare the candidates at length, then use a weighted voting system to make our final selection. Those whose candidate was not selected understand why and do their best to accept the person selected into the department without prejudice.

Suppression. This department had the highest percentage of codes for suppression. The style was evident in several respects. For example, both junior and senior faculty in interviews mentioned some issues that had been “unsettled for several years.” One of the meetings of department two included openings to discuss two of the unsettled issues, but the issues themselves were not mentioned. The issues were similar to those in department four and concerned what a particular subject meant for the department’s offerings and which journals were considered “A” journals for use in faculty review and departmental ratings. One senior faculty member said, “There is latent suppression of conflict.” He went on to describe suppressed issues concerning the identification of “A” and “B” journals, as well as disagreements about whether or not to hire faculty who, in his words, were: “Low foods vs. high foods—proletariats collecting their own data vs. theoreticians crafting theory on data they can get their hands on.” He said, “This is a latent issue. Not open, not resolvable.”

Another senior faculty member stated:

We don’t face up to many decisions. I am hesitant to suggest scheduling a meeting about promotion and tenure criteria because there isn’t much group energy. We don’t process things collectively or face up to

governance as a group. Issues that would help the department are kept under the table.

Department Three

This department was in transition during the research timeframe, and the transition was evident in their self-reports. It had the second highest level of interactive equality, and the second lowest level of destructive dissension. Use of supportive dissension was the lowest of the four departments, and suppression was the highest. Comments indicated, however, that the use of constructive styles was increasing and the use of destructive styles was decreasing. One senior faculty member, referring to this positive trend, stated, “If you had asked these questions a year ago, the answers would have been very different.”

Interactive equality. Over 21% of the codes for department three included positive instances of interactive equality, which was second only to department one. The “equality” portion was evident, but not the “interactive” because faculty described themselves as having little face-to-face interaction. Aside from this, their use of the interactive equality style was similar to that of department one. One senior faculty member said, “Elevating status differences and ego is frowned upon.” Department three has a fairly new department head who is working to increase interaction, and they held three faculty meetings during fall semester. One senior faculty member said, “We have more meetings than we used to. We are free to say what we want to say. There’s a sense of humor.” Another said, “We have good chemistry, good communication. There aren’t alliances; we’re friends. We’re considerate of others’ views.”

The area of concern they mentioned that relates to the interactive equality style is their lack of daily interaction. One senior faculty member said, “Faculty aren’t here a lot. It hurts the cohesion, and we don’t have a sense of community. We’re known as a student-centered department, but the halls are quiet and empty.” A junior faculty member echoed the same sentiment: “People don’t come to the office a lot. It’s ok to be out of the office. People go off in their individual directions. It would be more useful to have norms of what people should be doing.”

Destructive dissension. The destructive dissension in this department has reportedly been limited to interaction with one person, and it is the second lowest of the four departments. A quote from a senior faculty member describing an exchange that took place in a meeting illustrates the interaction: “We started by bringing up issues and ended with raised voices. We argued away. It was hostile and confrontational. We weren’t good at bringing up issues because it was so unpleasant.”

Supportive dissension. There is a moderate level of supportive dissension in department three, as this survey comment illustrates:

In our strategic planning process, there are sometimes conflicts when we try to decide exactly how to address the concerns of the Dean. The last time, there was a great deal of respect even when we didn't always agree right away. We'll go back and forth, picking up on what one another says. Generally, discussion is good even if we don't agree--it's disagreement without conflict per se.

Although faculty described a moderate level of supportive dissension, their percentage of codes in this area was the lowest for the four departments.

Suppression. A high percentage of codes regarding suppression was characteristic of department three. Several told stories of conflict that had occurred more

than a year ago that had not been resolved. One senior faculty member said, “We aren’t good dealing with conflict. We put up with a lot for a long time. Many aren’t comfortable engaging in that type of discussion. Faculty would put up with things and let issues go instead of dealing with them, because when we did, it turned ugly.” Evidently, the issues that faculty suppressed related to the destructive dissension that had occurred in the past. Although the destructive dissension had not occurred for quite some time and was limited to interaction with one individual, it had not been resolved, and, therefore, the issues were reportedly being suppressed.

Department Four

Just as past destructive conflict with a single individual colored self-reports in department three, department four reported a strong theme of destructiveness attributed to three people and covering a long period of time. This may have had an influence on reports concerning the other three conflict styles.

Interactive equality. Less than 10% of the codes for department four related to positive use of interactive equality (7.53%), which the department displayed at third most frequent. In this case, instances met the description of “interactive,” but not that of “equality.” Regarding their frequent interaction, faculty take time for monthly meetings. Each visit to the department revealed a lively atmosphere, in which faculty conversed with one another in small groups in their offices. In the two departmental meetings observed, faculty raised issues that were potentially controversial in what seemed to be an objective, neutral manner. Field notes indicated that these discussions consisted of

respectful questioning, queries for clarification, and supporting statements. No side conversations or raising of voices were observed.

Two predominant stories in department four had to do with interactive *inequality*. One concerned inequality relating to differences in position and tenure status, and the other concerned the fact that the departmental norm to not cross the line of reason was not enforced for three faculty members that one person characterized as “behaving like idiots.” One senior faculty member described the opposite: “Never cross that line of impugning the other person’s motives. Treat them with respect; don’t burn bridges. Understand you don’t always get your way. The faculty leaders are those that don’t think of everything as ‘what affects me.’” Apparently, this norm of not crossing the line was not honored or enforced for the three bullies. One junior faculty member stated, “I don’t see any interactions that are problematic, with the exception of those that behave like idiots. The faculty are fairly cohesive even across subgroups, except when the issue of resources comes up. I play cards with senior faculty who disagree strongly with me.”

The theme of inequality was stated simply by one senior faculty member, as: “Staff and grad students don’t have the same voice that faculty do.” A survey comment described a division between junior and senior faculty as:

I don't believe members of this department have ever openly discussed an issue. The power dynamics are too great (junior faculty intimidated by senior faculty in some groups) and there is a lack of respect for what other faculty do (we are unit with multiple divisions across almost any of the ways the department can be categorized--e.g., [position focus] or [disciplinary sub-specialization.] A successful, open discussion would be one way to move from the impasse in which we now find ourselves.

Destructive dissension. This department had the highest proportion of codes related to destructive dissension, but it reportedly was limited to interaction with the three

people alternately referred to as “idiots” or “blockers.” One junior faculty member said, “Some are just awful to each other. I have higher standard to treat people nicely.” A survey comment from a senior faculty member elaborated:

There are three troublesome faculty members. There will be outbursts at faculty meetings--extreme anger without constructive suggestions to move forward. These faculty are trying to subvert procedures for budgeting, hiring, graduate assistants, deadlines for turning in forms. There is yelling, and nasty discussion at retreats. One blocker says something and it degenerates. One time a fight erupted.

Although destructive dissension was mentioned by almost all interviewees and in many survey comments in department four, many respondents tempered their comments with a note of optimism in saying things like, “Some believe the department works collectively and that our success is linked. The tide is turning in this direction.” A month before the research for this dissertation commenced, the faculty advisory committee in department four had sponsored a series of breakout groups in which faculty discussed their differences in a desire to enhance interaction. One senior faculty member elaborated: “The breakout groups were successful. There is lots of underlying anger but we had a true and honest discussion. There was blood on the floor--we need to move beyond it.”

Supportive dissension. Department four had the third highest level of supportive dissension. According to one senior faculty member, “Committee meetings are good--there’s lots of give and take, and everyone speaks up.” A survey participant stated, “We were able to make the decision to hire people in one area when there was disagreement. This situation resulted in better interaction.” Process procedures are evidently used in at least some situations, as reflected in a comment by a senior faculty member discussing a

process improvement project that included both faculty and staff: “Structured communication processes help overcome the reticence.”

Suppression. A moderate level of suppression characterized department four. One survey comment was: “In our department, we never come to resolution because some individuals never compromise on their position and others are totally unwilling to challenge those positions. Nothing ever gets resolved because we cannot reach consensus.” A junior faculty member stated in an interview, “We need to change some of the people contact so people feel more comfortable taking about issues like enrollment. We want a context where we can communicate to the department in a way that doesn’t sound divisive. There’s a lot of history, and we want to move forward.”

This section of chapter three described and illustrated results for research question one regarding the four conflict communication styles that emerged, including interactive equality, supportive dissension, destructive dissension, and suppression. In addition, results of the Kruskal-Wallis ANOVA and Mann-Whitney U tests were reported for survey results on conflict styles as well as for face concern. The next section of the chapter describes results relating to Research Question 2, which focused on conflict communication types.

Conflict Communication Types

Research Question 2 centered on the nature and differences of observed and self-reported conflict communication types among four academic departments. The types of conflict observed and self-reported reinforced the three primary types found in the

literature, including task conflict, process conflict, and relationship conflict (Jehn, 1997). A fourth type, identity conflict (Rothman, 1997), was evident in each of the other three types and, therefore, it did not stand alone as a separate category. Following is a summary of the pertinent findings. The three types are described first, followed by a profile of how they are manifested in each department.

Task Conflict

This type of conflict involves cognition rather than affect. It centers on ideas and opinions and can result in either constructive or destructive consequences. For the four departments included in this research task conflict focused primarily on disciplinary values and generational differences. Disciplinary values related to research methodologies, program differences, and journal prestige. Generational matters included pay, teaching load, and the degree to which senior faculty participated in addressing departmental concerns. The survey questions capturing conflict types did not distinguish among different topics within particular categories of conflict, but from the qualitative data, it was possible to differentiate among topics surfacing in discussion, as well as in interviews and survey comments.

Department four had the highest percentage of codes for task conflict regarding disciplinary values at 13.36%, followed by department two at 4.59%, and department one at 2.73%. Department three had no codes for task conflict concerning disciplinary values. Task conflict regarding generational differences was lower for all departments, with department four at 4.11%, department one at 2.19%, and department two at 1.14%.

Department three had no codes for task conflict regarding generational differences. A Kruskal-Wallis analysis of variance (ANOVA) revealed significant differences in the amount of reported task conflict among the four departments, $\chi^2(3) = 12.114, p = .007$. Survey response patterns for task conflict in each department were similar to those noted in codes for task conflict, with department four being highest, followed by department two, one, and three. The mean rank on the Kruskal-Wallis ANOVA for task conflict for department four was 23.63. Department two's mean rank was 17.71, followed by department one at 12.17, and department three at 6.17.

A Mann-Whitney U test revealed a significant difference in survey responses for task conflict between departments one and four and three and four. Department one ($n = 9$) reported significantly lower task conflict than department four ($n = 16$), $U = 24.50, p = .006$. Department three ($n = 3$) also reported significantly lower task conflict than department four, $U = 1.00, p = .009$.

Process Conflict

Process conflict, like task conflict, is cognitive in origin rather than affective. In contrast to task conflict, however, process conflict centers on the way in which things are done. In the four departments, process conflict involved topics such as the way in which recruiting decisions were made and the way in which faculty lines were allocated. While Jehn (1997) has found process conflict to have negative consequences, in this study, it reportedly had both positive and negative consequences.

Department four had the highest percentage of codes regarding process conflict at 12.67%, followed by department three at 9.41%, two at 3.44%, and one at 2.73%. A Kruskal-Wallis analysis of variance (ANOVA) for survey results revealed that the difference in levels of process conflict in the four departments fell short of being statistically significant, $\chi^2(3) = 7.218, p = .065$. Survey response patterns for process conflict in each department differed from those noted in codes for process conflict. Department four was the highest on the survey, as it was for coding, with a mean rank of 22.81. However, department one was the next highest, with a mean rank of 14.89, followed by department two at 14.29 and department three at 10.33. Survey results for department three ($n = 3$) were highly skewed at -1.732 , and should be interpreted with caution.

A Mann-Whitney U test revealed a significant difference in process conflict between departments two and four. Department two ($n = 7$) reported lower process conflict than did department four ($n = 16$), $U = 26.00, p = .006$.

Relationship Conflict

Relationship conflict is affective in nature. It includes differences of any sort that either originate in, or escalate into, an ad hominum clash (focused on the individual). Unlike task and process conflict, that can be either positive or negative, relational conflict consistently tends to have negative consequences.

Department three had the highest percentage of codes regarding relationship conflict at 5.88%, followed by department two at 2.87%, one at 1.64%, and four at

1.37%. The survey results revealed higher levels of perceived relational conflict in different proportions from what one would expect from the coding results. This could be due to the fact that it may be easier to acknowledge relational conflict in an anonymous self-report. Additionally, no relationship conflict was actually observed, and interviewees rarely attributed the cause of destructive dissension to conflict involving relationships.

A Kruskal-Wallis analysis of variance (ANOVA) revealed a significant relationship in conflict to membership in the four departments, $\chi^2(3) = 15.135, p = .002$. Department four had the highest level, with a mean rank of 22.81. Department one was second highest, with a mean rank of 13.56, followed by department three at 10.83 and department two at 10.36.

A Mann-Whitney U test indicated that the level of relationship conflict in department one ($n = 9$) was significantly lower than that reported by those in department four ($n = 16$), $U = 22.500, p = .005$. Department two ($n = 7$) also had a significantly lower perceived level of relationship conflict than department four, $U = 11.000, p = .002$, as did department three ($n = 3$), $U = 3.500, p = .021$. Survey results for relationship conflict for department three were highly skewed at -1.545 , and for department two the data were highly skewed at 2.119 , so one should interpret the data with caution.

Figure 3 provides a graphical representation of code percentages for conflict types for each department. Table 4 lists survey results for conflict types, and Table 5 lists significant differences found for conflict types.

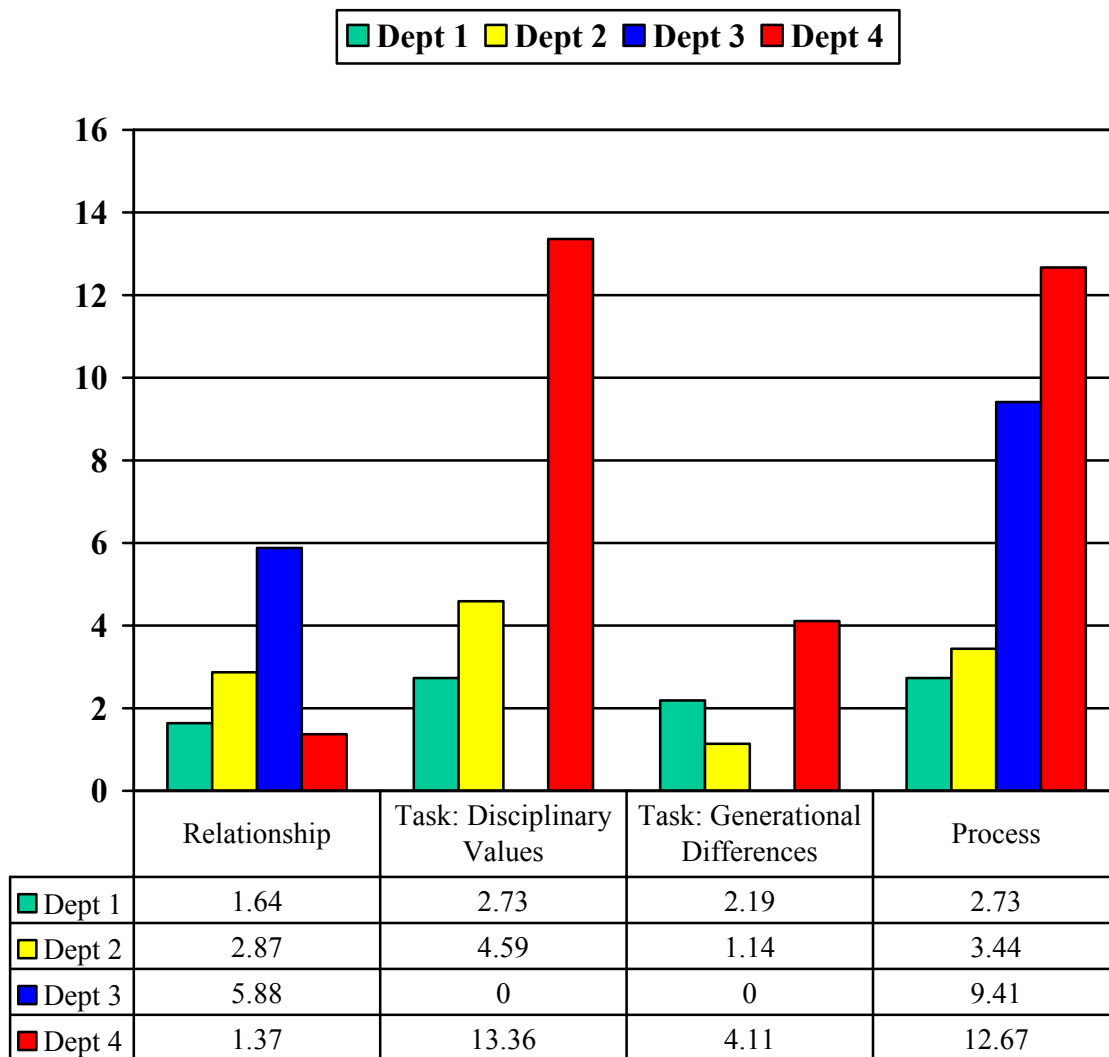


Figure 3: Conflict Type Code Percentages

Table 7: Departmental Differences: Conflict Types

TYPE	DEPT_NO	N	Mean Rank	χ^2	df	<i>p</i>
Task	Dept 1	9	12.17			
	Dept 2	7	17.71			
	Dept 3	3	6.17			
	Dept 4	16	23.63			
	Total	35		12.114	3	.007
Process	Dept 1	9	14.89			
	Dept 2	7	14.29			
	Dept 3	3	10.33			
	Dept 4	16	22.81			
	Total	35		7.218	3	.065
Relationship	Dept 1	9	13.56			
	Dept 2	7	10.36			
	Dept 3	3	10.83			
	Dept 4	16	25.19			
	Total	35		15.135	3	.002

Source: Survey Results, Kruskal-Wallis Test, Grouping Variable: DEPT_NO

Table 8: Significant Differences: Conflict Types

TYPE	DEPT_PAIR	<i>U</i>	<i>p</i>
Task Conflict	Dept 1 & 4	24.500	.006
	Dept 3 & 4	1.000	.009
Process Conflict	Dept 2 & 4	26.000	.042
Relationship Conflict	Dept 1 & 4	22.500	.005
	Dept 2 & 4	11.000	.002
	Dept 3 & 4	3.500	.021

Source: Survey Results, Mann-Whitney *U* Test, Grouping Variable: DEPT_NO

Departmental Profiles for Conflict Types

Department One

Levels of all types of conflict were fairly low in department one, and the perceived consequences were generally constructive. This is likely attributable to the fact that constructive conflict styles were the ones primarily in evidence in department one. Respondents reported a high level of respect, and in that environment, it is less likely that face threats will occur. Conflict types centered on generational issues and individual opinions on various issues like whether the GRE should be used for graduate admissions decisions.

Task conflict. The level of task conflict in department one was second lowest among the four departments. Conflict involving disciplinary values had, in the opinion of one senior faculty member, been reduced. “Five years ago there were divisions between [areas of focus and appointment type.]” The department head was credited with influencing the change towards integration. Another senior faculty member said, “[our department head] has worked hard to break down the barriers by [restructuring focus areas] and developing research projects across areas.” Generational tensions were evident, as one senior faculty member mentioned, “There is conflict due to a generation gap, for productivity and salary.” This conflict was referred to in what seemed to be a resigned way, however. One junior faculty member said, “There is salary compression. It is acknowledged in a depressed kind of way.”

Process conflict. Process conflict centered on resource allocation. According to one senior faculty member, “Budgetary issues that would affect our faculty and students cause tension.” Another senior faculty member stated, “There is conflict over resources and allocation. [The department head] makes assignments. He is tough with people that complain about teaching assignments. He knows what to take a strong and soft line on.”

Relationship conflict. Participants mentioned this type of conflict, but it was not in evidence in observations of department one. A comment on a survey mentioned an example of a process conflict that turned into a relationship conflict: “Hiring of a candidate. We had disagreements about the quality of the candidate. Some not so nice words were used. Negative feelings were there for two weeks after the meeting.”

It seemed that when relationship conflicts occurred, they were generally dealt with immediately, in most cases by the department head bringing people together to resolve the issue. Topics that might have turned into relationship conflict were often avoided, as one senior faculty member stated: “People are reluctant to raise concerns about teaching because it is so personal.”

Department Two

Department two exhibited relatively low levels of all types of conflict. Task conflict was higher than either process or relationship conflict in this unit. Several significant issues were considered by some to be unresolved and suppressed, which may account for the findings. Others had a different perception; either these same issues had been resolved or were not salient.

Task conflict. There were differing opinions regarding the degree to which disciplinary values conflicted or were irresolvable in the department. One junior faculty member did not see conflict regarding disciplinary values; the person stated, “We are slash people . . . spanning boundaries.” A senior faculty member shared a disciplinary value difference regarding research interests and methods: “There is an emphasis on theory at the expense of data. People who do strong rigorous work aren’t flourishing here. This is a latent conflict that isn’t resolvable.” A survey comment about the topic of priorities for recruiting revealed a different opinion:

In faculty recruiting, there was a disagreement about whether we should hire for diversity in research interests and methods or whether we should hire to try to develop a strong core identified with a certain topic or approach. It was a professional disagreement, amicably resolved by focusing on it as a strategic issue.

Regarding the discussion of issues, another junior faculty member stated, “Things need to be talked through more. We should slow down the process, but this can frustrate people. Important issues are not typically discussed. We are allowed to talk around the issue for 10-15 minutes before someone gets us more on track.”

Generational differences apparently are a source of some tension in department two. One junior faculty member stated:

Junior-Senior faculty issues are a concern. We haven’t been doing a good job of keeping junior faculty. Maybe there is an issue here. I would change the way it’s recognized that there is a hierarchy here. Senior faculty should make more of an effort to communicate--even with Ph.D. students.

Process conflict. This type of conflict in department two centered on faculty hiring, which, in turn, related to task conflict regarding the expression of disciplinary

values. One junior faculty member stated, “Disagreements about what positions to hire for leads to factions.”

Additionally, the process of change caused tension in the department. They had undergone several change efforts initiated by the dean in the past three years. One senior faculty member alluded to this: “There is tension around change. Communication doesn’t always come through [from the dean’s office to the faculty.]”

Relationship conflict. Two instances of relationship conflict that had occurred some time ago surfaced in survey comments. One present in two different survey responses was apparently a conflict that started over process and degenerated into a relationship conflict:

A group of faculty orchestrated a move to not support a department chair for continuation. This created a good deal of argument and tension within the faculty because of the way it was done (via hallway lobbying and only certain people were included). The disagreement was mostly over how it was done (e.g. playing politics) in a department where there had been little of that previously.

Another respondent said, “Most of the faculty who forced this head out have now left the department. This was a major disagreement.”

A second instance of relationship conflict appeared in a survey comment from a senior faculty member:

A faculty member blew up publicly at a previous department chair because he/she didn't believe a decision the chair had made was fair. I don't remember the specific issue, but I know that the two talked afterwards and came to some kind of agreement, but I don't think the faculty member ever forgave the department chair.

Department Three

Much of the conflict in department three now concerns its identity as a department and, consequently, the best way to achieve their goals in light of the way in which the departmental identity is being defined. In the past, faculty members experienced relationship conflict, but that is currently in the process of being resolved.

Task conflict. Department three had a very low level of task conflict. It is possible that this stems from the fact that faculty members do not interact as often as some reportedly would like. There was no evidence of task conflict reflected in the codes, and in the survey, the level was significantly lower than department four, which had the highest level.

Process conflict. This centered on the identity of the department. As one senior faculty member said, “There aren’t personal tensions. The identity of the department is a tension. We collectively struggle with this and the best way to go forward. When discussing what is the best use of resources, we all have a sense of humor.”

Relationship conflict. This type of conflict had occurred in the past and reportedly centered on communication with one person. During the period in which this research took place, this type of conflict was not visible; in fact participants described current interaction as constructive. However, one senior faculty member expressed a desire to enhance skills in this area, “It’s so hard to make the distinction between professional and personal. I feel things deeply—need to improve in this area.”

Department Four

Much of the conflict in department four reportedly originated in disciplinary value differences that then metamorphosed into relationship conflict. Numerous faculty indirectly alluded to contrient interdependence, as manifested in competition for resources among sub-disciplinary groups. They experienced a higher degree of all three types of conflict.

Task conflict. A senior faculty member summarized conflict regarding disciplinary values as follows: “There is a disciplinary and functional gulf. We recently held focus groups to discuss the boundaries between disciplines, and ideas about working together better.” A junior faculty member stated, “Most agree on what the problems are, but just don’t agree on the problems [the substance of the issue].”

There is a disagreement about the amount of emphasis that should be placed on doing high quality science versus applied science,” said one senior faculty member. “It’s a tension between those that would like us to be a strong department in terms of scholarship versus research that’s going to contribute to [application].

Generational differences were also evident in department four. One senior faculty member stated, “There is a split between young and old faculty--thinking the old faculty aren’t doing enough internally, like serving on committees. The old need to spend some time taking some leadership.” Another stated, “There are differences in generations. Younger/newer faculty are more amenable to blending (disciplinary specializations). Older faculty aren’t amenable to it.”

Process conflict. One senior faculty member stated, “There is conflict over competing goals for allocation of resources. Competition boils over to conflict. [Our

department head] has come close to helping us agree on areas of concentration across the lines.” The issue was summarized in a survey comment from a senior faculty member:

The continuing unresolved conflict in the department is about the allocation of resources, particularly faculty positions. It underlies every discussion we have and reflects the lack of agreement among the full faculty on the goals and mission of the department and that all parts of the department are valuable contributors to department activities.

There was a perceived split between junior and senior faculty regarding preferences on processes related to interaction. One junior faculty member said, “The junior faculty want to do things a little bit differently in terms of interaction--a mentoring service, collaboration on projects, and career development. But there is a large individual streak in academics. It’s like being on a team in an individual sport like gymnastics--you are competing against yourselves and as a team.”

Relationship conflict. The level of competition that was perceived between different sub-groups led to an increased potential for relationship conflict in department four. One senior faculty member shared a mouse and elephant metaphor when describing the competition--the mouse gets cover, crumbs, and protection. He indicated that the subgroup he was calling the mouse discussed issues before meetings and voted as a block, but said with irony, “The stakes are so low there isn’t much to fight for.”

In department four, there was recognition that the circumstances leading them toward relationship conflict needed to change. As one junior faculty member stated, “We need to get rid of the us and them labels.”

This section of Chapter 3 has reviewed results for Research Question 2 concerning conflict types. The final section covers those for Research Question 3, which involves quality management practices.

Quality Management Practices

Research Question 3 addressed the nature of observed and self-reported usage of, and differences in, quality management practices in four academic departments. The survey instrument reflected the seven domains of the Excellence in Higher Education framework: leadership, strategic planning, external focus, information and analysis, faculty/staff and workplace focus, process excellence, and outcomes and achievements. The measures for all seven indices were highly reliable. In addition to the domains included in the Excellence in Higher Education framework, one distinct domain called systems thinking was identified, which is implicit in the Baldrige framework and described as one of its underlying values. For the present study, systems thinking includes goal interdependence, mutual responsibility, and departmental face. Slight variations for the leadership, process, workplace, and stakeholder domains also came into play. For example, decision making fell into the leadership domain, the process domain incorporated curriculum renewal, and the workplace domain was expanded to include faculty generativity. The seven Excellence in Higher Education categories and additional variables were consolidated into five domains: systems thinking, strong leadership and decision making, focus on continuous renewal, faculty development and generativity, and stakeholder engagement. These are described below. Activity in each domain was manifested as a continuum with both positive and negative elements.

Systems Thinking

Systems thinking is arguably the foundational principle of quality management (Deming, 1986, 1993). It involves an understanding that the whole is greater than the sum of its parts. The way in which individual components fit must be considered when one is seeking to improve a system and/or any of its parts.

Face negotiation theory predicts the use of conflict communication styles within the context of interpersonal conflict. When an interpersonal relationship develops to a certain level, the theory posits that the individuals will likely have a positive image of the relationship in mind. This image is called mutual-face. When mutual-face is present at a high level, individuals purportedly will be more likely to display the conflict styles of problem solving, compromising, yielding, and avoiding (Ting-Toomey & Kurogi, 1998). Results for this study showed consideration for mutual-face as present in both interactive equality and supportive dissension.

This dissertation proposes the extension of the mutual-face construct to the group context with a concept called “departmental face.” When a high level of systems thinking is present, departmental face is enacted. Just as the concept of mutual-face applies to a relationship between two people, departmental face applies at the level of the group members’ relationships. In this instance, the whole (department) is more than the sum of all the parts (faculty) and has an identity of its own similar to mutual-face but at a higher-order level. Faculty have an image in mind of the identity of the department as something to which they contribute. They focus on shared goals and the achievement of these goals. Faculty discuss the integration of different objectives. They perceive

themselves to be promotively interdependent and they have numerous connections with one another. They may feel united against a common enemy. They have a sense of shared responsibility and want to find out what others are doing. They feel accountable to one another for the achievement of their shared goals.

At the low end of the continuum for systems thinking, faculty feel as if there is no time to make connections. Tensions about time and the feeling of being disconnected are in their minds. They are less likely to think of the good of the whole and more likely to perceive that their goals are contritely interdependent.

In the essay in which constructive conflict theory is introduced, Deutsch (1949b) presents the hypothesis (#34) that individuals exposed to a cooperative group situation will be more likely to incorporate the *attitude of the generalized other* than those in a competitive situation. He describes this attitude as

An internalized structure which is developed as a result of introjecting the mutually interacting attitudes of those with whom one is commonly engaged in a social process . . . it is certain that the development . . . requires communication and positive inducibility (p. 147)

He operationalizes the degree of the internalized attitude of the other as a “feeling of responsibility to other members” (p. 147). One can imagine that he is envisioning a cohesive group, in which the members perceive themselves as interdependent and perhaps even collectivistic. If interdependence develops to the point of collectivism, then the importance of group interests will be emphasized over individual interests.

The concept of departmental face differs from the attitude of the generalized other, in that the individual is honored to the same degree as the group. Interaction at the group level has developed to the point that the group has an identity of its own that each

member honors equally with his or her own. Collectivism implies that individual-concerns are subordinate. In a system, the parts are all important, and because they are interdependent, the system has an identity of its own.

Departmental face is an instrumental part of systems thinking, which is a domain of quality management. Systems thinking also includes group members' perception of promotive goal interdependence, as well as the degree to which group members feel mutual responsibility to one another for their individual work. Systems thinking interrelates with the other four quality management domains; one expects that a department exhibiting a higher level of this practice will also have higher levels of the activity encompassed by the other quality management domains. The central task in systems thinking is the development of departmental face and mutual responsibility.

Coding percentages for systems thinking varied for the four departments. Department one was the highest at 13.11%, followed by department four at 7.88%, department three at 1.18%, and department two at -10.92%. All five of the quality management domains included coding for both high and low ends of the continua, which resulted in negative totals for codes at the low end of the spectrum. The two departments that mentioned being disconnected, for example, had codes at the low end of the systems thinking continuum for that element. Department one was at the higher end because it has developed a constructive departmental face and sense of mutual responsibility. Department four was in the middle because members do have mutual responsibility developed for their curriculum, but not much else.

There were no survey items that explicitly addressed systems thinking, but the questions involving face concerns (reported with the conflict style results in the first part

of this chapter) do relate to the concept of departmental face. There were four items about interdependent goals on the survey, but that index did not have an acceptable level of reliability so survey data regarding the goals index are not reported here.

Leadership and Decision Making

This domain of quality management combines the categories of strong leadership and strategic planning from the Excellence in Higher Education framework, as well as decision making practices. Many faculty indicated that a significant satisfier for them was the way in which their departments used consensus decision making with broad discussion versus decisions without broad prior discussion and often without consensus. The use of data to aid in decision making also is part of this domain. The central developmental task is to ensure that there is broad discussion before consensus decision making occurs.

One of the elements included in the leadership portion of the Excellence in Higher Education framework was information sharing, which is reflected in the newly defined leadership and decision making domain. In the departments with high self-ratings for this domain, faculty felt fully informed. They perceived a steady stream of information to be coming from the department head. Information concerning the budget was shared openly. The department head was satisfied in the job and reportedly was effective. He or she employed “management by walking around.” The head and/or other faculty leaders emphasized conflict resolution and reconciliation.

In the coding for the domain of leadership and decision making, department one was highest at 24.04%, followed by department three at 15.29%, department four at 8.56%, and department two at -4.01. Survey results differed from the coding results, which perhaps reflected the fact that several key factors observed (and therefore coded) were not matters the survey addressed. The survey questions related to this domain were from the leadership and strategic planning indices. A Kruskal-Wallis ANOVA revealed significant differences among departments for both indices. For leadership index were; $\chi^2(3) = 22.989, p < .001$. Department three had the highest mean rank at 27.17, followed by department one at 26.72, department two at 24.69, and department four at 9.16.

A Kruskal-Wallis ANOVA also revealed significant differences among departments on the strategic planning index $\chi^2(3) = 15.231, p = .002$. The mean rank for strategic planning was highest for department one at 26.78, followed by department two at 23.94, department three at 17.17, and department four at 11.38.

A Mann-Whitney U test revealed a significant difference in survey responses for leadership between departments one and four, two and four, and three and four. Faculty in department one ($n = 9$) reported significantly higher leadership practices than those in department four ($n = 16$), $U = 2.500, p < .001$. Department two's faculty ($n = 8$) also reported significantly higher leadership practices than those in department four, $U = 8.000, p = .001$. Finally, those in department three ($n = 3$) reported significantly higher leadership practices than their counterparts in department four, $U = .000, p = .007$.

Mann-Whitney U results also revealed significant differences between departments one and four and two and four on the strategic planning index. Department one ($n = 9$) had significantly higher scores for strategic planning practices than

department four ($n = 16$), $U = 2.500$, $p < .001$. Additionally, faculty in department two ($n = 8$) reported significantly higher strategic planning than those in department four, $U = 17.500$, $p = .004$.

Focus on Continuous Renewal

This domain combines the Excellence In Higher Education framework's categories of process effectiveness, information and analysis, and outcomes. Practices included in those three areas encompass work toward teaching excellence, program excellence, and process improvement.

Data for this domain provided additional detail in areas that are unique to higher education, including regular reflection and action using data, assessment of learning outcomes, and adjustment at the program level, as well as in the area of process improvement to include a culture of experimentation. The central developmental task is to obtain, reflect, and act on student learning outcomes and other relevant data.

The percentages of reported activity for all four departments were rather low in this domain. Department four was highest at 5.82%. Department one followed at 5.46%, with department three at 4.71%, and department two at 3.00%.

Three of the survey indices relating to the category of focus on continuous renewal were used for purposes of analysis: process effectiveness, outcomes and achievements, and information and analysis. A Kruskal-Wallis ANOVA revealed significant differences for departments on all three of these indices. For the process effectiveness index, $\chi^2(3) = 13.168$, $p = .004$. The mean rank for process effectiveness

was highest for department one at 25.89, followed by department two at 24.25, department three at 14.17, and department four at 12.28. The data for department two were highly skewed at -1.021 .

On the outcomes and achievements index, $\chi^2(3) = 17.657, p = .001$. The mean rank was highest for department two at 28.19, followed by department one at 23.00, department three at 21.00, and department four at 10.66.

For the information and analysis index, $\chi^2(3) = 17.433, p = .001$. The mean rank was highest for department two at 26.63, followed by department one at 24.44, department three at 22.00, and department four at 10.44.

A Mann-Whitney U test revealed significant differences in survey responses for process effectiveness between departments one and four, and between two and four. The same two pairs showed significant differences for outcomes and achievements, as well as information and analysis.

Faculty in department one reported a significantly higher degree of process effectiveness practices than did those in department four, $U = 17.00, p = .002$. Department two also was significantly higher than department four on this index, $U = 23.00, p = .011$.

A similar pattern was evident on the outcomes and achievements index; department one was significantly higher on the index than department four, $U = 21.50, p = .004$, and department two was higher than department four, $U = 3.00, p < .001$.

Finally, in respect to the information and analysis index, department one was significantly higher than department four, $U = 15.50, p = .001$, department two also was higher than department four, $U = 4.00, p < .001$.

Faculty Development and Generativity

Faculty development and generativity includes the practice of faculty and staff development, defined as the provision of ongoing education in support of changes in technology, teaching methods, and similar environmental factors. Higher levels of quality management practice stimulate the need for higher levels of development. For example, adopting the practice of assessing learning outcomes requires education in these techniques. The central developmental task for this domain is to support faculty at all career stages.

Also included in this domain are the elements of mentoring and generativity. As faculty go through the different stages in their career, they can benefit from the practice of mentoring. For this research, mentoring referred to coaching. An academic department typically has a mix of faculty at different stages of their careers. Junior faculty in the tenure track often require mentoring. Less often do they recognize that newly tenured faculty also could benefit from advice, as could faculty awarded immediate tenure but who are new to the department and university. Even less frequent is the realization that junior faculty may also have knowledge and experience that could be of value to senior faculty.

Related to mentoring is the construct of generativity, defined for this research as the desire to replicate one's knowledge so that it will carry on with subsequent generations. Many faculty in this study referenced mentoring practices, and a subset of those indicated that generativity is a primary motivator for them. Those who mentioned

generativity were tenured, but many were not senior in age. Evidently, an important way for them to gain job satisfaction was to practice generativity.

The coding percentages for the domain of faculty development and generativity were as follows. Department one had the highest percentage of codes at 4.92%, followed by department four at 3.08%. Department three had 1.17% of codes in this domain, and department two had -2.3%.

For survey results on the faculty/staff and workplace focus index, a Kruskal-Wallis ANOVA revealed significant differences among departments, $\chi^2(3) = 22.188, p < .001$. The mean rank for this index was highest for department one at 28.67, followed by department two at 23.94, department three at 21.00, and department four at 9.59. The results for department one were highly skewed at -1.205 .

A Mann-Whitney U test revealed a significant difference in survey responses for the faculty/staff and workplace focus index. Department one was significantly higher on this index than department four; $U = 4.00, p < .001$; department two also was significantly higher than department four, $U = 2.50, p < .001$.

Stakeholder Engagement

All departments reported at least some degree of engagement with their stakeholders in order to discern needs, which is an important element of this domain. Recognition of the need for responsiveness to stakeholders was also something all four departments identified. In department two, focus was on alumni and industry. In the

other three departments, the focus was responsiveness to students, in addition to the needs of alumni and industry.

In addition to needs identification and responsiveness to stakeholders, this domain includes the element of attentiveness to stakeholder relationships. Departments one and three indicated multiple means of attending to stakeholder relationships. The central developmental task for stakeholder engagement is to partner with, and use information from, stakeholders to improve.

In terms of coding percentages, department one was the highest at 7.1%. Department three was a close second at 7.05%. Department four had 2.74% of its codes in this area, and department two had 1.14%.

Departments one and three had the highest percentage of codes for this domain. Both were also high on the external focus survey index, which was the EHE category closest to the stakeholder engagement domain. Department two was high on the external focus survey items. A Kruskal-Wallis ANOVA for external focus revealed significant differences among departments, $\chi^2(3) = 16.791, p = .001$. The mean rank on the Kruskal-Wallis ANOVA was highest for department one at 27.00, followed by department two at 23.88, department three at 20.00, and department four at 10.75.

A Mann-Whitney U test revealed a significant difference on survey responses for external focus between departments one and four and two and four. Department one ($n = 9$) reported a significantly degree of external focus than department four ($n = 16$), $U = 10.50, p < .001$. Department two ($n = 8$) also reported significantly higher external focus than department four, at $U = 14.50, p = .002$.

Figure 4 displays coding percentages for the quality management domains.

Table 6 illustrates departmental differences in quality management practices, and Table 7 shows the departmental differences that were statistically significant.

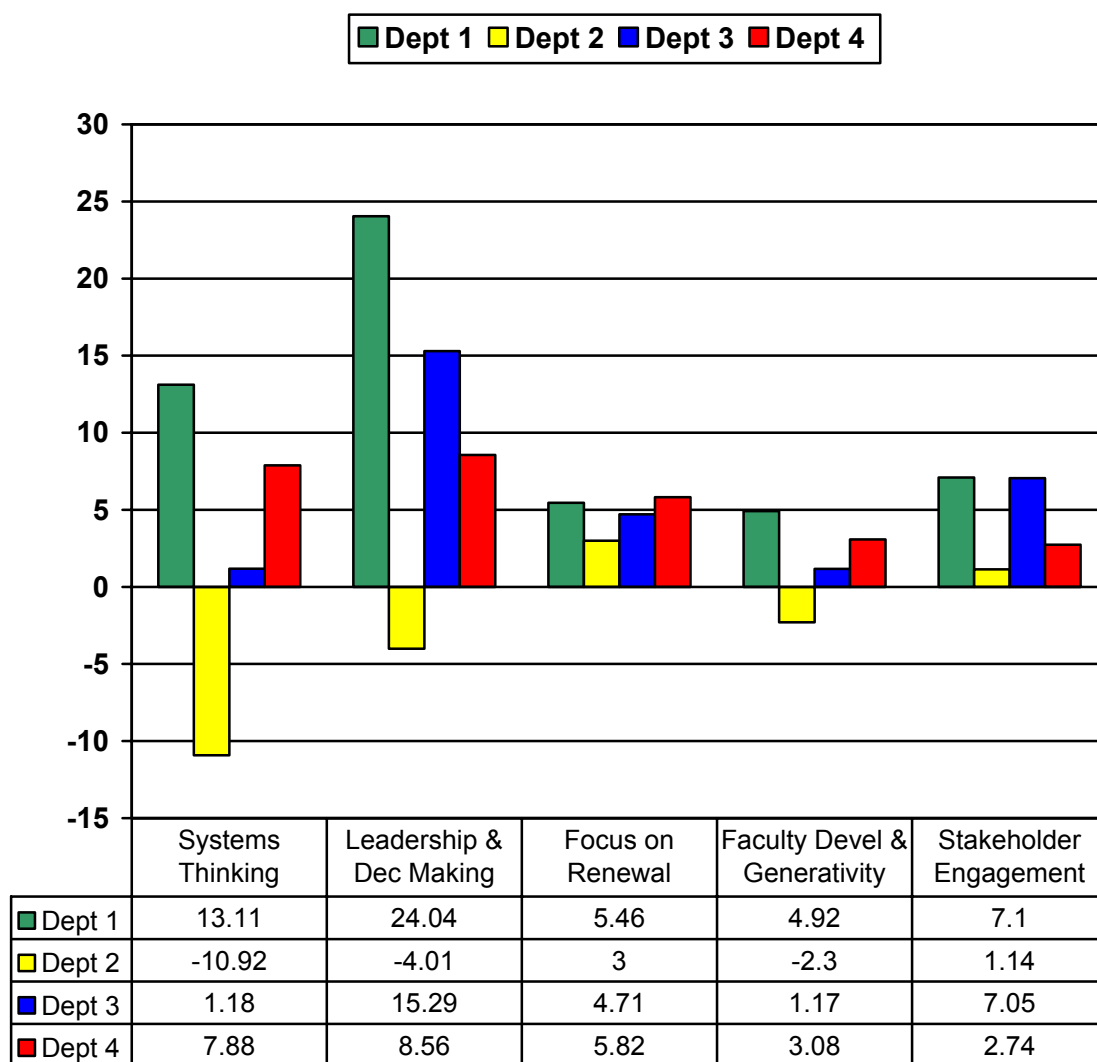


Figure 4: Quality Management Code Percentages

Table 9: Departmental Differences: Quality Management Practices

QUAL MGMT	DEPT_NO	N	Mean Rank	χ^2	df	<i>p</i>
Leadership	Dept 1	9	26.72	22.989	3	<u>.000</u>
	Dept 2	8	24.69			
	Dept 3	3	27.17			
	Dept 4	16	9.16			
	Total	36				
Strategic Planning	Dept 1	9	26.78	15.231	3	<u>.002</u>
	Dept 2	8	23.94			
	Dept 3	3	17.17			
	Dept 4	16	11.38			
	Total	36				
External Focus	Dept 1	9	27.00	16.791	3	<u>.001</u>
	Dept 2	8	23.88			
	Dept 3	3	20.00			
	Dept 4	16	10.75			
	Total	36				
Information and analysis	Dept 1	9	24.44	17.443	3	<u>.001</u>
	Dept 2	8	26.63			
	Dept 3	3	22.00			
	Dept 4	16	10.44			
	Total	36				
Faculty/Staff and Workplace Focus	Dept 1	9	28.67	22.188	3	<u>.000</u>
	Dept 2	8	23.94			
	Dept 3	3	21.00			
	Dept 4	16	9.59			
	Total	36				
Process Effectiveness	Dept 1	9	25.89	13.168	3	<u>.004</u>
	Dept 2	8	24.25			
	Dept 3	3	14.17			
	Dept 4	16	12.28			
	Total	36				
Outcomes and Achievements	Dept 1	9	23.00	17.657	3	<u>.001</u>
	Dept 2	8	28.19			
	Dept 3	3	21.00			
	Dept 4	16	10.66			
	Total	36				
Quality Mgmt Combined Indices	Dept 1	9	27.22	21.360	3	<u>.000</u>
	Dept 2	8	25.38			
	Dept 3	3	21.67			
	Dept 4	16	9.56			
	Total	36				

Source: Survey Results, Kruskal-Wallis Test, Grouping Variable: DEPT_NO

Table 10: Significant Differences: Quality Management Practices

	DEPT PAIR	<i>U</i>	<i>p</i>
Leadership	Dept 1 & 4	2.50	<.001
	Dept 2 & 4	8.00	.001
	Dept 3 & 4	.000	.007
Strategic Planning	Dept 1 & 4	10.00	<.001
	Dept 2 & 4	17.50	.004
External Focus	Dept 1 & 4	10.50	<.001
	Dept 2 & 4	14.50	.002
Info analysis	Dept 1 & 4	15.50	.001
	Dept 2 & 4	4.00	<.001
Workforce	Dept 1 & 4	4.00	<.001
	Dept 2 & 4	2.50	<.001
Process	Dept 1 & 4	17.00	.002
	Dept 2 & 4	23.00	.011
Outcomes	Dept 1 & 4	21.50	.004
	Dept 2 & 4	3.00	<.001
Quality Mgmt	Dept 1 & 4	6.00	<.001
	Dept 2 & 4	2.00	<.001

Source: Survey Results, Mann-Whitney *U* Test, Grouping Variable DEPT_NO

Departmental Profiles for Quality Management

Department One

You have to be part of the team to reach the goal you want to reach. . . . can't be a lone ranger. There is a faculty perspective that civic good to the department is crucial . . . social good.

Senior faculty member, department one

Department one had high coding percentages for all five quality management domains. It had the highest percentage of codes of all four departments for four of the five domains and was second in the focus on continuous renewal domain behind department four. Further, its survey results were highest for the quality management index.

Strong leadership and decision making. In department one most decisions are made by consensus. One senior faculty member jokingly said, "We try to beat each other into submission to get consensus." There is a strong committee structure, and anyone can volunteer to be on a committee, except for the Promotion and Tenure committee, whose members are elected. A survey comment described the way decisions are used: "Department issues regularly go through committees for discussion prior to departmental consideration. Any interested faculty member can participate in the committee's deliberations."

Systems thinking. A junior faculty member described the status of systems thinking in department one:

We feel like we're a unit. Our performance as a department is something that affects us all. There's some sense of interdependence in a different type of way...making a broad enough tent that everyone fits under it. Conveying a normative structure of interdependence.

A senior faculty member said, "'Them and us' campus used to be salient. 'Them' has changed--the people and the solidarity. It's become more malleable and accommodating. People have been brought together by [cross functional program areas]." The impetus for this change was attributed to the department head, who made structural changes to program areas and position types in order to strengthen interdependence.

Evidence of a high level of systems thinking was finding it integrated into mention of regular functions, such as performance assessment and strategic planning. One senior faculty member said, "The annual review focuses on the department and your role in the department." Another said, "The department has three major objectives that are different. We talk about how they can be integrated."

Focus on continuous renewal. At the time the field research for this dissertation began, department one was in the midst of conducting a survey of its undergraduate students concerning the topic of advising. This was one of several examples of an ongoing focus on renewal in the department. Several mentioned frequent discussions on teaching. According to one senior faculty member, "Our department head sends letters with SRTEs compared against the department and the college with his analysis of where to improve. We bring in peers for observation."

In an example shared about program renewal, a senior faculty member said:

People don't attend to communication details themselves, so there is conflict due to miscommunication. I try to be more proactive and deal

with it from a process standpoint. For example, for an undergraduate option one must share 19 credits. Someone wanted to remove one course. I researched this and prevented conflict by sharing the policy.

This story is also a good example of the way in which department one uses data to support decision making.

One senior faculty member expressed frustration with the department's focus on continuous renewal, in saying, "We never get around to the important stuff--things that affect the quality of our work. We don't talk about the opportunity to work collaboratively on research."

Faculty development and generativity. Faculty shared several positive examples of faculty development and generativity. Faculty received mentoring on the communication skills for supportive dissension. One senior faculty member said, "I teach people they may lose some arguments and decisions--they need to pick up the pieces and articulate their position." A portion of one of the faculty meetings observed was devoted to faculty/staff development, providing information on a topic about which members had questions.

Several senior faculty offered examples suggesting they derive satisfaction from generativity. One said, "I help younger faculty separate the important from the immediate."

Stakeholder engagement. It was evident that faculty members in this department were engaged with their stakeholders and were aware of and responsive to their needs. One senior faculty member observed, "Spending time with students is valued. Not being responsive to students is frowned on."

Several instances of using information from stakeholders to improve surfaced. One senior faculty member said, “If it involves students or clients we really need to arrive at a situation that addresses their concerns and interests.”

Department Two

Results for department two varied according to data type. Compared with the other three departments, it had the lowest percentages of codes in the quality management domains. A majority of interviewees made negative comments regarding organizational effectiveness of the department. The survey results, however, showed high ratings for all quality management domains. The unit had the highest ratings for the categories of information and analysis and outcomes and achievements. Its ratings were second highest for the combined quality management index, as well as the individual domains of strategic planning, external focus, faculty/staff and workplace focus, and process effectiveness.

Strong leadership and decision making. Several concerns regarding the way in which decisions are made in the department emerged. One senior faculty member said, “Many would suggest decisions are made in an egalitarian way. There is grudging recognition that in actuality many are made in a consultation process with the chair plus three to five faculty. This is part of the reason some have left. I feel I’m not part of the elite group making decisions.”

A junior faculty member echoed this concern: “Lots of decisions are made outside meetings with one to three other people. It is typical to make decisions via email--the

head sends a straw man and asks for email responses. Another junior faculty member said, “[Our department head] will come to a meeting having talked with one or two senior faculty and will bring suggestions. The decision is made, but it won’t stick if we disagree.”

The leadership and decision making domain has as its central task having broad discussions before making consensus decisions. Because department two reportedly makes many decisions after one-way email communication, their coding was lower on this domain.

Systems thinking. The coding percentage for systems thinking in department two was lower than the percentage in other departments. Comments suggested that members of the faculty by and large perceived a lack of systems thinking. One senior faculty member stated, “The pressure on articles does run counter to some of the other cultural things we’re trying to do, such as brown bags. Having doors shut pulls everyone away from a collegial atmosphere since everyone is focusing on their time. It didn’t used to be that way.” On the other hand, the lack of time to meet to discuss ideas was an object of lament, as several faculty were encouraging the revival of brownbag discussions that had occurred in the past

Focus on continuous renewal. Department two faculty members mentioned a number of examples of renewal activities. The department initiated some, and many were externally imposed. One junior faculty member mentioned a strong focus on rankings: “We wouldn’t talk about improving quality, but do talk about improving rankings.”

Two departmentally initiated renewal activities that were occurring at the time were the revival of the course coordinator concept to ensure consistency across sections of the same courses, and a focus on graduate student recruitment. In reference to graduate student recruitment, one senior faculty member mentioned, “We have seized on this and are working at it. Fabulous people are coming this fall.”

Several faculty mentioned turbulent change in a negative way, in referring to a series of renewal projects initiated by their dean. One junior faculty member described their efforts to improve the undergraduate curriculum: “We were given guidelines on the number of classes, and links to classes for non-majors. We now have a more efficient way to deliver the undergraduate program but it may not be higher quality.”

A senior faculty member mentioned frustration in unsuccessful attempts to discuss teaching improvements: “We had two debacles recently in teaching within the graduate program. Teaching problems are submerged. There is a culture to not talk about teaching performance. It’s a matter of great religious zeal that the teaching record of full professors is unknown.”

Faculty development and generativity. A formal mentoring program was in place in department two. Further, senior faculty mentioned an interest in generativity toward junior faculty, with one saying, “For junior faculty, we want to read papers, provide constructive feedback, and care about their development.”

Several had a different opinion concerning the topic. One junior faculty member said, “We haven’t been doing a good job of keeping junior faculty. There isn’t any institutional knowledge of people that have been through tenure. When I arrived, I was

told [faculty member who has since left] will be your mentor. Senior people are willing to help, but there is still a big gap.”

Faculty members reported tensions regarding internal evaluation criteria and tenure criteria. Regarding the former, one senior faculty member said, “There are tensions since internal evaluation criteria are different than what’s used outside now.” Junior faculty expressed frustration with the difficulty in obtaining information about standards for tenure requirements, whereas senior faculty stated they thought it was good to have the flexibility that a lack of published standards afforded.

Stakeholder engagement. Department two provided few examples of direct stakeholder engagement. However, it reportedly was externally focused in its consideration of rankings, which are noted by students and parents considering enrollment at Penn State. Further, the department had an established alumni committee, although the discussion at one meeting observed indicated that the committee was not active and there was a question as to its viability.

Department Three

Department three shared a number of similarities with department one, most notably the fact that they both had department heads who had a strong positive influence on faculty interaction and the reconciliation of conflict. As with department two, there was some variance between survey data and interview/observation codes. In the case of department three, the survey results placed it lower than the qualitative data for most

indices. On the quality index based on survey data it ranked third of four departments, but in the coded interaction it ranked second in several domains.

Strong leadership and decision making. Department three was high on the survey index for leadership and decision making. Like department one, it reportedly vetted issues in committee before bringing them to faculty meetings for consensus decision making.

Their new department head does frequently share information and is open about budget details. Perhaps one of the big differences from department one is that department three faculty members are not in their offices as much and do not report as much of a feeling of connectedness.

Systems thinking. Department three was lower in codes for systems thinking--second lowest on this index. Illustrating the feeling of disconnectedness, a junior faculty member said, "We don't have battles over disciplinary issues. This [having different specialties] reduces communication." However, some faculty members did indicate that elements contributing to systems thinking were increasing. As one senior faculty member said, "We used to be less comfortable discussing this [collaboration on research and grant applications]. Now we are sharing ideas and looking at cross departmental/college things." At both faculty meetings observed, there was discussion about collaboration on projects for the department, such as recruiting graduate students and the development of new programs.

Focus on continuous renewal. This was a domain in which some departmentally initiated activity was occurring in all three mission areas of teaching, research, and outreach. Department three holds a summer faculty meeting concerning teaching.

Faculty members raise issues of quality in their undergraduate committee meetings. Three to five years ago, it “revamped the curriculum and discussed weaknesses” according to a senior faculty member. The department has made an effort to assist adjuncts with teaching resources and grading policies.

Faculty in the department are calling schools in Pennsylvania regarding graduate student enrollment. They are also collaborating with other colleges at Penn State on the development of new degree programs and certificates. Finally, they are focusing on research and bringing in more grant dollars. According to one senior faculty member, “We have a significant number of grants now. [Our department head] supports our getting grants and recognizes differences in ability to get funding based on specialty areas.”

Faculty development and generativity. Like departments two and four, junior faculty in department three mentioned tenure concerns. The issue, as reported, centered on the fact that individuals believe the tenure standards are not clear.

Stakeholder engagement. Known for being student-centered, department three also evidently focuses on potential students and employers when becoming engaged with stakeholders. Although it has a large number of majors, faculty appear to know most individually and view them as part of their departmental community.

Department Four

Department four also had results that varied as a function of data type. In the survey results, it was low in all five quality management domains. However, in the

coding data, it was highest in the focus on renewal domain and second highest on systems thinking and faculty development and generativity. Faculty reported using some quality management practices, but this was overshadowed by the fact that members had not mastered the art of engaging the confrontational faculty with respect and asking them to honor the line of reason.

Strong leadership and decision making. Both junior and senior faculty expressed concerns about the decision making process in the department. They did use data, such as six-year enrollment trends for courses, and benchmarking of courses, to assist in curricular planning. However, as one survey comment illustrates, there was a perception among many that input was not used in decision making:

Faculty are asked to contribute ideas and suggestions to common problems, but administration does not indicate how these ideas were used, or if they were used. If we are asked to contribute ideas, but have no sense of how these ideas are used, why should we continue to contribute ideas? Do our opinions matter to administrators, or are we viewed as part of the problem?

There also was a feeling that the use of consensus decision making should be increased. A junior faculty member said, "Very few times is there an effort to gain consensus. Most decisions are made behind close doors."

Systems thinking. Department four was low in systems thinking. One of the investigator's memos included the observation, "Many see themselves as contritely interdependent, meaning they view their situation as a zero sum game between sub-disciplines." Despite this, the department appears to be in the midst of an organizational transition in the direction of an increase in promotive interdependence, mutual responsibility, and departmental face. Many see or are trying to see themselves in a

collaborative light. Factors hindering the transition include a lack of discussion skills and the perception that there is a dearth of information from the head. One senior faculty member described the transition as follows:

We are changing from me thinking to we thinking to give younger faculty a chance to participate in the department. There are many things we agree on, like having a strong and viable undergrad and grad program and the desire for professional satisfaction and recognition. We are interested in intangibles like feeling good about being part of the department and creating community. This was discussed in a broad faculty meeting in March.

Department four held a faculty retreat at the end of the summer that focused on enhancing interaction. The outcome was positive, with work groups formed to address all of the areas of contention that had been reported in interviews. The matters included an internal seminar and newsletter, internal communication and need for transparency, communication and mutual respect, junior/senior faculty relationships, a departmental gathering spot, faculty working relationships, external communication at Penn State and with stakeholders/clients, and identifying a proactive vision for the department. Two months after the retreat, faculty were making progress; in fact, the report of one of the subcommittees was presented at the faculty meeting observed that month.

Focus on continuous renewal. Department four had the highest code percentage of the four departments in this domain. Faculty described numerous formal and informal methods used to reinforce a culture of experimentation, assessment, adjustment at the program level, and process improvement. For example, one senior faculty member said,

We use rating and peer review as input to improve teaching. I am co-teaching a new course with [a junior faculty member]. Last semester we discussed content, outcomes, and learning tools. Then we used mid-semester feedback and SRTE comments to review what went right and wrong.

Evidently, when developing new programs, the department forms a committee to discuss goals and how the courses should be run to achieve the program objectives. All members agree to the content for each course.

Regarding the peer evaluation of teaching, one senior faculty member said, “People take the responsibility of peer evaluation pretty seriously. I interview students as a group after they do SRTEs and then write a thorough memo to the department head. In our annual meeting with the head, the quality of courses is taken into account.”

Others had a more negative opinion of efforts in continuous renewal. One senior faculty members said, “We have loose meetings on improving teaching, but the discussion is all about evaluation for P&T rather than creative ideas.”

One survey comment included the following observations:

One of the questions in the survey asked if information is used throughout our department to analyze, review, and improve our performance relative to our plans. There is quite a lot of information available in our department, although faculty are forever arguing that there is little or none! The question, however, is whether we actually use the information to improve our plans. That is, do we make mid-course corrections on the basis of the information we have collected? Our current head is the first head that has tried to reward employees for their contribution to the strategic plan, but he has gotten resistance on this from some. We are told specifically how we helped move the plan forward. In most cases the contributions are obvious across the department.

Faculty development and generativity. Department four seemed to have a higher level of mentoring, but junior and senior faculty members had differing views of its success. One junior faculty member said, “Mentoring could be better. My mentors came to me and laid out some ideas.” Another said, “There is a split between junior and senior faculty, but exceptions prove the rule. Junior faculty members are kept out of the loop. There isn’t much unsolicited advice, and there is skimpy mentoring.”

One senior faculty member had a more positive opinion about mutual support for individual development: “Colleagueship is superb. We talk with one another regarding calls for papers. There is a genuine commitment to how do we make each colleague the best he or she can be.”

An area in which there appears to be a need for faculty development is communication skills for constructive conflict management. One senior faculty member described the problem: “We don’t have any way of making groundwork. How do we have discussions with people? It’s hard to know where people are at.”

Stakeholder engagement. The department seems to have strong ties with various stakeholder groups. According to one senior faculty member, “We have a program advisory committee with industry; they discuss trends and developments. We have lots of other informal contacts and use these to discuss stakeholder interests when discussing curricular changes. This way we get formal and informal input.” A junior faculty member relayed the fact that a meeting had been held earlier in the semester for faculty to get input from students. The faculty members had discussed course content, diversity of courses, sequencing, atmosphere, and communication. Students were reluctant to say anything during the meeting.

Differences in Tenure Status, Age, and Gender

There were a total of 35 survey participants who indicated their tenure status on their response. Since one of the aspects of task conflict was generational/cohort differences, a Mann-Whitney *U* test served to reveal whether the differences relating to

tenure status were statistically significant. The test indicated that a significant difference of opinion regarding process effectiveness existed between tenured and non-tenured faculty. Tenured faculty ($n = 25$) rated process effectiveness higher than non-tenured faculty ($n = 10$), $U = 49.50$, $p = .004$. The mean rank for tenured faculty was 21.02, and the mean rank for non-tenured faculty was 10.45.

Further, tenured faculty ($n = 25$) rated information and analysis higher than non-tenured faculty ($n = 10$), $U = 69.00$, $p = .005$. The mean rank for tenured faculty was 20.24, and the mean rank for non-tenured faculty was 12.40.

Mann-Whitney U tests were also conducted to study the differences in survey responses based on age and gender. However, no significant differences in responses for either age or gender emerged.

Summary

This chapter reported the results of the data analysis used to answer the three research questions. Descriptions and examples were provided for conflict styles, types, and quality management domains. Statistically significant differences among departments on all seven quality management domains, as well as the quality management index, emerged. Significant differences also emerged for face concern and relationship conflict. Comparing faculty in all four departments together, there were significant differences based on tenure status for both process excellence and information and analysis.

The final chapter of this dissertation provides a discussion of the results and the degree to which the patterns suggested by the data match the patterns predicted by both face negotiation theory and cooperative conflict theory.

Chapter 4

Discussion

In this chapter, the conclusions and implications that emerged from the data relating to the three research questions are described. Further, limitations to the study and implications for research and practice are suggested. The chapter first presents conclusions relating to the three research questions, followed by a description of a proposed developmental framework that provides a tentative explanation for the relationship between conflict domains and quality management domains.

In some instances, patterns differ between survey data and data gathered through other means (interviews, meeting observation, and document analysis). Analysis of these differences led to the conclusion that differences in definition between the “old” and “new” styles of conflict management were a likely cause for the variance in patterns. Therefore, it is suggested that this study, with multiple types of triangulation, succeeded in deriving definitions for conflict styles and quality management practices that are closer to what the study participants perceive than the descriptions on the survey.

Conflict Communication Styles

Research Question 1 focused on the nature of observed and self-reported conflict communication styles in academic departments at a research university. Using theoretical analysis guided by face negotiation theory and cooperative conflict theory led

to the identification of four newly defined conflict styles that more accurately capture the findings from the four case studies. For example, department one was lower in the measure of problem solving conflict style and higher on avoiding than the theories predicted. Following the analysis it became clearer that the supportive dissension style better describes the department's problem solving activities. Similarly, the relatively high level of avoiding reflects the element of honoring the line of reason that is part of the interactive equality style.

Cross Case Analysis

The survey results showed no statistically significant differences in styles among the four departments, but the analysis of the interpretive data did show differences. This may be attributable to the fact that the four styles observed and reported in interviews were somewhat different from those reflected in the survey questions. Many differences can be attributed to either use of the interactive equality conflict style or to systems thinking, neither of which was included in the survey. Nevertheless, there are conclusions that can be drawn from the results based on the patterns established by both interpretive and quantitative research. These are described next.

Faculty in departments one and two reported differences in the use of the avoiding conflict style that were close to being statistically significant at the $p < .05$ level, and probably would be with a higher N. The sample differences can be attributed to the fact that the participants also showed relatively large differences in their use of the interactive equality conflict style. Department one reported higher use of both avoiding and

interactive equality styles. One of the important elements of the interactive equality style is the communicative behavior of not crossing the line of reason. This can be interpreted as avoiding relationship conflict.

Several differences in departmental style use can be explained by their differences in the use of systems thinking, a key quality management practice. The survey results showed that departments one and four and two and four were significantly different in their perceptions of face support. Department four was lower in face support than all other departments. This department was also lower on systems thinking, for which departmental face is an important element. Department one had a much higher percentage of codes for the interactive equality style than did department two. This can also possibly be attributed to their differences in systems thinking. In this case, the elements of departmental face and mutual responsibility that are part of systems thinking seem pertinent.

Another difference in codes between departments one and two was for suppression and destructive dissension. Department two had a higher percentage of codes on both of these styles. This can be explained by noting that department one was higher on interactive equality, which includes not crossing the line of reason and may show that the faculty possessed the skills to resolve destructive dissension. Department one is also higher on the measure of systems thinking, which could indicate that faculty members may take an interest in surfacing the root cause of concerns that affect the system.

There were several differences in styles between departments one and four. First, department one was higher on both interactive equality and supportive dissension. This

may have been the case because department one was also higher on systems thinking, which includes promotive interdependence and departmental face. Department one was also higher on strong leadership and decision making, which includes the use of consensus and data to aid in decision making, and the use of participatory strategic planning practices.

The survey results showed that there were directional differences between departments one and four for both compromising and problem solving. Department four was higher on both. The cooperative conflict theory holds that these two styles combined equate to constructive controversy (Tjosvold, 1997). Therefore, the survey results contradict the theory, which suggests that department one would be higher on compromising and problem solving, since faculty members have a higher degree of promotive goal interdependence. The results do partially support face negotiation theory, which posits that people in individualistic cultures who view themselves as independent will exhibit a relatively high use of the problem solving style. One prediction of face negotiation theory was not supported; that is, individuals in collectivistic cultures who view themselves as interdependent will be more likely to use the compromising style. For that to be supported, the results would have to have shown department one to be higher in respect to compromising.

Departments one and four showed different patterns for forcing, destructive dissension, and suppression, with four being higher in all three categories. This finding supports cooperative conflict theory, which posits that groups perceiving contriently interdependent goals will engage in more destructive conflict communication. The finding also supports face negotiation theory, as it predicts that people in situations with

higher face support tend to adopt the destructive styles less often, and conversely, individuals in situations with lower face support will use the deconstructive styles more often.

Departments two and four have different style usage patterns, with department four higher on avoiding, compromising, and yielding. Since department four also displayed a higher level of systems thinking, the results support predictions of both cooperative conflict theory and face negotiation theory. Those theories posit that groups with higher interdependence and higher mutual and other-face will be higher on these three styles.

This section has provided explanations for differences in patterns of conflict styles for the four departments. The next section discusses the four newly identified styles in greater detail and provides additional explanations for the findings.

Interactive Equality

In department one, which had the highest degree of systems thinking, the styles most frequently observed and reported were interactive equality and supportive dissension. These styles were more frequently in evidence than they were in the other three departments. In the department with the lowest degree of systems thinking, department two, the style most frequently reported was suppression, which was highest among the four departments. Further, faculty in department two reported the lowest frequency of interactive equality.

It is not surprising that higher systems thinking and higher interactive equality levels covaried together. The interactive equality conflict communication style has as one of its central notions a high degree of respect, trust, and equality. Sharing power through an emphasis on equality is an effective means of positively influencing a group's climate of interaction (Folger et al., 2001). At the interpersonal level, these elements are important to the support of mutual-face in dyads at the relational level. Face negotiation theory predicts that a high degree of concern for mutual-face will lead to more constructive outcomes, with problem solving, compromising, and yielding being three of the styles predicted to have higher use with the presence of mutual-face (Ting-Toomey & Kurogi, 1998). Cooperative conflict theory predicts a higher degree of use of the cooperative conflict style (a combination of problem solving and compromising) when a group's members perceive themselves to be promotively interdependent.

Departments one and three had the highest percentage of quality management codes, and were also highest in the interactive equality conflict style. There was no scale for interactive equality in the survey, but survey results for both departments were high on the survey indexes for face support. The quality management code results are supported by the survey results showing departments one and three to be two of the three highest departments.

Both departments one and three were fairly low on compromising and very low on yielding in survey results, which suggests that interactive equality is distinct from compromising and yielding styles. The results of the current study suggest that compromising and yielding as defined for the survey instrument can result in an outcome where neither individual goals or shared departmental goals are achieved. In contrast,

interactive equality seems to be related to mutual goal achievement at the individual and departmental level in the case studies. It involves honoring the individual as well as the group, which distinguishes it from the concept of collectivism that subordinates individual goals to group goals.

The interactive equality style subsumes what in the dual-concern framework is called the avoiding style. There are reportedly different interpretations of, and reasons for, use of the avoiding conflict style (Cai & Fink, 2002). Department one has some characteristics of a collectivistic culture and high mutual-face regard. Members successfully face personality conflict head on rather than using the avoiding style as Jehn recommends. Jehn found that successful groups had norms encouraging the avoidance of relational conflict (1995). Ting-Toomey predicts that collectivistic cultures favor avoiding, obliging, and compromising (Ting-Toomey & Kurogi, 1998). A recent empirical test of face negotiation theory revealed that other-face concern was associated positively with avoiding and integrating.

The predictions of face negotiation theory and cooperative conflict theory received some support. However, predictions of the two theories were not supported in the findings related to the use of the avoiding style of conflict communication. This could be attributable to the fact that systems thinking and departmental face are different enough from collectivism and other-face concern that it is not appropriate to compare patterns for testing predictions. Department two was lowest in the survey results for the avoiding style, yet highest on suppressing. Further, departments one and three were highest for avoiding in the survey. Based on the interpretive results, one could conclude that the participants in departments one and three were interpreting the meaning of

avoiding as not crossing the line of reason and, therefore, rated their department high in respect to this. It seems apparent that not crossing the line is what should be avoided, and when differences of any sort occur it is best to resolve them rather than suppress them. The effect of unresolved conflict is often a lasting emotional response. Regardless of the conflict type, if in the context of decision making it is left unresolved, the consequences may well be detrimental (Gouran, 2003). The emotional nature of conflicts increases if they are seen as unresolved or ongoing (Gayle & Preiss, 1998).

Supportive Dissension

Department three had a high rating in respect to the interactive equality conflict style. However, its use of suppression was higher than desired, and supportive dissension was lower than the predicted optimal level. In fact, all four departments probably show less supportive dissension than the moderate level that appears to facilitate discussion in positive ways. This style includes functional problem solving, discussion of differing opinions, and the use of process procedures, such as nominal group technique and devil's advocate queries. It is generally agreed that moderate levels of these task-related skills are important to effective decision making (see Gouran, 2003; Gouran & Hirokawa, 1996; Sunwolf & Seibold, 1999) and other desired positive group outcomes (Thomas, McDaniel, & Dooris, 1989; Tjosvold, 1991; Tjosvold, West, & Smith, 2003).

When quality management practices are in use, participants use data to support decision making, which has the effect of depersonalizing the discussion. This

depersonalization may mean that face issues are less likely to be a concern in departments that use quality practices.

Suppression

The level of the suppression conflict style was high in all but department one. In the context of this study, suppression had negative effects on interaction. Rather than suppressing conflicts, faculty should discuss the issues in question if they are able to use the interactive equality style. With this style, they should be less likely to cross the line of reason and, therefore, can avoid issuing face threats that might cause a conflict to degenerate into relationship conflict. Department four had a high percentage of codes in the suppression category (although departments two and three were higher). During the period in which the field research reported in this dissertation took place, but after survey responses were gathered, department four held a meeting at a team decision center using computer equipment that enabled members to share comments regarding the conflict in their department anonymously. It appears that once faculty “let it out” in this setting, they were able to move forward in resolving their concerns. This is consistent with Rothman’s (1997) observation that when attempting to resolve an intense conflict that is relationally-based it is best to surface the issues in a controlled manner (read: with respect) rather than avoiding discussion of the issues. In fact, he states that the traditional recommendation for this type of situation, which would be to avoid discussion of the conflict, can further harm the relationship. Reviewing the notes from the meeting that

department four held at the team decision center reveals that participants maintained a high level of respect and candidness while honoring the line of reason.

Destructive Dissension

At the time the data were collected, department four had a higher level of destructive dissension than supportive dissension. As mentioned in Chapter 3, the dominant story in this department revolved around three bullies who frequently issued face threats by not honoring the line of reason. Although this pattern was limited to three people, the perception in the department seemed to be that it was uncontrollable because it had such a long history. Due to the length of time this communicative behavior had been occurring, it appeared that it had fostered a trained incapacity (Folger et al., 2001) for the majority of the department. In other words, the stereotypes about these individuals were held so deeply that when they started speaking during a meeting, their colleagues tuned out. This then perpetuated the cycle of destructive dissension. It is unknown whether the discussion at the team decision center helped to alter the pattern of destructive dissension significantly, but it was reportedly a good start, and two months after the discussion, the actions proposed in that setting were underway.

Conflict Communication Types

Research Question 2 was: “What are the observed and self-reported conflict communication types in academic departments in a research university, and how do they

differ among departments?” Three different types of conflict were observed in this study: task, process, and relationship. All three types were present in all departments, but in departments one and four, the valences were more positive for the types that could be either constructive or destructive. Social identity (face) issues were salient in all three types of conflict, so identity conflict did not stand alone as a separate type.

Each of the three types of conflict were present to some degree in the four departments if both survey data and interpretive data are taken into account; hence, other factors besides conflict type must explain at least some of the differences in styles. If otherwise, we would not expect to see relationship conflict in the departments with high departmental face and interactive equality. This observation lends credence to the propositions in face negotiation theory and cooperative conflict theory, both of which include other variables (i.e., face concern and goal interdependence) to explain differences in styles. The topic that appeared to drive much of the conflict of all three types in each department was disciplinary values. Secondly, conflict that was reported as generational or cohort differences was also found. Since all four departments appear to have similar sources of conflict, other factors must address the fact that task conflict is most prevalent in department one and relationship conflict is most prevalent in department three.

There was a statistically different amount of task conflict between departments one and four and between departments three and four. Since task conflict is constructive in terms of outcomes, it is expected that it will be present in greater frequency when a high degree of systems thinking is present.

Regarding generational differences based on tenure status, there was a statistically significant difference in results for information and analysis and process excellence. This may be attributed to a perceived lack of standardization of the tenure process. Comments from junior faculty indicated that they perceived inconsistencies in the way data are used in making tenure decisions.

Process conflict was another area in which a statistically significant difference was found between departments, in this case two and four. In department four, process conflict related to resource allocation, as applied to faculty recruiting. This can be explained by the fact that faculty members perceive themselves as contriently interdependent in this area. Systems thinking was higher in department four, but departmental face and mutual responsibility were higher in department two.

The significant differences in relationship conflict between one and four, two and four, and three and four, may be a result of contrient interdependence in department four, as well as members' lack of honoring the line of reason.

These topical sources of conflict are consistent with findings of Baringer and Dodd (2002) in a study of collaboration, forgiveness, and generational equity in academic departments. They also are consistent with a search of the *Chronicle of Higher Education* archives between 1990-2001 relating to the topic of faculty conflict, which yielded eight articles dealing with (a) disciplinary differences, (b) salary, and (c) replacing faculty (Baringer & Dodd, 2002).

Task Conflict

This type of conflict results from differences related to ideas and opinions. In the current study, it was manifested as conflict concerning disciplinary values. Cooperative conflict theory suggests that moderate amounts of task conflict should have positive consequences, as long as there exists a perception of promotive interdependence and a cooperative style (e.g., supportive dissension or interactive equality) is in evidence. The qualifying conditions existed in department three, and it appears that their task conflict engendered positive consequences, which supports the propositions of the theory.

Disciplinary values. The discipline itself is a key source of departmental conflict. Disagreements concerning disciplinary values are common in higher education. In fact, David Ward, President of the American Council on Education, has coined the phrase “paradigm wars; the civil wars of excellence” to describe this phenomenon (personal communication, October 27, 2003).

There does seem to be variation in the degree to which faculty conflict occurs over disciplinary values. Studies have revealed that disciplines with a greater degree of paradigm development exhibit more consensus and collaboration (see Pfeffer & Langton, 1993). One well-known typology divides disciplines into hard/pure, hard/applied, soft/pure, and soft/applied (Becher & Trowler, 2001). For the research reported in this dissertation, limiting the study to four departments that were all in the same paradigm of soft/applied minimized the effects of disciplinary differences. Since there is less paradigm development in soft/applied disciplines, it is possible that a greater degree of disciplinary values conflict surfaced than would have if the four departments had been

hard/pure discipline types. However, even in disciplines with greater paradigm development, there are still differences in disciplinary values between generations and cohorts (Pfeffer & Langton, 1993).

In addition to discussions about disciplinary values and opinions, disciplinary differences often manifest themselves during the process of choosing which positions to fill and which candidates to hire. These are process conflicts, which Jehn (1997) found to have a negative valence. In this study, department one had a story about process conflict with a positive valence, so other factors, including the use of quality management practices, should be considered. In such cases, it appears that the use of quality management practices could moderate the otherwise negative effect of process conflict.

Department three had the lowest amount of task conflict regarding disciplinary values. Members perceive themselves as having disciplinary differences, however, the fact that they see themselves as disconnected perhaps explains why they reportedly do not engage in disciplinary values conflict. As their interaction increases and suppression decreases, their conflict regarding disciplinary values may increase.

Generational/cohort differences. Generational/cohort differences may surface concerning disciplinary values, since disciplines change over the years as new knowledge is discovered. Generational differences also appear in respect to hiring, as related to salary compression and perceived inequities. They also appear when perceived workload inequities surface; there is an interrelationship between generational equity and workload equity issues (Massy et al., 1994).

Engagement in the department is another generationally based source of conflict. In the context of intergenerational conflict in families, Williams and Nussbaum (2001)

noted that intergenerational conflicts often revolved around dialectical conflicts, in particular of autonomy-connection and independence-interdependence. The same types of issues emerged in this study but ironically, where we can presume that in the context of the family the younger generation is seeking autonomy and independence, in the present case it was the junior faculty who sought more connection and interdependence with the senior faculty in their departments. In particular, the junior faculty in department four, who as a group seemed committed to resolving departmental concerns, thought the senior faculty needed to be more engaged in departmental issues. Junior faculty in department three also expressed a desire for more connectedness.

The life-span developmental perspective of interpersonal conflict holds that the skill of conflict management develops throughout an individual's life (A. Williams & Nussbaum, 2001). Perhaps the ability of a group to manage conflict also develops over the life of the group. If that is the case, then one could surmise that as generations and cohorts move through their careers, often in the same department with others who have been members for a number of years, they will develop the skills to discuss issues arising from disciplinary differences and generational differences in a constructive manner if other factors such as quality management are also present. The present study revealed that faculty members in department one, with high levels of quality management and interactive equality, did discuss differences in a constructive manner.

Process Conflict

Process conflict arises from disagreements concerning how things should be done. In academic departments, one of the most common contexts for process conflict is faculty recruitment. Department four showed a much higher level of conflict than the other departments regarding disciplinary values and resource allocation. One could surmise that this reflects their perceived faultlines along subgroup status (Bezrukova & Jehn, 2003) related to disciplinary specialization and tenure. Many of the stories related to identifying in which specialty the department would hire for, and one or more of the three blockers disrupting possibilities for a constructive conversation about this.

The faculty in department four reported a greater percentage of generational differences; there was frequent mention of junior-senior faculty differences. Apparently, junior faculty members are now making a point to socialize as a group, so perhaps they are developing a stronger in-group identity of their own.

In department one, process conflict related to resource allocation was lower than it was in other departments. This is not surprising because members focus on process to a greater extent and have an effective consensus-based decision making process in place. A story offered by more than one faculty member centered on a particularly polarizing candidate being considered. Faculty members were unable to reach consensus, which apparently is rare for them. Because they did not come to consensus, their department head decided not to hire the person on the grounds that this action would have been too divisive. From faculty in department three also came stories relating to consensus-based decisions about hiring. In department two, faculty members reportedly discussed all

candidates and then voted. The candidate with the highest number of votes was hired, even if the vote was fairly even. The degree to which faculty discussed candidates was not reported; if the discussion was brief, then this may not have been a source of much satisfaction.

Relationship Conflict

Relationship conflict results from differences of a personal nature. Given the predictions of face negotiation theory and cooperative conflict theory, one would expect that groups perceiving high degrees of promotive interdependence and mutual-face concern would report lower levels of relationship conflict. Thus, it seems the level of relationship conflict reported for department one in the survey is higher than it would have been had the theoretical propositions been supported. Both department two and three reported lower levels of relationship conflict than did department one, yet they also reported a greater number of negative consequences arising from conflict interaction. This discrepancy in department one results may be attributable to two other factors that became apparent during the study. First, department one ostensibly has a high use of the interactive equality conflict style, whereas departments two and three reportedly have lower levels. Second, when an individual in department one says something that others interpret as crossing the line of reason, the department head reportedly steps in and helps to effect a reconciliation. This may shorten the length of time in which a grudge is held, unlike the situation in department two in which grudges allegedly have lasted until the individuals involved have left the department. One survey response from department one

described a conflict incident in which negative feelings endured for two weeks: “Hiring of a candidate. We had disagreements about the quality of the candidate. Some not so nice words were used. Negative feelings were there for two weeks after the meeting.”

The survey suggested that department four had the highest levels of all three types of conflict. Members also rated themselves highly on the survey for use of problem solving and compromising styles. One wonders whether they use a combination of the problem solving and compromising styles to reconcile ideas and opinions and, thereby, airing their differences and end up with a mutually agreeable, but only satisfactory settlement? If this is the case, they might want to consider using the interactive equality and supportive dissension styles to reach a solution about which all parties can be enthusiastic.

Quality Management Practices

Survey results for quality management practices showed differences that were statistically significant at the $p < .05$ level or better between departments one and four, and between two and four, for the quality management index and all seven excellence in higher education practices. There also was a significant difference between departments three and four for the leadership and decision making domain.

The four departments seemed to map in a continuum from least quality management to most quality management. None had attained the “all quality management” level. Departments one and three, with coding percentages at the highest levels of quality management, used the interactive equality style more frequently than

they did the destructive dissension style. One explanation for this is that both departments have in the form of their department head, a local champion of reconciliation who has been able to take action to enhance systems thinking and interactive equality. Quality management practices are to a large degree influenced by the department head, so it appears, as a result, that both departments are on the way toward developing greater use of quality management practices and the supportive dissension style. Gray and Putnam (2003) reported that the presence of an individual who was championing reconciliation was an important factor in the resolution of otherwise intractable conflicts.

The systems thinking domain wasn't adequately represented on the survey instrument, nor were curriculum renewal, generativity, consensus decision making, mutual responsibility, or departmental face. All were themes having a strong presence in the interpretive data, however. Systems thinking may be the key driver to enhance the development of conflict communication styles to move individuals away from suppression and destructive dissension and toward interactive equality and supportive dissension. It is a central concept in quality management, and for this research encompassed departmental face, interdependent goals, and mutual responsibility. It has been recommended for use as a skill to help groups understand their interdependence and therefore enhance collaboration (Jeffrey, 2003).

One unexpected finding was that department three was lower than department four on the percentage of systems thinking codes. Since it was higher on quality management codes and interactive equality style, it presumably would be higher on systems thinking than department four. However, the department currently is in transition from members' perceiving themselves as disconnected to a perception of being

promotively interdependent. Hence, it is likely that the degree of systems thinking will continue to increase.

As their level of systems thinking increases, so probably will perceptions of promotive interdependence. This will then lead to more evidence of concern with mutual responsibility and departmental face. The practice of systems thinking will enable groups to identify the underlying structure of feedback patterns that are limiting growth and change in the system (Senge, 1990). It will help them to see that offloading problems on another part of the system can't help solve them.

Faculty in both departments two and three perceive themselves as disconnected, i.e., they believe their individual goals are independent of one another. Cooperative conflict theory predicts that individuals in this situation will not experience conflict; rather, they will be indifferent. However, both departments appear to have unresolved conflicts--only suppressed and just beneath the surface.

In all four departments, faculty members mentioned that they saw themselves as different from one another on the basis of what seemed like sub-disciplinary specializations. Five years ago, the faculty members in department one reportedly saw themselves as independent of one another. Due to what several described as a concerted effort made by the department head, in five years, they have come to see a high degree of promotive interdependence and concern for departmental face. Strong leadership has changed the department to the extent that, as one junior faculty member said, “[their department head] has created an umbrella that's big enough for everyone to stand under.” Over the past year, the head in department three has made a concerted effort in this regard, that is, to be inclusive. It is unclear why the faculty in departments three and four

tolerate bullies when the faculty in department one do not. Perhaps the reason is that through the strong leadership in department one, which has “created an umbrella” for everyone to stand under, there is now a greater sense of what it takes for the department to succeed as an entity.

The goal of enhancing systems thinking in higher education is complementary to higher education’s unique culture, with its traditions of autonomy and commitment to academic freedom. It is probable that higher education in the United States would not be nearly so strong if these traditions were undermined. Therefore, it is important to balance the agendas of individual faculty with departmental agendas and to honor the individual, as well as the group. The domain of systems thinking as defined for this research does just that through the concept of departmental face, and that explains why the concept of departmental face is more compatible with the culture of higher education than is the concept of collectivism, where the needs of individuals are subordinated to the needs of the group.

Multiple Sequence Developmental Framework

There is a deficit of research relating to conflict in the group setting (Rahim, 2001), with Jehn (1995, 1997, 2001) being one notable exception. One area that is sorely lacking is research on the development over time of conflict skills and conflict management processes within groups. Neither face negotiation theory nor cooperative conflict theory includes consideration of the developmental aspect. Instead, their

predictions appear to assume a static environment, or at best to ignore the variables of time and changing development.

The development of constructive conflict communication patterns and quality management practices are two important processes in the lifespan development of an academic department. The goal of each is the same--to enhance the effectiveness of the department. Gaining proficiency in the use of supportive dissension and interactive equality may be the developmental tasks that departments need to acquire in order to achieve the type of cooperation and learning recommended by Deming (1993) in his framework of profound knowledge. Conversely, quality management practices, especially systems thinking, may be the developmental tasks best suited to enhancing supportive dissension and interactive equality. It appears that an important contingency to their successful interrelationship may be strong leadership to create systems thinking.

Just as conflict is central to individual development (Canary et al., 1995), it should also be seen as central to group development. Conflict is a prerequisite for lasting friendships (Canary et al., 1995), and many see cooperative conflict as a prerequisite to departmental effectiveness (Tjosvold, 1991). This study revealed that managing task and process type conflicts through the use of cooperative conflict styles, together with quality management, may be the most effective path to achieve the organizational learning required to enhance effectiveness in higher education.

In an academic department, it is likely that relationships will exist for many years. Therefore, the relationship history is an important variable (Nussbaum, Pecchioni, Robinson, & Thompson, 2000) when one is studying a department. Age similarity is

important to friendships, but there is some speculation that a cohort effect might be even more salient in academic departments.

I have noticed (but done no formal analysis) that there seems to be a career age generational difference that may be as important as a chronological age difference -- particularly for faculty aged 45-60. My informal observations indicate that older more recent Ph.D.s may have values more similar to their younger colleagues than their chronological peers. (Carol Colbeck, personal communication, August 13, 2001.)

The data in the present study suggest that conflict communication comprises one strand of activity in the lifespan development of an academic department, with quality management comprising a second activity strand. It is possible that the two reinforce one another, which would mean that for either sequence, development could be stalled by lack of interaction with the other. Patterns exhibited in the current study suggest that the two separate activity strands may not develop at the same rate and in the same order. In the group development literature, the adaptive response model matches most closely the type of group development observed in this study. This model centers on the concept that interaction with a challenging environment stimulates development and that development is contingent on the context within which each group finds itself (Arrow, 1997). Since the circumstances for each group differ, the rate, level, and direction of development also differ. An example of this in the current study is evident in department three. Faculty reportedly have one person who has exhibited anger. They also have a fairly new leader who is serving as a local champion of reconciliation. It is possible that these two factors have stimulated them to start resolving their issues and, thereby, to enhance the development of the unit.

Just as conflict communication may stimulate development, so may quality management. An important part of quality management is interaction with the environment (i.e., stakeholder relationships). Since environmental variables can affect development by creating dissonance, quality management's emphasis on the practice of stakeholder engagement may promote more fruitful departmental development.

Figure 5 illustrates a proposed relationship between the quality management system and constructive conflict communication. It posits that departments with a high level of constructive conflict communication and a high level of engagement in quality management practices will use the interactive equality conflict communication style and will exhibit all five practices to a greater degree. Systems thinking and interactive equality can be described as taking the high road, a phrase that indicates honoring the line of reason.

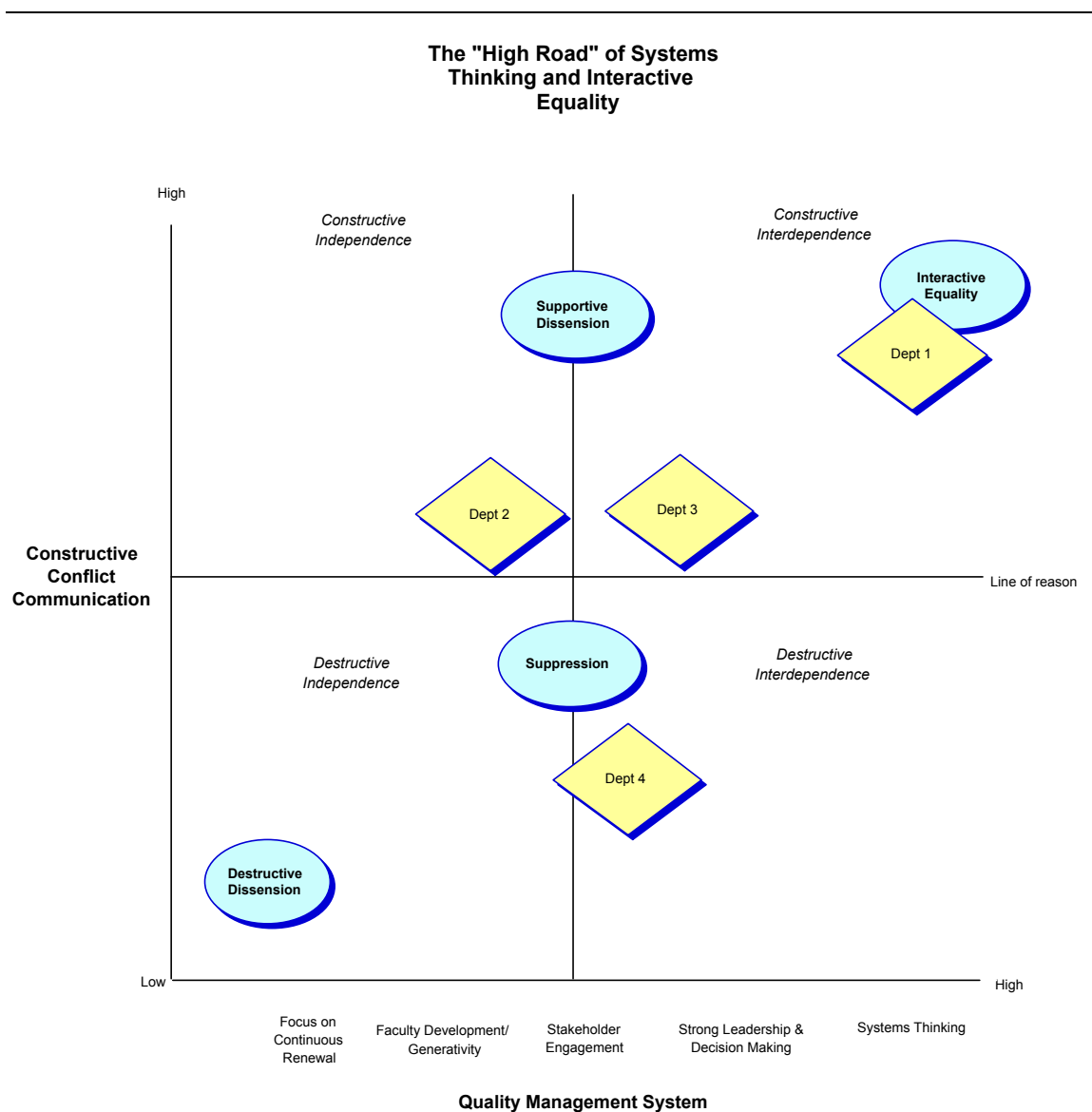


Figure 5: Proposed relationship between quality management and conflict communication.

Limitations

There were several limitations in this study. Prominent among them were two of the characteristics of the four departments. There were size differences in the departments, with one department's being over three times larger than another. This size difference limited the types of data analyses that could be performed. Further, all four departments were from the same large, state-related research university. Although case study research should not be generalized to larger populations, it should be possible for researchers to duplicate the study in other settings. Varying the type of institution might cause unforeseen difficulties to occur.

A second factor that may have been a limitation was the fact that portions of the data were gathered via the form of self-reports. It is possible that survey response bias was a factor, since some have observed that conflict questionnaires are susceptible to bias due to the desire for participants to represent themselves favorably (Hocker & Wilmot, 1995).

A third factor that limits the conclusions that can be drawn was that the data were gathered over a period of seven months between April and October 2003, which was a shorter timeframe than what would have been desirable. Because it appears that the development of conflict communication skills and quality management practices is dynamic but not radical in nature, such development should ideally be examined over a longer time period.

Finally, the issue of reactivity mentioned in Chapter 2 may have been a factor. It is possible that events proceeded differently because they were being observed. Although every effort was made to minimize reactivity, it is always present to some degree. One of the actions taken to minimize reactivity was to assure participants that their departmental identity, as well as their individual identity, would not be revealed. Subsequently, quite a number of data points were not used in this dissertation because their presence would have enabled readers to identify the department and/or the individual. For example, two of the four department heads in this study had announced that they were stepping down. In one department, a new head took over after the survey and interviews were completed but before meeting observation took place. In another department, the periodic review of the department head was taking place during data collection. These factors had relevance to the context in which both conflict communication and quality management practices were described, but much of these data were not used due to the importance of confidentiality. Other data not used related to new faculty hires. There was evidence of the influence of new faculty on both conflict communication and quality management practices. This appears to particularly be the case when senior faculty with international reputations are brought into a department.

Implications for Future Research

Because this research was primarily interpretive in nature, it is intended to be transferable to other settings, not generalizable to the larger population. To test causality, it will be important to conduct quasi-experimental research with a large, representative

sample selected randomly from different discipline and institution types. Further, longitudinal research should be conducted to allow for better understanding of specific developmental processes only partially detected in this study. Much of conflict research to date has ignored the timeframe, context, and setting; for example, the presence of quality management practices. Hence, there is much we do not know about such variables' relationship to the long-term development of constructive conflict communication in groups.

The testing of terminology, particularly for conflict styles and quality management practices, should be a priority for future research. Since different frameworks for styles and quality management practices emerged in this study, these two new frameworks should be tested with different populations. The newly identified interactive equality conflict style should be studied, as should the incorporation of the norm of not crossing the line of reason. The data suggested that this is not avoiding, but rather respecting self and others.

Elements related to the improvement of teaching and the systems approach to curriculum planning should be added to the questions in the domain of focus on continuous renewal. Further, it is important to determine a method to measure and incorporate satisfaction and other customer-related outcome variables from students, employers, alumni, and other stakeholders. This would serve as an additional source to validate departmental self-reports and researcher observation.

Implications for Practice

There are several implications for practice that can be derived from this research, including some at the unit level and some at the institution-wide level. Any organization using quality management is apt to use cross-functional teams. Therefore, better team interaction will help ensure the successful use of quality management practices. This study has provided a better understanding of methods that can be used to avoid impediments to team interaction. In a formal negotiation, mediators give training to both parties regarding how to discern and communicate interests. Although the head in department one reportedly does serve as a mediator, faculty in departments two, three, and four do not appear to have access to this resource.

The quality management practice of focusing on continuous renewal was present at a relatively low level in the four departments. None of the departments reported a high degree of self-study and reflection concerning core academic processes, such as curriculum renewal. This, in turn, suggests that there may be room for improvement in the way quality management is currently operationalized in these and other departments in higher education.

At least one higher education leader speaking for change has proposed the need to improve the core competency of education within American higher education, in stating that universities concern themselves with the creation and dissemination of knowledge, but generally do not focus on the process of education itself (Massy, 2003). All four departments spoke of improving teaching, but rarely or never did they mention efforts to improve student learning. Massy asserts that to improve the core competency of

education, departments need to assess learning outcomes and become more cost conscious. He proposes the adoption of “organized activities dedicated to improving and assuring educational quality” (p. 159). The activities he proposes include the identification of desired learning outcomes at the program level, the design of curricula and teaching and learning processes, the assessment of student learning, and the implementation of quality assurance.

Quality in higher education is defined by another change leader as engagement with stakeholders (Wergin, 2003). The process of engagement he describes includes critical reflection about data gathered to determine student learning outcomes.

The domain of focus on continuous renewal described in this dissertation includes elements similar to those proposed by Massy and Wergin. These elements should be included in future departmental self-assessments of the degree to which they are using quality management practices.

Summary

The study has enhanced our understanding of both conflict and quality management by reporting the patterns discerned from multiple data types from four cases. The life-span developmental perspective of interpersonal conflict holds that conflict management develops as a life-span skill (Williams & Nussbaum, 2001). This study suggests that the ability of a group to manage conflict may also develop over the life of the group if certain contextual factors are present, i.e., the use of quality management practices and, in particular, systems thinking.

The interactive equality conflict communication style was in evidence to a greater extent in department one, which also was the department showing the greatest use of quality management practices. Therefore, it is possible that the presence of this communication style is an indicator of the presence of quality management practices.

The dual control model of conflict styles (see Rahim, 2001) classifies styles according to the degree they address concern for self and concern for other. However, it does not address concern for mutual-face or perceived interdependence, which are key elements of face negotiation theory and cooperative conflict theory, respectively. It also does not include interactive equality. The predicted outcome valences for the five styles differ as a function of other variables, such as the type of conflict and the cultural environment, which makes it more difficult for groups to determine the action they should take in conflict situations to achieve a constructive outcome. The constructive styles observed in this study can be used with reasonable assurance that their outcomes will be positive, regardless of the type of conflict involved. Conversely, the destructive styles can be advised against.

Using the tenets of the two theories, it is possible to predict outcome valences for the four newly identified styles to determine the optimal level of style use. To achieve the most constructive group outcomes, use of interactive equality should be high, supportive dissension high, and suppression and destructive dissension low. Department one fits this profile with the exception that faculty members need to increase their use of supportive dissension to reach an optimal level of success in managing conflicts.

Conclusion

Several outcomes were achieved from this study of conflict communication and quality management practices. First, it yielded richer and more refined knowledge of conflict communication by capturing new conflict styles based on participant interpretation. Second, it contributed to support of both face negotiation theory and cooperative conflict theory by showing their fit with multiple data types collected from four different cases. Third, it extended our knowledge of quality management practices through the identification of five distinct practices.

The five quality management domains are a necessary, but not sufficient, means to achieve departmental excellence. This study has shown that department one, the department strongest in quality management practices, was also strong in the use of interactive equality conflict style.

As leaders continue to search for ways in which to improve the system of higher education in the United States, voluntary accreditation remains the primary, and some think the most promising, means to assure stakeholders of the value they are receiving from post-secondary education. This framework provides a potential assessment methodology for quality systems in academic departments. In the past few years, regional accreditation bodies have revised their criteria to reflect greater assessment of outcomes, rather than inputs. Higher education leaders are starting to suggest that accreditors encourage assessment of the quality system, meaning the processes that are used to improve teaching and the curriculum (Dodd, in press).

The findings from this research could help influence the direction of social change. In many cases, we know what should be done to improve the quality of academic departments. However, it is difficult to implement these ideas because of a lack of attention to how to implement relevant communication practices. Interventions should minimize affective conflict, achieve and sustain a moderate amount of cognitive conflict, and enable people to use different styles (Rahim, 2001). A more straightforward typology of styles would be easier for individuals to remember and might simplify the task of teaching people the best ways to communicate in various situations.

Conflict may be the golden thread leading to the development or enhancement of quality management and, thereby, to the achievement of departmental excellence. Just as conflict is central to individual development (Canary et al., 1995), we should also start seeing it as central to group development. Conflict styles that result in constructive outcomes (e.g., interactive equality and supportive dissension) should be used to address task and process conflict in conjunction with quality management practices. This should then result in development rather than the stagnation that otherwise is likely.

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Appendix A

Informed Consent Statement

This consent form was reviewed and approved by Penn State's Institutional Review Board on March 24, 2003, with an expiration date of March 23, 2004.

INFORMED CONSENT FORM FOR SOCIAL SCIENCE RESEARCH The Pennsylvania State University

Title of Project: Communication in Academic Departments
Principal Investigator: Ann H. Dodd, Doctoral Candidate, Communication Arts
and Sciences

Purpose of the Study: This research will study conflict communication and quality management practices within four academic departments at Penn State.

Procedures to be followed: Participation in this research will include completion of a web-based questionnaire. It will also include your participation in departmental meetings that may be observed by the principal investigator. Additionally, you may be invited to participate in an individual interview.

Discomforts and Risks: There are no known risks to participants.

Benefits: Your participation in this research will facilitate the discovery of insights that could be used to extend communication theory and enhance communication in academic departments. This information in turn could be used to enhance the quality of teaching, research and service to the benefit of future generations and society at large.

Duration/Time: The questionnaire will take approximately 45 minutes to complete. Interviews will take approximately 30 minutes. Meeting observation will take place during 2003.

Statement of Confidentiality: All data will remain confidential, and neither you nor your department will be identified to anyone other than the principal investigator.

Right to Ask Questions: You have the right to ask questions and have those questions answered. All questions about the study should be directed to the principal investigator, Ms. Ann Dodd, at ahd2@psu.edu, 234 Sparks Building, 814-863-8721. You may also contact Ms. Dodd's dissertation advisor, Dr. Jon Nussbaum, at jfn5@psu.edu, 234 Sparks

Appendix B

Emails to faculty

First email: Sent after the Department Head told faculty about the study

I am a doctoral candidate in the Department of Communication Arts and Sciences, and am conducting my dissertation research on departmental communication within four departments at Penn State. Your department head has given me permission to contact you to describe the study and ask for your participation.

The study will examine conflict communication and quality management practices. Your participation will involve the completion of a short web-based questionnaire and you may also be invited to participate in an individual interview. In addition, I will be observing selected departmental meetings where you may be present. I selected your department as part of my sample based on discipline type and number of faculty. All four departments in the sample are of a similar size and represent a discipline that is characterized broadly as applied social science.

Your participation in this research will facilitate the discovery of insights that could be used to extend communication theory and enhance communication in academic departments. This information in turn could be used to enhance the quality of teaching, research and service to the benefit of future generations and society at large.

In the next few days, I will be sending you an email inviting you to complete the web-based questionnaire. In the meantime, will you please take a moment to read and sign the attached form to designate your consent to participate in the study? Please make a copy for your records and return a signed copy to me at 234 Sparks Building.

Thank you for your consideration.
Sincerely,
Ann Dodd

Second email: Sent to request survey participation

A few days ago I sent you a message regarding my dissertation research on departmental communication within four departments at Penn State. I am now writing to invite you to complete a brief web-based questionnaire on communication within your department. Since your department is one of only four that were carefully selected for the study I hope that you will be able to take a moment to complete the survey. Your thoughts and experiences will be of great help.

You may access the survey at <http://www.personal.psu.edu/staff/a/h/ahd2/survey/>
To begin the survey, please login with the Department ID: dept3
When prompted, please enter the password: 0125

If you have any questions or problems, you can reach me at 863-8721 or ahd2@psu.edu.
Thank you for your participation!

Third email: Survey reminder

About a week ago I sent you an email inviting you to complete a brief web-based survey on the topic of departmental communication. If you have already completed the survey, I want to thank you for your response. If not, I would like to invite you to take a few moments to complete the survey now.

I realize this is a busy time of year as the semester is drawing to a close. However, I have contacted you and your colleagues in hopes of obtaining insights that only you can provide about communication in your department. The results of this research will be used to extend communication theory and enhance communication in academic departments.

As I mentioned before, your department is one of only four in my dissertation research sample. Descriptions of the four departments will be limited to stating that they are disciplines that are applied social sciences. The institution will be disguised and the focus of the discipline will not be mentioned. The unit of analysis for my study is departments, not individuals. Your survey responses are anonymous and will be reported in the aggregate for your department as a whole.

There are three ways you can respond:

1.) Access the survey at <http://www.personal.psu.edu/staff/a/h/ahd2/survey/>
To begin the survey, please login with the Department ID: dept1
When prompted, please enter the password: 4265

When you enter the website for the survey you will first see a screen that asks you to download and sign the consent form if you have not already done so. The form is the one that I have attached to this message.

2.) Access the survey as indicated above, and then print a hard copy to return via campus mail to me at 234 Sparks.

3.) Contact me by phone or email and request that a survey be sent to you.

If you have any questions or problems, you can reach me at 863-8721 (office) or 861-4865 (home), or by email at ahd2@psu.edu. Thank you for your participation!

Ann Dodd

Email to Potential Interviewees

I am writing to see if you would have time over the next month to spend an hour with me discussing communication in your department, as part of my doctoral research. I recently interviewed your department head, and he recommended that I contact you to request an interview. Of course, your identity would remain confidential. The interviews have been taking anywhere from 30-60 minutes, so it would be great if we could schedule an hour to talk.

I could come over to your office anytime on 5/20 or 5/22, or the afternoon of 5/23. I am also free anytime on 5/29, 6/2, 6/9-10, 6/12-13, and 6/16-17. If those don't work, could you suggest a date and time?

Thanks,
Ann

Appendix C

Interview Protocol

Thank you for taking the time to get together to talk about communication in your department. I would like to take the next thirty minutes or so to ask you a few questions about typical faculty interactions in the department. Please disguise the identity of any individuals you mention in your responses.

1. What is your position here? (if not interviewing dept head.)
2. How would you describe typical interactions at faculty meetings?
3. How do you perceive the way decisions are typically made in the department?
4. Describe a time when faculty discussed issues related to the quality of teaching, research, or service in the department.
5. What things are frowned upon in your department?
6. Describe a recent work event that demonstrates to you an instance of poor communication.
7. What kinds of conflicts occur in the department? How are conflicts typically handled?
8. Describe a recent work event that demonstrates to you an instance of good communication.
9. In your opinion, how do faculty treat one another in this department?
10. What tensions are there in your department?
11. What changes (if any) would you make in the way communication takes place in the department? Why?
12. Are there any communication issues that we have not talked about, or I have not asked about, that come to mind?
13. What other faculty members do you recommend I talk with?

Appendix D

Survey Scales

Don't know = 0, Never to always 1-5

Question	Survey Scale
18. Our department helps faculty to develop their full potential.	Workplace Quality Management
20. Our department encourages participation in discussions.	Workplace Quality Management
21. Our department encourages appreciation of diversity.	Workplace Quality Management
22. Our department encourages professional development.	Workplace Quality Management
23. We have effective approaches to recognize group contributors.	Workplace Quality Management
24. Our department has a system for regularly assessing workplace climate.	Workplace Quality Management
25. We regularly assess faculty/staff satisfaction.	Workplace Quality Management
14. We have a shared view of what standards to use in assessing the effectiveness of our unit, our programs, services and activities.	Info & Analysis Quality Management
15. We have an effective approach for gathering information on progress towards departmental goals.	Info & Analysis Quality Management
16. Information is used throughout our department to analyze, review and improve our performance relative to our plans.	Info & Analysis Quality Management
17. We use information from peer and leading organizations to assess current effectiveness and progress.	Info & Analysis Quality Management
19. Our department encourages excellence.	Process Quality Management
26. We maintain high standards in our programs.	Process Quality Management
27. In our department, work procedures are standardized.	Process Quality Management
28. Departmental work procedures are reviewed for improvement opportunities on a regular basis.	Process Quality Management
29. We have objective documentation indicating that our department is successful in achieving our goals.	Outcomes Quality Management
30. The groups for which we provide programs perceive that we are effectively meeting their needs.	Outcomes Quality Management
31. We have a positive work climate.	Outcomes Quality Management
32. Our record of achievement compares favorably with that of our peers.	Outcomes Quality Management
2. Our department head takes steps to strengthen our community involvement.	Leadership Quality Management
3. Our department head encourages feedback to improve his or her own leadership practices.	Leadership Quality Management
4. Our department head builds consensus on our priorities.	Leadership Quality Management
5. In our department, there is a shared view of our mission.	Leadership Quality Management

Question	Survey Scale
1. Our department has a formalized planning process.	Planning Quality Management
6. We have a written plan with priorities.	Planning Quality Management
7. We engage faculty and staff in developing the plan.	Planning Quality Management
8. We engage faculty and staff in implementing the plan.	Planning Quality Management
9. Our department's plan is synchronized with our college plan.	Planning Quality Management
10. Our department has a systematic approach to learning about the needs, expectations and satisfaction levels of the groups we serve.	External Focus Quality Management
11. We are well informed about the specific needs, expectations and priorities of the groups we serve.	External Focus Quality Management
12. Information gathered from those we serve is regularly analyzed and used to improve our programs, services, and department.	External Focus Quality Management
13. Our department is committed to improving our communication, relationships and reputation with the groups we serve.	External Focus Quality Management
33. We trust each other sufficiently to honestly share perceptions.	Face
34. We help each other by compensating for individual shortcomings.	Face
35. We trust each other to act responsibly in performing our individual tasks.	Face
36. Our department is not dominated by any one faction.	Face
37. We communicate respect for one another.	Face
38. I see the faculty in our department as competent.	Face
39. I see the faculty in our department as effective.	Face
40. The faculty in our department demonstrate a strong desire to contribute to the department's success.	Goals
41. Achieving my objectives is tied to my colleagues also reaching their objectives.	Goals
42. Reaching my objectives helps our department reach its objectives.	Goals
43. Reaching my objectives interferes with my colleagues' ability to reach their objectives.	Goals

5 point scale from None/never = 1 to A lot/all the time = 5

Question	Survey Scale
46. How much friction is there among faculty in your department?	Relationship conflict
48. How much are personality conflicts evident in your department?	Relationship conflict
49. How much emotional conflict is there among faculty in your department?	Relationship conflict
52. How much tension is there among faculty in your department?	Relationship conflict
50. How frequently are there conflicts about ideas in your department?	Task conflict
51. How often do faculty in your department disagree about opinions?	Task conflict

47. How much conflict is there about delegation of tasks within your department?	Process conflict
53. How often do faculty in your department disagree about who should do what?	Process conflict
54. How frequently do faculty disagree about the way to complete a group task?	Process conflict

Six choices from Strongly Disagree to Strongly Agree

Question	Survey Scale
64. I try to avoid a confrontation with the other party.	Avoiding style
68. I avoid differences of opinion as much as possible.	Avoiding style
72. I try to make differences loom less severe.	Avoiding style
75. I avoid a confrontation about our differences.	Avoiding style
59. I try to realize a middle-of-the-road solution.	Compromising style
63. I strive whenever possible towards a fifty-fifty compromise.	Compromising style
67. I emphasize that we have to find a compromise solution.	Compromising style
77. I insist we both give in a little.	Compromising style
65. I fight for a good outcome for myself.	Forcing style
66. I push my own point of view.	Forcing style
71. I do everything to win.	Forcing style
76. I search for gains that support my position.	Forcing style
60. I examine issues until I find a solution that really satisfies me and the other party.	Problem solving style
61. I stand for my own and other's goals and interests.	Problem solving style
62. I work out a solution that serves my own as well as other's interests as much as possible.	Problem solving style
69. I examine ideas from both sides to find a mutually optimal solution.	Problem solving style
58. I concur with the other party.	Yielding style
70. I try to accommodate the other party.	Yielding style
73. I give in to the wishes of the other party.	Yielding style
74. I adapt to the other parties' goals and interests.	Yielding style

VITA

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Education

Ph.D. in Communication Arts and Sciences, The Pennsylvania State University, May 2004
M.S. in Higher Education, Iowa State University, May 1983
B.S. in Family Services, Iowa State University, May 1981, awarded with distinction

Professional Experience

August 1999 to present, The Pennsylvania State University
Senior Consultant, Office of Planning and Institutional Assessment (8/99 to present)
Instructor, Department of Communication Arts and Sciences (1/03 to present)

1994 – July 1999, The University of North Carolina at Chapel Hill
Executive Assistant to the Vice Chancellor and Director of Institutional Effectiveness (7/98-7/99)
Assistant to the Executive Vice Chancellor and Director of Quality Development (4/96-6/98)
Assistant to the Vice Chancellor and Director of Quality Improvement (11/94-3/96)

1990-94, University of Wisconsin-Madison, Division of Information Technology
Manager of Quality Development; Quality and Training Consultant; Publications Consultant

Selected Honors and Activities

Joseph M. Juran Fellow, University of Minnesota Juran Center for Leadership in Quality, 2003. Awarded \$10,000 fellowship in recognition of current scholarship and career promise in pursuit of Quality.

Examiner, Malcolm Baldrige National Quality Award Board of Examiners, U.S. Dept. of Commerce, 2000.

Evaluator, Commission on Higher Education of the Middle States Association of Colleges and Schools, January 1998 to present. Served on reaccreditation review teams for Rutgers University, National Defense University, SUNY Albany, SUNY Brockport, and the American University of Beirut.

Selected Publications and Presentations

Miller-Day, M., & Dodd, A. H. (2004). Toward a descriptive model of parent-offspring communication about alcohol and other drugs. *Journal of Social and Personal Relationships*, 21, 73-95. Top four paper award in NCA Family Communication division, 2003.

Dodd, A. H. (in press). Accreditation as a catalyst for institutional effectiveness. In M. J. Dooris, J. Trainer, & J. Kelley, (Eds.), *New Directions in Institutional Research*. San Francisco: Jossey-Bass.

Dodd, A. H., & Sherlock, B. J. (2003, June). A structured approach to organizational improvement. In *International Association of Facilitators conference proceedings*, <http://iaf-world.org/confs/proceedings.cfm>.

Baringer, D. & Dodd, A. H. (2002, November). *The communication of forgiveness in action: An examination of forgiveness, generational equity and collaborative climate in NCA members' academic departments*. Paper presented at the National Communication Association annual convention, New Orleans, LA.