A Study in Correctional Leadership and Conflict within the Informal Organization of a Correctional Setting: A Paradigm Shift in Correctional Treatment

Francis L. Crowe
Western Michigan University

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A STUDY IN CORRECTIONAL LEADERSHIP AND CONFLICT WITHIN
THE INFORMAL ORGANIZATION OF A CORRECTIONAL SETTING:
A PARADIGM SHIFT IN CORRECTIONAL TREATMENT

by

Francis L. Crowe

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
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Western Michigan University
Kalamazoo, Michigan
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This research was designed to achieve two purposes. First, it ascertained what modes were preferred by inmates to resolve conflict in a correctional setting as measured on the Thomas-Kilmann Conflict Mode Instrument. Second, it measured whether participation in a 12-hour, conflict resolution, cognitive treatment program would significantly change the inmate's ability to handle conflict in a more positive manner.

There were three major components to this research. First, a group of 66 inmates from the Kent County Correctional Facility Honor Camp in Grand Rapids, Michigan, was tested using the Thomas-Kilmann Conflict Resolution Mode Instrument. Second, using randomization, the participants were placed in an experimental group, educational group, or recreational group. All three groups met four times during the same 30-day period for three hours. The experimental group received 12 hours of conflict resolution training, the educational group participated in a 12-hour education program, and the recreational group was assigned to a 12-hour recreation period. Third, all three groups were retested and their scores analyzed to determine any significant effect of the treatment program.

There were two sets of data required for the study. The first set was the pretest and posttest scores of each participant on the Thomas-Kilmann Conflict Mode Instrument. The second set of data included each inmate's age, race, marital status, educational level, and criminal record.
The inmates' scores on both the pretest and posttest were compared to the original norm group to determine differences by means of the preferred modes of conflict resolution. Second, the experimental group's pretest scores were compared to their posttest scores by means in the five modes of conflict resolution. Third, the gain scores between the experimental group, the educational group, and the recreational group were compared by means. Fourth, the preferred modes of conflict resolution based on the inmates' personal characteristics, (e.g. race, education, age, marital status and criminal history) were compared by means. The level of significance was set at .05.

The results of the study illustrated significant differences between the inmates and the original norm group on both the pretest and posttest in preferred modes of conflict resolution. Because of these differences, it was concluded that inmates needed training in conflict resolution. Second, the experimental group's pretest and posttest scores revealed a statistically significant decline in selecting the competing mode. It was concluded that learning did occur within the treatment program. Third, a significant difference was recorded between the recreational group and experimental group in the competing mode. Since the experimental group's mean score was reduced by -1.0, it was concluded that the treatment program was effective. Fourth, there were no significant differences discovered between the inmates' preferred modes of conflict resolution and their personal characteristics. Therefore, it was concluded that a cognitive training program in conflict resolution would not have to be custom designed to fit the needs of one's personal characteristics such as age, race, education, marital status, and criminal record.
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A study in correctional leadership and conflict within the informal organization of a correctional setting: A paradigm shift in correctional treatment

Crowe, Francis L., Ed.D.
Western Michigan University, 1994

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Francis L. Crowe
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CHAPTER I

INTRODUCTION

The manner in which inmates resolve conflict is an important aspect of understanding and managing a correctional setting. Historically, most conflict resolution studies have examined conflict as it relates to corporate and management practices. Although these evolving theories have been used to improve business and human relations, they are also useful in corrections.

Dealing with conflict in a correctional setting is unlike managing conflict in a traditional business organization. Corrections is truly a big business, in terms of costs, resources, personnel and payroll. Yet, distinct differences emerge since it does not make a profit nor does it have owners or stockholders.

Few businesses could tolerate a 50 percent rate of return (recidivism), nor could they survive public opinion polls consistently illustrating the fear of crime and lack of confidence in corrections' ability to protect society.

Corporate leaders may also have difficulty coping with the limits placed on the corrections leader's ability to oversee corrections. Sentencing courts determine the work load, appellate courts review and determine the programmatic policies, the legislature decides the budget, civil service selects staff while sheriffs, chief probation officers, and parole boards control other critical aspects of the corrections function.

Realizing the above restrictions and limitations, the corrections leader must develop a style to address the correctional environment, staff, and inmate culture. A major concern is how to deal constructively with conflict.
Recognizing that conflict is pervasive in the human experience (Owens, 1987), the effective correctional leader must be able to manage conflict in the correctional setting. Specifically, the manner in which inmates resolve conflict is an important aspect of managing such behavior.

Conflict resolution has been primarily examined as it relates to business and management practices within the private sector. Such studies have been used to promote production and personal relationships. For example, The Managerial Grid (Blake & Mouton, 1964) compares people concerns against task concerns. Based on the same concept, Thomas and Kilmann (1974) developed a two grid dimensional model which rates cooperation and assertiveness. However, the theme of both of these studies is the relationship between individuals and their understanding of basic human needs.

Research in corrections on conflict has been conducted substantially different from those used in business. The corrections’ approach has been primarily from the perspective of inmate control, the psychological reasons for conflict and riots, and bureaucratic strategy employed to deter violence (Brent, 1973; Pappas, 1981; Juliani, 1981; Fox, 1982).

Concerning inmate control, one of the most vexing problems for correctional leaders is the relationship between custody and treatment. The custody model is based on the assumption that incarceration is for the protection of society and behavior must be regulated and discipline strictly applied (Clear & Cole, 1994). Treatment personnel express concern about the conflict within this approach, arguing although institutional rules are necessary, some regulations that regiment minor aspects of daily life can impede the development of individual responsibility (Allen & Simonsen, 1992).
The daily experience of confinement is an individual matter, but there are certain commonalities with which all inmates must learn to cope. The "routine" of prison life may produce boredom, suspiciousness, noise, a lack of privacy, and the deprivation of autonomy (Sykes, 1958). The overcrowding prevalent in many of today's institutions exacerbates these conditions (Toch, 1977). Idleness, which is often the result of overcrowded conditions, adds another variable to the daily coping problems of inmates (Lombardo, 1982).

Lombardo states that using tight security to deter conflict will probably produce both positive and negative effects on inmates. For some inmates, it can provide certainty and predictability. For others, it represents the loss of freedom, potential abuse of authority, and a greater loss of control over one's own life (Lombardo, 1982).

Therefore, corrections' approaches to dealing with conflict may in fact trigger certain feelings and emotions within the inmate which could range from suicide to aggressive behavior. These feelings could include anger, depression, and feelings of persecution.

Anger is an emotion which may arise in reaction to frustration caused from loss of freedom. Outbursts of anger may be aimed at the correctional staff, assigned treatment workers, or others who are related to the inmate's situation.

Depression is another emotional reaction to being confined. Inmates may feel depressed about their loss of control over what is happening to them. They may perceive no one as wanting or able to understand their point of view or able to give them legitimate information about their situation. They may also feel isolated from contact with "significant others," those people who really matter in their lives.

Paranoia or feelings of persecution, distrust, and suspicion may develop in the inmate because of the cramped living conditions in cells, isolation from familiar surroundings, and feelings of impotence about the ability to control one's situation.
While the inmate is attempting to cope with these emotions in an institutional setting, he/she may be very susceptible to erroneous thinking patterns. While it is true that some individuals handle deprivations better than others, it is believed that the majority are negatively affected. An error in one’s thinking process may lead to negative behavior. These antisocial behaviors may include the following:

1. Aggressive acting out — verbal and/or physical.
2. Withdrawal — often expressed in some form of depression.
3. Self-destructive behavior, including suicide attempts or mutilation.
4. Excessive use of psychological defenses — paranoia.
5. Manipulation of one’s environment (Kalinich & Embert, 1988).

While the inmate is attempting to deal with these feelings and emotions in a very controlled environment, various types of conflict issues emerge. Inevitably, the conflicts that may emerge deal with the rights of the individual and the rights of the institution. Ultimately, the institution will prevail by exercising its right to use force to coerce inmate compliance with institutional rules when necessary.

The application of scientific theory in conflict resolution to the corrections setting deserves study. More specifically, how do residents in a correctional environment deal with conflict?

The Purpose Statement

This study was designed to accomplish two primary purposes. First, it ascertained what modes are used by inmates to resolve conflict in a correctional setting as measured on the Thomas-Kilmann Conflict Mode Instrument. Second, it measured whether participation in a four-week conflict resolution training program based on a cognitive treatment model would significantly change the attitudes and feelings of inmates about conflict resolution.
Research Questions

1. What are the preferred modes of conflict resolution used by inmates, as identified on the Thomas-Kilmann Conflict Mode Instrument?

2. Are the inmate scores on the Thomas-Kilmann Conflict Mode Instrument altered after participation in a four-week, cognitive conflict resolution training program?

3. Is there a significant difference in the gain scores of inmates who participated in the training program and the scores of inmates in both control groups?

4. What are the differences in modes of conflict resolution and the inmates' personal characteristics (e.g. race, age, education, criminal record, & marital status)?

Rationale

The extensive research conducted by Dr. R. R. Ross, University of Ottawa, led him to isolate a common variable in criminality and delinquency — cognitive deficits (1985). This is not to suggest that all criminals are of low intelligence, but that training in social cognitive skills may help to “insulate at-risk children from criminogenic influences” (Ross & Ross, 1989, p. 17). The cognitive deficits include impulsivity, sense of powerlessness, conceptual rigidity, lack of interpersonal problem-solving skills, egocentricity, and low critical reasoning ability — leading to susceptibility to influence by others (Ross, 1985, p. 19).

If Ross’ assessment is correct, inmates should score low in cooperativeness and high in assertiveness on the Thomas-Kilmann Conflict Resolution Instrument (1985). A score of 8 out of 12 responses in either the competing or avoiding mode ranks in the 80th percentile (Thomas & Kilmann, 1974). This would place the individual in the top 20 percent of those who have previously taken the test. An inmate scoring high in competing could present the most difficulty for the corrections official. This individual might seek
power and control over others. The over-competitive inmate may view the least significant issue as being a matter of life or death.

Inmates functioning in the extremes of other modes may also be confronted with potential problems. For example, those who score high in compromising and accommodating (eight or higher) may become subject to potential abuses by other inmates and staff. They may be placed in situations where they continually sacrifice their beliefs, values, property, or even their lives. In other words, they may become targets for various types of victimization such as robbery, extortion, sexual harassment, or even murder.

Inmates scoring high in avoiding illustrate signs of social immaturity and noncaring. They may lose the capability of dealing with issues including their own basic needs. High scores in avoidance may also be indicative of failing to get involved in social activities, therapy, unable to make commitments, and being unsuccessful at pursuing short- or long-term goals.

Inmates scoring low in collaborating would illustrate Ross’ (1985) claim that inmates need training in social cognitive skills. Since collaborating involves an attempt to work with the other party in a conflict situation to resolve the issue satisfying both parties, it is doubtful that inmates will score high in this mode. The mode requires strong interpersonal skills in seeking creative solutions, thus avoiding competing and confrontations.

If inmates are unable to deal with conflict, this can lead to a very poor relationship with staff. This can also produce a very unstable and volatile work environment. The work climate then becomes one of distrust, tension, and high stress. This could lead to feelings of anxiety, paranoia, and even mental illness, thus potentially increasing the use of violence. The victims of such conditions may include both inmates and staff.
Definition of Terms

The research in this study was based upon scores registered by inmates on the Thomas-Kilmann Conflict Resolution Mode Instrument. This instrument was designed to assess an individual's behavior in various possible conflict situations. The instrument describes the individual's behavior as it relates to assertiveness and cooperativeness. These two dimensions are used to define five specific methods the individual may use in dealing with conflict. The five conflict-handling modes are as follows: (1) competing, (2) accommodating, (3) avoiding, (4) compromising, and (5) collaborating. The terms used in the instrument may be similar, but not necessarily identical, to the terms used in other instruments designed to measure the same qualities.

Conflict Situations

Situations in which the concerns of two people appear to be incompatible. In such situations, the behavior of the individuals involved can be graphed in two dimensions: assertiveness — the extent to which an individual attempts to satisfy his/her own concerns, and cooperativeness — the extent to which the individual attempts to satisfy the other person's concerns (Thomas & Kilmann, 1974). These two basic dimensions are used to define the five specific modes of dealing with conflict.

Competing

A mode of conflict resolution that is assertive and uncooperative. An individual pursues his/her own concerns at the expense of another person. This is a power-oriented mode in which one uses whatever power seems appropriate to win one's position. This power might include one's ability to argue, one's rank, and economic sanctions which the person may control. Competing may mean, "standing up for one's rights", defending a
position which the person believes is correct, enforcing rules and regulations, or simply trying to win (Thomas & Kilmann, 1974).

Accommodating

This mode is the opposite of competing. It is unassertive and cooperative. When accommodating, an individual neglects his own concerns for the concerns of the other person. An element of self-sacrifice is in this mode. It may also take the form of selfless generosity to charity, obeying another person's order when one would prefer not to do so, or yielding to another's point of view (Thomas & Kilmann, 1974).

Avoiding

The individual does not pursue his/her own concerns or those of the other party. It is unassertive and uncooperative. The individual simply does not address the conflict. Avoiding might take the form of diplomatically eluding the issue, postponing it until a better time, or withdrawing from a situation (Thomas & Kilmann, 1974).

Collaborating

This mode is the opposite of avoiding. It is both assertive and cooperative. It involves an attempt to work with the other party to find some solution which fully satisfies the concerns of both parties. It means working on an issue to identify all of the concerns of the two parties and finding an alternative which meets both sets of concerns. It might take on the form of exploring a disagreement between two individuals to learn from each other's insights, concluding to resolve some conditions which would otherwise have the two individuals competing, or confronting and trying to find a creative solution to the issue (Thomas & Kilmann, 1974).
Compromising

This mode is intermediate to assertiveness and cooperativeness. The objective is to find some mutually acceptable solution to the problem which partially satisfies both individuals. It is the middle ground between competing and accommodating. Compromise gives up more than competing, but less than accommodating. It addresses an issue more directly than avoiding, but does not address it in the depth of collaborating. Compromising might mean splitting the difference, exchanging concessions, or seeking a quick middle-of-the-road position (Thomas & Kilmann, 1974).

Cooperativeness

This dimension is the extent to which one attempts to satisfy the other party’s concerns in a conflict situation (Thomas & Kilmann, 1974).

Assertiveness

This dimension is the extent to which one attempts to satisfy his/her own concerns in a conflict situation. Assertiveness and cooperativeness are the two basic dimensions of behavior used to define five specific methods of dealing with conflicts. These five conflict-handling modes are avoiding, accommodating, collaborating, competing, and compromising (Thomas & Kilmann, 1974).

Corrections Officer

An employee in a correctional institution responsible for security of the institution and the safety of others, i.e. inmates, staff, visitors. Often referred to as a prison guard in the literature.
**Treatment Employee**

An employee of the institution responsible for providing human services to the inmate. Such services may include educational, vocational, religious, psychological, substance abuse advising, medical, recreational, and clerical/records.

**Summary**

This study has merit because of the potentially dangerous possibility of inmates using extreme methods of resolving conflict. It also has merit due to the Conceivable therapeutic value of educating inmates to resolve conflict situations in a more pro-social and productive manner. The program design is not to be considered therapy, since it does not deal with the offender’s personal emotional problems. Instead, the cognitive program trains the offender directly and systematically in the skills and values needed to live more effectively. Around the country, our correctional institutions are experiencing record growth. According to the Bureau of Justice statistics, the correctional population in the United States in 1991 was 1.2 million individuals. This country’s jail population rose from 405,320 (1990) to 426,279 (1991), which represents a 5.2 percent increase. The state and federal prison population also rose from 773,124 (1990) to 823,414 (1991), representing a 9.4 percent increase. Even after massive building expansion programs, many of our correctional institutions are operating under overcrowded conditions.

The instrumentation used in the research would be extremely valuable in, first, identifying inmates functioning in potentially dangerous extremes of conflict resolution. Next, the cognitive training program used in the study could also be implemented to teach inmates better ways of dealing with conflict. Such a program could be administered by treatment personnel or corrections officers. The program could also be utilized in community corrections in an attempt to deter offenders from jail and prison. Such
programs could be administered in probation and parole offices as well as corrections centers and halfway houses.

Organization of the Study

This dissertation is comprised of five chapters. The background and justification for the study as well as the purpose of the study were discussed in Chapter I. Chapter II contains a review of relevant literature related to the topic under investigation. Ascertaining a better understanding of conflict and conflict issues within the correctional setting is discussed and explored. Theories, trends, and practices are highlighted in this chapter to provide a theoretical framework for understanding the need to manage conflict. Also discussed is the cognitive treatment concept which is designed to teach inmates better methods of resolving conflict.

The design of the program is presented in Chapter III. Included are descriptions of the procedures, treatment, sampling methods, research instrument, the data collection, and methods used to analyze the data.

The results of the data analysis are presented in Chapter IV. Statistical procedures are described and the results are discussed.

Chapter V contains a summary of the study, conclusions, and results. Recommendations based on the findings are highlighted along with the implications of the research findings.
CHAPTER II

REVIEW OF LITERATURE

The term "corrections" has a special meaning in the United States' system of justice. It designates programs and agencies that have legal authority over the custody or supervision of individuals who have been convicted of a criminal act in court. The correctional process begins with the court sentencing of the individual, who is then turned over to the correctional component to see that the sentence is served.

Since approximately 50 percent of inmates released from state and federal correctional facilities return to prison, there has been much debate over the question of what is effective in offender rehabilitation (Kalinich & Embert, 1988)? This outcome led Martinson (1974) to conclude that in correctional rehabilitation almost nothing works. Meta-analyses of offender rehabilitation programs conducted by Davidson, Gottschalk, Gensheimer, and Mayer (1984) and Garrett (1985) provided evidence of an overall positive effect of intervention. As Izzo and Ross (1990) conclude whether a program works depends on, "who does what to whom, why, and where" (p. 141).

In this study, the focus was on whether an individual convicted of violating one of society's laws could be taught better ways of handling conflict. It also revealed what modes were used by inmates to resolve conflict as measured on the Thomas-Kilmann Conflict Resolution Instrument. The literature on conflict includes a wide variety of studies from numerous perspectives. For the purpose of this study, the most pertinent research is that which relates to ascertaining a better understanding of the term conflict, conflict issues in correctional settings, and literature on cognitive treatment programs which may help the inmate better manage and resolve conflict.

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This section has three subsections related to conflict. They are the following: the recognition of conflict, the causation of conflict in correctional settings, and cognitive treatment problem-solving programs which may provide inmates better ways to deal with conflict. A fourth section is a review of the Thomas-Kilmann Instrument which was used in this research.

Conflict Research

In Search of a Definition

There appears to be no universal definition of conflict. Likert and Likert (1976, p. 8) state, “Conflict is viewed as the active striving for one’s own preferred outcome which, if attained, precludes the attainment by others of their own preferred outcome, thereby producing hostility.” Blalock (1989, p. 7) defined it as, “The intentional mutual exchange of negative sanctions, or punitive behaviors, by two or more parties, which may be individuals, corporate actors, or more loosely knit quasi-groups.”

Washburn (1965, p. 3) viewed conflict as, “usually being regarded as undesirable, as a response to frustration, and as maladaptive, something that should be avoided.” Coser (1964, p. 8) defines it as, “a struggle over values and claims to secure status, power and resources in which the aims of the opponents are to neutralize, injure or eliminate their rivals.” And lastly, Deutsch (1973, p. 10) tells us simply, “a conflict exists whenever incompatible activities occur.”

Theories on Conflict

Judging from the above definitions, one might conclude that conflict is a negative influence. At one time, the generally approved approach toward conflict was to ignore, neutralize, or get rid of it. Owens (1987) states that conflict is pervasive in the human
experience and must be recognized. Therefore, conflict in organizations is now seen as inevitable, endemic, and often legitimate.

In Warren Bennis' *The Leaning Ivory Tower*, he rationalizes the positive effects of conflict from the opposite side. Bennis writes,

"Ironically, this pervasive emphasis on harmony does not serve organizations particularly well. Unanimity leads rather quickly to stagnation, which, in turn, invites change by nonevolutionary means. The fact that the individual who sees things differently may be the institution's only link with a new and more apt paradigm does not make the organization value him more (1973, p. 100)."

For example, Janis (1972) best illustrates this point by studying such historical fiascos as the Bay of Pigs. During that historical event, President Kennedy and his entire cabinet were in complete agreement. Janis concluded that the more cohesive a group is, the more likely it is to make bad decisions as a result of "groupthink." To avoid such errors, Janis believes that conflict must be institutionalized in the decision making process and should even be rewarded (1972).

Peter Drucker (1967) suggests that leaders should refuse to implement decisions upon which there is complete agreement, since "the effective decision does not flow from consensus but out of the clash and conflict of divergent opinions" (p. 143).

To gain a better understanding of conflict, it may be helpful to view it as a dynamic process. From this perspective, Pondy (1967) identifies five stages of a conflict episode. They are as follows: (1) latent conflict (conditions), (2) perceived conflict (cognition), (3) felt conflict (affect), (4) manifest conflict (behavior), and (5) conflict aftermath (conditions). The elaboration of each of these stages will be helpful in the recognition of conflict.

Latent conflict is condensed by Pondy (1967) into three basic types. They are: competition for scarce resources, drives for autonomy, and divergence of sub-unit goals.
Perceived conflict, Pondy (1967) argues, may occur when no conditions of latent conflict actually exist. The best way to manage this situation is by the "semantic model" (Bernard, Pear, Aron & Angell, 1957). Therefore, conflict exists due to a misunderstanding between the parties involved and can be resolved by improving communications.

Pondy (1967) refers to felt conflict as being personalized. This condition may occur when one person realizes that there is in fact a conflict but it has no effect whatsoever on his/her affection for that other person. This situation may occur in total institutions such as families, monasteries or residential colleges. Argyris (1957) illustrates this situation occurring when inconsistent demands of the organization and the individual growth of the person are not in agreement. In other words, when the nomothetic (institutional expectations) and idiographic (individual's personality and need-disposition) clash (Getzels & Guba, 1957).

Manifest conflict deals with several types of conflictful behavior with the most obvious being open aggression. This physical and verbal violence may occur in such systems as political revolutions, labor unrest and in correctional facilities (Pondy, 1967). Goffman (1966) states that prisoners often riot when they feel they have been completely cut off from society and are existing in a total institution.

In conflict aftermath, Pondy (1967) views each conflict as being a sequence of numerous episodes that form relationships within any organizations. The resolution of each conflict will leave its legacy on the next and have a direct effect on the involved parties. For example, the bloody Attica prison riot of 1971 served notice that racist practices would not be tolerated by the inmates (Moore, 1971).
Managing Conflict

In *Managing Organizational Conflict*, Robbins (1974) stated conflict is normal, and it is the task of the leader to be effective managers of conflict. He argued that conflict in itself is neither good nor bad, and it is up to the effective leader to evaluate it, let it be, resolve it, or stimulate it. He concludes by stating that conflict can be helpful in stimulating clearer thinking and creativity. Thus, the effectiveness of an employee’s or inmate’s effort and willingness to work are stimulated and enhanced by proper conflict handling.

Argyris (1967) stated that intergroup conflict was not a sign of having disloyal or bad group members. He described it as natural and gave the executive an opportunity to manage it so the constructive aspects were emphasized and the destructive aspects were de-emphasized.

Ouchi (1981) goes further by stating that conflict should be recognized and used to benefit the agency. He adds, “the knowledge that nothing need be concealed brings on a profound sense of relief and of openness as well as a willingness to work hard” (p. 168).

Before the correctional leader can be expected to manage conflict, he/she must be able to identify different forms of conflict in order to respond to it. Guetzkow and Cyr (1954, p. 109) identify two kinds of conflict: substantive and affective. They define substantive as, “conflict rooted in the substance of the task.” Affective conflict is viewed as, “conflict deriving from the emotional, affective aspects of the interpersonal relations.”

Kenneth Boulding (1962) classifies conflict as being malevolent hostility and nonmalevolent hostility. Nonmalevolent attacks are designed to give the attacker the upper hand in a conflict situation. Malevolent hostility is aimed at hurting the other position at all costs. This type of conflict is more often seen in institutions. Richard Wynn
(1972, p. 7) refers to malevolent hostility as being “nefarious” attacks. Such attacks have the following characteristics: (a) centered on people and not issues, (b) the use of disrespectful language, (c) arrogant statements instead of questions, (d) fixed opinions and (e) emotional arguments.

Perhaps even more important to the correctional leader is the work of Pondy (1967) who views conflict in four classifications. According to Pondy, these classes, conditions, attitudes, cognition, and behaviors form relationships which must be clarified. In Pondy’s terms,

(a) antecedent conditions (scarcity of resources, policy differences, etc.) of conflictful behavior, (b) affective states (e.g. stress, tension, hostility, anxiety, etc.), (c) cognitive states of individuals, i.e. their perception or awareness of conflictful situations, and (d) conflictful behavior, ranging from passive resistance to overt aggression (1967, p. 320).

Approaching the classification of conflict in a more positive manner, Deutsch (1969) views it as not being pathological, but either productive or destructive. He emphasizes the positive functions which he claims prevent stagnation and “stimulate interest and curiosity” (Deutsch, 1969, p. 7).

Whether conflict is destructive or constructive will depend largely on how it is handled by the leader. In James MacGregor Burn’s classic book titled, Leadership, he emphasizes the importance of conflict by using it in his definition for leadership:

Leadership is the reciprocal process of mobilizing, by persons with certain motives and values, various economic, political, and other resources, in a context of competition and conflict, in order to realize goals independently or mutually held by both leaders and followers (Burns, 1978, p. 425).

Other works on leadership address the importance of trust which frees people to openly disagree (Drucker, 1967; Maier, 1967; Ouchi, 1981). DePree, (1989) believes that trust can be established by honoring, “the right to understand” the strategy and direction of the organization (p. 38). Bennis and Nanus (1985) refer to trust as being the
glue that maintains the integrity of the organization. And, finally, Senge (1990) states the simple yet profound strategy for handling structural conflict is by telling the truth.

The leader must remember the advice of Edward Levin (1980, p. 6), “Conflict opens doors.” When people reach the point where they are disagreeing openly, there is a chance for resolution.

In summary, regardless of the nature of the conflict, all conflicts involve differences between at least two parties concerning opinions, values, desires, objectives or goals. In most cases, the differences involve how each party views something. Situational leadership principles may also prove to be invaluable at assessing conflict situations (Hersey & Blanchard, 1982; Fiedler, 1977). When discussions involving conflicts are conducted in a trusting and open environment, a mutually satisfying conclusion is more apt to occur (Bass, 1981). Interdependence, open mindedness, trust, effective communications, problem-solving techniques, and sound leadership in a collaborative climate can produce a win-win situation (Covey, 1990).

Hodgkinson (1991, p. 147) concludes the review on conflict by stating, “When role conflict vanishes, when nomothetic and idiographic are thus reconciled, and when the individual comes to exist for the organization rather than the converse, then that road lies open.” Therefore, the correctional leader must remember that conflict is inevitable, continuous and productive, or nonproductive. During the “conflict process,” the leader’s vision must be maintained to enable accurate assessment, diagnosis and action. While much of the literature on conflict is valuable to the correctional leader, conflict in the correctional setting, if not managed properly, may mean life or death.
Conflict in the Correctional Setting

The Correctional Culture

Conflict in the world of corrections has not been studied with the same depth or diversity as conflict in the private sector. Instead, the literature centers around conflict as it relates to violence and riots. The correctional environment is described as being very competitive and threatening (Gullick, 1983). It is characterized in terms of struggle and survival (Abbott, 1981). Toch (1982, p. 41) described a correctional facility as a, “human warehouse with a jungle-like underground.” And Irwin referred to them simply as “violent prisons” (1980, p. 176).

Conflict, violence and brutality are unfortunate but ever-present facts of institutional life. Conflicts can involve inmate versus inmate, inmate versus staff, staff versus inmate, and staff versus staff (Lockwood, 1980).

Correctional institutions support a variety of lifestyles. This should not imply that all are inviting. At issue here is the so-called “country club prison.” This mythical prison is similar to the “Loch Ness Monster, many people believe in it, but nobody has ever seen one” (Levinson, 1982, p. 242). Actually, Seymour (1982, p. 268) contends that prisons are, “in free-world terms, small, poorly equipped, and frequently threatening.”

It becomes difficult to conceptualize universal characteristics of corrections due to several different factors. Correctional facilities are controlled independently at the local, county, state, and federal levels of government. The various systems are comprised of a diversity of inmate ethnicity, various levels of funding and resources, and general disagreement concerning correctional goals. Therefore, developing an understanding of conflict in the correctional setting would demand an examination of each particular system and the goals and objectives of each.
Goal conflict is not unique to the world of corrections. Peter Drucker (1974) has noted that all businesses have difficulties in establishing a mission statement because they usually have multiple purposes. This is even more true in corrections with serious disagreements among correctional leaders plus the divergent aims of their constituents. Katz and Kahn (1978) use the term domain conflicts to signify the problems in articulating goals within an organization. Such conflicts occur when an organization has not clearly established its role and its clients have competing interests. Among the clients of corrections are the courts (who sentence the accused), the legislature (who allocates the resources), the offenders, the community, and the correctional leaders. This fragmentation causes conflict from the offset.

There are numerous studies of life behind bars in America. Most depict the correctional facility's conditions, prisoner characteristics, and the general prison culture. While examining the life of the incarcerated, most prisons were usually viewed as being self-contained entities, and the stress inherent in these facilities was viewed as being part of a consensual social structure; hence, emphasis was placed on identifying a single inmate code that regulated a single prisoner subculture (Shover & Einstadter, 1988). Nevertheless, to better understand conflict in corrections, a general knowledge of the prison culture is necessary.

While there are numerous studies of prison life, Fishman (1934) was the first objective and systematic view depicting life behind bars as being a subculture with its own unique language or argot relevant only to them. This subsystem contains not only its special language, but also has its status system and system for rewards and punishments. Violence or an inmate's potential for aggression is a key to understanding the pecking order of any correctional facility (Johnson, 1987). Access to drugs, alcohol, weapons and other scarce contraband is rewarded by elevating the inmate to a higher status (Irwin, 1970).
Six years after Fishman's work, Donald Clemmer wrote the classic, *The Prison Community* (1940). His three-year project was based on describing the inmate socialization process at the Menard Penitentiary in Illinois. Immediately upon the arrival of a new inmate (a "fish"), more seasoned inmates would take him aside and explain the do's and don'ts of life at Menard. The pecking order was also identified as well as those controlling the flow of scarce prisoner goods and contraband. This process was referred to as prisonization. This educational system is extremely important for correctional leaders to understand if they are to be successful conflict managers.

Sykes' (1958) study of the inmate subculture was conducted at the New Jersey State Maximum Security Prison in Trenton. His research centered on the inmate jargon, such as "merchant" (inmates who barter scarce goods for other favors), "rat" (inmates who squeal on other inmates about illegal activity), and "real man" (inmates who are loyal, generous, and tough). He also explained the inmate code, which outlined behaviors that were acceptable or unacceptable, and explained the logic and rationale behind inmates establishing solidarity and conformity in their ranks.

Although there are similarities among the incarcerated, Irwin's works, *The Felon* (1970) and *The Jail: Managing the Underclass in American Society* (1985) clearly illustrate the differences. Perhaps the greatest difference would be that prisons are designed to accommodate long-term offenders who usually are convicted of more serious offenses, while jails are usually for misdemeanants and felons who are best described as being short-term inmates (usually one year or less). While conflict and violence are inherent in all institutions, they take on different shapes depending on the type of institution, the inmate composition, and its population.

Carroll (1974) introduced several other variables which influenced inmate power and conflict as being race and ethnicity. His work closely followed the civil rights
movement and identified the emergence of a strong black inmate organization. He also found that prisoners formed cohesive associations among themselves, usually along racial lines. He identified a white Mafia and a black revolutionary group known as the Afro-American Society. While such organizations usually protected their own against conflict and violence, they were united against prison administration and rules. However, Lovejoy (1985) found that much conflict and violence occurred along racial or ethnic lines.

The formation of gangs is usually according to racial, ethnic or even religious affiliation (Jacobs, 1983; Penn, 1983; Leger & Barnes, 1986). Park (1985) found the four largest gangs in the California prison system to be the Mexican Mafia, Nuestra Familia, The Black Guerrilla Family, and The Aryan Brothers. While a major concern to correctional leaders, these gangs usually pose more of a threat to other inmates. Nevertheless, gangs are a very important variable when discussing conflict in corrections.

The latest problem area which has impacted conflict and violence in corrections is overcrowding. In 1987, only nine states had prison populations below their operating capacity (Greenfield, 1988). Overall, state prisons were operating between 105 and 120 percent of their capacities in 1987, and the federal prison capacity was exceeded by 37 to 73 percent (Greenfield, 1988, p. 4). Crowding and conflict exerts a negative influence which is associated with violence. Overcrowding has been linked with violent deaths, suicides, and other disciplinary infractions (Palmer, 1985; Champion, 1988).

Inmate Response to Conflict

While understanding the prison subculture as it relates to conflict is important, of equal importance is the inmate’s response and adjustment to prison life. Hans Toch (1977) researched and codified eight ecological dimensions that express the preferences
and needs of inmates. These are as follows: activity, privacy, safety, emotional, feedback, support, structure and freedom. Naturally, inmates will vary in terms of these needs. For example, older inmates may seek privacy and safety, whereas the younger inmate often values freedom and activity.

While Toch's findings are important, it is very difficult to make any predictions about one's adjustment to incarceration. Regardless of one's adjustment to the prison subculture, the common concern of both inmate and staff is violence; and one's ability to cope with conflict is directly related to the threat of it.

Lockwood (1982) found inmates responses to violence to include staying in their cells, changing jobs, transferring to another cell block or another prison, or requesting protection. Most responses were passive in nature, such as feeling fear, anger, anxiety, and psychological crisis. Other inmates responded more overtly by becoming violent themselves or by joining gangs for protection.

Other factors in the prison subculture contributing to violence which the inmate must adjust to include exploitation, gambling, retaliation against informers, and the general macho character (Toch, 1977).

While conflict and violence are very much a part of the prison subculture, correctional leaders must find better ways of managing conflict. While Bowker (1983) found current levels of violence unacceptable, he was equally surprised that there were not more violent incidents. Fuller and Orsagh (1977) found violence occurring mostly between inmates, and Newton (1980) found the homicide rate in prisons to be nearly eight times greater than in the free world. And, finally, Kalinich and Stojkovic (1985) found that formal controls were insufficient for maintaining order in Jackson Prison, Michigan.

These studies may lead one to ask, can prison conflict be managed? John Delulio (1987) suggests that one can alter the violent institutional climate. He believes that
correctional leaders must act in an efficient manner without prejudice and bias. They must create and enforce clear and fair rules. They must also be aware of the informal rules imposed by the inmate subculture and various ways correctional inmates deal with conflict.

Not only was this study concerned about how correctional inmates dealt with conflict, but of equal importance was the question, "Could correctional inmates be taught more acceptable ways of dealing with conflict resolution?" Although the cognitive approach used in this study measured attitude change toward conflict resolution, it is thought that new skills learned could significantly impact behavior and thus eliminate potential violent behavior.

Cognitive Treatment for Conflict

A Paradigm Shift

Exploring cognitive approaches to changing offender behavior calls for a shift in the current correctional treatment paradigm. Presently in correctional rehabilitation, the focus is on behavior. Individual psychotherapy is rarely used in correctional facilities because of poor treatment climate and expense (Keve, 1983). Sandifer, Pettus, and Quade (1964) also found that psychiatrists agreed on diagnosis of illnesses only 59 percent of the time. Levinson (1970) found only a 20 percent agreement rate. Bergen and Garfield (1971) found psychotherapy to be only modestly positive and often was either nonproductive or even harmful.

Group therapy is the most commonly used treatment intervention which aims to reform the inmate (Kassebaum, Ward, & Wilner, 1971; Quay, 1978; Ayllon & Milan, 1979).

Group therapy does not try to change the individual's personality but instead
makes use of the group to stimulate his/her self awareness and ability to deal with everyday problems (Tarr, 1986; Crist, 1991).

In the group therapy setting, Clark (1986) states that inmates use the group to see how other people view them and how they see themselves. The most usual therapies in the prison setting today are reality therapy and transactional analysis.

In Glasser's reality therapy, the client's basic needs, giving and receiving love, are stressed along with a new standard of behavior which will make the client "responsible for his behavior" (1975, p. 33). Glasser (1975) does not believe mental illness exists. Rather, he wants the client to target today and the future and forget the past. Szasz (1969, p. 30) supports Glasser's denouncement of mental illness by stating, "Bodies are physical objects; minds, whatever they may be, are not physical objects. Accordingly, mental diseases cannot exist in the same sense in which bodily diseases exist."

Reality therapy has been very popular in corrections for three reasons. First, societal rules must be followed. Second, its techniques are quite simple for staff to gain proficiency in them. And third, the method is very short term which makes it easily adaptable to prison circumstances. In short, reality therapy emphasizes personal responsibility for actions and their consequences.

Transactional analysis focuses on the point of view taken by the individual in his/her interactions with others. It defines ego states as being the parent, adult, and child (Berne, 1961). The inmate is usually the naughty child with the "catch-me-if-you-can-attitude." This treatment approach is very adaptable to the prison setting since it is simple, straight forward, and short term.

Gendreau and Ross (1980) argue that while these behavior programs may be successful with the target behavior, they fail to alter criminality. Fabiano, Porporino and Robinson's (1991) cognitive approach is aimed at sharpening the inmates' thinking and
improving their reasoning power. This approach has showed promise by reducing recidivism from 50 percent to 20 percent (Ross, 1985).

From a different perspective, Yochelson and Samenow (1978a) speak of the criminal mind as working differently. In their study at St. Elizabeth’s Hospital for the criminally insane, they concluded that the criminal has a different set of values which leads them to make wrong choices. They denounced the criminal insanity plea emphasizing responsibility. In 1984, Samenow wrote, “How a person behaves is determined largely by how he thinks. Criminals think differently” (p. 33).

The Cognitive Skills Concept

Recognizing that offenders are sometimes caught in a cycle of thinking errors, Ross (1985) concluded that cognition precedes behavior and, therefore, must be targeted in the rehabilitation effort. In Ross’ support, Bush (1983) describes offenders as having cognitive and social decision-making deficiencies which place them at high risk for criminal behavior. This is not to infer that most offenders have intellectual deficits, but deficits in social intelligence (Ross, 1990). According to Ross (1990), successful treatment programs since 1973 have included some techniques which could be expected to have an impact on the offenders’ thinking.

The cognitive skills concept was also stressed by Fabiano, Porporino, and Robinson (1991) when they stated that the offenders are often caught up in thinking errors—the most common of which is blaming others for their own actions. Therefore, they concluded, “target thinking, not behavior” (p. 103). This concept lead Fabiano to conclude that the cognitive model directly targets the thinking styles that appear to be responsible for sustaining criminal behavior (1990). Ross and Ross (1989) went even further in their research by stating that delinquents lacking thinking skills for social
competence, who were then taught correct thinking skills, measured reductions in recidivism as high as 74 percent.

It should be stressed that the literature supports the concept that many offenders have significant cognitive and social decision-making deficiencies that place them at high risk for criminal behavior. This is not to infer that most offenders have intellectual deficits, but deficits in social intelligence. By strengthening interpersonal skills and correcting dysfunctional thinking styles, criminal behavior can be eliminated.

Since the fundamental concept is to target thinking and not behavior, programs should be designed in such a manner that will actually present more alternatives to the offender.

Not all rehabilitation programs work. Others have suggested the elimination of rehabilitation programs since they could not be justified (Conrad, 1973; Regnery, 1985; Meese, 1987). Martinson (1974) claimed that his research lead him to believe that "nothing works" (p. 25). Cullen and Gendreau (1989) are quick to point out that Martinson based his conclusions on reviewing over 231 evaluation studies conducted between 1945 and 1967. Reducing the "nothing works" doctrine to its most elementary level would suggest that individuals who violate criminal law are incapable of relearning or acquiring new behaviors.

Gendreau and Ross (1980, p. 27) argue,

That while we have often heard the clinical observation that many offenders today seem to avoid responsibility for their behaviors, the fact is that if we persist in the verdict that treatment is unsuccessful then the 'nothing works' doctrine also encourages the correctional system to avoid responsibility. By labeling the offender as untreatable we make it apparent to one and all that we cannot be held responsible for his improvement or his deterioration.
Successful Cognitive Programs

Ross and Gendreau (1979) found controlled studies which demonstrated that some programs have been highly successful. Reviewing articles published after 1973, they found major reductions in the frequency and severity of criminal acts being achieved through community-based and institutional programs for adolescent and adult offenders (Ross & Gendreau, 1987).

The importance of cognitive skills training has been suggested in reviews of the treatment of alcohol-abusing offenders (Ross & Lightfoot, 1985) and female offenders (Ross & Fabiano, 1986).

Cognitive programs focus on modifying the impulsive, egocentric, illogical and rigid thinking of criminal offenders. It teaches them to stop and think before acting, to consider the consequences of their behavior, to conceptualize alternative ways of responding to interpersonal problems, and to consider the impact of their behavior on other people, including their victims.

The programs also include a variety of training techniques which can improve the following offender’s cognitive skills: rational self-analysis (teaching offenders to attend to and critically assess their own thinking); self-control training (teaching offenders to stop, think, and analyze consequences before acting); means-end reasoning (teaching offenders to conceptualize the means which might satisfy their needs more adequately); critical thinking (teaching offenders how to think logically, objectively, and rationally without externalizing the blame).

Although cognitive deficiencies are not the only reason for individuals getting into trouble with the law, research has demonstrated that a significant proportion of socially maladjusted individuals lack effective social problem-solving skills. Larson and
Gerber (1987) successfully illustrated that social problem-solving skills can regulate behavior in positive directions.

Another population at risk for committing crimes and being incarcerated are adolescents with learning problems. They are also reported to have a variety of social problem-solving skills. Kronick (1978) found this group to have difficulty interpreting the mood or communication of others. Pearl and Cosden (1982) discovered this population had difficulty interpreting social situations, and Bachara (1976) found this group had difficulty taking the perspective of others. White (1965) and Hallahan, Kauffman, and Lloyd (1985) studies illustrate this group as having poor impulse control.

Other cognitive related social skills deficiencies have surfaced in studies as well. Sherman and Sheldon (1982) found that adjudicated youth had low skills in identifying a given social problem when given a social situation than did nonadjudicated youth. Larson (1987) found that incarcerated youth had difficulty generating effective solutions and were unable to forecast their competence at solving social problems.

Critics of instruction in thinking skills say cognitive learning cannot be totally segregated from the academic curriculum (Adler, 1987). Wiley (1988) responds by saying that when working with adjudicated youth who have limited abstract reasoning skills, focusing on thinking skills in a more concrete way allows the student to concentrate on one or two skills at a time. Much like the athlete that lifts weights concentrates on building up specific muscles.

Many of the problem-solving skills lessons deal with serious self-examination which may be threatening. Long-held values and beliefs may be challenged (Brookfield, 1987). Therefore, the lessons usually start in third person, that is, analyzing someone else's mistakes. Maultsby (1984) believes that skills necessary to living a happy, goal-achieving life can be taught to nearly everyone. Of course, most will be happy and goal
achieving all the time. Some will become involved in self-defeating behavior from time to time (Ellis, 1987). Nevertheless, Alford and Larson (1987) found that correctional administrators and staff generally support the idea that inmates need effective and socially adaptive problem-solving skills.

Other programs which have been formulated around the cognitive skill deficiency include Adkins' (1974) Life Skills Education; Argyle, Trower, & Bryant's (1974) AWARE: Activities for Social Development; Hare's (1976) Teaching Conflict Resolution; Ross's (1985) Time To Think; Hawley & Hawley's (1975) Developing Human Potential; and Goldstein's (1973) Structured Learning Training.

All of the cognitive programs consider the offender's behavior as a consequence of a variety of social, economic, situational, cognitive, and behavioral factors which are known to be related to anti-social behavior and to recidivism. They do not assume that criminal behavior is a symptom of some dreaded disease, but rather something attributable to faulty thinking. Thus, they focus on modifying well-defined behaviors, changing anti-social attitudes, and correcting inappropriate social perception.

Bush (1983) believes how one addresses the issues is as important as the cognitive skills training itself. His basic premise is that offenders have developed a set of thinking patterns which actually support their criminal behavior. Offenders can change their behavior by changing these mind sets. The basic motivation for the offender is quite simple. First, the offender is taught to recognize the reality of his life situation. Second, he is offered a meaningful opportunity to change. And third, the choice is left to him (Bush, 1982). In conclusion, Bush (1983) emphasizes credible communication since he considers offenders a very demanding audience. According to Bush, "If we don't mean what we say to them — if we don't deeply and fully mean what we say to them — our message will be dismissed out of hand" (1982, p. 8).
Larson's approach to program delivery includes a nine step problem-solving process (1988). The social thinking skills curriculum directly teaches the problem-solving skills that most offenders are lacking. The nine steps are: (1) recognize a problem exists, (2) stop and get ready to think, (3) state the problem and goals, (4) get the facts, (5) make plans, (6) pick the best, (7) be prepared, (8) take action, and (9) check it out. Larson (1988) believes these skills can be taught to offenders, which will help them regulate prosocial behavior.

Taymans (1992a) has designed a cognitive skills program based on Goldstein's problem-solving unit for The Prepare Curriculum: Teaching Prosocial Competence (1988). The program stresses elimination of impulsive behavior, making choices, and thinking of the consequences of one's behavior.

In summary, researchers and practitioners have identified social problem-solving skills that offenders lack or use poorly. These are: controlling first impulses, taking another's perspective, clarifying the problem, setting goals, accurately appraising one's competence level in a given situation, generating problem solving solutions, dealing with consequences, seeking solutions and adjusting behavior by getting and using feedback. While offenders vary greatly in each of the above categories, all exhibit behaviors which contain common thinking errors. From the standpoint of working with the criminal population, a cognitive deficits perspective is a hopeful outlook because skills can be taught! Personalities, living environments, and family dynamics are not easily amenable to change.

Ross (1985) firmly believes that the cognitive treatment model offers a much needed alternative to correctional models such as the medical, deterrence, punishment, or justice models. Unlike most correctional models, the cognitive model derives from
sound empirical research. It can be analytically examined and has demonstrated that it can reduce recidivism.

The major premise of the cognitive model is that the offender’s cognition — “what and how he thinks; how he views his world; how he reasons; how well he understands people; what he values; and how he attempts to solve problems — plays a critical role in his criminal behavior” (Ross, Fabiano & Ross, 1988, p. 46). It also suggests that the best way to correct criminality may very well be by teaching prosocial behavior and values. Thus, a treatment program designed in the cognitive mode could help inmates learn how to handle conflict more effectively.

Selecting an Instrument

The Blake-Mouton (1964), Lawrence and Lorsch (1967), Hall (1969) and Thomas-Kilman conflict handling instruments were examined. Concerns over the validity of the other conflict-handling instruments led to the selection of the Thomas-Kilmann Instrument (TKI). Specifically, the Blake-Mouton (1964), Lawrence and Lorsch (1967), and Hall (1969) were all examined and found to be strongly susceptible to social desirability biases. Kilmann-Thomas found the Hall and Lawrence-Lorsch instruments to have modest reliabilities and “the Blake-Mouton scores on competing and compromising are unstable, that the accommodating scores of the three instruments somewhat different constructs, and that the measures of compromising are of dubious validity” (1977, p. 310).

The TKI is a self-scoring, educational exercise using forced-choice responses in 30 carefully designed, matched statement pairs. It shows how an individual typically handles conflict, explaining the MODE they use most frequently, and other alternative styles they should consider. Individuals find out how often they use one of the five conflict handling modes: competing, collaborating, compromising, avoiding and accommodat-
ing. The Management-of-Differences Exercise (MODE) instrument was designed by Ralph H. Kilmann and Kenneth W. Thomas in 1974. As of 1992, the TKI was in its 35th printing.

The two-dimensional model for handling conflict behavior was adapted from Ken Thomas' doctoral dissertation, Purdue University in 1971. It was first introduced by Blake and Mouton (1964) and reinterpreted by Thomas.

In conclusion, the Thomas-Kilmann Conflict Mode Instrument was chosen not only for its greater reliability and validity, but because it can be used as part of a group learning process. The test is easy to score and it provides the individual with conflict styles which produce positive outcomes.

Summary

Realizing that conflict is pervasive in the human experience, the correctional leader must be able to manage conflict in the institutional setting. A thorough review of the literature supports the need for additional research in conflict within the correctional environment. The literature also suggests that the cognitive approach to building social and problem-solving skills has merit. While this research not only identified the various ways correctional clients deal with conflict, it also attempted to teach more acceptable ways of dealing with conflict. These new skills could significantly impact the behavior of the inmate and reduce acts of violence in the correctional setting. They may also reduce criminal behavior as well.

The design of the program is presented in Chapter III. Included are descriptions of the procedures, treatment, sampling methods, research instrument, the data collection, and methods used to analyze the data.
The results of the data analysis are presented in Chapter IV. Statistical procedures are described and the results are discussed.

Chapter V contains a summary of the study, conclusions, and results. Recommendations based on the findings are highlighted along with the implications of the research findings.
CHAPTER III

METHODOLOGY

Introduction

This research was designed to achieve two purposes. First, it was intended to find out what modes were used by inmates to resolve conflict in a correctional setting as measured by the Thomas-Kilmann instrument. Second, it was developed to ascertain if participation in a 12-hour conflict resolution training program could significantly change the inmate’s ability to handle conflict in a more positive manner.

This chapter will cover the hypotheses and procedures used in the study, subject grouping, and the instrumentation. It will also discuss data collection, statistical design, and other research considerations.

Null Hypotheses

1. There is no difference in the original norm group and inmates in preferred modes of conflict resolution.

2. There is no difference in the scores of the pretest and posttest of the treatment group in the five modes of conflict resolution.

3. There is no difference in the gain scores between the experimental group and the two control groups, in the five modes of conflict resolution. Therefore, the following comparisons will be measured:

   A. Gain scores between the experimental group and Control Group A (educational) in the five conflict resolution modes.

   B. Gain scores between the experimental group and Control Group B (recreational) in the five conflict resolution modes.
C. Gain scores between Control Group A (educational) and Control Group B (recreational) in the five conflict resolutions modes.

4. There is no difference in modes of conflict resolution based on the inmates' personal characteristics (race, age, education, criminal record, & marital status).

Procedures

There were three major components to this research. First, a group of 66 inmates from the Kent County Correctional Facility Honor Camp was tested using the Thomas-Kilmann Conflict Resolution Mode Instrument. Second, the inmates were divided in subsets of three for control purposes. Using randomization, the participants were placed into either an experimental group or control groups A or B. The experimental group received 12 hours of conflict resolution training. Group A participated in a 12-hour remedial education program. Group B was assigned a 12-hour recreation period. All three groups met four times during the same 30-day period for three hours. Third, all three groups were retested and their scores analyzed to determine any significant effect of the treatment program.

There were two sets of data required for the study. The first set was the pretest and posttest scores of each participant on the Thomas-Kilmann Conflict Mode Instrument. The second set of data included each inmate's age, race, marital status, educational level, and criminal record. All data were classified by group: experimental, control group A, and control group B.

Since this research involved protected subjects (prisoners), the student accepted the ethical responsibility of confidentiality. To make certain that each participant volunteered for the project and was not coerced in any way, two informed consent forms were utilized (see Appendices G & H). The first informed consent form signed and dated by each inmate granted the student permission to discuss the nature of the research with
the inmate. The second informed consent form was signed and dated by each inmate if he consented to participate in the project. Western Michigan University's Human Subjects Institutional Review Board approved the research protocol for this project (see Appendix E).

A fact sheet was developed and implemented to collect and record data (see Appendix I). Such information included the subject's pretest and posttest scores on the instrument, his attendance and behavior in the sub-groups during phase two, and other data such as age, race, education level, marital status, and criminal record. All references made to the subject's history was made in non-identifiable terms.

Pretest Procedures

Prior to beginning the pretest, the subjects were advised that the study was voluntary, and anyone not wishing to participate could leave without their status or treatment at the honor camp being effected. Next, the student read the following instructions to the group: "Consider situations in which you find your wishes differing from those of another person. How do you usually respond to such situations? On the following pages are several pairs of statements describing possible behavioral responses. For each pair, please circle the "A" or "B" statement which is most characteristic of your behavior. In many cases, neither the "A" nor the "B" statement may be very typical of your behavior, but please select the response which you would be more likely to use."

The 30 paired statements were read twice by the student. This procedure was used to make certain that no one taking the test would be limited by his reading ability.

Treatment

The experimental group participated in four, three-hour learning sessions dealing with conflict resolution. The program focused on a systematic and integrated approach
to handling conflict. The program was designed to be conducted in one month for several reasons. First, this would be enough time to teach the basic concepts of conflict resolution, allowing the inmates to practice the skills learned and receive feedback. Second, the dynamics of group therapy would have enough time to formulate building a teamwork support system. Third, since the average stay at the honor camp is only 60 days, there would be potentially fewer lost subjects.

The following is a brief overview of the four lessons used in the experimental group:

Lesson One

This was the introduction to the program in which the basic concepts of conflict resolution were explained. The conflict handling modes of the Thomas-Kilmann Instrument were also reviewed. The participants were informed that the program would be structured as an intensive workshop emphasizing teamwork and problem solving skills. At this point, each participant introduced the person sitting to his right.

Each lesson was briefly introduced to the participants, and emphasis was placed on the fact that each lesson had a specific purpose and was an integral part of the whole program. Therefore, before each new lesson, a very thorough review of the previous lesson would be conducted.

The cognitive training model was also discussed and explained as not being another therapeutic program, in that it does not deal with the inmate’s personal and emotional problems. What it does do is teach the offender to better handle conflict by modifying impulsive, egocentric, illogical, and rigid thinking. It also teaches ways to conceptualize options in dealing with conflict resolution.

The group was then asked to define “conflict.” After working out a definition which met general agreement, the group was asked to give an example of a conflict
situation. The group was then asked to give examples of ways in which the situation could be resolved.

The next topic covered was self-change. It included discussions on self-motivation, self-change interventions and potential barriers to change. The terms "target thinking patterns, intervention, self-change, motivation, and behavior" were defined to the group.

During the session, the participants were asked to identify potential targets for change such as anger, violent thoughts, undesirable situations, feelings of victimization, or feelings of being alone. The group then worked on ways of stopping undesirable thoughts and feelings and replacing them with more positive new thoughts.

Next, the participants were asked to discuss times in which they felt good about themselves. During this segment, the importance of not worrying about one's behavior, but instead targeting the thoughts and feelings that lead up to that behavior was emphasized.

At the end of the lesson, they were asked to think about conflict and report a conflict that they observed or encountered to the group next session.

Lesson Two

First, several group members reported conflict situations. After a general discussion, the group reviewed negative thoughts and interventions toward self-change. After a limited discussion, the cognitive approach to problem solving was taught. Social skills such as communications were integrated into this lesson. An eight step approach to problem solving was introduced. The eight steps are: (1) stopping and thinking, (2) identifying the problem, (3) defining the goal, (4) gathering information, (5) making choices, (6) considering consequences, (7) deciding best choices, and (8) obtaining feedback (Taymens, 1992b).
Each participant was given several minutes to identify a conflict situation they had experienced, identify the problem, and state exactly what he did and how the other party reacted. Next, he was asked to describe what he was thinking at the time. He was then asked what he was feeling. Several participants volunteered conflict situations and the group discussed and utilized the eight step process.

The importance of other social skills such as starting a conversation, asking and answering questions, introducing oneself and others, voicing a complaint, or receiving a compliment were practiced. Other social skills such as asking for help, joining, asking permission, and dealing with success and failure were also reviewed.

The participants were divided into two groups. They were given a script dealing with a conflict situation between a corrections officer and an inmate. In the script, the corrections officer thinks that the inmate has been stealing from the mess hall. One group represented the corrections officer’s position and the other group represented the inmate’s position.

The two groups were then asked to outline the situation using the eight step approach to problem solving. Next, they were asked to list the thoughts and feelings of both parties. They were next asked to work out a resolution which could be described as a win-win (Covey, 1990). Several other scenarios were portrayed and critiqued by the group.

At the end of the lesson, the participants were given the assignment to record any conflict situation in which they were involved in during the following week. They were instructed to outline the situation using the eight step approach, list their thoughts and feelings during the situation, and describe the outcome.
Lesson Three

During the session, several participants presented a conflict situation to the group (situation, thoughts, feelings, and resolution). The group discussed the situation using the eight-step approach. Several role playing skits were performed and critiqued.

This segment of the program was aimed at enhancing social skills and increasing teamwork values. The opportunity of presenting a situation to the group provided a good lesson in communication skills. Using the vocabulary and actually applying cognitive problem-solving skills were emphasized. Keeping records or a daily journal was also illustrated and encouraged in the lesson. However, it was not made mandatory.

The next topic was how to handle a conflict that has reached a crisis level. A conflict which has reached this point usually demands immediate action. Instead of the eight-step approach, a model patterned after the one used by the National Institute of Corrections was presented. The model includes the following steps: consider, control, clarify, and contract for resolution.

This model provides the participant with a system which can be applied more quickly. The crisis level conflict can be very stressful and usually perceived as a threat, potential loss, or challenge. This type of conflict may be the ultimate challenge in the “macho” correctional environment.

This four-step model may be applied in a very brief time after practicing and mastering the steps. The four steps may be systematic, i.e. 1, 2, 3, and 4, or two or more of the steps may be occurring simultaneously throughout the crisis episode.

Anger, like conflict, is pervasive in human beings. Everyone gets angry at one time or another. It is seen as being normal. However, if you become overly aggressive when angry, the conflict situation may escalate into verbally and/or physically attacking
the other party (Cullen, 1992). Since anger can be a very dangerous component in a crisis conflict situation, several techniques at controlling one’s temper were taught.

At the end of the lesson, the participants were assigned the task of applying the crisis conflict model to specific crisis conflict events. Such events could be taken from television programs, books or magazines, or real life drama occurring at the honor camp.

Lesson Four

After the participants reviewed and discussed the crisis conflict model, they were paired off and asked to create a conflict crisis scenario. They were given 15 minutes to work on their episode. Next, they role played it to the class. Afterward, a five-minute critique was conducted by the class.

The final assignment presented to the class was a discussion on stress as it relates to a crisis interpersonal reaction.

The group was then given a class evaluation form (see Appendix K) and 15 minutes to critique the course. They did not have to sign their names to the form. The last half hour was used to complete the Thomas-Kilmann post-test.

Posttest Procedures

The same procedures used in the pretest were utilized. In other words, the participants were advised that the study was voluntary, the instructions were read and the paired responses were read twice during the administration of the examination.

The participants were informed that they would receive their scores and self-evaluation material within one week.

All three groups were tested during the same week.
Subjects

The subjects used in this research were young males serving a jail sentence at the Kent County Correctional Facility Honor Camp in Grand Rapids, Michigan. Convicted of either a felony or misdemeanor, sentences were one year or less. The honor camp houses 100 inmates who are assigned to various work projects, treatment programs, and educational classes. At the time of this study, 80 inmates were interviewed and 66 participated.

The age of inmates at the honor camp during the research ranged from 17 to 37. The mean age was 21.4. At the time of the pretest, there were 52 percent white and 48 percent black honor camp residents. There were no Asians, Hispanics or Native American Indians at the honor camp during the study.

Randomization was utilized to assign the inmates to the three groups.

Group One

This was the experimental group which received the treatment. Twenty-two inmates started the program and 18 completed. Two inmates chose to stop attending the program, and two inmates were returned to the county jail due to rule violations.

Group Two

This group of 22 inmates engaged in a remedial education program taught by a teacher from the Grand Rapids Public Schools system. The lessons centered around basic English, math, and science. They did not cover material related to conflict resolution. Five inmates were returned to the county jail for violating honor camp rules.
Group Three

This group of 22 inmates did not participate in any program, but was assigned 12 hours of recreation during the same period of time as the other groups. There were two lost subjects in this group.

Instrumentation

The Thomas-Kilmann Conflict Resolution Mode (TKI) instrument was utilized in this research. It was based upon the research of Kenneth Thomas and Ralph Kilmann. The instrument has been used primarily in business to measure the conflict handling styles of middle managers. The authors report reliability and concurrent test validity to have an average alpha coefficient of .60. The average for the Lawrence-Lorsch and Hall conflict resolution instruments were .45 and .55 respectively. The average test-retest reliability for the instrument is .64, while the Lawrence-Lorsch and Hall instruments are .39 and .55, respectively. The student acquired permission to use the TKI from Xicom Incorporated, Tuxedo, New York.

Validation of the TKI sought to achieve: (a) substantive validity (defining the pool of relevant items for the instrument and the selection of items, testing the internal consistency and reliability of items identified with each dimension); (b) structural validity (that the format of the instrument and the calculation of individual scores is consistent with the intended definition of conflict-handling modes); and (c) external validity (investigating the expected relationships between the five conflict-handling modes and conflict behavior in a variety of situations) (Kilmann & Thomas, 1976).

When tested for social desirability, it was found that only four percent of the variance in the sample of participants' self-ratings could be accounted for by the social desirability of the items in the MODE (Pearson coefficient of .21). The other three
instruments' equivalent correlations are: Blake-Mouton, .94; Lawrence-Lorsch, .88; and Hall, .87. Testing for structural validity found the MODE more desirable. The average intercorrelation between modes for the MODE was -.25; whereas the Lawrence-Lorsch and Hall instruments showed average intermode correlations of .12 and .06, which is significantly greater than -.25.

External validity is generally the most rigorous and demanding test of the usefulness of any instrument. While more testing is necessary, Thomas and Kilmann (1976) found strong evidence for external validity in several studies (Jamieson & Thomas, 1974; Ruble & Thomas, 1976; Myers, 1962).

The Thomas-Kilmann Conflict Mode Instrument is a measure of interpersonal conflict-handling modes. The five interpersonal modes the instrument was designed to measure are as follows: (1) competing, (2) collaborating, (3) compromising, (4) avoiding, and (5) accommodation. The directions are clear, and it is easy to self-administer, score, and graph. Ronn Johnson, Assistant Professor of Educational Psychology, University of Nebraska-Lincoln, raises concerns about the instrument controlling for distortions in self-descriptions. He concludes that the tool is useful in stimulating discussion about conflict modes but is of limited value in understanding the "comprehensive picture of conflict MODES" (Johnson, 1985, p.869).

In a project of this nature, there may have been other emotions, feelings, and attitudes involved which affected potential participants individually or as a group. This may have had an effect on the inmates' participation in the experimental group and control group #A (Educational).
Data Collection and Statistical Design

The inmate scores from the pretest and and posttest were recorded individually on each participant’s fact sheet along with personal characteristics (e.g. age, race, education, criminal record, & marital history). The pretest and posttest scores for each of the five modes on the Thomas-Kilmann Conflict Resolution Mode instrument were compared by each participant. Next, the scores for the fives modes (pretest & posttest) were compared by group. To determine if differences were significant or occurred by chance, the level of significance was selected at .05 and used as the basis for accepting or rejecting the four null hypotheses.

The first research question identified the preferred modes of conflict resolution used by inmates as defined on the Thomas-Kilmann Conflict Mode Instrument. A t-test was conducted for each of the five modes (e.g. competing, collaborating, compromising, avoiding, & accommodating). The scores of the inmates were compared to the original norm population.

The second research question asked if the inmate scores on the Thomas-Kilmann Conflict Mode Instrument were altered after participation in a four-week, 12-hour cognitive conflict resolution training program. A t-test for paired samples was used to compare the experimental group's pretest and posttest scores on the TKI. The treatment program served as the independent variable and the inmates' attitudes, values, and feelings about the five modes of conflict resolution on the TKI served as the dependent variable.

The third research question sought significant differences in the gain scores of inmates who participated in the training program and the scores of inmates in the two control groups (educational & recreational). Analysis of variance was used. The group comparisons were experimental to educational, experimental to recreational, and educational to recreational.
The fourth research question examined the differences in modes of conflict resolution and the inmate's personal characteristics, (e.g. race, age, education, criminal history, & marital history). Analysis of variance was utilized. The F-Probability scores were examined for all pretests and posttests for the five variables of race, age, education, criminal record, and marital history.

Other Research Considerations

To assess the opinions of the participants, a student appraisal form was developed, attendance was recorded and participant comments were logged. The appraisal form consisted of 20 questions to be answered on a Likert-like scale with numerical values of one through seven (one representing the lowest rating and seven the highest score for each question). The mean scores are found in Appendix L.

Summary

Results of this research may be representative of other institutions which have similar populations. The volunteer inmates used, the circumstances of their participation, and the reason for their incarceration make it difficult to draw conclusions that would be considered representative of the county jail population or other incarcerated populations in general. Different types of correctional institutions house individuals with different criminal records, social histories, and psychological dispositions. Those populations may score differently on the same instrument and respond differently to the opportunity to participate in a similar research project.

It is believed that by having such a high percentage of project participants and by using the Table of Random Numbers (Taylor, 1994, p. 356) to randomize the inmates into three groups, the project would be representative of the Kent County Jail Honor Camp.
However, this is not to suggest that the project would be representative of the entire Kent County Jail population of approximately 1,000 inmates.

The results of the data analysis are presented in Chapter IV. Statistical procedures are described and the results are discussed.

Chapter V contains a summary of the study, conclusions, and results. Recommendations based on the findings are highlighted along with the implications of the research findings.
CHAPTER IV

DATA ANALYSIS

Introduction

This study was designed to achieve two purposes. First, it was developed to determine and evaluate the modes used by inmates to resolve conflict in a correctional setting as measured by the Thomas-Kilmann Conflict Mode Instrument (TKI). Second, it was designed to find out if participation in a 12-hour, conflict resolution, cognitive training program could significantly change the inmate’s ability to handle conflict in a more effective manner. The methodology for this study was described in Chapter III.

The analysis of the data presented in this chapter includes the following: (a) personal characteristics of inmate participants; (b) a comparison of sample means to original norm population means by mode; (c) a summary of all inmate preferred modes and range of modes; (d) a comparison of the experimental group’s pretest and posttest scores; (e) a comparison of gain scores between groups in the five modes of conflict resolution; (f) a comparison of pretest and posttest mode selection by race, age, education, criminal record and marital history; and (g) other research considerations.

The total number of subjects in the final statistical analysis was 55; 18 in the experimental group, 17 in the educational group, and 20 in the recreational group. Randomization was utilized in group assignment. The participants were volunteers from the Kent County Jail Honor Camp serving jail term sentences for a misdemeanor or felony conviction.
The data collected from the subjects included the TKI pretest and posttest scores; personal characteristics such as race, age, education, criminal record, and marital history; and treatment course evaluations.

Personal Characteristics

Table 1 lists the ages of the inmates who participated in the study. The ages ranged from 17 to 37. The mean age of 21.4 was identified. Table 2 illustrates the inmates by race. A total of 21 (38.2%) blacks and 34 (61.8%) whites participated. Table 3 provides an inmate participant breakdown by education. Educational levels included 20 subjects with less than a high school diploma, 20 subjects with a high school diploma or GED, and 15 subjects with some college (two subjects had a college degree). Table 4 lists the marital status of the participants. There were 45 single subjects, 4 married, and 6 divorced or widowed. And, finally, Table 5 examines the previous criminal records of the participants. Criminal records of the subjects revealed 16 subjects with at least one misdemeanor conviction and 39 subjects with at least one felony conviction.

Table 6 displays a summary of preferred modes and the ranges of modes on the Thomas-Kilmann Instrument. In both the pretest and posttest, more inmates preferred the avoiding mode (20, 23 respectively). A distant second was the competing mode with a score of 15 on the pretest and 17 on the posttest. The total number of scores reflects instances where the same inmate preferred more than one mode.

Table 7 illustrates preferred modes by group. Again, strong preference for the competing and avoiding modes were in evidence in both the pretest and posttest. The least preferred mode in most cases was collaborating; however, a dramatic increase was recorded by the experimental group (from two to five).
### Table 1
Ages of Inmate Participants

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cum. Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>4</td>
<td>7.3</td>
<td>7.3</td>
</tr>
<tr>
<td>18</td>
<td>9</td>
<td>16.4</td>
<td>23.6</td>
</tr>
<tr>
<td>19</td>
<td>7</td>
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<td>20</td>
<td>9</td>
<td>16.4</td>
<td>52.7</td>
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<td>9</td>
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</tr>
<tr>
<td>22</td>
<td>3</td>
<td>5.5</td>
<td>74.5</td>
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<td>23</td>
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<td>24</td>
<td>2</td>
<td>3.6</td>
<td>83.6</td>
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<td>25</td>
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<td>3.6</td>
<td>87.3</td>
</tr>
<tr>
<td>27</td>
<td>2</td>
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<tr>
<td>28</td>
<td>1</td>
<td>1.8</td>
<td>92.7</td>
</tr>
<tr>
<td>30-37</td>
<td>4</td>
<td>7.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Mean Age = 21.4

### Table 2
Inmate Participants by Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>21</td>
<td>38.2</td>
</tr>
<tr>
<td>White</td>
<td>34</td>
<td>61.8</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100.0</td>
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</tbody>
</table>
Table 3
Inmate Participants by Education

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cum. Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than H.S.</td>
<td>20</td>
<td>36.4</td>
<td>36.4</td>
</tr>
<tr>
<td>H.S./G.E.D.</td>
<td>20</td>
<td>36.4</td>
<td>72.7</td>
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<tr>
<td>Some College</td>
<td>13</td>
<td>23.6</td>
<td>96.4</td>
</tr>
<tr>
<td>College Degree</td>
<td>2</td>
<td>3.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
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</tr>
</tbody>
</table>

Table 4
Marital Status of Inmates

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cum. Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>45</td>
<td>81.8</td>
<td>81.8</td>
</tr>
<tr>
<td>Married</td>
<td>4</td>
<td>7.3</td>
<td>89.1</td>
</tr>
<tr>
<td>Sep./Div./Wid.</td>
<td>6</td>
<td>10.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 5
Criminal Records of Inmates

<table>
<thead>
<tr>
<th>Criminal Record</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Misdemeanor</td>
<td>16</td>
<td>29.1</td>
</tr>
<tr>
<td>Felony</td>
<td>39</td>
<td>70.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 6
Summary of All Inmate Pretest-Posttest Preferred Modes and Ranges of Modes on the Thomas-Kilmann Instrument

<table>
<thead>
<tr>
<th>Mode*</th>
<th>Preferred Mode</th>
<th>Range</th>
<th>Preferred Mode</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>15</td>
<td>0-10</td>
<td>17</td>
<td>0-12</td>
</tr>
<tr>
<td>Collaborating</td>
<td>10</td>
<td>2-10</td>
<td>9</td>
<td>1-10</td>
</tr>
<tr>
<td>Compromising</td>
<td>11</td>
<td>2-10</td>
<td>13</td>
<td>1-11</td>
</tr>
<tr>
<td>Avoiding</td>
<td>20</td>
<td>2-11</td>
<td>23</td>
<td>1-11</td>
</tr>
<tr>
<td>Accommodating</td>
<td>12</td>
<td>2-12</td>
<td>11</td>
<td>1-10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong>*</td>
<td></td>
<td><strong>73</strong>*</td>
<td></td>
</tr>
</tbody>
</table>

n=55

* This total reflects cases where the inmate preferred more than one mode.
Table 7
Summary of Pretest and Posttest Preferred Modes of the TKI by Groups

<table>
<thead>
<tr>
<th>Mode</th>
<th>Group 1 (N=18)</th>
<th>Group 2 (N=17)</th>
<th>Group 3 (N=20)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pretest</td>
<td>Posttest</td>
<td>Pretest</td>
</tr>
<tr>
<td>Competing</td>
<td>7</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Collaborating</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Compromising</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Avoiding</td>
<td>6</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Accommodating</td>
<td>7</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total*</td>
<td>26</td>
<td>26</td>
<td>20</td>
</tr>
</tbody>
</table>

* The totals reflect where the inmate preferred more than one mode.

Testing the Hypotheses

This research project was designed to answer the following specific questions:

1. What are the preferred modes of conflict used by inmates as identified on the Thomas-Kilmann Conflict Mode Instrument?

2. Are the inmate scores on the Thomas-Kilmann Conflict Mode Instrument altered after participation in a four-week, conflict resolution, cognitive training program?

3. Is there a significant difference in the gain scores between the experimental group, educational group and recreational group?

4. What are the differences in modes of conflict resolution and the inmates’ personal characteristics, e.g. race, age, education, criminal record, and marital status?

Therefore, the following null hypotheses were tested:
1. There is no difference in the original norm group and inmates in preferred modes of conflict resolution.

2. There is no difference in the scores of the pretest and posttest of the experimental group in the five modes of conflict resolution as measured on the Thomas-Kilmann Conflict Mode Instrument.

3. There is no difference in the gain scores between the experimental group, educational group and recreational group in the five modes of conflict resolution.

4. There is no difference in modes of conflict resolution based on the inmates' personal characteristics (race, age, education, criminal record, & marital status).

**Hypothesis 1**

There is no difference in the original norm group and inmates in preferred modes of conflict resolution. A t-test was conducted for each of the five modes to test this hypothesis. Table 8 was developed to illustrate any changes and/or differences in the mode preference of the original norm population and the inmate participants as demonstrated in the posttest. The level of significance was set at .05.

Significant differences were found in both the pretest and posttest means. Collaborating, compromising, avoiding, and accommodating were found to be statistically different at the .01 level of significance on the pretest. The greatest difference occurred in the collaborating mode with a t-value of -6.53. The accommodating mode registered the second largest difference with a t-value of 4.685. This means that the original norm group utilized collaborating more frequently than the inmates, and the accommodating mode illustrates just the opposite. There was no significant difference between the groups in the competing mode.
Table 8
Comparison of Sample Means to Original Norm Population Means by Mode

<table>
<thead>
<tr>
<th>Pretest Variable</th>
<th>Sample (N=55)</th>
<th>Norm Population Mean</th>
<th>Difference +/-</th>
<th>t- Value</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>5.33</td>
<td>5.50</td>
<td>-0.17</td>
<td>-0.429</td>
<td>No</td>
</tr>
<tr>
<td>Collaborating</td>
<td>6.00</td>
<td>7.60</td>
<td>-1.60</td>
<td>-6.530</td>
<td>Yes**</td>
</tr>
<tr>
<td>Compromising</td>
<td>5.96</td>
<td>6.80</td>
<td>-0.84</td>
<td>-3.373</td>
<td>Yes**</td>
</tr>
<tr>
<td>Avoiding</td>
<td>6.80</td>
<td>5.80</td>
<td>1.00</td>
<td>3.484</td>
<td>Yes**</td>
</tr>
<tr>
<td>Accommodating</td>
<td>5.89</td>
<td>4.70</td>
<td>1.19</td>
<td>4.685</td>
<td>Yes**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posttest Variable</th>
<th>Sample (N=55)</th>
<th>Norm Population Mean</th>
<th>Difference +/-</th>
<th>t- Value</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>5.33</td>
<td>5.5</td>
<td>-0.17</td>
<td>0.439</td>
<td>No</td>
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<tr>
<td>Collaborating</td>
<td>5.67</td>
<td>7.6</td>
<td>-1.93</td>
<td>-7.148</td>
<td>Yes**</td>
</tr>
<tr>
<td>Compromising</td>
<td>6.11</td>
<td>6.8</td>
<td>-0.69</td>
<td>-2.710</td>
<td>Yes*</td>
</tr>
<tr>
<td>Avoiding</td>
<td>6.82</td>
<td>5.8</td>
<td>1.02</td>
<td>3.760</td>
<td>Yes**</td>
</tr>
<tr>
<td>Accommodating</td>
<td>6.00</td>
<td>4.7</td>
<td>1.30</td>
<td>5.078</td>
<td>Yes**</td>
</tr>
</tbody>
</table>

* CV t .05 = +/- 2.02
** CV t .01 = +/- 2.07
The posttest means showed a significant difference at the .01 level of significance for the collaborating, avoiding, and accommodating modes. The compromising mode measured a statistically significant difference at the .05 level, while the competing mode was not statistically different. Again, the greatest difference occurred between the two groups in the collaborating mode (-7.148), followed by the accommodating mode with a t-value of 5.078.

Since there were significant differences between the original norm population means and the sample population means in four of the pretest modes and four of the posttest modes, the null hypothesis was rejected.

**Hypothesis 2**

There is no difference in the scores of the pretest and posttest of the treatment group in the five modes of conflict resolution. A t-test for paired samples was used to test this hypothesis. The .05 level of significance was selected as the basis for accepting or rejecting the null hypothesis. Table 9 was developed to compare the experimental group's pretest and posttest scores on the Thomas-Kilmann Conflict Mode Instrument and to illustrate any significant changes. There were no statistically significant changes in the collaborating, compromising, avoiding, and accommodating modes. However, a mean difference of -1.00 was found in the competing mode which produced a 2-tail probability score of .04, which is statistically significant at the .05 level. This significant reduction in the competing mode is illustrated in Table 9.

Since there was a significant change in the competing mode for the experimental group, the null hypothesis was rejected.
Table 9
Comparison of the Experimental Group’s Pretest and Posttest Scores on the Thomas-Kilmann Instrument

<table>
<thead>
<tr>
<th>Mode</th>
<th>Pretest Mean</th>
<th>Pretest S.D.</th>
<th>Posttest Mean</th>
<th>Posttest S.D.</th>
<th>t-Value</th>
<th>2-Tail Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>5.67</td>
<td>2.91</td>
<td>4.67</td>
<td>3.14</td>
<td>2.19</td>
<td>.04</td>
<td>Yes</td>
</tr>
<tr>
<td>Collaborating</td>
<td>5.89</td>
<td>1.78</td>
<td>6.17</td>
<td>1.51</td>
<td>-0.58</td>
<td>.57</td>
<td>No</td>
</tr>
<tr>
<td>Compromising</td>
<td>5.89</td>
<td>1.41</td>
<td>6.28</td>
<td>1.67</td>
<td>-0.89</td>
<td>.39</td>
<td>No</td>
</tr>
<tr>
<td>Avoiding</td>
<td>6.61</td>
<td>2.12</td>
<td>6.89</td>
<td>1.97</td>
<td>-0.47</td>
<td>.64</td>
<td>No</td>
</tr>
<tr>
<td>Accommodating</td>
<td>5.94</td>
<td>2.69</td>
<td>5.94</td>
<td>2.31</td>
<td>-0.00</td>
<td>1.0</td>
<td>No</td>
</tr>
</tbody>
</table>

N=18

Hypothesis 3

There is no difference in the gain scores between the experimental group, the educational group, and the recreational group in the five modes of conflict resolution. Analysis of variance was used to test this hypothesis. The .05 level of significance was selected as the basis for accepting or rejecting the null hypothesis. Table 10 was developed to record gain scores which can have a positive or negative value.

After a comparison of gain scores between the groups was analyzed, it was determined that there were no statistically significant differences at the .05 level occurring for the collaborating, compromising, avoiding, and accommodating modes. However, the competing mode had an F probability of .02 which would indicate a significant difference.
After a comparison of gain scores between the groups was analyzed, it was determined that there were no statistically significant differences at the .05 level occurring for the collaborating, compromising, avoiding, and accommodating modes. However, the competing mode had an F probability of .02 which would indicate a significant difference.
Hypothesis 4

There is no difference in modes of conflict resolution based on the inmate's personal characteristics, e.g. race, age, education, criminal record and marital history. Analysis of variance was used to test this hypothesis. To determine whether the differences in the mean pretest and posttest scores were significant, the .05 level of significance was selected and used as the basis for accepting or rejecting the null hypothesis. Tables 11 through 20 were developed. The F Probability scores were examined for all pretests and posttests for the variables of race, age, education, criminal record and marital history. No findings of significant difference were discovered. Therefore, the null hypothesis was accepted.

Table 11 represents a comparison of pretest mode selection by race. No statistically significant differences were recorded at the .05 level. However, the competing mode did come closest by having an F-probability of .07. The accommodating mode was next with a .09 level of significance. There were 21 black and 34 white inmates involved in the study. The black race category represents African Americans. The white category represents all other races with the exception of Asians, Spanish Americans, and Native Americans.

Table 12 represents a comparison of posttest mode selection by race. No statistically significant differences were recorded at the .05 level of significance. The accommodating mode had an F-probability of .15; while the competing mode had an F-probability of .17. The black race category represents African Americans. The white category represents all other races with the exception of Asians, Spanish Americans, and Native Americans.
Table 11
A Comparison of Pretest Mode Selection by Race

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
<td>1</td>
<td>28.18</td>
<td>28.18</td>
<td>3.40</td>
<td>.07</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>439.93</td>
<td>8.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>468.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborating</td>
<td>Between groups</td>
<td>1</td>
<td>.08</td>
<td>.08</td>
<td>.02</td>
<td>.88</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>177.92</td>
<td>3.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>178.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compromising</td>
<td>Between groups</td>
<td>1</td>
<td>2.11</td>
<td>2.11</td>
<td>.62</td>
<td>.44</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>181.82</td>
<td>3.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>183.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoiding</td>
<td>Between groups</td>
<td>1</td>
<td>.25</td>
<td>.25</td>
<td>.05</td>
<td>.82</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>244.55</td>
<td>4.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>244.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodating</td>
<td>Between groups</td>
<td>1</td>
<td>10.56</td>
<td>10.56</td>
<td>3.06</td>
<td>.09</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>182.78</td>
<td>3.45</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>193.34</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11 represents a comparison of pretest mode selection by race. No statistically significant differences were recorded at the .05 level. However, the competing mode did come closest by having an F-probability of .07. The accommodating mode was next with a .09 level of significance. There were 21 black and 34 white inmates involved in the study. The black race category represents African Americans. The white category represents all other races with the exception of Asians, Spanish Americans, and Native Americans.
Table 12
A Comparison of Posttest Mode Selection by Race

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
<td>1</td>
<td>15.37</td>
<td>15.37</td>
<td>1.90</td>
<td>.17</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>428.74</td>
<td>8.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>444.11</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Collaborating</td>
<td>Between groups</td>
<td>1</td>
<td>6.42</td>
<td>6.42</td>
<td>1.62</td>
<td>.21</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>209.69</td>
<td>3.96</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>216.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compromising</td>
<td>Between groups</td>
<td>1</td>
<td>.13</td>
<td>.13</td>
<td>.04</td>
<td>.85</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>179.22</td>
<td>3.38</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>179.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoiding</td>
<td>Between groups</td>
<td>1</td>
<td>4.71</td>
<td>4.71</td>
<td>1.17</td>
<td>.28</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>213.47</td>
<td>4.03</td>
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<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>218.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodating</td>
<td>Between groups</td>
<td>1</td>
<td>7.70</td>
<td>7.70</td>
<td>2.17</td>
<td>.15</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>188.30</td>
<td>3.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>196.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12 represents a comparison of posttest mode selection by race. No statistically significant differences were recorded at the .05 level of significance. The accommodating mode had an F-probability of .15; while the competing mode had an F-probability of .17. The black race category represents African Americans. The white category represents all other races with the exception of Asians, Spanish Americans, and Native Americans.
Table 13
A Comparison of Pretest Mode Selection by Inmate Age

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
<td>2</td>
<td>9.50</td>
<td>4.75</td>
<td>.54</td>
<td>.59</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>458.61</td>
<td>8.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>468.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborating</td>
<td>Between groups</td>
<td>2</td>
<td>2.00</td>
<td>1.00</td>
<td>.30</td>
<td>.75</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>176.00</td>
<td>3.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>178.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compromising</td>
<td>Between groups</td>
<td>2</td>
<td>8.64</td>
<td>4.32</td>
<td>1.28</td>
<td>.29</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>175.29</td>
<td>3.37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>183.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoiding</td>
<td>Between groups</td>
<td>2</td>
<td>14.36</td>
<td>7.18</td>
<td>1.62</td>
<td>.21</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>230.45</td>
<td>4.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>244.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodating</td>
<td>Between groups</td>
<td>2</td>
<td>10.28</td>
<td>5.14</td>
<td>1.46</td>
<td>.24</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>183.07</td>
<td>3.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>193.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13 represents a comparison of pretest mode selection by inmate age. No statistical significance was found at the .05 level. The avoiding mode was closest with a .21 F-probability, closely followed by the accommodating mode at .24. The age groupings used for this comparison were 17-19 (36.4%), 20-21 (32.8%), and 22-37 (30.8%).
Table 14
A Comparison of Posttest Mode Selection by Inmate Age

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
<td>2</td>
<td>24.76</td>
<td>12.38</td>
<td>1.54</td>
<td>.23</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>419.35</td>
<td>8.06</td>
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</tr>
<tr>
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<td>Total</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborating</td>
<td>Between groups</td>
<td>2</td>
<td>.18</td>
<td>.09</td>
<td>.02</td>
<td>.98</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>215.93</td>
<td>4.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>216.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compromising</td>
<td>Between groups</td>
<td>2</td>
<td>7.06</td>
<td>3.53</td>
<td>1.07</td>
<td>.35</td>
<td>No</td>
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<td></td>
<td>Within groups</td>
<td>52</td>
<td>172.29</td>
<td>3.31</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>179.35</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Avoiding</td>
<td>Between groups</td>
<td>2</td>
<td>16.25</td>
<td>8.12</td>
<td>2.09</td>
<td>.13</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>201.94</td>
<td>3.88</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>218.18</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodating</td>
<td>Between groups</td>
<td>2</td>
<td>13.30</td>
<td>6.65</td>
<td>1.89</td>
<td>.16</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>182.70</td>
<td>3.51</td>
<td></td>
<td></td>
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<td>Total</td>
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<td>196.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 14 represents a comparison of posttest mode selection by inmate age. No statistical significance at the .05 level was recorded. The closest mode was avoiding at .13 followed by accommodating at .16.
Table 15
A Comparison of Pretest Mode Selection by Inmate Education

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
<td>2</td>
<td>1.23</td>
<td>.61</td>
<td>.70</td>
<td>.93</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>466.88</td>
<td>8.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>468.11</td>
<td></td>
<td></td>
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<tr>
<td>Collaborating</td>
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<td>2</td>
<td>9.17</td>
<td>4.58</td>
<td>1.41</td>
<td>.25</td>
<td>No</td>
</tr>
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<td>Within groups</td>
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<td>3.25</td>
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<td></td>
<td>Total</td>
<td>54</td>
<td>178.00</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Compromising</td>
<td>Between groups</td>
<td>2</td>
<td>.99</td>
<td>.50</td>
<td>.14</td>
<td>.87</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>182.93</td>
<td>3.52</td>
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<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>183.93</td>
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</tr>
<tr>
<td>Avoiding</td>
<td>Between groups</td>
<td>2</td>
<td>.40</td>
<td>.20</td>
<td>.04</td>
<td>.96</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>244.40</td>
<td>4.70</td>
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<td></td>
<td>Total</td>
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<tr>
<td>Accommodating</td>
<td>Between groups</td>
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<td></td>
<td>Within groups</td>
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<td>187.90</td>
<td>3.61</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>193.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15 represents a comparison of pretest mode selection by inmate education. No statistical significance at the .05 level was recorded. The collaborating mode was the closest at .25 level of significance. The education groupings used for this comparison were less than high school 20 (36.4%), high school 20 (36.4%), and some college 15 (27.2%).

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Table 16
A Comparison of Posttest Mode Selection by Inmate Education

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
<td>2</td>
<td>9.03</td>
<td>4.51</td>
<td>.54</td>
<td>.59</td>
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<tr>
<td></td>
<td>Within groups</td>
<td>52</td>
<td>435.08</td>
<td>8.37</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>54</td>
<td>444.11</td>
<td></td>
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</tr>
<tr>
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<td>Between groups</td>
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<td>4.10</td>
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<td>207.90</td>
<td>4.00</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>216.11</td>
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<td></td>
<td></td>
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<td>1.51</td>
<td>.44</td>
<td>.64</td>
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<td></td>
<td>Within groups</td>
<td>52</td>
<td>176.33</td>
<td>3.39</td>
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<tr>
<td>Avoiding</td>
<td>Between groups</td>
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<td>.22</td>
<td>.05</td>
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<td></td>
<td>Within groups</td>
<td>52</td>
<td>217.73</td>
<td>3.39</td>
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<td>Total</td>
<td>54</td>
<td>218.18</td>
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<td></td>
</tr>
<tr>
<td>Accommodating</td>
<td>Between groups</td>
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<td>6.52</td>
<td>3.26</td>
<td>.89</td>
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<td>Within groups</td>
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<td>189.48</td>
<td>3.64</td>
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<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>196.00</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Table 16 represents a comparison of posttest mode selection by inmate education. As in the pretest, the collaborating mode came the closest to the .05 level of significance with an F-probability of .37.
Table 17
A Comparison of Pretest Mode Selection by Inmate Criminal History

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
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<td>.005</td>
<td>.005</td>
<td>.0006</td>
<td>.9813</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>468.104</td>
<td>8.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>468.109</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Collaborating</td>
<td>Between groups</td>
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<td>.00</td>
<td>.00</td>
<td>.000</td>
<td>1.00</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>178.00</td>
<td>3.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>178.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compromising</td>
<td>Between groups</td>
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<td>6.25</td>
<td>6.25</td>
<td>1.86</td>
<td>.18</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>177.68</td>
<td>3.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>183.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoiding</td>
<td>Between groups</td>
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<td>.90</td>
<td>.90</td>
<td>.20</td>
<td>.66</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>243.90</td>
<td>4.60</td>
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<tr>
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<td>Total</td>
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<tr>
<td>Accommodating</td>
<td>Between groups</td>
<td>1</td>
<td>2.91</td>
<td>2.91</td>
<td>.81</td>
<td>.37</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>190.44</td>
<td>3.59</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>193.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 17 represents a comparison of pretest mode selection by inmate criminal history. No modes were statistically significant .05, but compromising was the closest at .18. The two groups were misdemeanant 16 (29.1%) and felon 39 (70.9%).
Table 18
A Comparison of Posttest Mode Selection by Inmate Criminal History

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
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<td>.05</td>
<td>.01</td>
<td>.94</td>
<td>No</td>
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<tr>
<td></td>
<td>Within groups</td>
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<td>8.38</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>444.11</td>
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<td></td>
<td></td>
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<tr>
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<td>Between groups</td>
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<td>2.93</td>
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<td>Within groups</td>
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</tr>
<tr>
<td>Compromising</td>
<td>Between groups</td>
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<td>.27</td>
<td>.27</td>
<td>.08</td>
<td>.78</td>
<td>No</td>
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<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>179.08</td>
<td>3.38</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>179.35</td>
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</tr>
<tr>
<td>Avoiding</td>
<td>Between groups</td>
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<td>.32</td>
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<td>No</td>
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<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>217.86</td>
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<tr>
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<td>Total</td>
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<tr>
<td>Accommodating</td>
<td>Between groups</td>
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<td>2.20</td>
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<td></td>
<td>Within groups</td>
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<td>193.80</td>
<td>3.66</td>
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<td>Total</td>
<td>54</td>
<td>196.00</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Table 18 represents a comparison of posttest mode selection by inmate criminal history. No statistical significance at the .05 level was recorded. The closest mode was collaborating at .40 followed by accommodating at .44.
Table 19
A Comparison of Pretest Mode Selection by Inmate Marital Status

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing</td>
<td>Between groups</td>
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<td>.20</td>
<td>.20</td>
<td>.02</td>
<td>.88</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>467.91</td>
<td>8.83</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>468.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborating</td>
<td>Between groups</td>
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<td>.49</td>
<td>.49</td>
<td>.15</td>
<td>.70</td>
<td>No</td>
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<tr>
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<td>Within groups</td>
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<td>3.35</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
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<td>178.00</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>1.61</td>
<td>.47</td>
<td>.50</td>
<td>No</td>
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<tr>
<td></td>
<td>Within groups</td>
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<td>3.44</td>
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<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>183.93</td>
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</tr>
<tr>
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<td>Between groups</td>
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<td>.03</td>
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<td></td>
<td>Within groups</td>
<td>53</td>
<td>244.68</td>
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</tr>
<tr>
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<td>244.80</td>
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</tr>
<tr>
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<td>.53</td>
<td>.53</td>
<td>.15</td>
<td>.70</td>
<td>No</td>
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<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>192.81</td>
<td>3.64</td>
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</tr>
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<td>Total</td>
<td>54</td>
<td>193.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 19 represents a comparison of pretest mode selection by inmate marital status. No statistical significance was recorded at the .05 level. The compromising mode was closest with an F-probability of .50.
Table 20
A Comparison of Posttest Mode Selection by Inmate Marital Status

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source</th>
<th>D.F.</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Prob.</th>
<th>Significant at .05</th>
</tr>
</thead>
<tbody>
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<td>1.31</td>
<td>1.31</td>
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<tr>
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<td>Within groups</td>
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<td>8.35</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>54</td>
<td>444.11</td>
<td></td>
<td></td>
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<td>7.30</td>
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<td></td>
</tr>
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<td>54</td>
<td>216.11</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Compromising</td>
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<td></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Avoiding</td>
<td>Between groups</td>
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<td>1.78</td>
<td>.44</td>
<td>.51</td>
<td>No</td>
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<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
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<tr>
<td></td>
<td>Total</td>
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<td>218.18</td>
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</tr>
<tr>
<td>Accommodating</td>
<td>Between groups</td>
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<td>4.40</td>
<td>4.40</td>
<td>1.22</td>
<td>.27</td>
<td>No</td>
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<tr>
<td></td>
<td>Within groups</td>
<td>53</td>
<td>191.60</td>
<td>3.62</td>
<td></td>
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<td>54</td>
<td>196.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 20 represents a comparison of posttest mode selection by inmate marital status. No statistical significance was found at the .05 level.
Other Research Considerations

To gain a better perspective of the effect the cognitive conflict resolution course had on the participants, the student appraisal of the conflict resolution course was examined. As revealed by the student appraisals, the program was well received and supported. Of the 18 volunteer participants, 16 recorded perfect attendance for the four three-hour sessions. One participant missed the third session because of medical reasons and the other absence was attributed to the inmate going on work assignment and forgetting about the class. Generally, the classroom activity included a great deal of interaction between the instructor and participants. Several different students offered encouraging remarks about the program (Appendix L) and even stayed after class discussing specific personal episodes involving conflict.

The mean scores for each of the 20 questions on the student appraisal are found in Appendix L. A Likert-like scale was developed with numerical values one through seven (one representing the lowest and seven the highest score).

The mean scores reflect strong support and approval for the course. A 6.8 mean was the highest mean score recorded (13—“I believe the teacher really wanted us to learn”). Question 8, “I believe the teacher had a good mastery of the course content,” and question 9, “The teacher encouraged the student to participate,” scored second highest with a 6.7 mean. The two lowest mean scores were question 19, “The teacher told too many personal stories” (1.8), and question 11, “I sometimes came to class because I was expected to do so” (2.1). A mean score of 6.5 was recorded for question 15, “In comparison to other programs in the institution, I would rate this program....”
Summary

In summary, the hypothesis that there is no difference in the original norm group and inmates in preferred modes of conflict resolution was rejected. Significant differences were found in the collaborating, compromising, avoiding, and accommodating modes.

The hypothesis that there is no difference in the scores of the pretest and posttest of the treatment group in the five modes of conflict resolution was rejected. A significant difference was discovered in the treatment group in the competing mode with a mean reduction of -1.00 between the pretest and posttest.

The hypothesis that there is no difference in the gain scores between the experimental group, the educational group, and the recreational group in the five modes of conflict resolution was rejected. An F probability of .02 was discovered in the competing mode. Utilizing the Scheffe procedure, the difference was between the experimental group (-1.00) and recreational group (.70).

The personal characteristics of the inmate participants were examined and found not to be a significant factor in how the inmates resolved conflict. Inmates were found to have a strong preference for the competing and avoiding modes. The least preferred mode was collaborating. Since there were no findings of significant differences, hypothesis four was not rejected.

Chapter V will summarize the study and discuss conclusions, results, recommendations, and implications drawn from the research.
CHAPTER V

SUMMARY-CONCLUSIONS-RESULTS

Summary

This research project was designed to find out what modes were used by inmates to resolve conflict in a correctional setting as measured by the Thomas-Kilmann Conflict Mode Instrument (TKI) and to ascertain if participation in a 12-hour, conflict resolution, cognitive training program could significantly change the inmate’s attitudes and abilities to handle conflict in a more positive manner.

There were three major components to this research. First, a group of 66 inmates from the Kent County Correctional Facility Honor Camp was tested using the Thomas-Kilmann Instrument. Second, the inmates (volunteers) were divided in subsets of three for control purposes. Using randomization, the participants were placed into either an experimental group, educational group, or recreational group. The experimental group received 12 hours of cognitive conflict resolution training. The educational group participated in a 12-hour education program, and the recreational group participated in a 12-hour structured recreation period. All the groups met four times during the same 30-day period for three-hour sessions. Third, all three groups were retested using the TKI, and their scores analyzed to determine any significant effect of the treatment program.

There were two sets of data required for the study. The first set was the pretest and posttest scores of each participant on the TKI. The second set of data was personal characteristics of the inmate, e.g. age, race, education, criminal record, and marital history. These data were classified by group: experimental, educational, and recreational.
A fact sheet was developed and implemented to collect and record data. Such information included the participant’s TKI pretest and posttest scores, his attendance and behavior in the experimental group, and personal characteristics such as age, race, education, criminal record and marital history. These data were recorded in non-identifiable terms to protect the participant.

Four hypotheses were tested using statistical analysis, and other research considerations were examined through the use of a participant course evaluation form.

Conclusions

Hypothesis one, there is no difference in the original norm group and inmates in preferred modes of conflict, was rejected. On both the pretest and posttest, significant differences were found in the collaborating, compromising, avoiding, and accommodating modes. The greatest difference occurred in the collaborating mode. This would support the literature on the need for cognitive training skills programs for this population (Bush, 1982; Ross & Fabiano, 1986; Taymans, 1992a). The second greatest difference between the inmates and original norm group was the greater reliance on the accommodating mode by the inmates. Again, this result appears to support the literature when examining the correctional setting and its structured and rigid environment (Abbott, 1981; Bowker, 1983; Kalinich & Embert, 1988). In the correctional setting, the inmate must obey the rules of the institution and usually becomes unassertive and cooperative (accommodating characteristics) or unassertive and uncooperative (avoiding characteristics) to authoritarian figures.

Hypothesis two, there is no difference in the scores of the TKI pretest and posttest of the experimental group in the five modes of conflict resolution, was rejected. A significant difference was found in the competing mode with those involved in the 12-hour
cognitive training program by reducing the mean score from 5.67 on the pretest to 4.67 on the posttest. This was a very encouraging outcome of the training program since the literature identifies the inmate with a high reliance on competing as being potentially the most dangerous individual to deal with in the correctional setting. By being overly assertive and uncooperative, this inmate is very unpredictable (Clear & Cole, 1992; Clemmer, 1940).

Hypothesis three, there is no difference in the gain scores between the experimental group, the educational group, and the recreational group in the five modes of conflict resolution, was rejected. Statistical difference was found between the experimental and recreational groups. It is not clear as to why this difference occurred between the experimental group and the recreational group. Again, this is a very encouraging result which may be explained by using the same rationale as for hypothesis two. If inmates are overusing this mode to resolve conflict, they may create problems for themselves as well as the institution. Thus, the experimental group could have learned more positive ways of dealing with conflict in the treatment program since they registered a -1.00 mean reduction in the competing mode.

Hypothesis four, there is no difference in modes of conflict resolution based on the inmates’ personal characteristics (e.g. race, age, education, criminal record & marital history) was accepted since no findings of significant difference were discovered. The acceptance of this hypothesis may be construed as positive since this could mean that any cognitive training program would not have to be custom designed to address specific differences in a similar population. However, a certain amount of caution should be applied in translating the significance of this finding. This population was generally young (21.4 mean age) and non-violent. Although 39 of the 55 were convicted of a felony offense, they were serving their sentence at a county correctional honor camp.
The student appraisals illustrate very favorable support for the cognitive training program by the participants (Appendix L). The participants enjoyed the open discussion classroom environment and the opportunity to discuss conflict situations occurring around the honor camp. Several inmates expressed their satisfaction at being able to voice their opinions. This feedback should caution one evaluating this study since the Hawthorne effect could have played a role in the results.

Results

The results of this research were not conclusive and should be evaluated with cautious optimism. The significant reduction in the competing mode for the experimental group was perhaps the most promising outcome of the research. In addition to the treatment, other possible explanations for this phenomenon are the Hawthorne effect or the participants became “test-wise” as an effect of their experience with the pretest.

The second most significant finding is the great potential for such programs in the correctional setting. The significant differences between the original norm group and the inmate participants in four of the five modes on both the pretest and posttest supports the literature that cognitive training skills programs are needed in this population. The inmate questionnaire indicates that this population would be receptive to such programs. The high rate of attendance and the positive feedback on the course appraisals illustrate that inmates will participate in a learning program that meets their needs.

Finding a significant difference between the experimental group and the recreational group in gain scores in the use of the five modes was encouraging. The experimental group’s mean reduction of -1.00 illustrated the effectiveness of the training program. According to the literature, this outcome impacted the potentially most dangerous inmate. The inmate that overuses the competing mode can create problems in the administration of any correctional facility (Kalinich & Embert, 1988).
Not being able to reject the null hypothesis that there is no difference in modes of conflict resolution based on the inmates' personal characteristics (e.g. race, age, education, criminal record, & marital status) was a very important finding. The pretest scores by race for the competing mode (.07) and the accommodating mode (.09) came the closest to the .05 level of significance. Additional research in this subject is encouraged.

If there was a weakness in the study's design, it may have been the length of the program. Meeting only four times, once a week for three hours, could have rushed the learning process. To be effective, a cognitive program must allow time for the participant to not only learn the concept, but practice it and receive feedback. According to the literature, some programs last up to one year (Ross, 1990). (The length of the program was a concern from the inception, but was established at four weeks since the average stay at the honor camp was only 60 days.)

Recommendations

Based upon the results of this study, the following recommendations are offered:

1. Cognitive skills training programs should be utilized in minimum security correctional settings for young, non-violent felony and misdemeanant offenders serving periods of incarceration of one year or less.

2. The programs should be designed to promote a great deal of interaction between the instructor and inmate in an open classroom environment allowing the inmate an opportunity to express his/her opinions.

3. Existing correctional professionals and volunteers should receive in-service training in cognitive conflict resolution skills training programs which would prepare them to teach the concept to inmates.
4. The program should be designed to be more relationship-oriented, although teaching cognitive problem solving skills is equally important (a 9-9 in the terms of Blake & Mouton). In other words, the course should be fun.

5. Programs should be developed to teach inmates to become more assertive and cooperative (collaborating mode). The results of this research illustrate the need for such social skills since inmates rely on avoiding, competing, and accommodating modes. Such skills are necessary in preparing the inmate with social skills necessary to be successful in the community.

6. Follow-up programs should be implemented to further assist inmates in the learning, practicing, and feedback process. In some cases, this could be achieved by introducing the concept to community-based corrections programs such as probation and parole offices, halfway houses, and corrections centers.

7. Additional research in this area is needed. Replication of this study should be considered using a different correctional institution. Statistical analyses should be conducted to determine the effect of the treatment and if statistically significant differences between the groups occurred. This research was restricted by the number of subjects available. If this restriction does not apply, the Solomon four-group design is recommended. This design would further validate the results of this study by assessing the effect of the experimental treatment compared to the control group, assessing the effect of a pretest relative to no pretest, and assessing the interaction between the pretest and treatment.

Implications

The correctional leader must be able to manage conflict in a correctional setting. Unlike traditional business organizations, the leader must be cognizant of the inmate culture and how inmates deal with conflict situations.
Although the Thomas-Kilmann Conflict Mode Instrument (TKI) has been used primarily in the business world to measure the conflict managing styles of middle managers, it can also be helpful in corrections. It shows how an individual typically handles conflict, explains the mode of choice, and offers other alternative styles for consideration. It is an excellent learning tool which can be applied in a cognitive training program.

Did this study prove Martinson’s “nothing works” theory invalid? The implications of this study would suggest that cognitive training programs can impact the values and attitudes of inmates in conflict resolution. Can one interpret this to mean that rehabilitation works? This research did not address that issue. It does illustrate that programs of this nature can work in the correctional setting. It also supports the notion that inmates are receptive to this type of treatment program.

Treatment is needs driven, which means that a critical part of determining one’s self-worth begins with how one perceives the world. Properly designed cognitive training programs may, in fact, be the vehicle to shift paradigms.
Appendix A

Request to Conduct Research for Dissertation
July 28, 1993

Lt. Henry TenWolde, Director
Kent County Sheriff's Honor Camp
701 Ball Avenue, N. E.
Grand Rapids, Michigan 49503

Subject: Request to Conduct Research for Dissertation

Dear Lt. TenWolde:

I am requesting permission to conduct the following research study. This study is the core of my dissertation. I hope to complete the actual research by March, 1994, and finish my degree requirements by May, 1994. I have briefly discussed the concept with my advisor, Dr. Patrick Jenlink, who appears to be supportive. I am seeking your approval so I can begin finalization of my dissertation proposal to the Graduate College at Western Michigan University.

The title of my research is, "A Study in Leadership and Conflict within the Informal Organization of a Correctional Setting." The manner in which residents resolve conflict is a major concern of administrators. Styles of conflict resolution could lead to problems within the correctional setting. For example, excessive competitiveness could lead to poor relationships, disagreement and violence. On the other hand, an excessive style of compromise may lead to being victimized by others.

It is hypothesized that individuals can serve their own needs and the needs of others best if they develop the proper cognitive problem solving and social skills necessary to deal with conflict resolution. This study will include a cognitive training program for participants
to learn alternate styles of conflict resolution and how to effectively employ them.

In this study, the results will indicate if correctional residents functioning in the extreme areas of conflict resolution can be taught to modify their styles. If so, can these residents function more effectively in the correctional setting and/or the community?

Many conflicts arising daily in a resident’s life may be resolved by simply knowing when it is best to accommodate the other party’s needs, avoid a specific situation or compromise one’s position. I believe it’s possible that a cognitive training program can be developed from this research to assist correctional residents in coping with daily challenges more effectively.

If you have any questions about my research proposal, please contact me at (616) 796-7259.

Sincerely yours,

Francis L. Crowe
19100 Kenny Drive
Big Rapids, MI 49503

cc: Dr. Patrick Jenlink
Appendix B

Permission of Kent County Sheriff's Department
to Conduct Research
Mr. Michele Burnette, PH.D.
Chair, HSIRB
Western Michigan University
Ellsworth Hall-A221
Kalamazoo, MI 49008-3899

RE: Frank Crowe's research at Honor Camp

October 28, 1993

Mr. Crowe has my permission to do research work at the Kent County Honor Camp, focusing on inmate conflict resolution.

Respectfully,

Lt. Henry TenWolde, Director
Kent County Sheriff's Honor Camp
Appendix C

Approval to Use the Thomas-Kilmann Conflict Resolution Instrument
March 15, 1994

Mr. Frank Crowe  
19100 Kenny  
Big Rapids, MI  49307

Dear Mr. Crowe:

Pursuant to your request, Xicom, Inc. consents to your use of the Thomas-Kilmann Conflict Mode Instrument under the following terms and conditions:

1. That the number of "for Research Use Only" Xicom Instruments you use will be 140 copies of the instrument.

2. You will use the Xicom Instrument in your Doctoral Dissertation, "A Study In Correctional Leadership and Conflict Within The Informal Organization of a Correctional Setting: A Paradigm Shift In Correctional Treatment".

3. You will provide Xicom with a copy of the results of this study and a copy of any articles or other publications produced as a result of this study.

4. That you further agree that any publications based on this study will reference our publications as follows: Thomas-Kilmann Conflict Mode Instrument, copyright 1974 by Xicom, Inc., Tuxedo, NY.

5. For the limited rights conveyed herein, you will pay Xicom, Inc. $140.00 (One Hundred and Forty Dollars), plus shipping and handling charges.

If the above terms and conditions are agreeable, please sign on the line designated.

ACCEPTED AND AGREED:  
Xicom, Incorporated  
Gail C. Ryan  
Key Account Representative

DATE  
3/23/94  
DATE  
3/15/94

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Appendix D

Human Subjects Institutional Review
Application Form
Western Michigan University
Human Subjects Institutional Review Board (HSIRB)
Application Form
(All materials must be typewritten to be considered)

I. BASIC INFORMATION

PROJECT TITLE: A Study In Correctional Leadership And Conflict Within
The Informal Organization Of A Correctional Setting -
A Paradigm Shift In Correctional Treatment

PRINCIPAL INVESTIGATOR OR ADVISOR
Name_ Patrick M. Jenlink_________Degree Ed.D. Title Assistant Professor
Department: Educational Leadership
Notification address: 3312 Sangren Hall
Office Phone (616) 387-3882 Home Phone (616) 344-1052

CO-PRINCIPAL OR STUDENT INVESTIGATOR
Name_ Francis L. Crowe_________Degree MPA, SPADA Title Doctoral Candidate
Department: Educational Leadership
Notification address: 19100 Kenny Big Rapids, MI 49307
Office Phone (616) 592-2840 Home Phone (616) 796-7259

If this is a student investigator, please indicate level of training and involvement in the research:
Undergraduate ☐; Master level graduate ☐; Doctoral level graduate ☐.
Assisting Faculty Research ☐; Thesis ☐; Dissertation ☐; Other ☐

OTHER COLLABORATING INVESTIGATORS AND THEIR AFFILIATIONS

PROPOSED PROJECT DATES:
From January 5, 1994 To February 28, 1994

Source or potential source of funding: out of pocket

Site(s) of the research activity: Kent County Jail's Honor Camp, Grand Rapids, MI

8/93 All other copies are obsolete and cannot be used.
II. PARTICIPANTS

Total number of subjects: 66; Number of subjects in the control condition: 22
Age Range: 17 - 25; Sex: Female ☐; Male ☐; Both ☐; Number participating: 66
Other Qualifications: ____________________________________________________________

Specific Exclusions: __________________________________________________________________

Source of Participants: _______________________________________________________
Length of Participation: January 5, 1994 - February 28, 1994

Vulnerable Participants:
☒ Children (any subject under the age of 18) Approximate age ______
☐ Mentally retarded persons
☐ Mental health patients
☒ Check if institutionalized
☐ Prisoners, County
☐ Pregnant women
☐ Other subjects whose life circumstances may interfere with their ability to make free choices in consenting to take part in research. DESCRIBE: ____________________________________________________________

III. LEVEL OF REVIEW

To determine the appropriate level of review, refer to WMU Policy Guidelines for categories of exempted research (Appendix B).

☒ Exempt Forward the original application to the Chair of the Department for a cover letter, then forward to HSIRB Chair via RSP along with Chair's letter.

☐ Not Exempt Forward original application plus 10 copies to HSIRB. If blood products are involved, you must complete and attach the HSIRB collection of blood and blood products form (available in HSIRB office).

CERTIFICATION/SIGNATURE

I certify that the information contained in the HSIRB application and all attachments is true and correct. I certify that I have received approval to conduct this research from all persons named as collaborators and from officials of the project sites*. If this proposal is approved by the Institutional Review Board, I agree to conduct the research according to the approved protocol. If any changes in the protocol are discovered, I will report them to HSIRB immediately.

P.I./Faculty Advisor Signature ________________________________________________ Date ________________
Student Researcher Signature ________________________________________________ Date ________________

*Letters of approval from project site officials should be included in this approval packet.

Comments (committee members/staff only): ____________________________________________

8/93 All other copies are obsolete and cannot be used.
IV. HSIRB PROTOCOL OUTLINE: Prepare a proposal for review by HSIRB that follows the outline below. Alternatively, provide an existing research proposal and indicate next to each header below the page number on which the information may be found within the proposal.

(✓) PROJECT DESCRIPTION: Includes purpose, research procedure (including what exactly participants will do as part of the study), research design, location and duration.

(✓) BENEFITS OF RESEARCH: Briefly describe the expected or known benefits of the research. This section should indicate benefits specific to the research participant in addition to longer term or more general benefits.

(✓) SUBJECT SELECTION: Describe in detail how you intend to go about contacting and recruiting participants. Attach all written advertisements, posters and oral recruitment scripts.

(✓) RISKS TO SUBJECTS: Describe the nature and likelihood of possible risks (e.g., physical, psychological, social) as a result of participation in the research. Risks include even mild discomforts or inconveniences, as well as potential for disclosure of sensitive information.

(✓) PROTECTION FOR SUBJECTS: Describe measures to be taken to protect subjects from possible risks or discomfort.

(✓) CONFIDENTIALITY OF DATA: Describe the precautions that will be taken to ensure the privacy of subjects and confidentiality of information. Be explicit if data are sensitive. Describe coding procedures for subject identification numbers.

(✓) INSTRUMENTATION: All questionnaires, interview scripts, data collection instruments, should be identified and attached. Coding sheets for video-tape or audio-tape and other data collection procedures are required.

(✓) INFORMED CONSENT: A copy of all consent/assent forms must be provided. For all research, regardless of whether or not a signed consent form is required, describe the process by which informed consent will be obtained. If the participant is a child or mentally retarded, explain how the parent/guardian will be contacted for consent and how the researcher will insure that the participant understands what s/he is assenting. This is especially important if the participant is unable to sign or understand language. For further information on writing consents (assents not covered), see Informed Consent by T. M. Grundner, on reserve at Waldo Library. Refer also to the checklist on back of this page and examples included in the HSIRB packet. Attach a copy of the informed consent and assent (if applicable) form(s). Each participant and/or parent/guardian must be given a signed copy of the consent form at the time of involvement in the study.

8/93 All other copies are obsolete and cannot be used.
INFORMED CONSENT FORM CHECKLIST

The following information must be included in the informed consent form. Check each of the requirements you have included and sign below, acknowledging that all required content is contained in the consent form. The absence of any of the required information must be satisfactorily justified in a separate, written explanation.

(✓ Here)

☐ A header that includes "Western Michigan University, Department of ____________", the title of the study and the researcher's names. (see example)

☐ Language in the form of an invitation to participate AND at a level appropriate for the participant (remembering that the mean reading level in the US is 7th grade).

☐ The nature, purpose, duration of the study, including that it is experimental.

☐ Procedures to be employed in the experiment--exactly what the participant is expected to do.

☐ Risks (hazards, inconveniences, discomforts) the subject may undergo, so far as they are known and how any risks will be minimized.

☐ The following statement: "As in all research, there may be unforeseen risks to the participant. If an accidental injury occurs, appropriate emergency measures will be taken; however, no compensation or treatment will be made available to the subject except as otherwise stated in this consent form." Any available compensation or treatment should then be specified if appropriate (e.g., alternative treatments to the experimental treatment).

☐ Benefits to the subject; state none if none; if general benefits expected, state those.

☐ If experiment is therapeutically related, disclosure of alternate procedures the subject might choose.

☐ Conditions of participation.

☐ How confidentiality will be maintained and any limits to confidentiality.

☐ That the participant can withdraw her/his consent to the experiment or discontinue participation in the experiment at any time without prejudice or penalty.

☐ Contact person(s). Include the researcher's name and telephone number (students must include faculty advisor's name and telephone number) as well as the following statement: "The participant may also contact the Chair, Human Subjects Institutional Review Board or the Vice President for Research if questions or problems arise during the course of the study."

☐ Place for date and signature of participant; witness line should be included if required.

☐ No language that would absolve the researcher of negligence.

☐ If appropriate, that any significant new findings affecting risks will be reported to the participant.

☐ If appropriate, circumstances under which the experimenter may terminate one's participation.

☐ If appropriate, any additional costs the participant may have to bear.

☐ If appropriate, consequences of the participant's withdrawal from the study.

☐ If appropriate, the approximate number of participants in the study.

☐ If appropriate, debriefing procedures.

I certify that all required information is included in the informed consent form.

Signature ___________________________ Date _________________.

I certify that some required information has been omitted (justification attached).

Signature ___________________________ Date _________________.

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IV. HSIRB PROTOCOL OUTLINE

Project Description: Realizing that conflict is pervasive in the human experience, the correctional leader must be able to manage conflict in the institutional setting. This research will not only identify the various ways correctional clients deal with conflict, but will also attempt to teach more acceptable ways of dealing with conflict resolution.

There will be three major components to this research. First, a group of 66 Kent County Jail inmates from the Honor Camp will be tested using the Thomas-Kilmann Conflict Resolution Mode Instrument. Second, the inmates will be divided in subsets of three for control purposes. The participants will then be placed into either an experimental, control or placebo group. Third, after treatment, the groups will be retested and their scores analyzed to determine any significant effect of the treatment program.

The experimental group will receive a four week (12 hour) training program on effective methods of conflict resolution. This group will receive lectures, engage in discussions, role play and critique the methods others use to resolve conflict.

The placebo group will engage in a four week (12 hour) structured educational program that does not deal with conflict resolution. The third group will only be identified. It will not meet for any form of group activity as groups one and two.

At the conclusion of the training and activity sessions, all three groups will be re-tested with the original instrument. Differences in scores will be evaluated to determine if they occurred by chance due to the training. The scores of the placebo group and the no-activity group will contribute to the overall comparison of the effectiveness of the training. To measure for statistical significance, ANOVA will be used.

Simple randomization will be utilized (Table of random numbers method).

The location of the project will be the Kent County Jail Honor Camp and will begin on January 5, 1994 and conclude in late February.

Benefits of Research: The Kent County Jail Honor Camp and many other correctional institutions emphasize group therapy as an important part of their treatment program. In this study, the results will indicate if inmates can be trained to deal with conflict in a more positive and effective manner. If so, violence and even riots may be greatly reduced. Many conflicts arising daily in an inmate’s life may be resolved by simply knowing when it is best to accommodate a higher authority, avoid a specific situation, or compromise one’s position.

It is also possible that a model treatment program could be developed to assist inmates to cope with daily challenges more effectively.

Subject Selection: I will individually interview each inmate at the Kent County Jail Honor Camp. During the interview, the inmate will be advised that the study is voluntary and their decision to take part in or refrain from involvement will not affect their status or treatment at the Honor Camp. Those wishing not to participate will be excused; while those agreeing to continue will sign an informed consent form.
Risks to Subjects: While some inmates may feel they are taking a risk by volunteering for the project, others will accept it as a challenge or opportunity. Some may have difficulty sharing their feelings and attitudes, while others are not threatened. Role playing and tests can also create discomfort to certain individuals.

Protection for Subjects: Prior to their participation, I will establish a clear and fair agreement that clarifies the obligations and responsibilities of each. I will also respect the individual's freedom to decline to participate in or to withdraw from the research at any time. Information obtained about a research participant during the course of the project will remain confidential.

During the treatment classes, Honor Camp staff will not be permitted in the classroom.

Confidentiality of Data: Using a linkage system, I will substitute numbers for inmate numbers, not names, to assure confidentiality. I will be the only person to have access to the "key", which will be locked in my personal safety deposit box. Once the data are collected and analyzed, the master list will be destroyed. All other forms will be retained for three years in a locked file of the principal investigator.

Instrumentation: Thomas-Kilmann Conflict Mode Instrument & Inmate History and Score Sheet (attached).
Appendix E

Human Subjects Institutional Review Board's Approval to Conduct Research
Date: January 5, 1994

To: Francis Crowe

From: M. Michele Burnette, Chair

Re: HSIRB Project Number 93-11-06

This letter will serve as confirmation that your research project entitled "A study in correctional leadership and conflict within the informal organization of a correctional setting - a paradigm shift in correctional treatment" has been approved under the full category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: January 5, 1995

xc: Jenlink, Ed. Leadership
Appendix F

Oral Script
* Hello, my name is Frank Crowe and I am a doctoral student at Western Michigan University.

Response—

* During the month of January, 1994, I will be conducting a research project at the Kent County Jail Honor Camp and I need volunteers to participate in the project. Would you be interested in hearing more about the project?

Response—

* I want you to realize that by agreeing to be interviewed to hear more about my project does not obligate you in anyway. Do you understand?

Response—

* I further want you to understand that you have the right to stop the interview at any time. Is that understood?

Response—

* If you choose to stop the interview, this action will not effect your standing at the Honor Camp. Is that understood?

Response—

* If you are comfortable with participating in the interview, would you please sign and date this Informed Consent (1) form.

Response—

* Thank you.
I voluntarily agree to be interviewed by Mr. Crowe concerning a research project he is planning to conduct at the Kent County Jail Honor Camp. I understand that I have the right to terminate this interview at any time without prejudice or penalty.

I understand that participation in this interview will not hinder nor help my status at the Kent County Jail Honor Camp.

If I have any questions or concerns about this interview, I may contact Dr. Jenlink at (616) 387-3882 or the Chair of Human Subjects Institutional Review Board at (616) 387-8293.

__________________________  _______________________
Signature                        Date
Appendix H

Informed Consent Form (2)
I have been invited to participate in a research project entitled, "A Study in Correctional Leadership & Conflict within the Informal Organization of a Correctional Setting: A Paradigm Shift in Correctional Treatment." I understand that this experimental research is intended to study how inmate's resolve conflict. I further understand that this project is Francis L. Crowe's dissertation project.

My consent to participate in this project indicates that I will be required to take a pretest and post-test and will be randomly assigned to one of three groups. Group #1 will be assigned to a twelve hour recreation time. Group #2 will be assigned to a 12 hour general education program. Group #3 will receive a 12 hour training program on effective methods of conflict resolution. All the groups will meet once a week for three (3) hours.

If selected to the experimental group (group #3), I will meet with Mr. Crowe and receive training in conflict resolution. The program will consist of lectures, group discussions, role playing and critiquing the methods others use to resolve conflict. I will be asked to meet Mr. Crowe for these four-3 hr. sessions at the Kent County Jail Honor Camp Education Building on Thursdays (4) 9:30 a.m. until 12:30 p.m., beginning January 5, 1994 and ending in late February. I will also be asked to provide general information about myself such as my age, level of education, marital status, criminal record and race.

As in all research, there may be unforeseen risks to the participant. If an accidental injury occurs, appropriate emergency measures will be taken; however, no compensation or treatment will be made available to me except as otherwise specified in this consent form. I understand that one potential risk of my participation in this project is that I may be upset by the content of the course material. I understand, however, that Francis L. Crowe is
prepared to provide crisis counseling should I become significantly upset and that he is prepared to make a referral if I need further counseling about this topic. I will be responsible for the cost of therapy if I choose to pursue it.

One way in which I may benefit from this activity is having the opportunity to learn more effective ways to deal with conflict. I also understand that others in the group may learn and benefit from my knowledge and life experiences. Another potential benefit for participation to all group members will be the attainment of information/scores collected during the research.

I understand that all the information collected from me is confidential. That means that my name will not appear on any papers on which this information is recorded. The forms will all be coded, and Francis L. Crowe will keep a separate master list with the names of participants and the corresponding code numbers. Once the data are collected and analyzed, the master list will be destroyed. All other forms will be retained for three years in a locked file in the principal investigator’s laboratory.

I UNDERSTAND THAT PARTICIPATION IN THIS PROJECT WILL NOT HINDER NOR HELP MY STATUS AT THE KENT COUNTY JAIL HONOR CAMP.

I understand that I may refuse to participate or quit at any time during the study without prejudice or penalty. If I have any questions or concerns about this study, I may contact either Francis L. Crowe at (616) 592-2840 or Dr. Jenlink at (616) 387-3882. I may also contact the Chair of Human Subjects Institutional Review Board (616) 387-8293 or the Vice President for Research with any concerns that I have. My signature below indicates that I understand the purpose and requirements of the study and that I agree to participate.

Signature

Date
Appendix I

Conflict Resolution MODE Instrument Scores and Inmate Social and Criminal History Fact Sheet
## CONFLICT RESOLUTION MODE INSTRUMENT SCORES AND INMATE SOCIAL AND CRIMINAL HISTORY FACT SHEET

### Scores on the Thomas-Kilmann Conflict Resolution Mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Pre-test</th>
<th>%</th>
<th>Post-test</th>
<th>%</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competing Mode</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborating Mode</td>
<td></td>
<td></td>
<td></td>
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<td>Compromising Mode</td>
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<tr>
<td>Avoiding Mode</td>
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<tr>
<td>Accommodating Mode</td>
<td></td>
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</tbody>
</table>


### Educational Achievement:
1. Less than high school/no GED
2. High School Diploma or GED
3. Some college
4. Bachelor’s degree

### Criminal History:
1. Juvenile record
2. Misdemeanor
3. Felony

### Marital History:
1. Single
2. Married
3. Divorced/Widower

### Attendance to group activity
- Week 1
- Week 2
- Week 3
- Week 4

### Comments:
LESSON PLANS

LESSON ONE:  INTRODUCTION AND OVERVIEW OF THE PROGRAM

Objectives:  1. To establish credibility and rapport (Self-Introduction).
2. To introduce the program and a brief overview of the course content.
3. To present the basic concepts of conflict resolution.
4. To discuss methods to deal with conflict more effectively.
5. To explain the cognitive training model and significant components.
6. To define key terms (i.e. conflict, self-change, self-motivation, interventions.

Method of Instruction: Lecture and group discussion.

Visual Aids: Chalkboard and Handout #1

Time: Three hours

Summary of Lesson Plan: After a self-introduction, the course outline was introduced to the group. Next, participant was asked to introduce the person sitting to his right. The participants were informed that the class would be structured as an intensive work shop featuring...
group discussion emphasizing the importance of teamwork. The group worked on defining conflict and discussed the possible ways of dealing with conflict balancing levels of assertiveness and cooperativeness. The group was introduced to the cognitive training model and worked on defining the terms, "self-change, self-motivation and interventions." They were asked to identify targets for change. They were given a handout and asked to respond to the questions (Handout #1). At the end of class, participants were instructed to report a conflict situation they observed or were encountered to the group next week.

LESSON TWO: PROBLEM SOLVING APPROACHES, SOCIAL SKILLS AND CONFLICT RESOLUTION MODES

Objectives: 1. To discuss and analyze conflict situations encountered at the Honor Camp.
2. To present and discuss Taymens (1992) eight problem solving approach.
3. To demonstrate social skills (i.e. conversation, dealing with questions, complaints, and compliments and dealing with success and failure.
4. To explain the five MODES of conflict
resolution on the Thomas-Kilmann instrument.

Method of Instruction: Lecture, role playing and group discussion.

Visual Aids: Chalkboard and Handout #2 and #3

Time: Three hours

Summary of lesson plan: Several participants presented conflict situations they had experience during the week and the correctional facility. The group discussed and applied the eight step approach to each situation. The importance of thoughts and feelings during a conflict situation was discussed. Each participant was given Handout #2 illustrating the eight step approach and thoughts and feelings in a conflict situation. Social skills were then discussed and practiced. Next, the Thomas-Kilmann instrument was presented and a group discussion was conducted on defining assertiveness and cooperativeness. Handout #3 was given to each participant which lists the five MODES. Each participant was asked to cite an example when each MODE would be the best and most effective way to deal with a given conflict. At the end of the session, the participants were asked to record any conflict situation in which they were involved during the
following week using the eight step approach and list their thoughts and feelings during the situation and describe the outcome.

LESSON THREE: DEALING WITH CRISIS AND ANGER

Objectives: 1. To review conflict situations using the eight approach.

2. To deal with conflict at the crisis level.

3. To focus on thoughts and feelings during periods of anger.

Method of Instruction: Lecture and group discussion

Visual Aids: Chalkboard

Time: Three hours

Summary of Lesson plan: Several participants reported conflict situations illustrating the situation, thoughts, feelings and the outcome. The class outline the situations using the eight step approach. The importance of social skills, good communications and teamwork values were emphasized. Dealing with conflict at the crisis level was introduced and a four step resolution strategy was introduced and explained. Next, anger was discussed and techniques at controlling one's temper were taught.
Each participant was asked to apply the crisis conflict resolution model to a crisis conflict event and report it to the group the following week.

LESSON FOUR: DEALING WITH STRESS AND CONFLICT RESOLUTION MODES

Objectives: 1. To discuss the effectiveness of the four step conflict resolution model.
2. To discuss stress as it relates to conflict situations.
3. Review the course material.

Method of Instruction: Lecture and group discussion

Visual Aids: Chalkboard

Time: Three hours

Summary of Lesson plan: Several participants reported crisis conflict situations and the group applied the crisis conflict resolution model to the situation. The participants were paired off and asked to create a conflict crisis scenario. Several pairs presented their situation to the group. Next, a lengthy discussion on stress was followed by several stress tests illustrating the high stress environment of a correctional facility. The last objective of reviewing the entire course was conducted.
Handout #1
Conflict Resolution

A. List two things that you like about yourself.

1.
2.

B. List two things that you would like to change about yourself.

1.
2.

C. List several things that motivate you to achieve a specific goal.

1.
2.

D. List two conflict situations in which you were involved since being at the correctional facility.

1.
2.

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Handout #2

Conflict Resolution

The eight step approach in dealing with conflict.

1. Stop and think
2. Identify the problem
3. Goals
4. Gather information
5. Choices
6. Consequences
7. Best choices
8. Feedback

The four step approach in dealing with conflict at the crisis stage.

1. Consider
2. Control
3. Clarify
4. Contract for resolution

Conflict Situation:

Thoughts:
Feelings:
Resolution:
Handout #3

Conflict Resolution

Give an example of when the following methods of dealing with conflict would be most effective and least effective.

Avoiding:

Accommodating:

Competing:

Collaborating:

Compromising:
Appendix K

Student Appraisal of the Conflict Resolution Course
STUDENT APPRAISAL OF THE CONFLICT RESOLUTION COURSE

Thoughtful student reaction can help improve course content and teaching effectiveness. This questionnaire is designed for these purposes. Your assistance is appreciated. Please do not sign your name.

Directions: Rate each item on the scale below. Place in the blank space before each statement the number that most nearly expresses your view.

<table>
<thead>
<tr>
<th>Highest</th>
<th>Average</th>
<th>Lowest</th>
<th>Don’t Know</th>
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<tbody>
<tr>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>X</td>
</tr>
</tbody>
</table>

___ 1. I have learned a great deal about conflict resolution.

___ 2. I have already been able to apply some of the concepts.

___ 3. I believe I am better able to deal with conflict now that I have taken this course.

___ 4. Conflict has been a major problem in the past.

___ 5. I would encourage others to take this course.

___ 6. I believe class presentations were well planned and organized.

___ 7. I believe class time was used well.

___ 8. I believe the teacher had a good mastery of the course content.

___ 9. The teacher encouraged the student to participate.

___ 10. How does the teacher react to viewpoints different from his own?

___ 11. I sometimes came to class because I was expected to do so.

___ 12. After the first session, I learned all that was necessary for me to deal with conflict.
13. I believe the teacher really wanted us to learn.

14. How would you describe the attitude of fellow class members toward the teacher.

15. In comparison to other programs in the institution, I would rate this program..........

16. I felt encouragement from the teacher.

17. I got to know some of the other students in class better due to this course.

18. I felt like part of a team in class projects.

19. The teacher told too many personal stories.

20. I felt better about myself having taken this course.

In my opinion, the most important part of this class was...

I would recommend the following change(s) for the course...

Composite Rating
Appendix L

Student Course Appraisal Mean Scores
## Student Course Appraisal Mean Scores

<table>
<thead>
<tr>
<th></th>
<th>Highest</th>
<th>Average</th>
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<td></td>
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<tr>
<td>5.5</td>
<td>1.</td>
<td>I have learned a great deal about conflict resolution.</td>
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<tr>
<td>5.0</td>
<td>2.</td>
<td>I have already been able to apply some of the concepts.</td>
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<tr>
<td>5.3</td>
<td>3.</td>
<td>I believe I am better able to deal with conflict now that I have taken this course.</td>
<td></td>
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<tr>
<td>6.3</td>
<td>4.</td>
<td>Conflict has been a major problem in the past.</td>
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<td>6.4</td>
<td>5.</td>
<td>I would encourage others to take this course.</td>
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<tr>
<td>6.2</td>
<td>6.</td>
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<td>7.</td>
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<td>8.</td>
<td>I believe the teacher had a good mastery of the course content.</td>
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<tr>
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<td>9.</td>
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<td>10.</td>
<td>How does the teacher react to viewpoints difference from his own?</td>
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<td>2.1</td>
<td>11.</td>
<td>I sometimes came to class because I was expected to do so.</td>
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<td>12.</td>
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4.6 17. I got to know some of the other students in class better due to this course.
4.1 18. I felt like part of a team in class projects.
1.8 19. The teacher told too many personal stories.
4.9 20. I felt better about myself having taken this course.

N = 18

The participants were instructed not to sign their names to the form. Other general comments made by the participants included the following:

"I liked the open discussions."

"More open discussions!"

"A little vague on differences between collaborating and compromising."

"More classes!"

"I liked being able to stress my thoughts."

"The openness of the instructor and his willingness to listen to other viewpoints was the best thing about the class."
BIBLIOGRAPHY


