An assessment for religious contexts: An ecological assessment tool for church environments

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AN ASSESSMENT FOR RELIGIOUS CONTEXTS:
AN ECOLOGICAL ASSESSMENT TOOL
FOR CHURCH ENVIRONMENTS

by

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ABSTRACT

An Assessment for Religious Contexts: An Ecological Assessment Tool For Church Environments

by

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The Assessment of Religious Contexts (ARC) is a research instrument that seeks to measure the environment of a local church. The development of the ARC and initial studies of its reliability and validity comprise the present thesis. At the outset, the relevance and importance of the study are detailed. Next, pertinent literature is reviewed in environmental or ecological psychology. Specifically reviewed are areas of ecological assessment, church environment assessment, and other environmental assessments. Chapter three reports the methodology used to develop the ARC. Chapter 4 provides results concerning an estimate of the reliability and initial validity study. Chapter 5 includes the discussion of the results and areas for further research.
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Chapter I

Introduction

"Let the Christian remain in the world..., and let him live the life of his secular calling in order to show himself as a stranger in this world all the more.... The Otherworldliness of the Christian life ought...to be manifested in the very midst of the world, in the Christian community, and in its daily life" (Bonhoeffer, 1937/1960, p. 238,239). Bonhoeffer in this quotation was drawing on the analogy of Luther's decision to leave the monastery and rejoin the world. Similarly, many churches are seeking ways to forsake their monastic environments and offer a new image to those outside their walls. Some churches are seeking to improve their images, change their methods, and, thus, amplify the volume of the message they preach (Barna, 1992; Kelley, 1972). Churches are discovering that the environments in which they assemble significantly influence their image (Wagner, 1979). A church environment consists of many significant variables such as size, staff, atmosphere, and tasks (Maloney, 1989; Moos, 1976; Wagner, 1979). Churches do not currently have access to an assessment instrument specifically designed for churches.
that will measure a church environment and permit desired changes based on reliable information (Maloney, 1989). This study seeks to fill the gap by developing a reliable and valid assessment instrument that measures the environment of churches. The instrument to be developed is called the Assessment of Religious Contexts (ARC).

**Research Problem**

**Statement of Purpose**

The purpose of the present research is to develop an instrument, the ARC, that will identify and measure significant variables in a church environment. This study will analyze the reliability of the ARC and perform an initial validation study of the instrument.

**The Need for Environmental Assessment**

**Assessment of Task Outcome and Image**

Barna (1992) surveyed a sample (N=1,064) of the general population regarding the image of various denominations. He found that only 29% responded that they had a very favorable impression of the Baptist denomination. The Baptist denomination, at 29%, had the highest rating of any denomination in the survey. Thus, Barna's survey found that approximately seven of 10 adults had at least some reservations about the public image of the Baptist denomination. Barna's study contrasted the image of several
denominations with the American Cancer Society. The American Cancer Society had a 63% very favorable rating among those surveyed. Concerning those who did not identify themselves as Christians, he found that 91% said that churches were insensitive to the needs of those outside the faith. In a separate but related survey, Barna (1993) found that 27% of church members had changed churches in the past five years (N=1,064). Between 1991 and 1993, Barna (1993) found a 15% decrease in those adults who identified themselves as Protestants.

Thus, Barna concluded that the general adult population had reservations about the image of churches. Those who did not attend church, often found it to be insensitive, and those who were attending church tended to move frequently (Barna, 1993). It might be said that those outside the church find the church environment cold and that those inside the church are changing churches frequently to find a more fulfilling environment. The works of Barna (1992, 1993) are indicative of the questions with which churches and denominations are wrestling. What are people looking for in a church? Where will the next generation of clergy come from? What are the factors that cause churches to grow or decline?

Assessment through Reliable Methods

Such questions whetted an appetite within many churches for reliable information (Wagner, 1979). Yet, a minimal
source of research instruments from which to harvest information is available. A few denominations, like the Foursquare denomination (Hayford, 1995), attempted to create instruments to analyze the strength of a local congregation. However, data gathered by denominations have often suffered from unreliability either because of poor quality research designs or testing bias (Roozen & Carroll, 1979). An example of a poor quality research design is displayed from the Foursquare instrument that seeks only the responses of pastors to rate their own congregations. One person's perspective of the environment is insufficient to assess the social organization's climate (Veitch & Arkkelin, 1995). Further, the person giving the information often has significant reason to portray the environment in a biased manner (Anastasi & Urbina, 1997). A pastor might describe the environment too favorably, to show how well he's doing. On the other hand, he may portray a church unfavorably, to show how poorly the last pastor performed.

Environmental assessment is one area of research that fits remarkably well with the type of information that churches desire. Environmental research may provide information to churches that would guide them through the process of change. Although environmental instruments have been available since the mid-1970s, little research has been done in churches. The purpose of this thesis is to create an instrument, similar to other environmental
assessment instruments, that will assess a church environment and supply important and desirable information to local churches (Moos, 1976).

Assessment to Fill a Void of Information

The ARC will extend current research and apply environmental assessment procedures to the church. One existing assessment problem is how different people perceive a church environment (Murren, 1990). Significant differences between cohort groups and racial groups often result in differing perceptions of a church environment. Further, the perceptions of paid staff and members may differ about the climate of the church. Information on the way that visitors experience a church setting is also highly valuable to congregations. An assessment instrument will supply helpful and desirable information between denominations and congregations. Thus, the ARC may supply useful information, on many levels, of a congregation's social context.

Limitations of Previous Research Attempts

General problems in denominational research instruments and diagnostic tools were outlined by Roozen and Carroll (1979). They warned about the problematic nature of the manner in which denominations gathered statistics. Denominational research may suffer from several biases. One significant bias stems from inflated membership numbers in denominations (Hadaway, Marler, & Chaves, 1993; Hadaway,
Marler, & Chaves, 1998; Smith, 1998). One study estimated that approximately 10% of members reported in denominational statistics are no longer members of the church or denomination (Hartman, 1976). Hadaway et al. (1993) estimated that the regularly accepted percentage, 40%, of church attendance rates in the U.S. were double the actual rate. Another significant source of error in denominational and church studies emanated from a lack of control for a population increase (Roozen & Carroll, 1979). Raw numbers were reported for denominational attendance and were not adjusted for a population increase. While numbers have declined minimally since 1965, this represented a significant decrease in percentage when factoring in population growth during that same period. These concerns support the need for a valid research instrument that will enable denominations, pastors, and lay people to evaluate whether they are achieving the kind of community to which they aspire.

**Call for Scholarly Research**

This lack of reliable research has led to a call for the development of "ecclesiologists" (Wagner, 1979). Wagner (1979) defined an ecclesiologist as "a professional who has the aptitude, training, and experience to help a specific church or a cluster of churches with their health problems" (p. 286). More importantly for the purposes of this study, Wagner noted that the first step was to develop objective
means for measuring the health of churches. Attempts to produce ecclesiologists have been hampered by the absence of supporting validity and reliability studies to the diagnostic tools available (Wagner, 1979). This void means that: (a) little basis exists for determining whether the results of such a survey are accurate; (b) inferences about the church or pastor may be invalid; (c) the changes introduced into the environment may significantly harm the church membership; and (d) changes that local church leaders make to improve their church cannot be properly evaluated.

The ARC will fill a needed gap in church studies by providing a valid and reliable instrument for denominations and researchers to use. Scholars from different fields have called for development of such an instrument since the late 1970s (Wagner, 1979; Wicker, 1979a). To have accurate measures for a church's environment, it is important to have operational definitions for the basic terms in a study. The next task is to set forth some operational definitions for the ARC.

**Operational Definitions**

Three important concepts are defined to establish a working definition of what the ARC is measuring. These three concepts are a church, environmental assessment, and social climate.

**Church**

A church is an aggregate of people, creating and
interacting within both a physical and psychological environment (Moos & Moos, 1994; Moos, 1994). When discussing a church, a local assembly or congregation is meant and not the invisible, spiritual, universal Church. Within the local church environment, a church has a hierarchical structure, a proposed mission, strategies to accomplish the desired tasks, and a desired change in themselves and others (Drucker, 1990; McPhee & Corman, 1995). Drucker (1990) has noted that the term "nonprofit organization" is a misnomer that stifled volunteer organizations. He identified the common task of these volunteer organizations was to make significant change in the environment through volunteer change agents. One implication for a church is that two clients can be identified. The first client is the recipient of change, and the second client, a church participant, is a volunteer change agent (Drucker, 1990).

**Environment**

Environment describes both the physical and psychological context of behavior (Anastasi & Urbina, 1997). Environmental assessment provides a means by which an organization can draw inferences regarding whether the organization's targeted group is reached, whether the desired changes in the environment have occurred, and whether the desired outcome has been achieved (Finney & Moos, 1984). The assessment of the environment seeks to
measure the impact of the environment on the individual and the group, studying the nature of the group as if it were an individual (Moos, 1976). The specific environment that the ARC seeks to assess is the interaction between church leadership and church membership, the interaction between church attendees, and the interaction between church attendees and the physical church environment.

**Social Climate**

Social climate refers to the location of organizations within larger systems (Finney & Moos, 1984). The notion that any organization or environment is isolated from other organizations has been revised in recent years (Finney & Moos, 1984). There is an interdependent relationship between people and their environments, and on a larger scale, between organizations and their environments (Veitch & Arkkelin, 1995). The concept of a social climate identifies environments and organizations as possessing an identity capable of being assessed in the same manner as personality (Moos, 1976). Moos has identified three major characteristics of these environmental personalities. One characteristic called, the relational dimension, involves the supportive and conflictual nature. A second trait, called the growth dimension, entails the autonomy, leadership, and task properties. A third element called, the system maintenance dimension, comprises components of order, control, and change. Similarly, Kelley (1972) also
identified three traits of churches: goals, controls, and open communication. For Kelley, goals represented the purposes of the religious organization. Controls identified the sanctions imposed by the organization. Open communication related to the flow of information from a church. Prior to discussing the development of the ARC, some background to environmental assessment of a church is necessary.

**Background to the Problem of Church Assessment**

While church leaders and researchers were attempting to develop a sense of community or identify characteristics of large churches, they displayed little cognizance of the work of Wicker or Moos. Wicker (1969, 1979a, 1979b) discussed the person - behavior fit of manning levels in churches. He proposed further research at both macro and micro levels of church structures to identify and understand the relationship between significant variables and satisfaction. He also suggested developing a theory of the life cycle of important institutions and the manner in which they adapt. Wicker (1979a) said,

A second, related way that ecological psychologists could contribute to the understanding of communities and institutions is by studying the life cycles of important behavior settings - the circumstances that bring settings into being, the ways settings adapt to changing external conditions and the factors that
contribute to their eventual demise (p. 758).

Moos (1994) and his associates developed instruments to measure such diverse environments as classrooms, work areas, and families. These instruments, discussed in the literature review, sought to describe the perceptions of the individual within the context being measured (Moos & Moos, 1994). However, in all these diverse instruments, no one has yet extended the theories of environmental study to the development of an instrument to assess a church environment. Those who wish to study a church's environment have resorted to adapting the Group Environment Scale (GES) (Moos, 1994) or developing their own unvalidated survey (Maloney, 1989). The absence of an assessment instrument presents a major obstacle for the research of church environments (Wagner, 1979), an obstacle the ARC seeks to overcome.

The Importance of Environmental Assessment Church Research

The ARC will provide an important environmental assessment research instrument for churches. Presently, religious denominations and church growth institutes are working on defining successful church characteristics apart from the developments in environmental assessment (Hayford, 1995; Wagner, 1979). An example of the importance of environmental assessment studies came from the studies of Wicker (1969), who found that the size of staff, the availability of volunteers, and the number of activities...
necessary to maintain the church vision can be used to predict the satisfaction of members. However, this theory has been extended to churches only in the doctoral dissertations of Maloney (1989) and Stocks (1982).

**Specified to Individual Environments**

Environmental assessment is not something in which one size or one instrument fits all (Moos, 1976). From the side of environmental assessment, Moos and others have developed a number of assessment instruments for various environments (Finney & Moos, 1984). They have not, however, developed an instrument for churches. In each of these settings he believed that a specific test should measure the environment. Clearly, this supports the notion that a church ought to be measured with a scale of unique design and intention.

**Importance of Church Environments**

Churches are an important part of the fabric of society and of personal and family life (Moos, 1976). Moos and Moos (1994) found religious functioning to be so important to a family that in the Family Environment Scale, the Moral-Religious Scale is devoted to assessing this variable. From the church growth studies, properties have been identified that are likely to produce quick growth or significant size but they have not identified variables related to the individuals involved in churches (Hoge & Roozen, 1979).
Conclusion

The ARC will provide an important instrument for both church leaders and researchers of environmental assessment. It would appear that an assessment instrument measuring a church environment might draw upon the foundation of other environmental assessments and be specially designed for a church environment. The ARC will facilitate open communication between researchers in churches and environmental assessment.
Chapter II

Literature Review

Environmental Assessment

Environmental assessment describes an area of research that investigates both the physical and psychological aspects of the environment in relation to behavior (Veitch & Arkkelin, 1995). The basic tenet of environmental assessment was formulated by Lewin: "In principle, it is everywhere accepted that behavior (B) is a function of the person (P) and the environment (E), B=f(P,E) and that P and E in this formula are interdependent variables" (Lewin, 1951, p. 25). Thus, the heart of environmental assessment and environmental psychology is to understand the interaction between behavior, the person, and the environment (Veitch & Arkkelin, 1995). A person acts within the context of his or her environment. That environment includes a family, school, work, church, and community. As a person interacts within these different environments, they change the environment with their actions. The environment also influences individuals as well. Environmental assessment attempts to understand the reciprocal interchange
between a person and the environment. Various theories have been proposed to describe the formula $B=f(P,E)$. Four theories, central to the development of the Assessment of Religious Contexts (ARC), are described below.

**Theories of Environmental Psychology**

Several basic theories were developed in environmental psychology to describe the relationship of behavior, person, and environment (Moos, 1976). These theories can be grouped as ecological theories, arousal theories, behavior constraint theories, and social ecology theories. Attempting to describe all interactions in an environment is impossible (Moos, 1976; Veitch & Arkkelin, 1995; Wicker, 1969). These theories have in common that they identified certain variables as important across different environments and sought to understand their relationships to behavior, person, and environment.

**Ecological Theories**

Ecological theories are the broadest theories in the discipline of environmental psychology (Veitch & Arkkelin, 1995). Ecological theories studied the ability of the individual to fit into the environment in a congruent manner (Moos, 1976; Moos & Moos, 1994). Ecological theories conceptualized the relationship between people and the environment from seven trends that extend across a variety of academic disciplines and ranges from the rise of civilizations to the study of physical space and ecology.
(Veitch & Arkkelin, 1995). Ecological theories also included behavior constraint theories described below and can include numerous variables.

**Arousal Theories**

Arousal theories examine the relationship between arousal and performance (Katzell & Thompson, 1990; Wagner, 1979). Arousal may be described as the motivation or mobilization that an individual experiences in an environment, $P$ in the equation $B = f(P,E)$. Performance describes the outcome of the person's behavior, $B$ in the equation $B = f(P,E)$. It is theorized that as arousal increases in an environment that performance also increases. However, some theories suggested that a curvilinear relationship exists between arousal and performance. A curvilinear relationship suggests that past a crucial point, although arousal increases, performance diminishes (Veitch and Arkkelin, 1993).

**Behavior Constraint Theories**

The central issue behind behavior constraint theories is an individual's perception of control of an environment (Veitch & Arkkelin, 1995). If the environment is perceived to be out of control, the individual, through his or her discomfort, seeks to reassert control of the environment. If the person is unable to have perceived control of the environment, feelings of helplessness, depression, and
anxiety can result.

Barker (1968) and Wicker (1969) applied the concepts of control and discomfort to church environments. They identified that when a church is out of balance between the available staff and volunteers and the work to be done that different problems occur in a church environment. In some environments, members reported fears of a church being out of control along with feelings of helplessness and anxiety (Barker, 1968; Wicker, 1979). In other environments, individuals often reported that they contribute nothing to an environment or church (Wicker, 1979).

**Social Ecology: A Synthesis of Theories**

Moos (1976) described his social ecology approach as drawing on the previous theories and yet distinct from previous attempts including ecological theories. His first distinction was attempting to understand the environment from the perspective of the individual. Previous theories identified the group, culture, or civilization as the basic unit of study. In Moos' theory, the individual was the basic unit of study. A second distinction of Moos' work was that it looked at the environment in an integrated fashion. The environment was viewed in a broad biopsychosocial fashion as though it had a personality that can be measured (Moos, 1976).

Four general theories have been presented that theorized about the person environment interaction. These
four theories (ecological, arousal, behavior constraint, and social ecology theories) identified different factors as important to different environments. Though some of the factors were already mentioned briefly, it is important to identify factors that appear to be relevant for study across different environments.

Identified Factors for Environmental Assessment

This section identifies factors in environmental assessment that appear from the research literature to be important for study in the person - environment interaction, \((P,E)\). The first part of this section focuses on the factors that seem important in general environmental assessment. The second part focuses on factors that are identified from environmental assessment to be applicable specifically in a church environment.

Factors identified in the Social Climate Scales

Moos (1976) suggested that an environment may be assessed in a manner similar to personality. He developed a large body of research on environmental assessment that aims to measure the personality of different kinds of environments such as classrooms, groups, and families. Moos identified three important dimensions in assessing the personalities of environments. These dimensions were relationship, personal growth, and system maintenance.

Moos' (1976) work resulted in the Social Climate Scales (SCS). The SCS consisted of several specific instruments.
that measure distinct environments. Whereas Moos believed distinct environments ought to have a unique instrument, he asserted the crucial factors across environments can be described as falling into three major dimensions. The first dimension, the relationship dimension measured the supportiveness and the conflictual nature of the environment. Moos (1976) concluded, "People are more satisfied and tend to perform better when the relationship areas are emphasized" (p. 350). The relationship dimension sought to identify the nature and intensity of the relationships making up the social climate (Finney & Moos, 1984). The relationship dimension consisted of several factors including cohesion, support, expressiveness, and conflict (Moos, 1994; Moos and Moos, 1994).

The next important dimension was the personal growth dimension (Moos, 1976). The personal growth dimension included such factors as self discovery and task orientation. This variable sought to identify the direction and goal in which individuals are encouraged to develop (Finney & Moos, 1984). Assessments in this dimension sought to measure members' perceptions of productivity and impact outside of the cohort environment (Moos and Moos, 1994). Other characteristic factors in the personal growth dimension were autonomy and responsibility (Moos, 1976).

The final dimension, system maintenance, described order, control, and clarity of function (Moos, 1976). The
maintenance dimension described how satisfactorily the environment is being perceived by the participants or how well the participants fit into the environment. When there was order in the environment, people were clear about the expectations placed upon them and they knew how to act. They felt in control of the environment (Moos, 1976). Members felt constrained and out of place in environments with arbitrary and inflexible control. Rigid control raised individuals' stress levels and they sought information to alleviate their anxiety. Often in rigid environments, information seeking was constrained and people's attempts to alleviate stress were ineffective (Moos, 1976).

**Family and Group Environment Scales**

The two environmental assessment instruments of the SCS most germane to the development of a church instrument are the Family Environment Scale (FES) and the Group Environment Scale (GES) (Moos, 1994; Moos and Moos, 1994). The FES is the most widely researched and reviewed Social Climate Scale (Moos & Moos, 1994). The FES was designed to describe the atmosphere in a family. It described families as nurturing or having significant conflict. It sorted families into groups according to the manner in which personal growth is achieved. The goal of the FES was to describe the ability of a family to adapt and predict the sense of well being among its members (Moos & Moos, 1994).

Similarly, the GES had as its goal to describe the
personality of different types of groups (Moos, 1994).
Again, the GES assessed levels of cohesion, task
orientation, leadership, and order. The GES manual did not
give typologies of groups but was designed to highlight key
variables in group development. For the GES, the
relationship dimension included the three subgroups of
cohesion, leader support, and expressiveness. The personal
growth dimension included independence, task orientation,
self-discovery, and anger and aggression. The last
dimension, system maintenance, measured order and
organization, leader control, and innovation.

Summary of Factors Present in Social Climate Scales

From Moos' work on the SCS, several major variables
might appear to be important to measure in a church
environment: cohesion, task orientation, open communication,
anger and aggression, innovation, self-discovery, and order.
It appeared that the construct of cohesion was preferable to
the leader support construct because it seemed to give
greater breadth of assessment in a church environment.
Members may find supportiveness from other members as well
as the church leaders. In fact, in larger church
environments, direct contact with pastors may be minimal but
people might experience cohesion in the environment from
other members. Task orientation appeared to be the primary
factor in the personal growth dimension when assessing for a
church environment. Finally, order appeared to be an
important factor to study from the system maintenance
dimension of the SCS. Other types of environments may
contribute important factors to assess in a church
environment through a review of the literature.

No Social Climate Scale has been developed for a church
environment. A church environment is a suitable and an
important environment to be studied (Moos, 1976). In
support of the assertion, Moos included an analysis of the
utopian church community of Oneida, incorporating all of the
theories he used to develop the SCS. Thus, Moos had some
interest in assessment of a church environment. This
information is essential, as Bonhoeffer (1937/1960) has
said, to facilitate Christians living out their Christianity
in the world and not apart from it.

Factors Identified in Other Environmental Assessments

While not as broadly based as the SCS, several research
studies have identified important factors in other
environments that might be important to assess in a church
environment. Mudrack (1989) assessed the nature of
cohesiveness in environmental assessments and found
cohesiveness to be an important factor in environmental
assessment. Katzell and Thompson (1990) identified task
orientation and open communication as important factors in a
work environment. They found that both task orientation and
open communication were important factors to increase
performance. Innami (1994) identified open communication as
an important factor to measure in environments with regard to an organization's ability to make quality decisions. Dannemiller and Jacobs (1992) identified open communication as an important factor to assess organizational change and stability. These research studies corroborated several factors identified in Moos' work as important factors to assess. Moos (1976) reported that the factors of cohesion, open communication, and task orientation seemed important factors in environmental assessment. The next section will identify factors specifically identified as important in church environments.

Factors Important for Study in Church Environments

From an ecological theory, Kelley (1972) studied the environment of a church and identified three important factors for measurement. The three dimensions identified by Kelley were goals, controls, and open communication, Table 1. Goals identified the tasks and directions of a church environment, controls were the ways in which the church was maintained and organized, and open communication focused on the flow of information in a church environment.

Cohesion has been identified as an important factor to measure in a church environment (Maloney, 1989; Stocks, 1982). Maloney studied cohesion in churches of different sizes. He found that, regardless of size, cohesion was present in church environments and it was related to satisfaction in all church environments. Stocks (1982)
researched the presence of cohesion in a large church. He hypothesized that members with small group involvement would report greater cohesion than those without small group involvement. However, he found cohesion present among members who were not participating in small groups. He found cohesion to be an important factor to measure.
Wicker (1979b) conjectured that both cohesion and task orientation were important factors to assess in church environments, Table 1. He theorized that a balance needed to be found in church environments between cohesion and task orientation for a church to be an effective organization. Maloney (1989), following the work of Wicker, also studied task orientation in a church environment. He suggested that goal directedness is an important factor in a church environment. McPhee and Corman (1995) identified open communication as an important factor to measure in a church environment. They sought to study the networking capacity of churches to identify factors of performance in correlation to the presence of the factor of open communication.

Drucker (1990), studying church environments, found that three factors were important in a church environment. He found that open communication, task orientation, and order were important factors. He theorized that without these three variables, the church could not connect volunteers with the new individuals who were potential members for the church.

Wagner (1979) suggested that the pastor is the single most important factor in a church environment. He believed the pastor's ability to communicate, build a team with a consistent vision, instill order, and maintain a sense of community was necessary for a church environment. Wagner
identified four factors that are necessary for a Pastor to create in a church environment, Table 1. The four factors are cohesion, communication, vision or task orientation, and order.

Besides the areas of goals, controls, and open communication, Kelley (1972) identified a factor that he labeled conservative as the most important factor in a church environment. Several others have followed his lead and have contributed to a theoretical discussion of the presence of a factor labeled either conservative or strictness, Table 1. Others that have proposed that strictness is an important factor in churches are: Hoge and Roozen (1979); Iannaccone (1994); Roof, Hoge, Dyble, and Hadaway (1979); and Roozen and Carroll (1979). In all of these discussions, the factor of strictness in a church environment has been viewed as the primary factor for church growth and decline. The issue was not without those who questioned the role of strictness (Marwell, 1996).

Schaller (1984) studied church environments beginning with distinctions about the manner in which different size churches operate. Schaller identified seven different developmental sizes of churches ranging from the small independent church to the large mini-denomination. Schaller considered the crucial variables in a church environment to be cohesion, task orientation, and open communication. Small churches, he believed, experience high cohesion and
lower task orientation. As a church grows through different stages, open communication is necessary to facilitate the changes in environment. Large churches and mini-denominations, churches over 350 members, appeared to Schaller to be high in task orientation. He theorized that the role and nature of cohesion changes, but is present in large churches. Implicit in Schaller's typology of churches was the importance of order as a factor. Schaller advised churches to identify and assess order in the environment as necessary to facilitate positive change.

**Summary of Church Environment Factors**

Summarizing the results of the literature review thus far, it appears several factors are emerging from the research as important to assess in an environment. Supportiveness or cohesion has been identified by Maloney (1989), Moos (1976), and Moos and Moos (1994) as an important variable. It appears from the research that cohesion might be an important variable to measure in a church environment. Cohesion appears to be evident in both large and small churches and it appears to be related to important outcome variables such as satisfaction and attendance. Cohesion might be an important and desirable variable to measure in a church environment, just as it is an important variable in such environments as therapy groups, work environments, and athletic teams. Pastors and church leaders might like to have a measure of cohesion in
their environment as a resource for church development.

Open communication has been identified as important in environmental assessment by Moos and Moos (1994). Independently, it has also been identified as an important factor by Katzell and Thompson (1995) and Kelley (1972). Salas, Rozell, Mullen, and Driskell (1999) found a significant correlation between open communication in work environments and performance. Open communication appears to be a desirable and important variable to measure since communication seems to be an important variable in all social environments. Furthermore, it appears that open communication has an important correlation with performance and decision making abilities in groups. Church leaders, often faced with important decisions, might find a measure of open communication helpful in improving or maintaining communication around the decision making process in a church environment.

Strictness has been identified by Hoge and Roozen, (1979), Iannaccone (1994), Kelley (1972), and Roozen and Carroll (1979) as an important variable in a church environment. Strictness was reported to be correlated with attendance, new membership, satisfaction, and involvement. These correlations seem to be important in church environments and might be important to pastors and other church leaders. Additionally, theorists have made significant claims based on unsubstantiated correlations

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with Strictness. A measure of strictness might be profitable for future church research.

Task orientation has been identified by Katzell and Thompson (1990), Kelley (1972), Moos and Moos (1994), and Wagner (1976) as an important variable. Task orientation might be important for inclusion in a study of church factors because churches often have goals that they wish to achieve. Task orientation might be helpful both in measuring performance towards a task and in helping church leaders delineate practical steps for achieving their goals. Outcome variables often related task orientation to both satisfaction, performance, and involvement, variables that may interest church leaders. Task orientation might also be an important variable to measure as a church develops through several stages of growth.

Order has been identified by Maloney (1989), Moos and Moos (1994), and Wagner (1976) as an important variable. Pastors and church leaders might find a measure of order important for measuring in a church environment as a means of including new members and organizing existing members. Another reason that order might be desirable to church leaders is that order is often correlated with satisfaction and performance in social environments.

From the literature, five factors seem to be of interest for further study and analysis in a church environment. It might be that the five factors of cohesion,
open communication, strictness, task orientation, and order are all important and desirable variables in a church environment. It appears that these five factors are desirable to church leaders for the information that might be gained. Further, these factors appear to be important in a church environment and desirable for the correlations to several outcome variables such as satisfaction, performance, and attendance.

Analysis of Five Factors

Thus a review of the literature identified five factors as important in environmental assessment: cohesion, open communication, strictness, task orientation, and order. This section of the literature review will demonstrate the support which exists for each of these five factors. It will adduce how each appears to be a significant and essential contributor to a church environment. It will also examine other social environments to see if the factors listed above appear to be essential contributors in similar environments.

Cohesion

Definition

Cohesion has been defined as the attractive quality of a group upon the individual members (Evans & Dion, 1991; Mudrack, 1989; Mullen & Copper, 1994; Yalom, 1995). A
highly cohesive group exerts an attractive force upon its members to attend meetings, participate in group goals, and identify with the group (Mullen & Copper, 1994).

Two major terms are provided by the New Testament which identified constructs similar to cohesion. The first term, ekklesia, εκκλησία, translated "church," contributed a vivid description of the powerful attraction among members of a local congregation (Bauer, Arndt, and Gingrich, 1957). The second construct is fellowship or koinonia, κοινωνία, (Bauer, et al., 1957). Fellowship was often used to mean the taking of communion and described the sharing and participation between members (Barth, 1955/1958). Church and fellowship explicitly described the gathering of believers in a cohesive fashion and highlighted the theological importance of cohesion in a church environment (Bonhoeffer, 1937/1960).

Cohesion and Church Environments

Along with the theological constructs of cohesion, many ecological researchers have identified cohesion as an important variable in a church environment (Maloney, 1989; Schaller, 1984; Stocks, 1982; Wicker, 1969). Maloney (1989) and Wicker (1969) sought to show that the larger a church grew in attendance the less cohesion or attractiveness was experienced by church members. Wicker theorized that cohesion was an essential element for a church to grow in size. He found that churches low in cohesion did not
attract or receive commitment from new members. Thus, Wicker believed that churches lower in cohesion lost their vibrancy. A corollary of Wicker's was that as churches grew, the perceived cohesion among members dropped until churches grew to a level of stagnation. Substantiating his corollary, Wicker found that the larger a church grew, the less cohesion was present among its members. Maloney (1989), building upon the work of Wicker (1969), studied cohesion and other factors in variously sized church environments. Maloney found cohesion to be the single largest contributor to satisfaction among members in a church environment but did not find any significant difference according to church size, but the church sample he used may not have been sufficiently diverse to have substantiated the relationship between size and cohesion (Schaller, 1972). Maloney (1989) found a significant difference in cohesion and satisfaction in the smallest church he studied. Maloney recommended further research before any conclusions be drawn from his results. According to Maloney (1989), Schaller (1972), and Wicker (1979), cohesion is the most important factor for church development. Maloney (1989) and Wicker (1979) held that cohesion decreases as church size increases. Schaller (1972) theorized that churches must adjust at different developmental levels to refashion cohesion and restructure a church environment.
Stocks (1982) studied a mini-denomination church environment, 1400 average Sunday attendance. Stocks identified cohesion as a crucial factor in a church environment. He hypothesized that those church members who also participated within a church-sponsored small group would perceive a stronger sense of cohesion toward their church than those who did not attend a church sponsored small group. However, Stocks did not find a significant difference in the cohesion levels between members who attended a small group along with church services and those who attended church services only.

In the previous studies, cohesion was identified as the most important variable to improve a church environment (Maloney, 1989; Schaller, 1972; Stocks, 1982; and Wicker, 1969). These researchers have manipulated several variables to see how an increase or decrease in cohesion effects churches of various sizes. They all concluded that increasing cohesion increased member's satisfaction in a church environment. Further, they found cohesion to be the single most important variable in a church environment.

Cohesion and Other Social Environments

Cohesion has also been found to be an important element in a social climate (Moos, 1976). Moos, developer of the Social Climate Scales, found cohesion to be highly important in measuring a social environment. He stated that cohesion occurs in every social climate and reflects the amount of...
involvement individuals have with the social climate. Hartsough and Davis (1986), during a study of social climate, conducted a factor analysis of the Group Environment Scale (GES) and found the most important element measured by the GES was cohesion. Moos (1994) interpreted the results of this study to mean that, whereas different social climates might accentuate a different combination of factors, cohesion would be the one constant and essential factor.

Two published studies, Evans and Dion (1991) and Mullen and Copper (1994), have used meta-analytic methods to examine the relationship between cohesion and performance across a wide range of environments. Evans and Dion (1991) conducted a meta-analytic study of the relationship between cohesion and productivity and included 372 studies. Evans and Dion concluded that a strong positive relationship exists between cohesion and performance. The corrected effect size that Evans and Dion found was .42. They concluded that cohesive groups outperformed non-cohesive groups.

The second meta-analytic study was conducted by Mullen and Copper (1994). They analyzed 66 studies with measurable effects, differentiating between experimental and correlational studies. The authors maintained that different operational definitions of cohesion were used in the two types of studies. For 43 correlational studies,
Mullen and Copper reported a small, positive effect ($r=.25$). In 23 experimental design studies a positive, yet, smaller effect was seen ($r=.22$). Mullen and Copper (1994) concluded, "...these analyses have documented that the cohesiveness-performance effect does, in fact, exist to a highly significant degree" (p. 222). Thus, both the meta-analytic studies conducted by Evans and Dion (1991) and Mullen and Copper (1994) consistently showed a positive and decisive relationship between cohesion and performance.

Another research area that relates to cohesion concerns whether or not it is a therapeutic factor within groups (Yalom, 1995). Yalom defined a therapeutic factor as a change-producing element in a group experience. Yalom elevated cohesion above all other factors and considered cohesion as foundational to change.

Tschuscke and Dies (1994) studied the effect of several therapeutic factors mentioned by Yalom (1995) and the outcome of group therapy. They found a direct linear relationship between cohesiveness and group outcome and that cohesion had the highest relationship with outcome of any of the therapeutic factors.

Budman, Soldz, Demby, Davis, and Merry (1993) found that the therapeutic effect of cohesion varied according to the different stages of a group. In studying group development, they found that cohesiveness was most important for a positive outcome in the early stages of group therapy.
In assessing a church environment, these findings suggested that cohesion may have an important effect upon a church's development.

Cohesion has also been found to play a significant role in athletic endeavors. Brawley, Carron, and Widmeyer (1993) studied the effect of cohesion on community college athletic teams. They found a direct relationship between the level of cohesion on the team and the ability of the team to set common group goals. Similarly, Spink and Carron (1993) identified cohesion as an important factor in exercise classes. They found cohesion affected the variables of absenteeism, dropout, early departure from class, and late arrival. This research suggested that the presence of cohesion in a church environment may result in greater participation of members in church services and other church activities.

Summary

The foregoing discussion demonstrated that cohesion is a desirable factor in a church. The theological definition of a church was based on terms founded in the construct of cohesiveness (Bauer, et al., 1957). Cohesion has been studied for its effects on large and small groups and leadership (Maloney, 1989; Stocks, 1982). Cohesion was found to be a positive element in a church environment, whether in a large or small congregation (Stocks, 1982). Further, cohesion was expressly stated to be the
precondition for change in a wide range of group environments, (Moos, 1994; Yalom, 1995). Meta-analytic studies of groups identified cohesion as an important variable with a positive relationship to group goal outcomes (Evans & Dion, 1991; Mullen & Copper 1994). Further, cohesion generalized across all social climates. These results indicated cohesion could be an important variable to be assessed in a church environment.

There are also some indicators that a measure of cohesion would provide useful information specifically to ministers and others interested in church environments. As cohesion has been held to be an important variable for satisfaction in a church environment, ministers and denominational leaders might be interested in an instrument that measures member perceptions of cohesion. Cohesion is likely to be a variable that directly measures those forces that attract individuals to church services. It appears from the previous research that an instrument that measures cohesion in a church environment will greatly assist ministers, researchers, and denominational leaders. Ministers might be interested in the relationship between cohesion and satisfaction, as suggested by Maloney (1989), Moos (1994), and Stocks (1982). Cohesion might also be significantly related to involvement and performance. This relationship was suggested by Evans and Dion, 1991; Kelley (1976); Mullen and Copper (1994); and Stocks (1982).
Finally, ministers might be interested in the relationship between cohesion and attendance (Brawley, et al., 1993; Spink & Carron, 1993).

**Open Communication**

**Definition**

Open communication has been defined as a measure of the freedom of action and freedom of expression in a group (Moos, 1994). Moos' Group Environment Scale (GES) was designed to measure both the amount of freedom of expression and the environmental constraints or supports to freedom of expression within the context of a group setting. It also sought to identify members openness of expression.

Open communication was identified as an important element in a church environment according to theological studies (Barth, 1955/1958). Communication is essential to ministry. An important term that identifies the importance of open communication in a church environment is the term, reconciliation. The term reconciliation is described as the open communication necessary for resolving conflict. Reconciliation, therefore, describes the process of initiating and opening communication, extending forgiveness, and resolving differences.

**Open Communication in Church Environments**

Turning to the measurement of open communication in a church environment, Maloney (1989) found that open communication was a major discriminating factor between
parishioners' satisfaction within a church, irrespective of church size. He also found, contrary to the predicted hypothesis, open communication increased with an increase in church size.

Stocks (1982) also studied the relationship between open communication and satisfaction. While he did not find a significant difference between group membership and satisfaction, he found a significant relationship between open communication and belonging. Belonging was highly correlated with satisfaction in his study. For Stocks, the ability of church members to express themselves openly built a sense of belonging within a congregation. This sense of belonging that is strongly related to open communication translated, in Stocks' research, into significant member satisfaction.

Drucker (1990) has been an advisor to churches and nonprofit organizations and is considered by many to be an expert in the field of nonprofit organizations and church management. Drucker advised church governing boards to reflect on unanimous decisions. He argued that if no conflict is present in leadership decisions, then either those who think differently from the group are being intimidated or the group is making a rash decision. He advised church boards to value open communication of differences because it demonstrates a higher quality of decision making.
Open Communication in Other Social Environments

Moos (1976) identified open communication as an important variable to be measured in any social climate. Moos noted that open communication affects both the ability of individuals to relate to one another within an environment and to experience the environment as facilitating personal growth. Moos (1976) reported honest communication fosters satisfaction in supportive environments. Moos further suggested that participants in various social climates seem to report a rise in satisfaction when they are able to express their own thoughts and feelings. Structured feedback was especially important to enhance cohesion and satisfaction early in the development of a group (Moos, 1994). Moos also found that communication mixed with both positive and negative comments produced higher satisfaction within groups. He presumed that mixed communication is more credible.

Other researchers found support for open communication as well. Burningham and West (1995) concluded open communication was a significant variable for innovation in work teams. They measured the ability of individuals to offer suggestions in work teams without recrimination. They found that the more expressive the environment, the more productive the work teams became. Salas et al. (1999) also found a small but significant relationship between open communication and performance.
Conflict was found to have a curvilinear relationship to quality decision making by Innami (1994). Conflict is an important form of open communication stimulating productive reasoning and creativity. It was reported by Mullen, Anthony, Salas, and Driskell (1994) that the presence of conflict prevents a phenomenon labeled Groupthink. Groupthink was reported by Mullen et al. as an absence of expressiveness resulting in poor decisions. However, according to Innami (1994), the open communication of conflict resulted in participants becoming invested in their position. Once participants become invested in their positions, conflict begins to denigrate the decision making process.

Regarding conflict in groups, Yalom (1995) affirmed, "the emergence of hostility towards the therapist is inevitable in the life sequence of the group" (p. 304). Yalom ascribed some rising hostility to a magical quality that group members ascribe to a leader. From Yalom's theory, it may be hypothesized that conflict in a church environment is inevitable. Measuring conflict seems to be important to identify whether the conflict is suppressed, accepted, or rejected. It also appears to be important to measure the level of open communication to investigate whether it is impeding the decision making process.

Gilmore and Barnett (1992) labeled a closed communication dynamic as "a failed dependency dynamic."
failed dependency organization is comprised of people who believe that someone very powerful has important information and is not telling. People can also become concerned with the belief that those in power could achieve certain goals and are not choosing to accomplish those goals. One of the characteristics of an effective large group is the freedom of individuals to come to find their own mind and voice.

**Summary**

The above research suggested that open communication is also an integral component of a church environment. Communication between the pastor and the congregation was considered to be an essential element of a church environment. Wagner (1979) considered open communication to be an important variable in a church environment. Open communication in a church environment has been measured by both Maloney (1989) and Stocks (1982), who found that open communication was an important variable for member satisfaction. Church leaders may also want information on whether participants feel that they can respond openly and be accepted in a church environment. These foregoing characteristics are supported as being essential to satisfaction, productivity, and group development (Gilmore & Barnett, 1992; Innami, 1994; Moos, 1994).

Furthermore, open communication was reported to increase productivity and group decision making according to Gilmore and Barnett (1992) and Mullen et al. (1994). Open
communication might have an important relationship with the involvement of members and staff, especially when the dynamic of Groupthink is considered. Therefore, open communication might provide important information for pastors and church leaders and it might be valuable for the ARC to measure.

Strictness

Definition

Iannaccone (1994) used the concept of strictness to describe a quality of absolutism in leadership that reduces the number of non-contributing members in a church environment. Other researchers have identified the factor of strictness, a rigid and authoritarian leadership style, under several different labels (Bass, 1990; Kelley, 1972). Iannaccone (1994) held that strictness is an important ingredient in a growing church because non-contributors detract from a church's strength. Iannaccone espoused, that while mainline denominational churches value dialogue, this value increases the number of non-contributors and detracts from church strength. Thus, denominational churches have not grown to the same extent as churches that demand more rigid and strict adherence to church policies.

Kelley (1972) used the term conservative and identified three elements of conservative leadership. Churches with conservative or strict leaders are dedicated to their goals, demanding in their commitment, and zealous in their
communication. These elements may mobilize members more efficiently than more tolerant church structures.

Another term that has been used to describe strict or conservative leadership is autocratic (Bass, 1990; Eckhardt, 1991; Lewin, Lippett, & White, 1939). Eckhardt (1991) defined autocratic leadership as a high energy style in which one individual has the power to decide. Bass (1990) listed some of the constructs for autocratic leadership as coercive, task directive, and structure initiating. To show how closely all of these concepts are related, intolerance is the essence of strictness to Iannaccone (1994) and conservative to Kelley (1972). The common denominators behind all of these definitions are a demanding, rigid, and decisive leader who is in control of the decision making process. The term strictness will be used as the label for this factor in the ARC.

**Strictness in Church Environments**

Strictness has been studied in churches to identify the rigidity and authoritarianism of denominations, congregations, and pastoral leadership style. Some researchers have differentiated between pastoral leadership styles, such as democratic or authoritarian, and other researchers merely identified that the pastoral role is an important factor in a church environment (Kelley, 1972; Roof et al., 1979). Iannaccone (1994) studied the strictness of various denominations by having 21 church experts rate the
strictness of various denominations according to a distinctiveness scale. The experts rated liberal mainline denominations as the least distinctive followed by moderate mainline denominations, evangelicals, and fundamentalists. Iannaccone replicated the findings with 16 new experts. Iannaccone found relationships between strictness and attendance, financial support, and membership. Interestingly, the same relationships are found in Jewish sects. Orthodox Jews, though having lower annual incomes, gave significantly more of their income to support the Jewish community than more liberal Reformed Jews.

Kelley (1972) correlated population statistics obtained from the Gallup poll with denominational reports of Sunday School attendance, membership, and income. He then applied these correlations to a common sense rating of strictness for various denominations. He found that those denominations rated to have greater strictness also have higher attendance, membership, and reports of income. Perrin and Mauss (1993) empirically tested Kelley's hypothesis with regard to a specific denomination, Vineyard Christian Fellowship. They found, consistent with Kelley's thesis, that the Vineyard's ability to mobilize members is based on both the social strength and social strictness of the denomination. However, those Vineyard members who had joined from denominations judged to be less strict, still rated their previous church as more strict. So, the
construct of strictness may differ between judges ratings and members perceptions. These findings suggest an assessment instrument measuring strictness in a church environment may be desirable.

Hoge, Johnson, and Luidens (1993) studied the factors involved in whether adolescents in the Presbyterian denomination continued to attend church. They found that the single most powerful factor predicting an adolescent’s continued church attendance was strictness of belief in adulthood. The more conservative the respondent’s belief, the more committed and involved respondents were to a Presbyterian church.

Roof et al. (1979) studied the factors associated with church growth. They did not distinguish between leadership styles but only studied factors relating to church growth. They found a strong relationship between the leadership style of the pastor and church growth. A pastor's leadership style was the third most important factor after satisfaction with the worship style and internal harmony in the congregation.

Maloney (1982) concluded that a supportive pastoral leadership style was important for a church environment. Because of the importance of pastoral leadership style, all of the implications derived from the study were directed to leaders and the style in which they managed a local church. However, Maloney’s results differed from previous results.
about strictness. He concluded that a supportive leadership style and not a strict or conservative leadership style was an essential element for church development.

Watson (1978), a theologian, argued from his theological perspective, that pastoral leadership style is essential to the development of a congregation. He encouraged pastors, based on Biblical exegesis, to adopt a lenient, democratic, and non-strict leadership style for the healthy development of a congregation. Again, from a theological perspective, advice was given to pastors regarding the importance of strictness and its effects on a congregation which contradict other published studies. The ARC might prove useful in supplying information that is desirable to guide pastors in leading their congregations.

Thus, pastoral leadership style, a pastor's strictness or tolerance, was regarded as an important environmental factor of a church. Evidence, however, was conflicting as to whether strictness or tolerance may be more beneficial to a church environment. Furthermore, parishioners' strictness level may be able to predict the likelihood of continued membership in a church or denomination. These studies demonstrated that strictness is an important variable to assess in a congregation.

Strictness in Other Social Environments

Moos (1994) identified the behavior of a leader as having an important influence on the environment of a group.
The leader supportiveness scale of the GES, the leader control scale, and the independence scale, measure the three variables identified as crucial to measuring a strict environment. Moos made an important distinction between the leader support function and the leader control function on the GES. He identified the leader's support function as falling within the relationship dimension of the GES. It measures the amount of supportiveness and friendship offered in a group by a group leader. However, Moos (1994) identified leader control as a system maintenance function and defines it as, "the extent to which the leader directs the group, makes decisions, and enforces rules," (p. 1). This definition is very close to the definition of strictness given previously. Yalom (1995) also addressed strictness as leadership style in groups. He considered the leader to be so integral that he says, "The leader is solely responsible for the creation and maintenance of the group" (p. 113). While Yalom does not directly reflect upon different styles of leadership, he clearly identified leadership as the key variable in any group experience.

Leadership style has also been extensively studied in groups such as political organizations and athletic teams (Gastil, 1994). Gastil conducted a meta-analytic review of democratic and autocratic leadership styles. Two leadership styles, autocratic and democratic, proved productive and one style, laissez-faire, was shown to be unproductive in groups.
(Gastil, 1994). Gastil reported that there is not any significant difference in productivity between autocratic and democratic leadership. Finally, Gastil found that the relationship between democracy and satisfaction is small and erratic due to other variables in an environment.

Spink and Carron (1993) found the style of leadership had a significant effect upon dropout rates and absenteeism in exercise classes. They reported that team building and democratic leadership style, more favorably effect attendance.

Summary

From the foregoing, strictness also appears to be an important variable for the assessment of a church context. An understanding of strictness has been hampered by a lack of definition and a measure of strictness may be helpful and desirable for researchers and church leaders. Some researchers have used population figures that tend to support that parishioners favor a more strict church environment and that strict churches are growing. Conversely, church leaders are often advised by denominational leadership and theologians to be more democratic and less strict in their church leadership. Thus, most pastors may receive two messages about the importance of strictness in a church environment. In other social climates, group leaders were seen to be important to the development of the group (Moos, 1994; Yalom, 1995). The
strictness of leadership of a group leader was viewed as an essential quality in the development of a group. The ARC may enable researchers to identify a dimension of leader activity in a church environment desirable to church leaders. Kelley (1972) suggested that significant relationships may exist between strictness, attendance, and involvement. The views of Hoge and Roozen (1976) and Iannaccone (1994) remained consistent with the work of Kelley (1972). Since people may be assumed to move to more satisfying environments the growth in strict churches suggests the existence of a relationship between strictness and satisfaction. Strictness seems to be an important variable and may be related to attendance, involvement, and satisfaction.

Task Orientation

Definition

According to Moos (1994), the task orientation scale of the GES was designed as an assessment of how much emphasis is placed upon completing practical, concrete tasks. In a church setting, Stocks (1982) further defined task orientation as how well a church's participants could identify their behavior as supporting the mission of their congregation. Thus, task orientation is the ability of church attenders to identify a local church’s task and their role in furthering that task.

Theological studies often discussed the factor of task
orientation under the term, mission (Wagner, 1979; Watson, 1978). The common element behind these terms is the ability to demonstrate and explain to members how their efforts support a church's goals. Watson (1978) discussed the role of church members in furthering the goals of the local congregation through small groups. From the church growth perspective the term mission represents the task orientation of a church.

Task Orientation in Church Environments

Maloney (1989) specifically studied the relationship between a church member's satisfaction and task orientation. He found a direct correlation between task orientation and satisfaction, Table 1. Stocks (1982) also found that task orientation is a crucial variable in a church environment. Stocks studied the effects of small group involvement on member satisfaction in a church. He found that, regardless of how members participate, if they perceived their participation as important they felt satisfied with their church environment.

Drucker (1990) identified task orientation in a church environment as a critical variable. He began by defining a church as having two kinds of "clients." One set of clients are the people whom a church is trying to reach. The second group of clients are the members of a church. A church seeks to make important changes in non-members' lives through church members. He pointed out that the reason
people volunteer their time, money, and energy is because they believe they are making a significant change in someone else's life. According to Drucker (1990), the clarity of the task increases in importance in non-profit organizations because a church uses volunteer workers to achieve its goals.

Another study of task orientation in a church was conducted by Chatters, Levin, and Taylor (1992). One of the results of this study was that task orientation might be expanded to include not only church program assessment but also informal task relatedness. That is, members may also find satisfaction in private devotional prayer when private religious activity is clearly communicated as a part of the task orientation of the church.

Evidence supports including task orientation as an important element for a church environment. When parishioners understand, in practical and concrete terms, how their participation helps fulfill a church's task, they have reported feeling fulfilled and contribute more. In addition, when members contribute, they seem to want to know that their contribution is beneficial to themselves and others. Task orientation may be an important variable to be considered in a church environment. It may provide information to churches about whether church members understand their contributions to benefit the church, others, and themselves.
Task Orientation in Other Social Environments

Task orientation has also been identified as an important variable in other social environments. Task orientation has been studied for athletic groups (Brawley et al., 1993) and for various self-help and task groups (Moos, 1994). Moos (1994) reported that groups that work together on engaging tasks develop a more productive environment and are more closely related to one another. Task orientation also led to different qualities of communication among members of a group. These different levels of communication significantly affected the group climate.

Regarding group outcomes, Moos (1994) reported that group outcomes are favorably affected by several aspects of task orientation. One element that improved group outcome was members expectation of success. Another important relationship Moos cited, was between communication, task orientation, and group outcome. Orientation toward an important and enjoyable task also improved member participation and group outcome. It is not surprising that Moos has included task orientation on his Group Environment Scale.

Yalom (1995) also identified task orientation as one of the most important factors in group therapy. He said that a clear and appropriate group goal orientation was the most important factor to determine the success or failure of the group. More support for task orientation was found by
Hofmann (1993). He studied the relationship between task orientation and performance. As the complexity of the task increased, a corresponding complexity was needed for task clarity and definition. His findings strongly supported the importance of clearly defined and communicated goals in a church setting. He began by citing the relationship between group goals and outcomes as one of the most robust findings in applied psychology.

Finally, strong support for a significant relationship between task orientation and outcome was found in research related to work teams. Sundstrom, De Meuse, and Futrell (1990) found in their analysis of thirteen productive work teams that two related issues were present. Work team productivity increased when the mission of the team was clear and it also increased when the task was well defined. A clear and well defined task enabled a supportive and consistent structure to be developed to meet the work team goals. This is consistent with the findings of Katzell and Thompson (1990) who found worker productivity was related to goal specificity and clarity.

Summary

The implications of these findings are that churches that have a clear understanding of their goal are more likely to be successful in accomplishing their goals and more likely to find commitment among their members. Conversely, if the task given to church members is complex
and difficult, outcome and satisfaction suffer. Thus, a church environment will suffer from complexity and confusion regarding a church's task orientation. It may be desirable in a church environment to assess whether an achievable goal has been defined clearly to the members of a congregation. The research also suggested a significant relationship between task orientation and satisfaction, productivity, and involvement.

Order

Definition

Moos (1994) defined order as a group's structure and organization and its rules and sanctions. A church assessment instrument may obtain data from parishioners on whether the order, hierarchy, and structure of a local church are clear and satisfying. A review of the literature supports the hypothesis that member satisfaction and commitment are related to feeling comfortable with a local church's structure.

Order in the church is found in several theological studies of the church under both the marks of the church and church government (Barth, 1953/1958; Watson, 1978). Kelley (1972) identified order as one of the three major factors in a congregation, Table 1. He defined order as the willingness of churches to implement and enforce sanctions in a congregation. Enforcement resulted in reducing the number of members not invested in the development of a
church. Enforcement also mobilized involved parishioners.

Order in Church Environments

A number of researchers have found a significant relationship between organizational structure and member satisfaction. One such study by Roof et al., (1979) studied the relationship between church growth and its environment. After studying the factors external to a church, they questioned 802 Presbyterian congregations about internal dynamics and satisfaction. Roof et al. found order in church services to be the most important factor in member satisfaction and church growth. The second strongest factor was organizational order and harmony.

Wicker (1969) also described the relationship between church member satisfaction and structure. Wicker's work primarily discussed the relationship between manning theory and participant satisfaction. Wicker delineated types of environments as being overmanned, undermanned, and optimally manned. He describes problematic responses to improperly manned environments. When a church is over- or undermanned the organization and order of the church is disrupted. As is demonstrated by the research of Stocks (1982) and Maloney (1989) an instrument that assesses the structural components and member satisfaction may be an important factor in a church assessment instrument.

Iannaccone (1994) and Kelley (1972) both theorized that order, especially the enforcement of prohibitions, was
important to reduce inefficiency in a church environment. They also affirmed that costly restrictions of lifestyle internalize the religious commitment of members. Thus, order appears to be essential to the growth of a church or a denomination.

Order in Other Social Environments

Finney and Moos (1984) and Moos (1994, 1976) identified order as an important dimension in environmental assessment and as a crucial variable in a number of major theories about social environments. According to Finney and Moos (1984), it is a significant factor that identifies the compatibility and harmony of perceptions of individuals in an environment. Order and structure are also related to an organization's ability to change and adapt. Finney and Moos (1984) noted that the structural factors "are relatively similar across settings [and] assess the extent to which an environment is orderly, clear in its expectations, maintains control, and is responsive to change" (p. 154). Moos (1994) argued that understanding the organizational structure fosters an ability to predict the effectiveness of interventions and openness to organizational change.

Sundstrom et al. (1990) found the study of boundaries, organizational context, and organizational culture to be important variables in work team productivity. These three structural variables were related, according to Sundstrom et al., and were necessary factors for productivity. Thus,
order may be a significant factor and may be significantly related to productivity and satisfaction in a church environment.

Summary

Order appears to be a crucial and necessary factor for measuring a church environment. Members' satisfaction with the structure of a church was the best predictor of future participation (Maloney, 1989). Similarly, order appears to be an important factor for mobilizing current members and preparing a congregation to receive new members (Iannaccone, 1996; Kelley, 1976). Order was also found to be key in determining whether a church will be able to make the changes necessary to continue to meet its goals and missions (Miller, 1990). Finally, there are indications that order is a predictor of how a church will change to meet those needs.

In the previous sections, evidence has been provided for the importance of five factors in a church environment. The research has come from both church environments and social environments. Table 1 presented the researchers who identified important factors in a church environment. Table 2 presents researchers who identified important factors in other social environments that might be applicable in a church environment.
Validation of the ARC Factors

The ARC factors of Cohesion, Open Communication, Strictness, Task Orientation, and Order are suggested to be important factors in attempting to assess church environments. The literature provided some indicators that might be identified for validation studies of the ARC

Table 2

Researchers of Secular Social Environments and Important Variables Identified for Assessment.

<table>
<thead>
<tr>
<th>Name</th>
<th>Year</th>
<th>Coh</th>
<th>OC</th>
<th>Str</th>
<th>Task</th>
<th>Ord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bass</td>
<td>1990</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brawley et al.</td>
<td>1993</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budman et al.</td>
<td>1993</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dannemiller &amp; Jacobs</td>
<td>1992</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Evans &amp; Dion</td>
<td>1991</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Gilmore &amp; Barnett</td>
<td>1992</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innami</td>
<td>1994</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Katzell &amp; Thompson</td>
<td>1990</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moos</td>
<td>1994</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mudrack</td>
<td>1989</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Mullen et al.</td>
<td>1994</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spink &amp; Carron</td>
<td>1993</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tschuske &amp; Dies</td>
<td>1994</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Yalom</td>
<td>1995</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Note. Coh = Cohesion, OC = Open Communication, Str = Strictness, Task = Task Orientation, Ord = Order
might be identified for validation studies of the ARC instrument. Each ARC factor will be identified with a discussion of relevant validation variables, see Table 3. The ARC Scales will also be correlated to the GES Scales as part of the initial validation study. Certain GES Scales seem to be more applicable for validation purposes, and these will be discussed below, in a separate section.

**Cohesion**

Cohesion was researched by Maloney (1989) and correlated with satisfaction in a church environment. Maloney found that a significant correlation existed between cohesion and satisfaction, see Table 3. Stocks (1982) also found a significant correlation between cohesion and satisfaction in a church environment. In other social environments, Brawley et al. (1993) found a significant relationship between cohesion and satisfaction in a group setting.

Cohesion was also found to have a significant correlation to performance in both church environments and other social environments (Spink & Carron, 1993; Wagner, 1976; Wicker, 1969). Performance variables may be identified as attendance, participation, and attraction of new members. Schaller (1984) also identified financial contribution as an important validation variable for cohesion in a church environment.
Table 3

Selected Researchers and the Validation Variables Used.

<table>
<thead>
<tr>
<th>Name</th>
<th>Env</th>
<th>Sat</th>
<th>Perf</th>
<th>Att</th>
<th>Inv</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barker</td>
<td>Ch</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>Man</td>
</tr>
<tr>
<td>Brawley et al.</td>
<td>Gp</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budman et al.</td>
<td>Gp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dannemiller &amp; Jacobs</td>
<td>Org</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drucker</td>
<td>Ch</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evans &amp; Dion</td>
<td>Gp</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Gilmore &amp; Barnett</td>
<td>Gp</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>Cg</td>
</tr>
<tr>
<td>Hoge &amp; Roozen</td>
<td>Ch</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>Con</td>
</tr>
<tr>
<td>Innami</td>
<td>Org</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Dec</td>
</tr>
<tr>
<td>Katzell &amp; Thompson</td>
<td>Wk</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>Att</td>
</tr>
<tr>
<td>Kelley</td>
<td>Ch</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>Con</td>
</tr>
<tr>
<td>Maloney</td>
<td>Ch</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>Man</td>
</tr>
<tr>
<td>Moos</td>
<td>SCS</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mullen et al.</td>
<td>Gp</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Dec</td>
</tr>
<tr>
<td>Schaller</td>
<td>Ch</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>Size</td>
</tr>
<tr>
<td>Spink &amp; Carron</td>
<td>Ath</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wagner</td>
<td>Ch</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>N M</td>
</tr>
<tr>
<td>Wicker</td>
<td>Ch</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>Man</td>
</tr>
</tbody>
</table>

Note. Env = Environment measured, Sat = Satisfaction, Perf = Performance, Att = Attendance, Inv = Involvement, Ch = Church, Com = Commitment, Man = Manning, Gp = Group, Org = Organizations, Cg = Change, Con = Financial Contributions, Org = Organization, Dec = Decision Making, Wk = Work, SCS = Social Climate Scales, Ath = Athletic Groups, N M = New Members
Open Communication

Similarly, other researchers, studying various environments, found significant relationships between open communication and performance (Innami, 1994; Katzell & Thompson, 1990; Spink & Carron, 1993). Performance variables used included quality decision making and participation in activities.

Strictness

Kelley (1972) studied the growth and decline of mainline churches in comparison with more strict religious groups. The validation measures that he primarily used for his research was attendance, Table 3. He reported that churches rated to be more strict had higher attendance levels than more tolerant churches. He also identified participation in the church environment as a validation measure for strictness, suggesting that more strict churches require more involvement from parishioners. He also identified that parishioners in more strict churches contribute more money to the church they attend. For Wagner (1979) the validational measures most likely to be correlated with important church factors revolve around member involvement, participation, and incorporation of new members.

Task Orientation

Maloney (1989) and Stocks (1982), both studying church environments, found a significant relationship between
(1992) found a significant correlation between open communication and satisfaction in a work environment. McPhee and Corman (1995) found a significant relationship between communication and performance in a church environment. Wicker (1969) identified a correlation between task orientation and satisfaction. In hypothesizing that churches have a proper staffing level, he correlated task orientation and satisfaction. Several researchers also found a significant relationship between satisfaction and task orientation in a church environment (Maloney, 1989; Stocks, 1982). Task orientation is often correlated with performance variables such as attendance, participation, volunteerism, and financial contribution (Brawley et al., 1993; Schaller, 1984; Wagner, 1976; Yalom, 1995).

**Order**

Kelley (1976) and Wicker (1969) found significant correlations between order and satisfaction. Drucker (1990) and Schaller (1984) both theorized about church environments and postulated that a significant relationship might exist between order and satisfaction. Gilmore and Barnett (1992) found a significant relationship between order and the variables of attendance and involvement. Drucker (1990) also theorized that order was correlated to the number of hours worked by clergy and the number of hours volunteered by church members.
Group Environment Scale

The Group Environment Scale is the SCS most similar to an assessment instrument for a church environment (Maloney, 1989; Stocks, 1982). The GES will be used for some initial validation of the ARC Scales. The purpose of these environmental scales was to describe the "personality" of specific environments (Moos, 1976). The GES had as its goal to describe the personality of different types of groups (Moos, 1994). The GES assessed levels of closeness, task orientation, and leadership. The GES did not give typologies of groups but was designed to highlight key variables in group development. The GES was divided into three dimensions: relationship, personal growth, and system maintenance dimensions. The relationship dimension included the three scales of cohesion, leader support, and expressiveness. The personal growth dimension included scales of independence, task orientation, self-discovery, and anger and aggression. The last dimension, system maintenance, contained scales of order and organization, leader control, and innovation.

Conclusion

Cohesion and open communication were shown to be closely related to member satisfaction and involvement. Strictness was mentioned often in the literature as having an important effect upon assimilating new members to a congregation, member satisfaction, and involvement. Task
orientation and order were found to have an important relationship in the completion of the goals of a church. Previous research also indicated pertinent variables for the initial validation study of the ARC. Based on previous research, it is anticipated that all five scales will be related to satisfaction. The research also suggested that all ARC variables are related to some form of parishioner involvement. Finally, the GES appears to be a reliable and suitable instrument for initial validation of the ARC Scales.
Chapter III

Methods

This research involves a validation study of a new research instrument, the Assessment of Religious Contexts (ARC). The general research design for this study is an exploration of the reliability and an initial validation study of the ARC.

General Design

The ARC, developed to assess a church environment, measured five key factors: Cohesion, Open Communication, Strictness, Task Orientation, and Order. This study examined the ARC’s reliability and then it related the ARC Scales to pertinent indicators of church environments.

This study, an initial validation study of the ARC, examined the relationship between the factors of the ARC and several dependent variables that provided some indication of satisfying and productive church environments. The dependent variables were derived from the literature. The proposal of this correlation research was to provide a correlational coefficient between the factors of the ARC and variables related to satisfaction, attendance, involvement, and scores on the Group Environment Scale (GES).

66
Reliability

The reliability of the ARC was estimated using coefficient alpha. This measure yielded a reliability coefficient for an instrument that has variable answers in both a positive and negative connotation (Anastasi & Urbina, 1997). The questions on the ARC were posed as strongly agree, agree, neutral, disagree, and strongly disagree. The proper measure in such instances is Cronbach's Alpha. Furthermore, it should be stressed that this measure is the most conservative estimate and the typical method for investigating reliability (Anastasi & Urbina, 1997). Furthermore, scores for reliability coefficients for the GES have been given and reliability scores for the ARC will be compared to the GES coefficients.

Correlation

This study described the relationship between the factors on the ARC and several dependent variables that provided some indication of a church environment. One set of correlation coefficients were computed between the ARC and the total satisfaction score on the Church Satisfaction Scale. Another set of correlations were computed between the ARC Scales and four involvement survey items: the number of services attended per month, the number of activities in which participants are involved, the number of hours worked for the church, and the number of hours volunteered for the church.
With regard to the GES, the ARC is similar to the GES and measures a church environment in a similar manner to the way the GES measures a group environment. It is not the intent of this research to produce a standardized instrument across a generalized population. Correlations were computed for all of the GES Scales. The primary GES Scales of interest for validation purposes were Cohesion, Leader Support, Expressiveness, Leader Control, Task Orientation, and Order and Organization.

Because of the large number of correlations being calculated, 75, an adjustment to alpha was calculated to prevent a Type I error (Lik & Keselman, 1996). A Type I error occurs when a significance level is obtained but the null hypothesis should not be rejected. The Bonferroni adjustment of alpha was used because it is a conservative and widely used adjustment. The formula divides the significance level, .05, by the number of correlations, 75, to produce a new level of significance, .0007. Pearson Product Moment Correlations were calculated (Graziano and Raulin, 1997; Lehman, 1991). Along with the correlation coefficients, the significance levels are presented.

Rational Evaluation of the ARC

The 80 items that comprised the initial version of the ARC were sent to an panel of 10 judges. Judges were experts in the fields of theology and psychology. The panel consisted of both professors of theology and psychology,
religious leaders, and psychologists. Judges not only rated the questions but edited the questions and provided suggestions. They were also instructed to reword or delete any items they thought did not discriminate in a church environment. After all of the judges' comments were returned, the ARC was revised to incorporate the comments and suggestions of the panel. This was the form of the ARC that was used for the research in the churches, shown in the Appendix.

Construct Validity

Validity for an instrument may be adduced from a comparison with another valid instrument (Anastasi & Urbina, 1997). In the validation of the ARC, evidence for its validity also came from the correlations between scores on the ARC and scores in similar domains on the Group Environment Scale (GES). A correlation coefficient was used as a validity coefficient for the individual scales of the ARC and the GES for all of the results obtained. Criterion-related validity provided further support for the ARC and the factors which it purports to measure. The GES contained several dimensions that measured characteristics similar to the five factors of the ARC. Although the ARC is specific to a church environment, the constructs shared between the ARC and GES are: cohesion, open communication and expressiveness, strictness and leader control, task
orientation, and order. A correlation coefficient was computed for the relationship between the five shared factors of the ARC and the GES.

Participants

The results obtained for this study were collected from seven churches. Four churches were located in Las Vegas, Nevada. One church in Las Vegas was an established denominational church with a long time membership. Its membership was approximately 100 members and the pastor had been called to this church for approximately one year. Another church was a new church that had no denominational affiliation. This church had approximately 150 members and the pastor had planted the church approximately six months previously. A third church characterizes itself as an interdenominational fellowship. This church has been in existence for approximately 10 years. This church had approximately 100 members and the pastor was in his first month. A fourth church was a Pentecostal church that had been in existence for approximately 50 years. This church has approximately 1000 members and the pastor has been Senior Pastor at this church for approximately four years. Three churches were located in California. One church was a large denominational church of approximately 1500 members. The pastor had been there for about two years. The second church was a Baptist church. It had approximately 300 members and the pastor had been there for
approximately three years. The third California church was a church that had just been involved in a merger with another congregation. It had approximately 100 members and the pastor had been with the church since the merger for approximately six months.

The data came from 158 respondents. Not all respondents completed all of the surveys. The Group Environment Scale (GES) was completed by 153 respondents. The ARC was completed by 142 respondents. The Church Involvement Survey and the Church Satisfaction Scale were completed by 147 respondents each.

In the first three churches surveyed, a randomized approach only resulted in 34 participants. At the last four churches, the sample consisted of attendees both in the main service and in Sunday School classes and 124 responses were obtained.

Participation was on a voluntary basis. Individuals who were not eighteen years old were excluded from the study. Surveys and instruments were taken anonymously. Results are kept confidential and secure. Participants were debriefed following the collection of the completed instruments. Information will never be disseminated in which participants can be identified. All instruments and procedures were approved by the University of Nevada, Las Vegas Human Subjects Review Board prior to collecting any data.
Instruments

Assessment of Religious Contexts - (ARC)

The Assessment of Religious Contexts (ARC) was developed as 80 items that participants evaluate using five-point Likert Scale type questions, shown in the Appendix. The choices are strongly agree, agree, neutral, disagree, and strongly disagree. Participants were asked to answer the questions following the Sunday morning service and to complete the survey before they left. The five scales are Cohesion, Open Communication, Strictness, Task Orientation, and Order, shown in the Appendix.

The ARC consisted of 16 items for each of the five scales. The items used for collecting data came from a number of sources including the judges' reviews, the research literature, other assessment instruments including several that were adapted from the GES. Because the sources were not mutually exclusive, the description that follows includes more than 80 source items. For example, item eight was adapted from the GES and revised by the judges. There were 19 questions that were created specifically for the ARC and 19 questions that were adapted from the GES. The research literature contributed 39 items to the ARC. The judges suggestions influenced 34 items to be changed or added. Each item's source, scale, and positive or negative scoring is provided in Appendix.
Group Environment Scale

The Group Environment Scale was a 90 item forced choice environmental assessment instrument (Moos, 1994). It was designed to provide information of how group members perceive the climate of a group. It measured ten different variables and assessed the social climate of a small group.

Reliability for the GES was calculated using two methods: internal consistencies using Cronbach's Alpha and test-retest reliability over one month, provided in Table 4 (Moos, 1994). Internal consistencies ranged between .86 for cohesion and .62 for independence. Item scale correlations ranged from .53 for cohesion to .30 for independence. Test-Retest reliability ranged from .87 for anger and aggression to .65 for independence.

The scale reliability of the GES ranged from the moderate scores on independence to high for cohesion (Moos, 1994). Specifically, the dimensions that were anticipated to have the strongest relationship to the ARC were Cohesion, Leader Support, Expressiveness, Leader Control, Task Orientation, and Order and Organization. These scales have Cronbach's Alpha coefficients of .86 for Cohesion, .70 for Expressiveness, .73 for Leader Control, .72 for Task Orientation, and .85 for Order and Organization.

Validity for the GES is provided from a number of sources. The construct validity for the GES was developed by item analysis using the intercorrelation coefficient's
Table 4

**Group Environment Scale Reliability Coefficients.**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Internal Consistency (N=246)</th>
<th>Test-Retest Reliability (N=63)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohesion</td>
<td>.86</td>
<td>.79</td>
</tr>
<tr>
<td>Leader Support</td>
<td>.74</td>
<td>.73</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>.70</td>
<td>.67</td>
</tr>
<tr>
<td>Independence</td>
<td>.62</td>
<td>.65</td>
</tr>
<tr>
<td>Task Orientation</td>
<td>.72</td>
<td>.78</td>
</tr>
<tr>
<td>Self-Discovery</td>
<td>.83</td>
<td>.83</td>
</tr>
<tr>
<td>Anger and Aggression</td>
<td>.83</td>
<td>.87</td>
</tr>
<tr>
<td>Order and Organization</td>
<td>.85</td>
<td>.82</td>
</tr>
<tr>
<td>Leader Control</td>
<td>.73</td>
<td>.75</td>
</tr>
<tr>
<td>Innovation</td>
<td>.78</td>
<td>.71</td>
</tr>
</tbody>
</table>

*Note: From Moos (1994)*

provided above (Moos, 1994). Furthermore, items used for the GES are used only once and relate to only one scale. Discriminate validity was also analyzed. The ability of the GES to discriminate between group climates, associations, and outcomes forms part of the validity studies for the GES. Validity has also been supported by Evans and Jarvis (1986) and Rose and Bednar (1980). Giamartino and Wandersman (1983) supported the validity of the GES by demonstrating that cohesion and supportiveness coupled with active
leadership resulted in greater group member satisfaction. Buchanan (1983) demonstrated the GES validity by comparing process and task oriented groups with performance. The research above has shown the GES to be a valid and reliable instrument. This supported the use of the GES for concurrent validity with the ARC.

Church Satisfaction Survey

The Church Satisfaction Survey was an 11 item questionnaire (Maloney, 1989). Questions were constructed in a five-point Likert style format. Respondents were asked to rate satisfaction with the overall church, the pastor’s sensitivity to members, worship services, educational programs, and outreach. Three questions asked respondents to rate their feelings of satisfaction with specifically social activities and “getting along” with others. One question asked respondents to rate if the church was getting stronger or weaker in recent months and another asked respondents to compare the present church to their ideal church environment. The correlation used the overall satisfaction score from the Church Satisfaction Survey, determined by summing the score on each of the eleven questions.

Church Involvement Survey

The Church Involvement Survey, found in the Appendix, elicited from the participant information about their involvement with the church they were attending during the
collection of data. This may not be the church they normally attend and participants were instructed to answer questions regarding the church where the data was being collected. The Church Involvement Survey asked the length of time that respondents had been attending the church in months or years. It also asked how many services they attended per month. It also asked them to identify the number of activities in which they were involved. Participants responded by circling a list of suggested activities or writing in additional activities not listed. Respondents were requested to approximate the number of hours in which they volunteered their time per week or in which they were paid to work for the church per week. Some respondents might be paid to work for the church and might also volunteer their time during program activities. If there was a change in the hours of involvement, the survey sought to discriminate between a change in schedule outside of the participant's church or a thoughtful change in the participant's church activity level.

**Procedures**

**Data Collection Procedures**

The initial procedure was randomly to select attendees of the participant churches. In the first three churches, prior to the Sunday morning service, the pews or seats were assigned a number based on seating capacity and the average number of people in attendance on a typical Sunday morning.
Before the arrival of any participants, 40 seats were selected at random. The participants who sat in those seats were identified, and provided the necessary pre-test information. Following the service, the participants were asked to complete the GES, the ARC, the Church Involvement Survey, and the Church Satisfaction Survey at their seats before leaving church. All instruments were collected directly from the participants in the sanctuary or in a designated location just outside of the sanctuary on the day the instruments are given.

During the initial three church sample, when the numbered seat was occupied by someone under eighteen, he or she was instructed to hand the instruments to the nearest attendee over the age of eighteen. When the numbered seat was unoccupied, the survey was given to the nearest person in attendance over eighteen years old to the right of the unoccupied seat. In general, individuals did not sit in identified seats possibly because they might have believed the pre-test information marked the seat of another individual. When an entire section was unexpectedly unoccupied, random participants were selected by renumbering the occupied seats and then randomly selecting the participants to be involved. Using these procedures, 34 surveys were completed in the first three churches.

In the last four churches, Sunday School classes were chosen to be involved in the study. Participants were over
the age of 18 and all subjects participated voluntarily. In some cases, participants filled the surveys out during the Sunday School class and in other cases, they filled information out following the Sunday School class. All information was collected on the day the surveys were provided prior to participants leaving the church. Using this second procedure, 124 surveys were completed.

**Research Hypotheses**

This research study investigated the relationship between factors on the ARC and a number of demographic variables. For the purposes of the hypotheses formulated below, the independent variable is the ARC. The hypotheses are formulated using the previously described dependent variables gathered from the Church Satisfaction Survey, the Church Involvement Survey, and the GES.

**Hypothesis 1**

There will be no statistically significant ($p > .0007$) relationship between the ARC Cohesion Scale and the reported satisfaction of members.

**Hypothesis 2**

There will be no statistically significant ($p > .0007$) relationship between the ARC Cohesion Scale and the number of services that respondents attend per month.

**Hypothesis 3**

There will be no statistically significant ($p > .0007$) relationship between the ARC Cohesion Scale and the number
of activities in which respondents are involved.

**Hypothesis 4**

There will be no statistically significant ($p > .0007$) relationship between the ARC Cohesion Scale and the GES Cohesion Scale.

**Hypothesis 5**

There will be no statistically significant ($p > .0007$) relationship between the ARC Open Communication Scale and reported satisfaction of members.

**Hypothesis 6**

There will be no statistically significant ($p > .0007$) relationship between the ARC Open Communication Scale and the number of hours worked for the church.

**Hypothesis 7**

There will be no statistically significant ($p > .0007$) relationship between the ARC Open Communication Scale and the number of hours volunteered for the church.

**Hypothesis 8**

There will be no statistically significant ($p > .0007$) relationship between the ARC Open Communication Scale and the GES Expressiveness Scale.

**Hypothesis 9**

There will be no statistically significant ($p > .0007$) relationship between the ARC Strictness Scale and reported satisfaction of members.
Hypothesis 10

There will be no statistically significant \((p > .0007)\) relationship between the ARC Strictness Scale and the number of services attended per month.

Hypothesis 11

There will be no statistically significant \((p > .0007)\) relationship between the ARC Strictness Scale and the number of hours volunteered per month.

Hypothesis 12

There will be no statistically significant \((p > .0007)\) relationship between the ARC Strictness Scale and the GES Leader Control Scale.

Hypothesis 13

There will be no statistically significant \((p > .0007)\) relationship between the ARC Task Orientation Scale and reported member satisfaction.

Hypothesis 14

There will be no statistically significant \((p > .0007)\) relationship between the ARC Task Orientation Scale and the number of activities in which respondents are involved.

Hypothesis 15

There will be no statistically significant \((p > .0007)\) relationship between the ARC Task Orientation Scale and the number of hours per month a person volunteers to work.

Hypothesis 16

There will be no statistically significant \((p > .0007)\) relationship between the ARC Task Orientation Scale and
relationship between the ARC Task Orientation Scale and the GES Task Orientation Scale.

**Hypothesis 17**

There will be no statistically significant \((p > .0007)\) relationship between the ARC Order Scale and reported member satisfaction.

**Hypothesis 18**

There will be no statistically significant \((p > .0007)\) relationship between the ARC Order Scale and the number of services attended per month.

**Hypothesis 19**

There will be no statistically significant \((p > .0007)\) relationship between the ARC Order Scale and the number of hours worked per month.

**Hypothesis 20**

There will be no statistically significant \((p > .0007)\) relationship between the ARC Order Scale and the GES Order and Organization Scale.
Chapter IV

Results

The data were collected from 158 respondents in seven churches. The total number of respondents for the ARC variables was 142. All of the ARC variables (Cohesion, Open Communication, Strictness, Task Orientation, and Order) have a total of 142 responses. The mean scores for the ARC variables were: Cohesion, 49.56; Open Communication, 48.56; Strictness, 20.65; Task Orientation, 47.29; and Order, 46.12. The means, standard deviations, and ranges are provided in Table 5.

Table 5
The Means, Standard Deviations and Range for the ARC Scales.

<table>
<thead>
<tr>
<th>ARC Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohesion</td>
<td>142</td>
<td>26.00</td>
<td>64.00</td>
<td>49.56</td>
<td>8.34</td>
</tr>
<tr>
<td>Open Communication</td>
<td>142</td>
<td>21.00</td>
<td>64.00</td>
<td>48.56</td>
<td>8.51</td>
</tr>
<tr>
<td>Strictness</td>
<td>142</td>
<td>6.00</td>
<td>35.00</td>
<td>20.65</td>
<td>5.91</td>
</tr>
<tr>
<td>Task Orientation</td>
<td>142</td>
<td>23.00</td>
<td>64.00</td>
<td>47.29</td>
<td>8.62</td>
</tr>
<tr>
<td>Order</td>
<td>142</td>
<td>25.00</td>
<td>61.00</td>
<td>46.12</td>
<td>7.26</td>
</tr>
</tbody>
</table>
Reliability.

The five scales of the ARC were examined for reliability from the present sample. Coefficient Alpha is used as the statistic for reliability (Anastasi & Urbina, 1997). The Coefficient Alpha levels for the reliability of the five factors were derived from the 16 individual questions for each scale. The Alpha results for the five scales were: Cohesion, $\alpha = .87$; Open Communication, $\alpha = .88$; Strictness, $\alpha = .56$; Task Orientation, $\alpha = .88$; and Order, $\alpha = .84$.

Rational Evaluation

Ten judges responded to the form that requested their expert opinions about the five ARC Scales. Judges were asked to respond as to whether each Scale measured an important variable in a church environment. They were asked to comment on each scale. The 16 questions for each scale were listed with ratings of $G$ for Good, $R$ for rewrite, and $E$ for eliminate beside the question. Judges were asked for suggestions about questions and general comments.

The ARC Cohesion Scale received the support of all 10 judges. The judges accepted all 16 items as pertaining to Cohesion. The judges suggested 28 revisions. Revisions were made to 11 items of the Cohesion Scale, according to the judges' suggestions, to clarify questions. The judges' comments led to one question being eliminated and a
substitution from the judges' suggestions. The majority of the judges' suggestions, 18, recommended that four questions in which the sentence used the word, "Pastor," be revised to read, "church leaders." Two questions were revised according to the judges' suggestions. Other revisions were made based on a judges' note that some items were possibly two questions. The evaluation of the judges appears to accept the Cohesion Scale.

All 10 judges considered the ARC Open Communication Scale to be important in a church environment. The judges unanimously accepted 13 questions. Based on the judges suggestions, five items were rewritten. No items were eliminated from the scale based on the judges suggestions. Four responses in all were marked for elimination on three different questions with one question receiving two votes for elimination. Several items were rewritten, based on the judges' comments, that the questions were too broad. The items marked to be rewritten appear to be rewritten for clarity and not for Open Communication content. The judges' reviews appear to support the Open Communication Scale.

The ARC Strictness Scale received five responses that it was an important scale, three abstentions, and one not important response. Rewording of items was suggested on 19 responses. Based on the suggestions of the judges, nine items were rewritten. Three items were eliminated, based on the responses of judges. Several of the responses suggested
that the content of the question was moving away from an environmental question to personal belief questions. Several general responses were made about the vagueness of questions or the nature of personal beliefs that were being assessed. Nearly half of the Strictness Scale was modified, either by elimination or rewording of items. The judges' reviews indicate less than unanimous support for the Strictness Scale.

The ARC Task Orientation Scale received unanimous support from the judges for inclusion as a scale important in a church environment. The Task Orientation Scale received 10 suggestions for revisions. Based on the judges' suggestions, four items were rewritten and one item was eliminated and replaced with a judges suggestion. No items were identified solely for elimination, three items had both E and R circled. The Task Orientation items were strongly supported by the judges, as was the scale for inclusion in a church environment.

The ARC Order Scale received the support of eight judges with one judge reporting that he was unsure and one judge saying not important. The majority of the judges, nine, suggested three questions be eliminated and three to be rewritten. One judge, who believed the scale was unimportant suggested six eliminations from the scale. Based upon the suggestions of the judges, three questions were eliminated and five questions were rewritten. Some
revisions reflected that a church environment might suffer from either the presence or absence of order in certain areas. The majority of the judges approved of the inclusion of the Scale as important for assessing a church environment. The majority of the questions were supported as pertaining to Order.

Initial Construct Validity

Means, standard deviations, and frequencies for the dependent variables in the study were also obtained. These variables are the 10 Scales of the Group Environment Scale (GES), four Involvement measures, and the Total Satisfaction measure. The means, standard deviations, and ranges for the GES were obtained from 153 responses. The means, standard deviations, and ranges for both the Involvement and the Total Satisfaction measures were obtained from 147 responses. Table 6 presents the means, standard deviations, and ranges for the GES, Involvement, and Satisfaction variables.

Pearson Product Moment correlations (Graziano & Raulin 1997; Lehman, 1991) along with the significance levels are presented in Table 7. Using the Bonferroni adjustment the required significance level is .0007.

Results of Hypotheses

Hypothesis 1

Hypothesis 1 stated that no statistically significant relationship would exist between the ARC Cohesion Scale and
Table 6

Means, Standard Deviations, and Ranges for the GES, Involvement, and Satisfaction Variables.

<table>
<thead>
<tr>
<th>GES Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coh</td>
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<td>.00</td>
<td>9.00</td>
<td>7.61</td>
<td>1.79</td>
</tr>
<tr>
<td>Lead S</td>
<td>153</td>
<td>1.00</td>
<td>9.00</td>
<td>7.81</td>
<td>1.73</td>
</tr>
<tr>
<td>Exp</td>
<td>153</td>
<td>.00</td>
<td>9.00</td>
<td>4.69</td>
<td>2.16</td>
</tr>
<tr>
<td>Ind</td>
<td>153</td>
<td>2.00</td>
<td>9.00</td>
<td>5.92</td>
<td>1.67</td>
</tr>
<tr>
<td>Task</td>
<td>153</td>
<td>2.00</td>
<td>9.00</td>
<td>7.44</td>
<td>1.77</td>
</tr>
<tr>
<td>Self D</td>
<td>153</td>
<td>.00</td>
<td>9.00</td>
<td>6.24</td>
<td>1.91</td>
</tr>
<tr>
<td>Anger</td>
<td>153</td>
<td>.00</td>
<td>9.00</td>
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<td>2.45</td>
</tr>
<tr>
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<td>2.00</td>
<td>9.00</td>
<td>7.03</td>
<td>1.96</td>
</tr>
<tr>
<td>Lead C</td>
<td>153</td>
<td>1.00</td>
<td>9.00</td>
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<td>1.76</td>
</tr>
<tr>
<td>Inn</td>
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<td>2.31</td>
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<tr>
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<td>6.08</td>
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<tr>
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<td>14.00</td>
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<td>2.74</td>
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<tr>
<td>Work</td>
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<td>80.00</td>
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<tr>
<td>Vol</td>
<td>147</td>
<td>.00</td>
<td>160.00</td>
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<tr>
<td>Satis</td>
<td>147</td>
<td>22.00</td>
<td>55.00</td>
<td>44.50</td>
<td>7.36</td>
</tr>
</tbody>
</table>

Note. Coh = Cohesion, Lead S = Leader Support, Exp = Expressiveness, Ind = Independence, Self D = Self Discovery, Anger = Anger and Aggressiveness, Ord Org = Order and Organization, Lead C = Leader Control, Inn = Innovation, Serv = No. of Services attended per month, Act = No. of Activities in which respondent is involved, Work = No. of Hours Worked for the participating church, Vol = No. of Hours Volunteered for the participating church, Satis = Satisfaction reported.
<table>
<thead>
<tr>
<th>Dep Var</th>
<th>Coh (GES)</th>
<th>O C (GES)</th>
<th>Str (GES)</th>
<th>Task (GES)</th>
<th>Order (GES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coh (GES)</td>
<td>.492**</td>
<td>.444**</td>
<td>-.090</td>
<td>.564**</td>
<td>.504**</td>
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<tr>
<td>Lead S (GES)</td>
<td>.449**</td>
<td>.497**</td>
<td>-.003</td>
<td>.339**</td>
<td>.336**</td>
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<tr>
<td>Exp (GES)</td>
<td>.162</td>
<td>.313*</td>
<td>-.131</td>
<td>.090</td>
<td>.102</td>
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<tr>
<td>Ind (GES)</td>
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<td>.300*</td>
<td>-.155</td>
<td>.325**</td>
<td>.242</td>
</tr>
<tr>
<td>Task (GES)</td>
<td>.454**</td>
<td>.459**</td>
<td>-.037</td>
<td>.398**</td>
<td>.269</td>
</tr>
<tr>
<td>Self D (GES)</td>
<td>.323**</td>
<td>.355**</td>
<td>-.105</td>
<td>.199</td>
<td>.113</td>
</tr>
<tr>
<td>Anger (GES)</td>
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<td>-.070</td>
<td>.026</td>
<td>-.192</td>
<td>-.217</td>
</tr>
<tr>
<td>Ord Org (GES)</td>
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<td>.448**</td>
<td>-.123</td>
<td>.557**</td>
<td>.533**</td>
</tr>
<tr>
<td>Lead C (GES)</td>
<td>.047</td>
<td>.023</td>
<td>.078</td>
<td>.055</td>
<td>.008</td>
</tr>
<tr>
<td>Inn (GES)</td>
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<td>.328*</td>
<td>-.145</td>
<td>.258</td>
<td>.215</td>
</tr>
<tr>
<td>Serv</td>
<td>.137</td>
<td>.007</td>
<td>.209</td>
<td>.112</td>
<td>.073</td>
</tr>
<tr>
<td>Act</td>
<td>.225</td>
<td>-.005</td>
<td>-.046</td>
<td>.082</td>
<td>.035</td>
</tr>
<tr>
<td>Work</td>
<td>.074</td>
<td>-.058</td>
<td>.120</td>
<td>-.001</td>
<td>-.087</td>
</tr>
<tr>
<td>Vol</td>
<td>.166</td>
<td>.024</td>
<td>.005</td>
<td>.059</td>
<td>-.059</td>
</tr>
<tr>
<td>Satis</td>
<td>.542**</td>
<td>.475**</td>
<td>-.057</td>
<td>.564**</td>
<td>.447**</td>
</tr>
</tbody>
</table>
### Significance Levels (2 Tailed)

<table>
<thead>
<tr>
<th>Var</th>
<th>Coh (GES)</th>
<th>O C</th>
<th>Str</th>
<th>Task</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coh (GES)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.2961</td>
<td>0.000</td>
<td>0.000</td>
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<tr>
<td>Lead S (GES)</td>
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<td>0.000</td>
<td>0.9705</td>
<td>0.0001</td>
<td>0.0001</td>
</tr>
<tr>
<td>Exp (GES)</td>
<td>0.0587</td>
<td>0.0002</td>
<td>0.1280</td>
<td>0.2335</td>
<td>0.2335</td>
</tr>
<tr>
<td>Ind (GES)</td>
<td>0.0125</td>
<td>0.0004</td>
<td>0.0698</td>
<td>0.0001</td>
<td>0.0043</td>
</tr>
<tr>
<td>Task (GES)</td>
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<td>0.0000</td>
<td>0.6669</td>
<td>0.0000</td>
<td>0.0015</td>
</tr>
<tr>
<td>Self D (GES)</td>
<td>0.0001</td>
<td>0.0000</td>
<td>0.2226</td>
<td>0.0199</td>
<td>0.1898</td>
</tr>
<tr>
<td>Anger (GES)</td>
<td>0.1652</td>
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<td>0.0107</td>
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<td>0.1511</td>
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<td>Lead C (GES)</td>
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<td>0.9305</td>
</tr>
<tr>
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<td>0.0001</td>
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<td>Serv</td>
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<td>Act</td>
<td>0.0075</td>
<td>0.9499</td>
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<tr>
<td>Work</td>
<td>0.3834</td>
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<td>0.3075</td>
</tr>
<tr>
<td>Vol</td>
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<td>0.7827</td>
<td>0.9537</td>
<td>0.6568</td>
<td>0.4918</td>
</tr>
<tr>
<td>Satis</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.5008</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

**Note:** Dep = Dependent, Coh = Cohesion, O C = Open Communication, Str = Strictness, Task = Task Orientation, Lead S = Leader Support, Exp = Expressiveness, Ind = Independence, Self D = Self Discovery, Anger = Anger and Aggressiveness, Ord Org = Order and Organization, Lead C = Leader Control, Inn = Innovation, Serv = No. of Services attended per month, Act = No. of Activities in which respondent is involved, Work = No. of Hours Worked for the participating church, Vol = No. of Hours Volunteered for the participating church, Satis = Satisfaction reported. **Note:** *p < .0007, **p < .0001.
the reported satisfaction of members. This hypothesis was not supported. The correlation coefficient between the ARC Cohesion Scale and the satisfaction total was $r = .542$, which is significant at the $p = .0000$ level. Thus, the ARC Cohesion Scale appears to be related to satisfaction as measured by the total score on the Church Satisfaction Scale.

**Hypothesis 2**

In hypothesis 2, the relationship between the ARC Cohesion Scale and the number of services individuals attend in a month is examined. Hypothesis 2 stated that no statistically significant relationship would exist between the ARC Cohesion Scale and the number of services attended per month. This hypothesis was retained. Table 7 shows that the Pearson correlation between Cohesion and services was $r = .137$, $p = .1070$, which was not significant at the .0007 level.

**Hypothesis 3**

Hypothesis 3 stated that no statistically significant relationship would exist between the ARC Cohesion Scale and the number of activities in which individuals participated in a church. Table 7 shows that the Pearson correlation between Cohesion and activities was $r = .225$. This hypothesis was retained because it was not significant, $p = .0075$. 

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Hypothesis 4

Hypothesis 4 examined the relationship between the ARC Cohesion Scale and the GES Cohesion Scale. Pearson’s correlation for this relationship was $r = .492$ and the significance level was $p = .0000$. There is a statistically significant relationship between the ARC Cohesion Scale and another measure of cohesion, the GES Cohesion Scale. The hypothesis was not supported.

Hypothesis 5

This hypothesis stated that no statistically significant relationship existed between the ARC Open Communication Scale and satisfaction. This hypothesis was not supported. The Pearson correlation for the relationship between Open Communication and member satisfaction was $r = .475$, $p = .0000$.

Hypothesis 6

Hypothesis 6 stated that there will be no statistically significant relationship between the ARC Open Communication Scale and the number of hours worked for a church. Table 7 shows that the Pearson correlations was $r = -.058$ and $p = .4997$. This hypothesis was supported because it did not meet the .0007 level of significance.

Hypothesis 7

Hypothesis 7 stated that there will not be a statistically significant relationship between the ARC Open Communication Scale and the number of hours volunteered for
the church. The Pearson correlation was $r = .024$, $p = .7827$
This hypothesis was supported.

**Hypothesis 8**

Hypothesis 8 measured the relationship between the ARC Open Communication Scale and the GES Expressiveness Scale. Hypothesis 8 stated that no significant relationship would exist between the ARC Open Communication Scale and the GES Expressiveness Scale. The Pearson correlation was $r = .313$ and $p = .0002$. Therefore, the hypothesis was not supported.

**Hypothesis 9**

The next hypothesis sought to measure the relationship between Strictness and satisfaction. It states that a statistically significant relationship would not exist between the ARC Strictness Scale and reported member satisfaction. This hypothesis was supported. The Pearson correlation was $r = -.057$, $p = .5008$.

**Hypothesis 10**

Hypothesis 10 stated that there would not be a statistically significant relationship between the ARC Strictness Scale and the number of services attended per month. This hypothesis seeks to measure the relationship between church attendance and the ARC Strictness Scale. Table 7 shows that the Pearson correlation was $r = .209$, $p = .0134$. Therefore, the hypothesis is supported.

**Hypothesis 11**

Hypothesis 11 stated that the ARC Strictness scale
would not have a statistically significant relationship with the number of hours parishioners volunteer per month. Table 7 shows that a statistically significant relationship does not exist, the Pearson correlation was $r = .005$, $p = .9537$. Therefore, the hypothesis is supported. It appears that a correlation does not exist between the ARC Strictness Scale and the number of hours volunteered per month.

**Hypothesis 12**

Hypothesis 12 states that no statistically significant relationship would exist between the ARC Strictness Scale and the GES Leader Control Scale. Table 7 shows that this hypothesis is supported and the Pearson correlation was $r = .078$, $p = .3653$.

**Hypothesis 13**

In this hypothesis, the two variables correlated are the ARC Task Orientation Scale and member satisfaction. The hypothesis says that no significant relationship exists between Task Orientation and satisfaction. The Pearson correlation was $r = .564$, $p = .0000$ reported in Table 7, showing that this hypothesis is not supported.

**Hypothesis 14**

Hypothesis 14 measured the correlation between the ARC Task Orientation Scale and the number of activities in which parishioners are involved. It says that a statistically significant relationship does not exist between the ARC Task Orientation Scale and the number of activities in which
parishioners are involved. Table 7 shows that this hypothesis is supported. The Pearson correlation was $r = .082, p = .3377$ and that a statistically significant relationship does not exist.

**Hypothesis 15**

Hypothesis 15 stated that no statistically significant relationship existed between the ARC Task Orientation Scale and the number of hours per month an individual volunteers to a church. This hypothesis was supported. The Pearson correlation was $r = .038, p = .6568$.

**Hypothesis 16**

Hypothesis 16 sought to correlate the relationship between the ARC Task Orientation Scale and the GES Task Orientation Scale. The hypothesis says that no statistically significant relationship exists between the ARC Task Orientation Scale and the GES Task Orientation Scale. Table 7 shows a significant correlation was obtained between these two variables, the Pearson correlation was $r = .398, p = .0000$. The hypothesis was not supported.

**Hypothesis 17**

The hypothesis says that no statistically significant relationship exists between the ARC Order Scale and reported member satisfaction. This hypothesis was not sustained. The Pearson correlation was $r = .447, p = .0000$ as reported in Table 7.
Hypothesis 18

Hypothesis 18 correlated the two variables, the ARC Order Scale and the number of services attended per month. The hypothesis stated that no significant relationship would exist between the ARC Order Scale and the number of services attended per month. The Pearson correlation was $r = .073$, $p = .3885$ and is reported in Table 7. This hypothesis was sustained.

Hypothesis 19

Hypothesis 19 posited that a statistically significant relationship did not exist between the ARC Order Scale and the number of hours worked per month. Table 7 shows the Pearson correlation was $r = -.087$, $p = .3075$ This is not a significant relationship and the hypothesis is supported.

Hypothesis 20

Hypothesis 20 stated that a statistically significant correlation did not exist between the ARC Order Scale and the GES Order and Organization Scale. The Pearson correlation was $r = .508$, $p = .0000$. This hypothesis was not supported.

Summary

The ARC Cohesion Scale was hypothesized not to be related to Satisfaction and the GES Cohesion Scale but it was. It was also hypothesized not to be related to attendance and the number of activities in which parishioners are involved and it was not related to these

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variables. No hypotheses were stated concerning a relationship to the GES Leader Support Scale and the GES Task Orientation Scale but the ARC Cohesion Scale did have a significant relationship. Neither was a hypothesis stated concerning the ARC Cohesion Scale and a significant relationship to the GES Order and Organization Scale, the GES Innovation Scale and the GES Self Discovery Scale but it was related.

The ARC Open Communication Scale was hypothesized not to be related to satisfaction and the GES Expressiveness Scale but it was. It was also hypothesized not to be related to the number of hours worked and the number of hours volunteered and these hypotheses were supported. The ARC Open Communication Scale was found to have unhypothesized relationships to several GES scales: Cohesion, Leader Support, Self Discovery, Task Orientation, and Innovation.

The ARC Strictness Scale was hypothesized not to be related to satisfaction, the number of services attended, the number of hours volunteered, and the GES Leader Control Scale. The ARC Strictness Scale was not related significantly to any of these variables and the hypotheses were supported.

The ARC Task Orientation Scale was hypothesized not to be significantly related to member satisfaction, and the GES Task Orientation Scale but it was found to be related
significantly. The ARC Task Orientation Scale was also hypothesized not to be significantly related to the number of activities in which individuals are involved and the number of services attended per month and it was not related significantly to either variable. The ARC Task Orientation Scale was found to be significantly related to other GES scales (Cohesion, Order and Organization, Leader Support, and Independence). These relationships were not hypothesized.

The ARC Order Scale was hypothesized not to be related to satisfaction and Order and Organization but it was. It was hypothesized not to be related to the number of services attended and the number of hours worked and the hypothesis was supported. It was also found to be related significantly to the GES Cohesion and Leader Support Scales.
Table 8

Summary of the Hypotheses Variables and Outcome.

Results of the Null Hypotheses

<table>
<thead>
<tr>
<th>No.</th>
<th>ARC</th>
<th>Var</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Cohesion</td>
<td>Satisfaction</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H2</td>
<td>Cohesion</td>
<td>Services</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Cohesion</td>
<td>Activities</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>Cohesion</td>
<td>Cohesion (GES)</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H5</td>
<td>Open Communication</td>
<td>Satisfaction</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H6</td>
<td>Open Communication</td>
<td>Worked</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>Open Communication</td>
<td>Volunteer</td>
<td>Supported</td>
</tr>
<tr>
<td>H8</td>
<td>Open Communication</td>
<td>Exp (GES)</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H9</td>
<td>Strictness</td>
<td>Satisfaction</td>
<td>Supported</td>
</tr>
<tr>
<td>H10</td>
<td>Strictness</td>
<td>Services</td>
<td>Supported</td>
</tr>
<tr>
<td>H11</td>
<td>Strictness</td>
<td>Volunteer</td>
<td>Supported</td>
</tr>
<tr>
<td>H12</td>
<td>Strictness</td>
<td>Lead C (GES)</td>
<td>Supported</td>
</tr>
<tr>
<td>H13</td>
<td>Task Orientation</td>
<td>Satisfaction</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H14</td>
<td>Task Orientation</td>
<td>Activities</td>
<td>Supported</td>
</tr>
<tr>
<td>H15</td>
<td>Task Orientation</td>
<td>Volunteer</td>
<td>Supported</td>
</tr>
<tr>
<td>H16</td>
<td>Task Orientation</td>
<td>Task (GES)</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H17</td>
<td>Order</td>
<td>Satisfaction</td>
<td>Unsupported</td>
</tr>
<tr>
<td>H18</td>
<td>Order</td>
<td>Services</td>
<td>Supported</td>
</tr>
<tr>
<td>H19</td>
<td>Order</td>
<td>Worked</td>
<td>Supported</td>
</tr>
<tr>
<td>H20</td>
<td>Order</td>
<td>Ord Org (GES)</td>
<td>Unsupported</td>
</tr>
</tbody>
</table>

Note. Var = Variable from the Satisfaction Scale, Involvement Scale, or GES Scales, Activities = No. of activities respondents listed as participating in per month, Services = No. of services attended per month at the church in which the survey was taken, Worked = No. of hours worked for the church in which the respondent is paid, Exp = the Expressiveness Scale on the GES, Lead C = Leader Control Scale on the GES, Volunteer = No. of hours volunteered per month, Task = Task Orientation, Ord Org = Order and Organization Scale on the GES.
Chapter V

Discussion

In this chapter, the initial study of the psychometric qualities of the Assessment of Religious Contexts (ARC) will be discussed. In addition to the statistical analysis provided, several inferences and hypotheses will be discussed with regard to the meaning of the data. Secondly, directions for further development of the ARC and potential uses for churches and denominations will be addressed. Limitations for the study will be identified as well as difficulties encountered in the course of the research project. Finally, this chapter will conclude with a discussion of further research possibilities and potential studies that might be of interest from the data that has been collected.

Cohesion Scale

In this study, the reliability for the ARC Cohesion Scale was found to be .87 (Cronbach’s alpha). The reliability for the GES Cohesion Scale is .86 (Moos, 1994). The preliminary results indicate that the Cohesion scale has strong reliability and that the reliability is equivalent to the GES Cohesion Scale.
In support of the ARC Cohesion Scale, the responses of the ten judges support the inclusion of Cohesion as an important factor for a church environment. All of the judges unanimously agreed that the scale provided an important measure of a church environment. The judges also supported all items found in the ARC Cohesion Scale and the questions as measuring Cohesion in a church environment.

Cohesion within a church is defined as the sense of attraction or organizational gravity within a church (Evans & Dion, 1991; Mudrack, 1989; Mullen & Copper, 1994; Yalom, 1995). By cohesion, the ARC sought to measure a variable that draws individuals into relationship with a church, facilitates their experience of a positive and satisfying environment, and directs them into activities that they find fulfilling. The ARC Cohesion Scale was hypothesized to be correlated with satisfaction, involvement, and the relationship with the GES.

Results of this study indicate the ARC Cohesion Scale is significantly related to satisfaction. Previous research found a relationship between cohesion and satisfaction (Evans & Dion, 1991; Maloney, 1989; Moos, 1994; Mullen & Copper, 1994) and the presence of a relationship between these two variables lends support to the assertion that cohesion is being measured in the ARC. The ARC Cohesion Scale has evidence to its validity through the correlation to satisfaction. As was hypothesized, individuals who
reported being satisfied in a church environment also responded positively on the ARC Cohesion Scale that they felt a sense of attraction and Cohesion in the environment.

The ARC and Group Environment Scales (GES) Scales measuring cohesion were identified as being germane to the construct validity of the ARC. There was a significant relationship between the ARC Cohesion Scale and the variable on the GES Cohesion Scale. However, differences existed between the GES’ measurement of Cohesion and the ARC Cohesion Scale. One primary difference was found in questions that ask whether parishioners feel close to the church leadership, a group of people, while the GES identified this on a different scale, Leader Support (Moos, 1994). Another significant difference may be that in small groups, participants may expect and receive direct interaction from the group leader, that expectation may not exist the larger that a church becomes. The ARC has attempted to adjust to the differences in organization and expectation by asking questions about both church leaders, question 35, and the Pastor, questions 33 and 41, and cohesion. The judges' comments further supported this distinction.

The correlation for the ARC and GES Cohesion Scale was .49. The ARC Cohesion Scale was most strongly related to the GES Cohesion Scale. The correlation lent further support to the construct validity of the ARC Cohesion Scale.
It appears that both the ARC and the GES Cohesion variables were measuring similar constructs. Interestingly, the ARC Cohesion Scale showed a stronger relationship with satisfaction than did the GES Cohesion Scale.

Other validity information may be gained through analysis of some relationships that were not hypothesized. The ARC Cohesion Scale obtained significant results with six other GES Scales. After the GES cohesion variable, the next strongest relationship was with the GES Leader Support variable. The ARC Cohesion scale also sought from respondents information about the support of the Pastor and leadership of the church. The Leader Support Scale of the GES was designed to measure the group leader's contribution to a group's cohesion level (Moos, 1994). The correlation for ARC Cohesion and GES Leader Support is .45. Again, this relationship lent support to the validity of the ARC Cohesion Scale. The correlations with the GES Cohesion and Leader Support Scales seemed to suggest the Cohesion Scale was measuring different aspects of cohesion.

Another variable that had a weak but significant relationship was Order and Organization. It appeared that predictability in a church environment also helped contribute to a sense of belonging or cohesion.

Surprisingly, there was not a significant relationship between the ARC Cohesion Scale and any of the involvement variables. The correlations for the ARC Cohesion Scale and
the four involvement variables ranged from −0.06 to 0.23 in terms of strength. The hypothesized relationships that no relationship existed between the ARC Cohesion Scale and attendance and between the ARC Cohesion Scale and the number of activities in which parishioners were involved were both supported. Previous research that had suggested that a correlation existed between these variables consistently reported the presence of a relationship (Estabrooks & Carron, 1999; Evans & Dion, 1991). Estabrooks and Carron (1999) found a significant relationship between cohesion and intention to attend but also found other variables that more directly correlate with attendance. The most intriguing result about the relationship between the ARC Cohesion Scale and attendance began with a lack of relationship with any involvement variable and Cohesion or any involvement variable and any ARC Scale. Seemingly, that rules out that a problem exists with the Cohesion Scale alone and it raises questions about the involvement variables. Other research has found that attendance seems to be over reported (Hadaway et al., 1998; Smith, 1998). One possibility is that the ARC Cohesion Scale is less related to attendance than previously expected and that parishioners' attendance is related to a number of latent factors. Perhaps a church environment is composed of people who attend from distinct but equal factors. One group attends from a cohesive factor, another from duty, and another from devotion but it appeared in this
research as a random correlation. Further study seems to be indicated to identify factors that are related to attendance.

The lack of a correlation between cohesion and the number of activities was also surprising. The answer may lie, in part, in a distinction between church activities and personal devotional activities. Parishioners may have under-reported the number of activities in which they are involved and they may have under-reported the number of hours they volunteer. It might be interesting to identify variables that measure how much impact the cohesion of the church has at home either through importance, time, or personal devotion. Although the variable that requested the number of hours worked was insignificant, it would be interesting to see if a difference existed between the perception of cohesion in pastoral leadership. An inverse relationship might exist between the congregation's experience of cohesion and a member on a church staff because the church staff may experience more demands on their personal time and feel resentful towards the church. Similarly, hours worked and cohesion might have an inverse relationship among a sample of church leaders. Further research needs to be done with regard to the relationship of cohesion and involvement.

The ARC Open Communication Scale

Innami (1994) suggested that open communication may be
defined as the flow of information and expression of feelings and attitudes in a church environment. This flow of information occurs between the pastor and the congregation, within the leadership, and among all the members of the congregation (Gilmore & Barnett, 1992; Innami, 1994; Maloney, 1989; Moos, 1994; Stocks, 1982). The ARC Open Communication variable sought to measure the flow of information, both positive and negative, gradational and symmetrical, around a congregation.

Reliability for the ARC Open Communication Scale was .88 (Cronbach’s alpha). Reliability was considered to be strong and in an acceptable range. Reliability for the GES Expressiveness Scale, using Cronbach’s alpha was reported to be .70 (Moos, 1994). The reliability of the ARC Open Communication Scale exceeded that of the GES Expressiveness Scale.

Regarding the judges’ evaluation of the ARC Open Communication Scale, all of the judges agreed that the ARC Open Communication Scale was an important scale to be included in measuring a church environment. The judges reported that the content of the questions such as parishioners being able to speak their mind, and pastors and church leaders providing important information accurately reflected the content of Open Communication. Several suggestions were made to improve the wording of questions for the Open Communication Scale and revisions were made.
based on the suggestions of the judges.

There was a positive and significant relationship between the ARC Open Communication Scale and the satisfaction variable. Open Communication had a positive relationship with satisfaction and this correlation supported the construct validity of the ARC Open Communication Scale. Innami (1994) found a positive relationship between communication and satisfaction in their research. Moos (1994, 1976) described communication as important for satisfaction in all supportive environments.

Open Communication on the ARC involved more than just feelings and was, therefore, broader than the GES Expressiveness Scale. The GES Expressiveness Scale was defined by Moos (1994) as the ability to express feelings in a group setting and was not as comprehensive as the ARC variable of Open Communication in a church setting. The Pearson correlations for the relationship between the ARC Open Communication Scale and Expressiveness showed a positive and significant relationship between the two variables. The presence of a significant correlation supported the construct validity of the ARC.

Although it was not hypothesized, the ARC Open Communication Scale also had a positive relationship to the GES Leader Support Scale. The GES description of the Leader Support Scale was, "the amount of help, concern, and friendship the leader shows for the members" (Moos, 1994,
Leader support embodied one facet of the ARC Open Communication Scale. The Open Communication Scale sought to measure the flow of both positive and negative communication between the leadership and church members. Because of this relationship, the GES Leader Support Scale provided construct validity to the ARC Open Communication Scale.

The Arc Open Communication Scale also had a relationship with the GES Order and Organization Scale. This positive relationship supported the construct validity of the ARC Open Communication Scale because the scale sought to measure organizational flow of communication (Moos, 1994). There was, therefore, a positive and significant correlation. This correlation supported the validity of the ARC Open Communication Scale.

Another significant relationship existed between the ARC Open Communication Scale and Self Discovery. Moos' (1994) definition included the group's encouragement to discuss personal problems. The group encouragement portion of this variable seemed to support the construct validity of the ARC Open Communication Scale. The interaction between group members corresponded to the positive interaction between members in a church environment. This seemed to present important support that the Open Communication Scale also measured interaction within the church environment. It seemed that Open Communication measured the discussion of church members about their personal problems, the support
they received in response, and the encouragement that was communicated. The validity of the scale was supported that group member interaction was being identified.

The research on other measures of open communication and involvement suggested that productivity and innovation were increased by open communication (Burningham & West, 1995; Gilmore & Barnett, 1992). The relationship between the ARC Open Communication Scale and the involvement variables did not obtain any significant correlations. The range for the involvement variables was from -.17 to .09. The two variables that were hypothesized were that no significant relationship existed between the number of hours volunteered and the number of hours worked and the ARC Open Communication Scale. Research found that open communication was an important variable in church leadership (McPhee & Corman, 1995). Reporting of hours worked and hours volunteered may not have had a significant relationship with Open Communication because of social bias in reporting of hours. It may be that participants reported a moderate average instead of actual time. Some fearing the label of fanatic might under report time volunteered and others, might have over reported to appear more involved. Yet, Drucker (1990) suggested that paid clergy often value harmony and unanimity in communication. Assuming with Drucker, that clergy value unanimity and harmony, the lack of significance between the ARC Open Communication Scale and
hours worked is surprising. It would seem that those individuals with the greatest time investments, both paid and volunteer, would have a significant relationship with Open Communication. It would be interesting to identify a variable of social or political influence in a church environment, with accuracy of reporting, and see if significant correlations exist with Open Communication.

The ARC Open Communication Scale was hypothesized not to be related with hours volunteered (Maloney, 1989; Stocks, 1982; Wagner, 1976; and Wicker, 1969). Open Communication would appear necessary for involvement in a church environment because people interested in becoming involved need information about how they can become involved. The lack of correlation between Open Communication and hours volunteered is puzzling because it may be assumed that people are involved in the church environments that were studied. It is perhaps the presence of a different kind of communication, possibly labeled recruitment communication, that is linked to parishioner involvement. Further research is necessary to investigate the relationship between the ARC Open Communication Scale and the time involvement of both paid staff and volunteers.

**The ARC Strictness Scale**

Strictness is the most controversial ARC scale. Researchers have identified the factor of strictness, as a rigid and authoritarian leadership style, under several
different labels (Bass, 1990; Kelley, 1972). However, operationalizing the definition and forming the questions for the Strictness scale was the most problematic task of the development of any of the ARC scales. Iannaccone (1994, 1996) held that strictness is an important ingredient in a growing church. Wagner (1990), equating strictness with the Pastor's leadership style, identified strictness as a crucial variable in a church environment. Furthermore, Moos (1994) identified the leaders role in a group as crucial to establishing an appropriate environment in which to achieve a group's goals.

Reliability for the Arc Strictness Scale was .56. This reliability level falls below acceptable limits for use in research. In classical test theory, it identifies that the proportion of error variance present is nearly equal to the proportion of true to observed variance (Anastasi & Urbina, 1997).

The problems associated with the Strictness Scale were also identified in the rational evaluation process. Six judges responded positively that strictness was an important variable to measure, one responded that it was not important, three did not respond to the question of the importance of Strictness. However, the judges who did not respond to the question of importance, did present suggestions for Strictness. The majority of the questions, nine, received more than half, six, of the judges' approval.
The judges comments for revisions proved very helpful and changes were made in nine of the items. Several items, three, were deleted on the basis of the judges comments. Several comments were made concerning the discriminatory value of some of the questions.

The works of Wagner (1990) and Kelley (1972) suggested that a relationship existed between strictness and satisfaction. The assumption behind the hypothesis of Wagner and Kelley that strictness and satisfaction were related begins with their review of growth in strict churches. Both have identified from demographic data that stricter churches are growing at a faster rate than mainline denominational churches. They followed the observation about growth with the assumption that individuals attend churches in which they are more satisfied. Other assumptions made were that member satisfaction increased with the involvement of more people. They assumed further that strict churches required greater member involvement. They suggested that the presence of uninvolved members reduced satisfaction. They hypothesized that strict churches required higher involvement and uninvolved individuals became uncomfortable and left. Thus, stricter churches had higher satisfaction levels. The ARC Strictness Scale did not have a significant relationship with satisfaction. However, the ARC Strictness Scale may also not be measuring the "construct" of strictness. Perhaps a
relationship does exist between strictness and satisfaction but the ARC Scale is not measuring strictness. Perrin and Maus found new members in a growing conservative church rated the new church as less strict, directly contradicting the theory of Kelley. The data from Perrin and Maus identified the growing conservative church as more strict based on raters observations, however, new members actually rated it less strict than their previous church. Strictness had also been identified by several researchers as a crucial variable for attendance (Iannacone, 1994; Kelley, 1972; Roof et al., 1979). It is the correlation with attendance that has been the most controversial topic in recent research of all the ARC Scales (Hadaway, et al., 1998; Iannaccone, 1997; Marwell, 1996; Smith, 1998).

The GES variable that might correlate to the ARC Strictness Scale was Leader Control. Moos (1994) defined leader control as the extent to which the leader controled the group and made decisions. There was not a significant relationship between Strictness and Leader Control. It will be important to conduct further research on the ARC Strictness Scale. No other GES variables obtained a significant relationship with Strictness either. The Strictness Scale failed, in part, by attempting to measure strictness through personal attitudes. Several items for strictness asked respondents about absolutist values and moral attitudes. Perhaps congregational strictness differs
from individual strictness and is measured and perceived differently. Items may be able to be revised to identify the perceptions of strictness in a church environment as opposed to the presence of strictness within an individual. Strictness, if it is to be measured, may be more reliable and valid by focusing on the interactions within a congregation. The Strictness Scale, if not eliminated altogether, needs to be rewritten to measure perceptions of the church environment.

The ARC Task Orientation Variable

Task orientation was defined by Stocks (1982) as how clearly a church's participants can identify their behavior as supporting the mission of their congregation. Task orientation included both the presentation of the mission of a church by the leadership and parishioner's acceptance and participation in the mission. Parishioner participation approached Moos' (1994) definition of the practical tasks necessary for maintaining the group. Moos (1976) said that task orientation was a necessary element in any social climate. Task orientation was identified in the literature as related to satisfaction and performance (Maloney, 1989; Moos, 1994; Stocks, 1982; Veitch & Arkkelin, 1995;).

Initial reliability for the ARC Task Orientation Scale was .88. The reliability for the ARC Task Orientation Scale was considered to be strong. The GES Task Orientation Scale reported reliability for the Task Orientation Scale to be
.72 (Cronbach's Alpha). The ARC Task Orientation Scale seemed initially to have good reliability.

The judges unanimously agreed that the ARC Task Orientation Scale was an important variable to measure in a church environment. The judges' evaluation of the Scale as a whole was approved. Furthermore, the judges endorsed the items for the scale with only nine revisions suggested for the scale. The judges overwhelmingly approved of the items written for the ARC Task Orientation Scale. Still several items were rewritten according to suggestions made on the Task Orientation Scale and generally for all the scales. Suggestions for revisions were not directed at the semantic meaning of items but rather at the most efficient semiotic form for the questions. No questions were identified for elimination by any of the judges. It appeared the judges approved of the items for the ARC Task Orientation Scale.

Research had indicated that a relationship might exist between the ARC Task Orientation Scale and satisfaction (Maloney, 1989; Moos, 1994). The results obtained between the ARC Task Orientation Scale and satisfaction did have a statistically significant relationship. The correlation with satisfaction was the largest for any of the ARC variables. This lent support to the Task Orientation Scale as an important variable to measure in church environments.

Further construct validity for the ARC Task Orientation Scale came from the GES Task Orientation Scale. The
definitions of these two variables were fairly consistent across the two instruments. Moos (1994) defined task orientation as the completion of concrete practical tasks and the decision making and training process, while the ARC also included, the definition and description of a church mission or task. It appeared that both the ARC and the GES were measuring similar variables.

The ARC Task Orientation Scale was suggested in the literature as having a strong relationship with involvement ( Stocks, 1982; Veitch & Arkkelin, 1995; Wagner, 1976). The ARC Task Orientation Scale did not obtain any significant results with any of the involvement variables. It was hypothesized that no significant relationship would exist between the ARC Task Orientation Scale and the number of hours an individual volunteers. Research has previously found relationships between these two variables (Hofman, 1993; Sundstrom et al., 1990). However, recently the research of Salas et al. (1999) found no significant relationship between task orientation and performance. It was also hypothesized that no significant relationship would exist between the ARC Task Orientation Scale and the number of activities in which a person is involved. Stocks (1982) reported that he found a significant relationship between a task orientation variable and the number of activities in which a parishioner is involved. Wicker (1969) found a significant relationship in his research. The ARC Task
Orientation Scale did not find any significant relationships with involvement. Previously it had been suggested that unreported private contributions of time and involvement might account for the lack of significance in the correlations (Chatters et al., 1992). A relationship between Task Orientation and satisfaction without a relationship between Task Orientation and involvement seems perplexing. One might expect that some individuals become involved out of a sense of duty. Perhaps individuals lacked a sense of purpose in their environment and were being recruited effectively without any sense of task orientation. Further research is necessary to study the relationship between the ARC Task Orientation Scale and involvement.

The ARC Variable of Order

Order was defined in the research literature as the rules and hierarchy that exist in a church to allow it to maintain flexibility, increase satisfaction, and achieve its goals (Finney & Moos, 1984; Moos, 1994; Roof et al., 1979). Order was viewed in the literature as an important variable for a church environment to measure. The ARC sought to measure particularly the congruence and comfort level of church services. Do services start and end on time in the perceptions of the parishioners? Do parishioners feel constrained during services? Are the parishioners wary of services becoming chaotic and unpredictable or conversely, rigid and stifling?
Initial reliability for the ARC Order Scale was .84 and the coefficient suggested that the reliability for the scale was strong and in the acceptable range. The GES Order and Organization Scale reported reliability as .85, (Cronbach’s alpha). The reliability coefficients for both the ARC Order Scale and the GES Order and Organization Scale were close.

The ARC Order Scale was approved by eight judges as a significant variable in a church environment. The judges identified the Order Scale as having evidence of relating to order. The judges approved of the items as well. They identified only minor revisions which were made on several of the items. They reported that each of the items was good and appeared to relate to order.

Research suggested there would be a statistically significant relationship between the ARC Order Scale and satisfaction (Roof et al., 1979). The correlation for the ARC Order Scale and satisfaction is .45. It is consistent with the literature and that order and satisfaction be related and a significant relationship was found. Therefore, the relationship argues for the construct validity of the ARC Order Scale.

The ARC Order Scale and the GES Order and Organization Scale are also correlated. This suggested that the Order Scale measures the perception of structure of members in an environment as was proposed in the initial definition. The GES Scale for Order and Organization also sought to measure
the perception of stability in a group environment. This sense of stability was also part of the construct of Order for the ARC. The correlation with Order and Organization on the GES scales seemed to support the construct validity of the ARC Order Scale.

The ARC Order Scale did not have any significant relationships with involvement variables. The hypothesized relationships were that no relationship existed between the ARC Order Scale and with attendance and the number of hours worked per month. The hypotheses were supported. The relationship with attendance was hypothesized by Schaller (1984) and Wagner (1976) as being significant. They suggested that people attend environments that they find having appropriate and congruent structure. The relationship between Order and hours worked was hypothesized by Kelley (1976), Arterburn and Felton (1991), and Wicker (1969) that church leaders, having the opportunity to develop structure, have a significant correlation with order. These relationships were not found to be significant. No other involvement variables were found to be significant either.

The lack of significance between the ARC Order Scale and attendance was surprising. However, Order may be a necessary criterion but did not stimulate a desire to attend. Perhaps, Order is significantly correlated with non-attendance and reasons for non-attendance are not
symmetrical with reasons for attendance. There was not a significant relationship between the ARC Order Scale and the number of activities involved. Again, perhaps when a perception of order exists in an environment, people remain uninvolved but that the sense of disorder and disorganization becomes an impetus for involvement. Research has suggested that individuals are more likely to become involved in activities when they have a sense of predictability about the events. Further research into the relationship of Order and involvement needs to be conducted.

**Summary**

The discussion has identified that the reliability for all of the ARC scales is in an acceptable range and either exceeded or is comparable to the reliability of the GES scales with the exception of the ARC Strictness Scale. The initial reliability for the four remaining scales represented an acceptable beginning for research on the ARC.

The rational evaluation for the ARC scales is strong for the four ARC Scales of Cohesion, Open Communication, Task Orientation, and Order. Judges reported that the items for each of the scales was acceptable. The judges further rated most of the items in each of those four scales as strongly related to the content being assessed. Judges were mixed in their responses to the ARC Strictness Scale. They approved of the scale with a majority but they asked
important questions about the content validity of the scale.

Initial construct validity was supported for four of the scales: Cohesion, Open Communication, Task Orientation, and Order by a significant relationship between the ARC Scales and Satisfaction. Further construct validity was found for the four scales which had a significant relationship with a corresponding scale from the GES. None of the four ARC scales had any significant relationships with involvement and so, involvement was unable to add any evidence for the construct validity of the ARC Scales. The ARC Strictness Scale did not have significant relationships with any other variable. The ARC Strictness Scale does not have any evidence for the construct validity of the Scale. Further research and work needs to be conducted on the Strictness Scale before any results from the Scale are viewed as valuable.

Limitations of this Study

Several limitations of this study arose subsequent to the research design and concurrent with the enlisting of churches and the obtaining of data in churches.

Chronologically, the first limitation came in the form of an inability to enlist churches and pastors to participate in the study. An initial pool of churches only obtained permission from three churches to participate in the study. The original research design called for three churches in Arizona to participate, no church in Arizona
agreed to participate. Seven churches were ultimately used in the study instead of the initial 10 due to the paucity of agreement to participate in the study.

Another serious limitation occurred in enlisting support from those attending in church. After three churches had been surveyed, only 34 responses had been obtained including one church at some distance and expense from which only six responses were obtained. After the fourth church, efforts were made to increase the sample size in the remaining three churches to be surveyed. This decision was made, in part, because it appeared that only seven churches would be available to participate within the time and budget limitations set for this study.

This initial study is limited by time constraints from developing a larger base of participants and churches for the study. These time constraints also prohibit a longitudinal study of churches that were involved to view the manner that they develop, revitalize, or die. It might also be interesting to follow one of the participating churches through a pastoral transition.

Location constraints limited the sample size and diversity. A larger geographic sample would be desirable to the four cities in which the participating churches are located. It would be interesting to have a larger geographic sample of participants.

Financial constraints also restricted this initial
study. It would have been preferable to purchase other validation measures but the financial resources for the study would not allow that extra expense. Financial constraints also prohibited finding a wider base of participants in different locations.

**Future Research on the ARC**

This study was only an initial study of the reliability and the validity of the ARC. There is need for other research to be conducted before use of the ARC can be recommended. Initial recommendations discussed below about further validation of the ARC Scales refers to the four scales of Cohesion, Open Communication, Task Orientation, and Order only. There needs to be more validation of the ARC and each of the ARC Scales. Future research might use item analysis to further develop the ARC Scales and items. Concurrently, an item analysis might be profitable in developing the ARC Scales to eliminate questions that do not discriminate or have been misunderstood. Also, to refine the issue of wording around the Pastor, pastors, and church leaders that will be applicable in both large and small church environments. Further construct validity of the relationships between the ARC Scales and satisfaction are needed. More correlational studies between the ARC Scales and involvement measures are needed. Another important research study that needs to be conducted is a factor analysis on the ARC, and whether the factor structure
supports the Scales of Cohesion, Open Communication, Task Orientation, and Order.

The ARC Strictness Scale, in particular, needs to be eliminated or rewritten. A factor analysis of the Strictness Scale should be conducted to identify if enough of the questions might be assessing strictness. It still appears from the research that strictness, conservative, authoritarian, liberal might be an important scale to measure in a church environment. Yet, more clearly identifying the construct being measured and the wording around the construct remain an extremely difficult task. In accordance with some of the judges suggestions, the construct might be changed to reflect perceptions about church leadership styles.

Further research in church environments

Two studies might prove profitable to church’s and researchers, while also providing more data for continued research. In addition to the ARC Scales, variables that are intriguing for further study are: church size, pastor tenure, church age, satisfaction, involvement and possibly, productivity.

Perhaps a longitudinal study could be conducted using the ARC and watching the developmental stages of churches with the previous variables. It might also be interesting to study a church or group of churches in a building program. It appears that questions on involvement might include personal and private devotion and individual care.
giving as well as corporate volunteer service.

A second longitudinal study would be to follow a group of new members in different size churches through their church experience. To administer the ARC at regular intervals through their church life and to particularly watch patterns of cohesion and task orientation.

**Conclusion**

This study on the development of the ARC has provided a good start as an reliability and initial validation study. It appears that the ARC may provide important and desirable research in a church environment and may fill a significant void in environmental assessment. The ARC may help Pastors, church leaders, and researchers to better understand the factors that may be present in a church environment. The ARC shows promise of measuring some important factors in a church environment. This is, however, just an initial study of the ARC’s reliability and validity. More developmental work is needed on the ARC. Concurrently, more validation studies are needed on the ARC to further its profitability as a church assessment instrument.
APPENDIX
THE ASSESSMENT OF RELIGIOUS CONTEXTS

THE SCALE, SCORING, REVISION, AND SOURCE OF THE ARC

THE CHURCH INVOLVEMENT SURVEY
The ARC

An Assessment of Religious Contexts

Instructions

This questionnaire contains 80 statements about different areas of church life. Please read each statement carefully. Respond to each statement as they apply to the church you are attending today, even if it is not the church you usually attend. The statements in the questionnaire will be about your perceptions and opinions of church services, the people of the church, attitudes in the church, church leadership and so forth. There are no right or wrong answers. Results of the questionnaire will be summarized only as a group. In no instance will responses of individuals be reported.

Please do not put your name on your test booklet or your answer sheet.

Respond to each statement on the ARC answer sheet. Please clearly mark your answers. You may use pen or pencil. Please erase or cross out answers if you change your mind.

Each statement has five possible responses. Please circle either Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA).

Respond to every statement. Do not omit any items.
Mark only one response for each statement

1. I am confident that my church is doing the right things.
2. I have given up most of my friends to be involved in my church.
3. People in church should do what our Pastor says, first and ask questions later.
4. I feel like I am all alone in the world.
5. If I had a problem, I could call friends who attend our church.
6. People in our church seem friendly.
7. This church has the right amount of freedom in the services.
8. I feel close to others at church.
9. I am not sure who is in charge at church.
10. The administration of this church is very efficient.
11. I know our church mission.
12. My church regularly evaluates its goals.
13. I can ask almost any question at church and get an honest answer.
14. A lot of activities of the church seem trivial to me.
15. I feel I have an important role to play in my church.
16. I am very comfortable with the way church leaders oversee my church.
17. This church is well organized.
18. I wish they would tell me more about how money is being spent at church.
19. During the week, I often talk with other people who attend our church.
20. Sometimes people seem cold at church.
21. I wish I knew how I could become more involved in our church.
22. If people at church really knew what was on my mind, they would not like me.
23. Members ought to get the Pastor's permission before making important decisions for their life.

24. There are people at this church with whom I can share my deepest thoughts and feelings.

25. My church demands that I give more of my time to help out at the church, than I ever have in the past.

26. It seems like there are a lot of distractions during the church service.

27. I think there is only a small group of people who know what is really going on at church.

28. I agree with the goals of my church.

29. Church leaders are receptive to the questions I have.

30. Sometimes things seem too orderly in this church.

31. I do not understand the Pastor's vision for our church.

32. Sometimes, it seems like my church is not doing anything important at all.

33. The Pastor makes me feel special.

34. I try to do what church leaders ask me to do without question.

35. Church leaders do not have time for me.

36. Church leaders provide information about church income and expenses.

37. I support the mission of my church.

38. People in the church listen to one another.

39. Visitors should "clean up their act" before they come to visit our church.

40. My feeling about church discipline is "do whatever it takes" to get people to straighten up.
41. The Pastor cares.

42. It is important for our church to be flexible and change to meet the needs of people.

43. I think there are too many rules and policies in this church.

44. The leaders in our church are one of us.

45. My church has a good way of getting people involved.

46. Sometimes the church services seem chaotic.

47. I only want to see people at church once a week.

48. One of the best things at this church is the fellowship.

49. People in our church are willing to help me when I have a problem.

50. Church services should be more structured.

51. I wish the Pastor would explain more (or less) of what’s going to happen next in a church service.

52. Church services should start and end on time more often.

53. Churches should not make moral judgements on members who are out of line.

54. I feel comfortable with the way services are conducted.

55. Sometimes it seems like my church is doing things just for the sake of activity.

56. The Pastor should watch the time of the services more carefully.

57. This church is careful not to make a number of demands on members’ time.

58. My church needs to discipline its members more often.

59. Some people in our church are very resistant to the goals of our church leaders.

60. The Pastor encourages people to say what is on their mind.

61. Members know better than to say what they are thinking and feeling.

62. The Pastor is patient with people who ask questions.
63. When people at our church know I am hurting, they express their concern.

64. Honest dialogue is accepted in our church.

65. I have given up talking with my family because they do not understand my commitment to my church.

66. The leaders of our church speak openly about the decisions facing our church.

67. The different ministries of the church (children, youth, etc.) are well run.

68. If I have questions about money or decisions that the leaders make, I can ask them.

69. Church members should be seen and not heard.

70. I have to keep quiet about what I really think at church.

71. The Pastor ought to delegate more responsibility to others.

72. The Pastor is very clear on his goals for our church.

73. The people of my church are tolerant of member’s lifestyle choices.

74. I am giving more money to the church, than I have given to charities or churches in the past.

75. I often wonder, “What are we trying to accomplish?”

76. It is important for people who attend our church to dress “right” so we can reflect the proper image.

77. I can be myself at church.

78. Church leaders should organize more (or less) of what goes on in church services.

79. If I have a problem, the people of the church will be there for me.

80. It is hard to get to know others at church.
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**Note.** Ques = Question, Scor = Scoring, Rev = Revised by the judges, Task Orient = Task Orientation, Pos = Positive Scoring, Neg = Negative Scoring, Open Comm = Open Communication.
Church Involvement Survey

Please circle the answer that applies to the church you are attending this morning.

How long have you attended this church?
First time 2-4 times 6 months 1 yr.
5 yrs. 10 yrs. More than 10 yrs.

How many services/Church meetings (Bible Studies, Prayer mtgs., Committee Mtgs., Etc.) do you attend in a month.
Less than 1 month 1 Month 2 Month 1 Week
2 Week 3 Week 4 or more Wk.

Below is a list of typical church activities. Please circle those activities in which you are currently involved.

Choir Set up of facilities Teach
Play instrument Clean up of facilities Drama
Sunday School Visitation Church Mother
Small Group Office Work Worship
Evangelism Discipleship Preach
Prayer Group Supervision Home Group
Deacon (ess) Elder Music

Other _______________________

Number of hours per month in which the church pays you to work ________.

Number of hours per month in which you volunteer to work for the church ________.

In the past three months, has there been a change in your
Church Involvement Survey

In the past six months, has there been a change in your involvement?  Y  N

Has your involvement increased?  Y  N
Has your involvement decreased?  Y  N

Have your time commitments outside of church increased?  Y  N
Have your time commitments outside of church decreased?  Y  N
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