

THE AFFECTS OF INTERNET-MEDIATED SOCIAL
NETWORKING ON CHRISTIAN COMMUNITY

by

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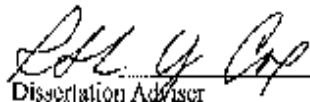
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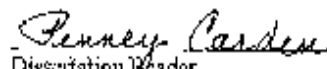
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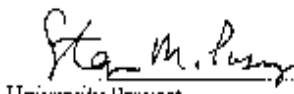
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“Trust in the Lord with all your heart, and do not rely on your own insight. In all your ways acknowledge him, and he will make straight your path” (Proverbs 3:5-6; NRSV).

My first acknowledgement goes to God the Father, God the Son, and God the Holy Spirit for the blessings of education, learning, and the stamina and desire to move forward. It is only by God’s grace that a former high school dropout with a GED achieved this accomplishment.

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I have been blessed with eight children. Together with their children, and their children’s children, we are a “tribe” of over 30. My prayer is that this achievement on

my part will give them the inspiration, courage, and dedication to fulfill all of their dreams no matter how long it may take.

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DEDICATION

I dedicate this work to my parents, Olav and Elsie Johannesen. I miss them every day but know their love and support continues to encourage my life.

I also dedicate this work to my beloved husband and best friend Latif Lighari and our children: Nathan, Jason, Bethany, Sofia, Rukhsanah, Yusef, Jehan, and Shahnaz, and to our grandchildren: Jeremiah, Zarinah, Nathaniel, Amanda, Christopher, Joshua, Jesse, Alysabeth, Maria, Amani, Iliana, and Elias, our great-grandchildren, Roxanna, Jenna, Lexi, Lili, and Emmett and all the generations to come.

ABSTRACT

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This study examined the relationship of Internet-Mediated Social Network, the formation of adult Christian community, and its affect on adult Christian growth. The researcher compared and analyzed three types of adult Christian learning communities: traditional, hybrid, and virtual. Each week over the course of six weeks, the three types of learning communities met weekly. Participants were pretested and posttested, utilizing instruments that evaluated spiritual maturity. Analysis of interactions on Internet-Mediated Social Networking was conducted. Findings were analyzed both quantitatively and qualitatively. Results indicated the usage of Internet-Mediated Social Network offers potential for adult Christian education and should be further explored.

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CHAPTER I

INTRODUCTION

This study explored the relationship of Internet-Mediated Social Network, the formation of adult Christian community, and its effect on adult Christian growth. The trajectory of the Christian community began with the formation of the people of God during the time they were led out of Egypt (Hanson, 1986) and continues to the present. The 21st Century church is evaluating the possibility of authentic Christian community in cyberspace and if it is possible, what tools are necessary (Campbell, 2005c; Hipps, 2009). A study concerning the formation of community online conducted by Kavanaugh, Carroll, Rosson, Zin, and Reese (2005) found that face-to-face interaction was not required for communal social activity to take place. To determine if the use of Internet-Mediated Social Network had impact on the development of Christian community and adult spiritual growth, data were collected and analyzed from three types of Bible study groups over a period of six weeks during fall of 2011 and spring of 2012.

Statement of the Problem

This research sought to determine if Internet-Mediated Social Networking could form and maintain community for the purpose of adult Christian growth. The work of Fowler (1981, 2000) found that spiritual growth often stagnated in midlife adults even though faith development was possible and should continue throughout the lifespan. Furthermore, Everist (2002) and Hargraves (2010) stated that adult learning communities within the church often lacked priority and were neglected, contributing to lack of growth

in this population. They (Everest, 2002; Hargraves, 2010) indicated this was a lack of priority placed on the spiritual growth of adults.

Community is a factor in adult learning (Mezirow, 2000; Palmer, 2007). It is also a biblical concept (Hanson, 1986). Rand (2009) connected Christian community with the meeting and interaction of believers. This definition did not differentiate between embodied community and non-embodied community. Rand (2009) maintained that time constraints resulted in less face-to-face participation among adult members of the faith-based learning community and that Internet-Mediated Social Networking had potential for the enhancement of participation. Given the communal orientation of the Internet (Campbell, 2005a) and the ability of Internet-Mediated Social Networking to form community that is both significant and meaningful (Carroli, 1997; Hampton & Wellman, 1999), this media has the potential to ameliorate the issues preventing the formation of community and the lack of growth in midlife adult Christians. This study explored the potential of Internet-Mediated Social Networking as a tool to enhance growth in midlife Christian adults.

The purpose of this study was to test the effects of Internet-Mediated Social Networking technology on the development of Christian community for adult learners. Use of Internet-Mediated Social Networking has grown among all age groups since the inception of Facebook in 2004 and reached one billion users by October of 2012 (Smith, Segall, & Cowley, 2012). Due to the busyness of life and the lack of time for intimate relationships, participation in the virtual church or the “church of Facebook” was seen as advantageous (Rand, 2009). Based on the historic Christian model of the adult learning

community, this research explored the impact of Internet-Mediated Social Networking on the formation of community in three types of adult Christian learning communities.

To achieve the purpose of this study, comparison and analysis of three types of adult Christian learning communities: traditional, hybrid, and virtual was conducted. Using the Faith Development Scale (Fowler, 1981; Barnes, Doyle, & Johnson, 1989) and The Spiritual Maturity Index (Ellison, 1984), each individual was pretested and posttested. Training was given to each group that utilized Internet-Mediated Social Networking to assure proper usage. Individuals in each learning community maintained a checklist recording the frequency and nature of contacts with other members of their respective community. Interviews were conducted with 72% of the participants and were analyzed using content analysis to determine levels of growth and attitudes of community. The Facebook group pages were likewise analyzed using content analysis. The analysis provided a basis for the understanding of how Internet-Mediated Social Networking affects adult Christian growth and the formation of Christian community.

Background

The education and development of Christian disciples is one of the key functions of the church (Everist, 2002; Hargraves, 2010). However, in personal communication with Everist, she believed that adult congregational learning was often unplanned, lacked intentionality, and thought. The work of Fowler (2000) determined that the stages of faith development continue throughout the lifetime of the individual believer. Nonetheless, Fowler found that few individuals progressed through the identified stages of faith development. This study explored the applicability of Internet-Mediated Social Networking for developing and maintaining adult Christian learning community leading

to adult Christian growth and development.

It is the mission of the church to cultivate disciples by providing ways to foster the growth and enhancement of community for learning (Everist, 2002; Palmer, 1980). Researchers (Bennett, 2010; Cranton, 2006; Kasl & Elias, 2000; Mezirow, 2000; Palmer, 2007) found that the formation and experience of community enhanced the adult learning experience. Andragogy is linked to the concept of transformational learning (Kasl & Elias, 2000). In order to have a reordering of core beliefs, Brookfield (2000) asserted that transformational learning is a cognitive event rather than sequential learning. Similarly, Bennett (2010) determined that cooperative learning and formation sharing led to the construction of new meaning and the development of knowledge. Palmer's model of learning (2007) as a communal event evolved from previous work, which indicated community to be the most pressing need of humanity (Palmer, 1980).

God's interaction with humanity came through community. The representation of Palmer's (2007) educational model was a community of learners encircled around the subject or truth called a community of truth. Ferguson (2010) found that community was being expressed in new ways through the Internet. Previously, this new community was experienced on Internet bulletin boards, emails, and websites (Campbell, 2003), but these formats have been largely replaced by social networking media, for example Facebook. The use of Internet-Mediated Social Networking has promise for the development of Christian community.

Foundational to this study is an understanding of the concept of community in Christian theology and practice. Christian community is grounded in Trinitarian theology and practice (Friesen, 2009; Hipps, 2005, 2009; Rice, 2009). Christian education takes

place in community (Browning, 1991). Biblical community is initiated by God and is a divine grace (Hanson, 1986). The concept of community continues throughout the history of the people of God (Banks, 1994; Bonhoeffer, 1954; Hellerman, 2001; Hanson, 1986). Biblical community began in Genesis and continues to the present day. Hanson (1986) maintained that Israel's covenantal law provided the basis for community. Israel's community was in covenantal and communal relationship with Yahweh. Hanson (1986) considered community as the beginning of an understanding of the nature of God, a God who draws the community of Israel into relationship with Himself. Jones (2008) echoed this claim that humanity was created for relationship. The language of the creation narratives supports this assertion (Brown, Driver, & Briggs, 2004; Brueggemann, 1982; Levenson, 1988). Hellerman's (2001) treatment of Christian community explored the New Testament use of the family metaphor. Hellerman determined that for Jesus, this metaphor was not one of many metaphors for community but the dominant social model and definition of community. Furthermore, surrogate kinship language is found throughout the Pauline epistles and in the writings of the early church fathers.

The Trinitarian nature of the Godhead is the origin of the community of faith (Baab, 2010; Brueggemann, 1982; Campbell, 2005a; Eiler, 2006; Friesen, 2009; Iselin & Meteyard, 2010; Purves, 1998). The Trinity is a community of mutuality, sharing life that flows from the One to the Other in reciprocity and interdependence (Zscheile, 2010). The life of the Godhead is participatory. The church's birth at Pentecost was an event of inclusion and participation. The early church was a networked culture. The nascent church formed community through fellowship, teaching, and support. In this way, the church's structure was networked rather than bureaucratic. The church's network

structure consisted of social communities that were decentralized manifesting mutuality and participation. In community, the early church participated in the Christian doctrine of the Trinity. Friesen (2009) proposed that an understanding of social network media such as Facebook provided an understanding of the Christian theological concepts of mutuality and inter-relatedness of being within the members of the Trinity, perichoresis and kenosis. Perichoresis and kenosis are understood as the self-emptying by Jesus of His divine nature which the Incarnation relates (Harvey, 1964). Using the metaphor of a network, Friesen (2009) maintained that Christ was the hub of a communal relationship of oneself to God, God to God (Trinity), God to others, and self to others.

In the late 20th century, Palmer (1980) wrote of the need for Christian community. For Palmer, Christian community resulted when the believer sought the presence of God. The presence of God was experienced as the believer was drawn into community with others through acts of service and love toward others, which defines Palmer's (1986) perception of Christian community. For Palmer (1986), faithful living was necessary to perpetuate community. In the 21st century, religious scholars (Hippis, 2009; Friesen, 2009; Rice, 2009) have raised questions concerning the use of Internet-Mediated Social Networking and Christian community. In an interview with communications scholar (Lature, 2010), Hoover, he echoed concern that Christian scholars had not yet explored the answers to these questions. Similarly, Thoren (2010) asserted that theology has not caught up to the new media. Nevertheless, the technology of Internet-Mediated Social Networking was perceived valuable to the ministry of the church by Thoren. However, Baab (2010) and Campbell (2005a) concluded these questions were already answered because the Internet and Internet-Mediated Social

Networking is already impacting and creating the community of faith.

The exponential growth of Facebook makes it the leading Internet-Mediated Social Network (Foster, 2011). Individuals of all age brackets use Facebook. Rice (2009) reported that in late 2008, the fastest growing population of new Facebook users was 55-year-old women. Research conducted by Madden (2010) found that there was an 88% increase in use of Internet-Mediated Social Networking by Internet users age 50-64 during the period of April 2009 to May 2010. Facebook, the primary Internet-Mediated Social Network site, may be an advantageous technological tool for the development and maintenance of midlife adult Christian community.

Interaction on Facebook is not limited to meeting new people. Ellison, Steinfield, and Lampe (2007) found that participants on Facebook did not seek to meet new people but to enhance and further embodied, face-to-face relationships that occurred offline. Ellison et al. (2007) concluded that online involvement did not take away from offline interactions and socialization, but strengthened them by maintaining social ties. This media is a tool that can be used to enhance existing relationships within the Church and also create new relationships.

In addition to technology's impact on relationships, technology and media have the power to change culture. In 1964, McLuhan coined the phrase "the medium is the message" concluding that media was an extension of the human and that media's (or technology's) control of the message ultimately changed everything. Furthermore, technology changed the understanding of the world by eliminating the constraints of time and space causing immediacy in the transmittal of information. Later, Kranzberg (1986) asserted that technology was neutral, neither bad nor good. Its value was shaped by its

use and social construct. Both McLuhan and Kranzberg agreed that technology and media brought change. Contemporary Christian leaders (Hargraves, 2010; Hess, 2010; Jones, 2008; Thoren, 2010; Zschiele, 2010) have called for embracing Internet-Mediated Social Networking as a potential positive tool for ministry in the church.

To date, there has not been a significant body of literature or research on the development of Christian community through Internet-Mediated Social Networking and its role in adult congregational learning. However, there has been research on the impact of Internet-Mediated Social Networking on community (Ellison et al., 2007; Harrison & Thomas, 2009; Kavanaugh et al., 2005; Smith & Kollock, 1999). The dearth of such research for Christian community is related to a difficulty in reconciling such theological issues as incarnation and embodiment to a dis-embodied media. Some researchers (Bazin & Cottin, 2004; Campbell, 2003) contended that society is entering into a time of redefinition of embodiment. They maintained that an individual can be embodied by words rather than by physicality alone. Thoren (2010) differentiated between place-sharing and connection. Place-sharing was incarnational, and as such could only occur with embodiment and physicality. Thoren deemed place-sharing as crucial to the formation of strong bonds that led to spiritual growth. On the other hand, connection could occur in a mediated environment. Internet-Mediated Social Networking was effective for connection. Connection was also crucial for those who were disconnected from the community of faith because of inability to gather physically with other members of the community.

The Internet, as the new front door of the church (Baab, 2008; 2010), has become its initial offering of hospitality. Baab found that when used as a networking tool, this

venue allowed people to understand God's current and previous activity both locally and globally. Campbell (2006) found that individuals join online communities for relationship. Additionally, relationships are often lacking in the offline church, and online relationships offer hope for change within the offline church through discussion of issues. Likewise, the use of Facebook enhanced the Kingdom principles of friendship and associations (Forbes, 2008).

Anecdotal and significant empirical evidence suggest that Facebook has the potential to enhance community. The question is how it can be used to enhance adult Christian growth and development. The neutrality of this technology (Fernback, 2002) will quickly be incorporated by its uses. While some argue that a solely online, Internet-Mediated community can never be a true Christian community (Hipps, 2009), it is possible that this new media is a potential tool to enhance community and learning for adults within the context of the local congregation.

Research Questions

1: To what degree does the use of Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian learning community have a greater impact on adult Christian learning when compared to a traditional adult Christian learning community?

2: How does the use of Internet-Mediated Social Networking group page affect the number of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and a computer mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

3: How does the use of Internet-Mediated Social Networking group page affect the frequency of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and an internet-mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

4: To what degree is there a difference in the perception of the quality of community greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community, and a virtual adult Christian learning community when compared to a traditional adult Christian learning community?

5: To what degree is there a difference in the personal spiritual growth greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian learning community when compared to individuals in a traditional adult Christian learning community?

Description of Terms

Computer Mediated Communications. Computer mediated communications is the process of the exchange of information using networked telecommunication systems (December, 1997). The use of a particular process, such as mediation, to enhance communication is not new. The use of letters is the most ancient form of mediated communication (Donath, 2004). With the advent of the telephone, oral mediated communication became possible. Computer mediated communication is the use of the computer for the media through which communication occurs. Computer mediated communications is further defined as task-related and interpersonal human

communication conducted via a computer. This communication can be both asynchronous with emails and other postings and synchronic with live chats or other live interactive communication (Ferris, 1997).

Community. Community is a fundamental and broad sociological concept (Nisbet, 1966). The sociological definition of community centers on locality (Jankowski, 2002). Community refers to close enduring relationships based on location and status within the entire society (Bell & Newby, 1972). For the purpose of this study, community was understood as to portray relationship of individuals of Christian faith who met together either in person or by use of media for the purpose of Christian growth and development.

Internet-Mediated Social Network. This term is used in place of the previously used term, computer mediated social networking. This change in terminology was made to reflect the use of Facebook through technology other than the computer, including smart phones, tablets, and other portable devices. Boyd and Ellison (2007) defined a computer mediated social network as web accessed services operating within a confined system that were either public or semi-public where shared connections were maintained; with a text oriented network of other users who moved freely within the network. Additionally, users of these services maintained that this networking implied relationship. Boyd and Ellison's definition upheld that the use of this network was primarily to maintain relationship. In the present study, the term Internet-Mediated Social Network refers to a social network that is accessed using the Internet.

Significance of the Study

Pagitt (2010) stated that culture was shifting from the information age to the inventive age. This shift provided opportunity for the church and necessitated change. This shift has created a need for connection. In order to facilitate connection, Pagitt (2010) saw an emphasis on small congregations rather than large or mega congregations. These smaller, more intimate congregations would allow people of faith to gather to share life experiences in community. Zschiele (2010) favored the word *participatory* over inventive. Some people may not desire the ability to create and form their own culture through participation in what Zschiele termed the participatory age. Furthermore, popular culture controls the conversation and commands attention (Hess, 2005). Christian education must engage the culture. With cultural shifts and changes, the church must seek to be relevant through engagement in the culture of technology and media. Hess (2005) stressed that Christ is and should be revealed through the culture. Moreover, the church must know the language and the norms of the shifting culture in order for Christ to be reflected and revealed. Hess (2005) concluded that technologies were a language through which God could reveal Himself. Therefore, it was incumbent on the church to explore new media and new technology to advance the Kingdom of God through the education and training of Christian adults.

Increasingly, people turn to the Internet and particularly Internet-Mediated Social Networking to facilitate their offline relationships and also new online relationships (Boyd & Elliston, 2007; Campbell, 2005a; Hampton & Wellman, 1999; Hargraves, 2010; Rheingold, 2000). Mehlhaff (2008) found that Internet-Mediated Social Networking was redesigning how people build and maintain relationships. Furthermore, it was affecting

how the church communicates. Communication is crucial to the function of the church (Scharer & Hilberath, 2008). The church must be a community of communication, or it ceases to be the church. Churches have discovered that social networking provided a way of communication and the transmission of information that was swift and efficient (Mehlhoff, 2008; Roach, 2011). Research by LifeWay (as cited in Roach, 2011), underscored the utilization of Internet-Mediated Social Networking by churches nationwide. The use of Internet-Mediated Social Networking provided a distributed, non-hierarchical space that encouraged freedom of thought and the exploration of new and divergent thoughts and ideas (Bazin & Cottin, 2004; Zschiele, 2010). The church of each generation must explore the existing and developing culture and technology for ways to be more effective in its mission (Hargraves, 2010).

A media development that may be more significant than the development of the printing press (Hargraves, 2010) is one that should be thoroughly explored. Hipps (2009), a leader in the discussion of the Internet's role in Christian community, doubted that Christian community could exist in a virtual environment. Those engaged in these discussions grappling with the theological questions relating to the shifting culture and the use of new media will find this research significant. Seminaries and other training institutions for Christian leaders will benefit from the present study's exploration of the intersection of media, culture, theology, and Christian education. Denominational leaders in Christian Education will have data with which to develop enhanced methods of Christian education for adults. Local pastors looking for ways to engage adults and facilitate the growth of adult believers will have empirical data supporting the use of Internet-Mediated Social Networking for a tool for Christian development. Local adult

congregational Christian educators will be able to communicate with greater frequency with their class members using the information in this study. It is hopeful that the Kingdom of God will be advanced because of the furtherance of the development of Christian community.

Process to Accomplish

The researcher identified 42 participants who were distributed in three types of adult Christian learning communities: traditional, hybrid, and virtual. The learning communities were made up of adults with a minimum age of 35 who met weekly over the course of six weeks and selected their own curriculum. They were diverse in geography, denomination, and demographics. Each participant was pretested and posttested, utilizing instruments that evaluated spiritual maturity. These individuals were asked to complete a checklist of contacts with other participants within the learning community that indicated frequency, type, and number of contacts. A Facebook group page was introduced to the hybrid and the virtual learning communities. The researcher also tabulated contacts on the respective Facebook group pages for frequency and number.

The traditional learning community comprised the control group and did not utilize a Facebook group page. The introduction of the Facebook group page constituted the independent variable. Both the virtual and the hybrid learning communities utilized a Facebook group page. The researcher provided instruction on its use. Through analysis of contact frequency, type, and number from the participant log, with interaction on the Facebook group page, the researcher was able to determine if a difference existed in community formation between the control, hybrid, and virtual communities.

The researcher began recruiting learning communities in November of 2010. A website was developed with pertinent information concerning the research and process. In addition, a Facebook group page was made available to introduce the research proposal. In September of 2011, individual subjects were contacted and pretesting was conducted to determine spiritual maturity. All participants were given the Faith Development Scale (Barnes et al., 1989; Fowler, 1981) and The Spiritual Maturity Index (Ellison, 1984) before the learning communities commenced (See Appendix C). In September of 2011, those individuals who would be participating in the hybrid and the virtual learning communities were given training by the researcher on the use of Facebook group page.

The Fowler Faith Development Interview was developed by James W. Fowler in 1981 (as cited in Hill & Hood, 1999). It was used to test Fowler's theory that faith development paralleled the developmental theories of Erikson, Piaget, and Kohlberg. Fowler found a parallel and noted that few adults matured through the faith stages or achieved the final stage of universalizing faith. Universalizing faith was defined to depict one that was decentralized and focused on justice. Fowler conducted his research through interviews. Barnes et al. (1989) developed a shorter scale based on Fowler's original scale. These researchers administered this survey to three groups of individuals exhibiting different styles of faith expression. Participants chose between a statement that indicated a literal approach to faith and one that indicated a symbolic approach to faith. These choices were correlated to a stage in Fowler's Faith Development Scale.

The Spiritual Maturity Index was developed by Craig W. Ellison (as cited in Hill & Hood, 1999). The purpose of the instrument was to measure spiritual maturity based

on a continuous developmental process. Ellison saw spiritual maturity as a function of relationship and a strong sense of self. The instrument utilizes a six-point Likert scale. Subsequent research by Buhrow, Calkins, Haws, and Rost (1987) and Bassett, Camplin, Humphrey, and Dorr (1991) establish that the scale had internal consistency coefficients of .87 and .92 respectively. Validity was also established through subsequent administration (Hill & Hood, 1999).

In the autumn of 2011, the various learning communities began meeting on a weekly basis and continued to meet for 6 weeks. The traditional learning communities met face to face (embodied) once a week for an hour. Instruction and discussion occurred during the weekly sessions. All activities related to the learning experience were conducted at that time. Weekly assignments were distributed. Discussions occurred during the class meetings. Participants in the traditional learning communities were asked to complete a checklist indicating contact with other members of their individual group including number, type (embodied, telephone, texting, email, Facebook, Twitter, etc.), and frequency.

The hybrid learning communities also met face to face (embodied) once a week for an hour and continued to meet for 6 weeks. Similarly, with the traditional learning communities, instruction and discussion occurred during this time. Weekly assignments were distributed online on their individual Facebook group page. Also on their respective Facebook page, discussion and review of written assignments were conducted online. Participants in the hybrid learning communities were also asked to complete a checklist indicating contact with other members of their individual group including number, type (embodied, telephone, email, texting, Facebook, Twitter, etc.), and frequency. The

researcher monitored and logged information from the Facebook group pages. Content analysis was conducted on the textual information obtained in this manner.

The virtual learning communities did not meet face to face (embodied). Instruction was given via podcasting or text transmitted via the Internet once a week for 6 weeks. Weekly assignments were distributed online on Facebook. Discussion and review of written assignment were conducted online. Participants in the virtual learning communities were asked to complete a checklist indicating contact with members of their individual virtual group indicating number, type (embodied, telephone, email, texting, Facebook, Twitter, etc.), and frequency. The researcher monitored and logged information from the group pages. Content analysis was conducted on the textual information obtained from Facebook interactions.

The data from the participant checklist sheets were analyzed to determine both the level and frequency of contact. All participants were given the Faith Development Scale (Barnes et al., 1989; Fowler, 1981) and The Spiritual Maturity Index (Ellison, 1983) at the end of the learning community experience. Results from the pretest of the Faith Development Scale and The Spiritual Maturity Index were compared to the posttest. The statistical analysis utilized was a mixed-model ANOVA.

Qualitative information was obtained by interviewing 72% of the participants. Questions were asked regarding feelings of community in their respective group, ease of participation, and overall satisfaction with group experience. The analysis of this information was conducted by content analysis.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Does the use of Internet-Mediated Social Network affect adult Christian community? According to some scholars (Brasher, 2001; Hargraves, 2010; Lundby, 2006), the significance of the explosion of cyberspace and technology rivaled the development of the printing press. Brasher and Hargraves asserted that the impact of this new technology could supersede that of the printing press. Wellman and Gulia (1999) considered it the most significant discovery since the discovery of fire; with impacts yet to be imagined. However, Pagitt (2010) perceived the impact of recent advances in technology more comparable to that of the American Industrial Revolution of 1890-1920. All suggested that a tool of this magnitude affects every area of life including the church.

The largest Internet-Mediated Social Network, Facebook, reached 500 million users worldwide in July of 2010 (Atkinson, 2010). An indicator of the popularity and significance of Facebook occurred in August of 2010 when Facebook was estimated to be worth \$33 billion (McIntyre, 2010). A report by Pew Research (Pew Research Center, Pew Internet and American Life Project & Elon University, 2010) indicated that 85% of respondents felt that Internet-Mediated Social Network had a positive impact on their social world. A subsequent study by Pew (Raine, Purcell, & Smith, 2011) found that 80% of Internet users participate in civic and social groups compared to 54% engagement

by non-Internet users. In 2011 newspapers reported the role of Facebook in the toppling of repressive Arab governments (Cohen, 2011).

The growing field of computer mediated communication provides a foundation for exploration into Internet-Mediated Social Networking and its role in adult congregational learning. Ackland (2009) believed that Internet-Mediated Social Networks provided an opportunity for new research into friendship formation and social networks. Ackland (2009) maintained that social scientists seemed ready to embrace this new and emerging area of research. Moreover, Ackland (2009) saw that social scientists viewed the Internet to depict a web of networked people and organizations. These new social networks provided the opportunity for the social sciences to study communication and the development of relationships.

While the church grapples with the changes in community developing from the use of Internet-Mediated Social Networking, it must also reflect on the deep theological issues that define Christian community. Historically, the church has understood community to be fundamental to its existence and ontological in nature (Bolsinger, 2004; Zizioulas, 1985). Grounded in the theology of the Trinity, the Incarnation, and the Image of God, humanity must have connectedness and community (Friesen, 2009; Rice, 2009).

An understanding of networking provides a metaphor for difficult theological concepts. Friesen (2009) views theology through the lens of networked relationships. He maintained that an understanding of networks led to an understanding of the relationship of the Trinity and the inter-relatedness of humanity to the Trinitarian relationship of God.

Theologian Grenz (1996) explains that to be in the image of God means to be in community. Thus, it was a special relationship reserved for humanity. The Trinity is the

original community of mutuality and oneness (Campbell, 2005a). The Church is to reflect mutuality and oneness to be a community of faith. God created humanity for relationship, and human beings were made to be deeply interdependent on each other (Bolsinger, 2004; Grenz, 1996; Palmer, 2004). The "Image of God" is demonstrated through relationship found in the relational Trinitarian nature of God (Bolsinger, 2004). Palmer maintained that relationship or community is necessary for humans to flourish. Additionally, Palmer understood community to mirror the merging of soul and role.

Campbell (2005a) defines religious community to depict an image of the divine on earth. The doctrine of the Trinity teaches the life of God with humanity and the interaction of individual lives together (LaCugna, 1991). Christian community is formed when God initiates and draws individuals into the life of the Trinity and each other (Bolsinger, 2004).

Christian growth and education occurs in community. Everist (1983) used a model of a "worshiping community" that is multi-directional and bears resemblance to Palmer's (2007) community of truth. A healthy church, a community of faith, is typically in a state of redevelopment and relearning (Campbell, 2000). Christian community forms the foundation and is a vehicle for Christian growth and development.

There is some empirical evidence that Internet-Mediated Social Networking can impact community. A study by Kavanaugh et al. (2005) found that Internet use strengthened social contacts, community engagement, and attachment. Pew Research (Pew Research Center, Pew Internet and American Life Project & Elon University, 2010) found that rich social relationships coupled with the ability to build community "on the

fly" have resulted from the use of Internet-Mediated Social Networking. Campbell (2005a) found that the Internet was a social network with the primary goal of making connections with other people. Additionally, the Internet had a communal orientation assessing the users equal to spiritual pioneers.

Internet-Mediated Social Networking is a new frontier worthy of exploration. Researchers are divided on the scope of its significance. However, they are not in disagreement over its potential for building community and relationship. When utilized as a tool, it may facilitate Christian community and growth. When considered a concept, it may facilitate understanding of the mysteries of Christian faith and theology, for example, the Trinity, the Incarnation, and the Image of God.

The Context of the Problem

If the church is to reach the culture, it must embrace the mechanisms of the culture and its embrace of computer mediated communications (Bazin & Cottin, 2004). Hargraves (2010) maintained that the church of each generation must explore the existing and developing culture and technology for ways to be more effective in its mission. He felt it was incumbent on the church to use familiar elements to communicate effectively.

Baab (2008) found that the online environment offered many opportunities for caring, communication, support, and faith building. In an interview, Hoover asserted that the church typically looks at culture with a critical, judging eye (Lature, 2010). He advocated a different approach. He called for a theological assessment and subsequent acceptance of the emerging cultural and technological tools for the furtherance of the Gospel and the mission of the church. Citing the long use of symbols within the church,

he saw technology as depicting a new way to integrate culture and symbols leading to enhancement of theological understanding and growth.

Hess (2005) saw the need to know the language of the culture. God reveals Himself through the natural world and through the culture. Technologies are part of the language through which God is revealing Himself. Moreover, Hess (2005) saw a struggle for attention in the world. Popular culture controls and commands the conversation and therefore receives the attention. Hess (2005) felt it was crucial that religious education engage the culture. Hess (2005) observed that lay people were fluent in digital technologies and media but not scripture or tradition. To remedy this lack of fluency in scripture and tradition, Hess (2005) advocated speaking the language of the culture which is technology and media.

Issues related to the theological concepts of embodiment and Incarnation complicate discussion on the use of Internet-Mediated Social Networking for formation of Christian community. Hips (2009) asserted that embodiment and Incarnation were crucial to the Gospel message and its expression in community. Community was sacred and could not be substituted by a disembodied community similar to one formed or maintained by Internet-Mediated Social Networking alone. Hips (2005) previously expressed doubt that disembodied Christian community could be formed. Nonetheless, he did acknowledge that God has used various media to express His message to humanity. Likewise, Ferré (2006) argued that the disembodied nature of the Internet disqualified it from the role of a source of spiritual development.

In answer to concerns about embodiment, Campbell (2005b) countered that through the transmission of data, text created a form of embodiment. Communication

online was disembodied and was more egalitarian. Therefore, it led to an experience that could enhance self-esteem. In an online environment individuals were seen, judged, and understood by their words and ideas not their appearance, mannerism, or clothing. Previously, Campbell (2003) published the results of her research on studied online Christian communities calling them congregations of the disembodied. She found that the physical body had little importance. In these communities, the "spirit" was allowed to move in and through the groups in profound ways creating connection, relationship, and community. Baab (2008) agreed that mediated and disembodied community was important. However, like Hipps (2009), Baab (2008) felt it could not take the place of human touch and embodied community.

Cumming and Henry (1961) found that when adults age, a process of disengagement from life ensued. During part of this process, individuals increased their religious interest and activity. However, Fowler (1981) found a lack of adult Christian development existed past mid-life. When juxtaposed with Fowler's findings, questions arise concerning why spiritual growth and development does not continue throughout the lifespan, particularly when aging brings an increase in religious interest and activity.

Fowler's (2000) research on adult Christian development is crucial to an understanding of the lack of development. Fowler (2000) builds on Erik Erikson's Stages of Development (Erikson & Erikson, 1997) that determined that a mature adult develops a sense of meaning to life based on a religious or philosophical grounding. To reach adulthood, an individual has the ability to be independent and to articulate his or her own wishes. Fowler (2000) maintained that to be adult was to have purpose, have the ability to work with competence carrying out roles and responsibilities, have a sense of identity,

and have a capacity for intimacy. Fowler (2000) identified seven stages to faith development. Fowler's (2000) stages were fluid, overlap, and should not be considered analogous to stairs. There is fluctuation between the stages. The first stage, *Primal faith* develops through the relationship of an infant to the infant's caregiver (usually the mother). The infant learns to trust as the caregiver returns to attend to its needs. Stage two, the *intuitive-projective* faith stage occurs with the emergence of language at about age two. Interaction becomes qualitative as the child navigates through new experiences interpreted by the use of the newly developed language. Feeling and fantasy are strong components of this stage. At about six or seven, the child enters into a third stage, the *mythic-literal* stage. Fowler (2000) saw the child entering into concrete operational thinking where faith is linked to rules, stories of the faith community, and values. In this stage, experiences are concrete and literal. In Fowler's model, the early adolescent moves into the fourth stage, *synthetic-conventional* faith stage. In this stage, imagination of possibilities emerges. Family and peer interaction inform faith understanding at this stage with the child typically embracing the conventional beliefs of the family, faith community, or peer group.

Critical thought begins to develop as the individual moves into the fifth stage, *individuated-reflective* faith stage (Fowler, 2000). The young adult begins to objectify beliefs and subject them to critical examination. This stage often occurs with individuals in their twenties. However, for some it never comes. For others it comes in their thirties or later. Fowler's sixth stage, the *conjunctive* stage of faith development can occur when the individual is in mid-life. In this stage, there may be a realization that half of their life has been lived and they consider their own mortality. This can be a time of internal

tension. Life becomes grayer as the uncertainties of life are experienced and considered. In this stage openness to the “other” including other traditions, world views, and ways of being can develop. Nevertheless the individual continues to remain loyal to one’s own traditions. The seventh and last stage of faith development for Fowler is *universalizing* faith. This stage is characterized by decentralization. In this stage, the individual seeks to be self-sacrificing, self-giving, and self-emptying. The individual, linked to the community of faith, is centered on Jesus. With the community of faith, the individual participates in the Incarnational revelation of Jesus Christ by taking on His characteristics of sacrifice and service. The individual understands the dynamic of living in the time between what has come, the first Advent and what is yet to come, the Parousia. Fowler asserted the role of community in reaching this stage and concludes: “There is no selfhood apart from community, no faith apart from community, no destiny, and no vocation apart from community” (Fowler, 2000, p. 92).

The importance of community is both a theological concept and a practical necessity for Christian growth and development. The findings of Fowler (1981) demonstrated that few experience full spiritual maturation. He maintained that community was necessary for this growth. Yet, the development of community is often difficult as the responsibilities and time constraints of life may be a hindering factor (Rand, 2009). Rand (2009) saw Facebook and Twitter as an anecdote for the busyness of life. She maintained that Facebook was a place that reflects the soul of a person. Through reflection and confession in the form of status updates and entries on Facebook, the individual exposes the soul giving way to the development of community. This sharing often achieved deeper levels of intimacy that went beyond the superficiality of

polite smiles. She states, "Facebook allows us to remain intimate and honest, to know each other, and be known by each other, even if that isn't happening in the bricks-and-mortar world" (Rand, 2009, p. 23).

Armstrong, Spiegel, and Wimmer (2001) found that computer technologies were used to enhance and promote traditional functions of the congregational life. With technology, individuals have increased ways to enhance and form community (Baab, 2008). Brasher (2001) predicted that cyberspace and technology would have significant effects resulting in change in the use and practices of religion including language and metaphor. For example, pastoral and agrarian imagery would be replaced by the language of technology. Those familiar with technology have found Internet churches warm and inviting (Brogan, 2010). Spiegel (2008) determined that technology was not only a tool but it was redesigning and redefining congregational culture, and in the broader sense, religious culture.

As a result of the need and potential of Internet-Mediated Social Network and computer interfacing, Zondervan, a leading Christian publisher, launched interactive computer software that includes Internet-Mediated Social Networking applications (Zondervan, 2010). Contemporary church leaders such as Driscoll, Vanderstelt, and Pagitt relied on social media to build and maintain connections within their respective church communities (Driscoll & Vanderstelt, 2011; Pagitt 2010). Many youth ministers start their days with social media to determine the issues facing the youth in their congregations (Bird, 2006). Pastors reported that Twitter enabled them to be more effective in their service to God and His people (Copeland, 2010). Fox News (2011) interviewed Roman Catholic Priest Father Walsh of Florida concerning his use of

Facebook. Father Walsh (Fox news, 2011) saw Facebook as part of ministry because people post candid information about their lives. As a result, he had access into congregant's lives that he would not have otherwise. He utilized Facebook as a tool for ministry. Posts not intended for the priest provided addition ministry opportunities. Father Walsh felt that ministry needs to be where people are congregating and interacting. He saw Facebook as such a place. He also believed that relationships can move much faster online which can facilitate ministry.

It is incumbent on the Church to facilitate the growth of Christians (Hanson, 1986, Bolsinger, 2004). Fowler (1981, 2000) demonstrated that Christians were not maximizing their Christian growth potential. It is the task of each generation to utilize the tools of its culture to bring about Christian growth and development (Hargraves, 2010). At this juncture of time, Internet-Mediated Social Networking is a primary tool of this culture. The question is whether this tool is effective for the development of Christian community.

History of Biblical Community

For Christians, Jesus is considered the normative norm (Johnson, 2010). As such believers look to Him for our primary understanding of Christian community. Jesus said: "For where two or three of you have gathered together in My name, I am in their midst" (Matthew 18:20, New American Standard Bible). Jesus broke into time proclaiming that the Kingdom of God had come and that the outsider could be included as part of the Kingdom of God through repentance and the redemption of the cross (Green, 1997). The trajectory of the Christian community began with the formation of the people of God as they were led out of Egypt (Hanson, 1986). Hanson (1986) maintained that this

trajectory looks backward to the creation accounts in Genesis and the narratives of the ancestors for understanding and meaning. Looking back from the Biblical narrative of the Exodus, the foundation of community was found in creation.

Biblical scholars (Brueggemann, 1982; Westermann & Scullion, 1992) maintained that the creation account in Genesis 1:1 – 2:4a was to be understood liturgically. Biblical scholars understood Genesis to have two parallel creation accounts with the second beginning at Genesis 2:4b. Brueggemann (1982) dated the writing of the creation accounts during the Babylonian exile in the 6th century BCE. Brueggemann maintained that the creation passages were to be viewed as a theological statement. As a theological proposal it refuted the claims of the Babylonians by asserting that God (Yahweh) was the origin of life and the maintainer of well-being. In this way the Word of God was used to shape reality.

Westermann and Scullion (1992) also saw Genesis 1-11, the primordial narratives, as a late addition not to be considered as part of the Pentateuch. The ontological nature of community is found in the creation narratives of Genesis (Bolsinger, 2004; Zizioulas, 1985). In the creation accounts in Genesis 1 and 2, humans were given special status over all of creation as they were uniquely formed in the image of God (Brueggemann, 1982; Grenz, 1996; Gunton, 1993; Levenson, 1988; Anderson, 2005). The language in Genesis 1: 26-31, in particularly the use of ~ אָדָם (Adam), is plural (Brueggemann, 1982; Brown, Driver, & Briggs, 2004; Levenson, 1998). The word refers to all of humanity, not a single individual. Humans were honored, respected, and called to be in relationship with God (Brueggemann, 1982; Levenson, 1998).

The concept of God-initiated community continues through the Canon. Those in the community of faith were to live an alternative lifestyle of God-initiated community (Hanson, 1986). Lodahl (1999) cited the Gospel of John as an example of the early church's focus on the interconnected dependency of the early church. Additionally, the Pauline view of Christian community was centered on the concept of the Church as the body of Christ making a comparison of the interconnectedness and dependency of the human body (Lodahl, 1999; Banks 1994). The writings of the church fathers inform an understanding of the early church's view of community. The early church understood community in terms of surrogate familial relationships (Hellerman, 2001; Banks, 1994). The community of faith included events of deliverance and the saints of the past giving support to the present and ongoing community of faith (Hanson, 1986).

Yoder and Cartwright (1994) saw the Edict of Milan's legitimization of Christianity, by the Emperor Constantine in 313 CE, as changing the understanding of community. At that time, the concept of a community of the cross was substituted with a community of nation-state and political power. In the medieval Church, the community of faith was sustained through the stories of the saints who defied the culture exemplifying the morality of the fruit of the Spirit (Cartwright, 1999).

Concepts of community shifted during the period called the Reformation. According to Haight (2005), the reformation was an umbrella term that covered various dissenting groups during the 16th century. These groups were attracted to each other and repulsed by the status quo in the Roman Catholic Church. According to Haight (2005), the German reformer Martin Luther saw the church as a spiritual faith-based community. For Luther, community was based in the congregation, not in the universality of the

"communion of saints." Luther's view of community diverged from the Roman Catholic understanding. Likewise the French reformer, John Calvin, felt that Christian community must be local, unified, and authoritative (Haight, 2005). For Calvin, the primary role of the Christian community was the teaching of doctrine. While divergent views of community emerged from the Reformation, all the reformers agreed that community was an important element of the Church.

During the 18th century, John Wesley wrote of the giving and receiving of counsel in community with other believers as a means of sanctification and Christian development (Cartwright, 1999). Wesley promoted participation in a learning community of faith as a means to shape and transform Christian character resulting in a new identity of the individual believer (Blevins, 1999). The 19th century saw a shift from community emphasis to an emphasis on the individual believer (Cartwright, 1999). Pagitt (2010) views the shift as a theological response to the culture. The agrarian culture of that time shaped the prevailing cultural theme of rugged individualism.

In the 20th century the writings of German theologian Bonhoeffer (1954) defined community as the everyday life of believers. Late 20th century reform theologian Schleiermacher (1976) defined Christian community as the synthesis of a historical human institution (the Church) with divine grace. According to Schleiermacher (1976), God's grace was mediated to us through human institutions (the Church) making salvation impossible outside of the community of faith. Schleiermacher (1976) was also linked to communion ecclesiology (Doyle, 1996). Schleiermacher understood the Church as primarily a fellowship of communion with God through Jesus Christ. Eucharist, or

The Lord's Table, was the primary expression of this fellowship. Moreover, the Holy Spirit was the unifying force of those in the community of faith.

Communion ecclesiology was closely linked to Black Liberation theology (Cone, 1993) as both have the common central theme of a communal unity of humanity (Phelps, 2000). Doyle (1992) maintained that the root of the changes of Vatican II was found in communion ecclesiology. As added evidence of the importance of community in Vatican II, the International Bishops Synod of 1985 recognized *communio* or *koinonia* as the central thrust of the Second Vatican Council (Synod of Bishops, 1985).

Hauerwas and Willimon (1989) saw the church as a community that was formed by the story of how God was and is with the church. This community was formed by God, and was organic and visible. Community was the call from Jesus to live disciplined lives subjected to the truth resulting in faithfulness. The Church was a community shaped by truth. Community and salvation were linked as the believer was baptized into community. Through community Christian character was formed and sustained. Conversely without community, the Christian was doomed to failure. In the late 20th century and leading into the nascent 21st century, conversations concerning Christian community included the usefulness of technology in general and Internet-Mediated Social Networking in particular (Hargraves 2010; Campbell, 2005b, 2005c; Hipps, 2009).

The means and shape of community changed over time. These changes were the result of changing technology and culture. Nevertheless, Christian growth and development depended on community. The history of Biblical community began at creation. Its history continues to be written in the lives of 21st century believers who grapple with the technologies of the culture.

History of Internet-Mediated Social Networking

The history of Internet-Mediated Social Networking is brief. Spanning less than two decades (Boyd & Ellison, 2007), the development of Internet-Mediated Social Networking was possible because of the development of Web 2.0 (Veldheer, 2007). Changes enabled by this development allowed the computer to be interactive rather than passive. An example of the interactive capabilities was the development of Wikipedia as a user accommodated community. Likewise, Internet-Mediated Social Network accommodated the user through interactivity and immediacy (Wellman, 2001). With the advent of Web 2.0 computer usage was no longer passive but became a vehicle for creativity, collaboration, and sharing (Spiegel, 2008).

Boyd and Ellison (2007) provided a historical review of the development of Internet-Mediated Social Networking. Social network sites were organized around people, not ideas, or interests. The first social network site SixDegrees.com launched in 1997 and closed in 2000. The next wave of social networks came when Ryze.com was launched in 2001. This site was primarily for business contacts in the San Francisco business and technology community. Friendster grew out of Ryze as a social component attracting individuals from the San Francisco area but was unable to handle the rapid growth. This led to lack of trust by users causing its eventual decline. Beginning in 2003 there was a small explosion in the development of social network sites (Boyd & Ellison, 2007). MySpace was launched during this time in Silicon Valley. It desired to attract former Friendster users. Teenagers discovered and began joining MySpace in 2004. In

2005 MySpace was sold to News Corporation for \$580 million. Lesser known social network sites and niche communities were also developed achieving some regional successes.

The history of Facebook was built on these early Internet-Mediated Social Networks. The details of the history of Facebook were made popular by the 2010 movie, *The Social Network*. Facebook was created by then college sophomore Mark Zuckerberg in his Harvard University dorm room (Rice, 2009). It officially launched February 4, 2004 under the name of The Facebook. Previously, Zuckerberg had developed Facemash where female Harvard students were ranked according to desirability. Fasemash had 450 visitors and 22,000 photo-views in the first day of operation (Kaplan, 2003).

From a Harvard-only social network, the site expanded to other college campuses in the Boston area (Rice, 2009). Its availability and use on college campuses continued to spread and expand until September 26, 2006 when Facebook was offered to anyone over the age of 13 with a valid email address. As of February 2011, there were over 600 million users of Facebook worldwide (Carlson, 2011) and it is estimated to be worth \$41 billion (Womack, 2010).

The Guiding Question

Does the use of Internet-Mediated Social Network affect adult Christian community? Bolsinger (2004) linked the role of Christian community to the formation and development of Christians. He maintained that community was not simply a shared experience but a living organism that was given life by the Spirit of God. Hanson (1986) and Bolsinger (2004) saw community as something that was always initiated by God. Divine initiated community draws humans into the life of the Trinity and fellow

believers.

Bolsinger (2004) maintained that Jesus came to initiate the Kingdom of God on earth not to provide a ticket to heaven. His purpose was that His followers would become like Him. Moreover, the mission of the church was to advance the Kingdom of God by shaping the believer into the image of Christ. Therefore, Bolsinger (2004) asserted that the goal of Christian community was to become transformative. This transformation was found in the doctrine of the Trinity and the life of the church.

Hargraves (2010) assessed that the primary mission of the church was to communicate the Gospel story. Moreover, he believed the Gospel was best communicated when it was done using the tools and resources of the culture of that time. This followed the teaching methods of Jesus who taught using metaphors common and familiar to those of His time. Additionally, Hargraves (2010) clarified that throughout time the church has grown and changed because the Gospel was communicated where people live, exchange ideas, their centers of commerce, and their places of community.

Bolsinger (2004) and Everist (2002) expanded the understanding of the mission of the church from communication of the Gospel story to making disciples. Everist (2002) understood faith community as one where all were bonded together by God as teachers and learners in formal and informal ways. Everist (2002) viewed communities of faith not in isolation but in the context of the larger community in which they were located. Everist (2002) saw curriculum as the result of a synergistic relationship between God and God's people gathered in a particular context. Her understanding was that media and methodology were secondary to relationship. Community was her primary definition of curriculum. Furthermore, in regard to the use of technology, Everist (2010) felt that

methodology was never an end to itself, but rather a tool. The objective of the lesson determined the methodology or tool. She cautioned that technology was always subject and subservient to the needs of the people of God in the learning context.

Historically, Wesley served as a model of the use of community for Christian education and development. Blevins (1999) found that formation, discernment, and transformation were the features of Wesleyan Christian education. Wesley desired to see individuals transformed spiritually and materially. Participation in the community of faith was necessary for this transformation. Through communal Christian education individuals were shaped into Christian character and transformed to their new identity. For Wesley, the work of a Christian was to make other Christians (Felton, 1997). The making of Christians required diligent and devoted teaching. This type of teaching involved both the cognitive and formative process. Additionally, Felton understood that Wesley's primary purpose was growth in wisdom and holiness. Christian education was important for the formation of the mind that led to these characteristics. To achieve this, Wesley used small groups as the primary vehicle of growth for adults (Maddix, 2009). Three types of groups were used to achieve growth. They were societies, class meetings, and bands. Societies influenced and focused on the cognitive domain. Class meetings were behavioral in focus. Bands focused on the development of the affective domain. Maddox (2003) clarified Wesley's goal as not a salvation experience, but a salvation process through the ongoing development of disciples. Furthermore, Maddox (2003) saw the Wesleyan Christian communities as intentional in supporting the faith journey of its members.

Hargraves (2010) asserted that each generation must explore new ways to be effective in its calling and mandate by using emerging culture and technology. The church often makes assumptions that their language, metaphors, ideas, stories, etc. are familiar. This was no longer the case. Hargraves (2010) felt that as people become more and more comfortable and fluent in the literacies of technology and their uses, it was important for the church to adopt these familiar elements. Beldarrain (2006) saw the 21st century learner as technologically literate and savvy. Additionally, teaching was effective when it accommodated the mobile nature of the learner, was not bound by time and space, and allowed for social interaction. Similarly, Hess (2008, p. 227), listed six key elements essential to teaching:

1. Provide a richer, more multiple intelligent environments
2. More opportunities for real collaboration
3. Better angle on challenges students are facing
4. Better access to primary source materials
5. Overcoming constraints of time and space
6. Attention to meaning-making

Brasher (2001) predicted that technology and the Internet would change religion and education even though both were often “techno-avoidant.”

This study was not about Christian community alone but the inter-relatedness of Christian community and its efficacy for Christian education and development. Palmer (2007) provided an understanding of learning in community through his educational model of a community of truth. For Palmer (2007), effective teaching and the resultant learning occurred within this community of truth. Mezirow (2000) maintained that the

role of relationship was crucial to adult learning theory. These relationships lead to community and support. The Pew Research Study (2010) found that the Internet and Internet-Mediated Social Networking had the potential to provide community by providing new ways to communicate and new levels of interpersonal relationships.

McLuhan and Fiore's (1967) asserted that technology would change the understanding of the world and cause the elimination of time and space. Since that time, technology has exploded to unlimited bounds. For McLuhan and Fiore, the whole structure of human existences changes societally as well as individually when we alter one element of being. A 2007 study by Ellison et al. demonstrated the usefulness of Internet-Mediated Social Networking in the development of social capital. Social capital is a term referring to resources gained from relationship. Baron, Field, and Schuller (2000) defined social capital as consisting of "social networks, the reciprocities that arise from them and the value of these for achieving mutual goals" (p. 1). They also found that strong networks reinforced adult learning. Ellison et al. (2007) found that the use of Facebook had a positive impact on social capital among a random sample of 800 Michigan State University students. Mehlhaff (2008) observed that social networking was redesigning how people build and maintain relationships.

Facebook and Twitter usage has caused world changing events (Cohen, 2011). On February 11, 2011, when President Mubarak of Egypt resigned from office, a reporter asked what country would be next. The Google executive who had been instrumental in promoting the use of Internet-Mediated Social Networking for the Egyptian revolution answered, "ask Facebook" (Calderone, 2011). The impact of Internet-Mediated Social Networking on the church is yet to be seen. However, history and research supports the

potential for significant changes in the development and continuation of community is available through the impact of this new tool of technology (McLuhan & Fiore, 1967; Pagitt, 2010).

Research Questions

1: To what degree does the use of Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian learning community have a greater impact on adult Christian learning when compared to a traditional adult Christian learning community?

Campbell (2005c) saw the Internet as a social network with the primary goal of making connections with other people. It was unlimited in its ability to connect beyond physical limitations. The Internet allowed for communication rather than information sharing. Eiler (2006) maintained that communication was a theological principle based on the Trinity. The church must be a community of communication or it ceases to be the church (Scharer & Hilberath, 2008). Scharer and Hilberath maintained that the church existed at the initiation of God. This communion between God and people, and the people with each other was comprised of those unlikely to share in community.

Wesley provided a model of historical adult Christian development. Clapper (2002) recounted that Wesley stayed in a place long enough to make disciples and to set up the mechanism for their growth and development. Believers were organized into small groups, using a church within a church model. Wesley's methods were built on the

early church where doctrine and Canon were decided in community. Within these groups self-knowledge was facilitated by communication with those who knew the individual believer. The result was growth in faith. Clapper maintained that growth in faith was the foundation of Methodism.

Pagitt (2010) saw the culture of the beginning of the 21st century as a time of cultural transition and shifting. The methods of the past may still be effective but increasingly new methods of community building as well as ways of experiencing church were emerging (Roach, 2011; Driscoll & Vanderstelt, 2011; Pagitt, 2010; Lature, 2010). Rheingold (2000) found that people in the virtual world created community that led to all types of relationships. In a virtual environment, individuals did essentially everything they could in the real world through words. The question for the church is how to utilize new technologies to promote growth and development of adult Christians.

The pivotal work of McLuhan (1964), which declared that the medium was the message has proven to be true. As humans make new tools they shape and change us (Frost & Hirsch, 2003). Additionally, Frost and Hirsch asserted that individuals become the message by actions and by the tools that are developed. Pagitt (2010) echoed this idea stating that “technology is the mother of necessity” (page 1). He maintained that as technology was developed, it would create new needs.

The research of Baab (2008) discovered that there were several shifts taking place within the church as well as society. One was the shift from word to image. She found that image became the dominant way of communicating. The use of images has a long history in Christianity. She asserted that images displayed through technology and media were powerful ways of communicating values and identity. The technology used could

be a website, printed material and occurred within the congregational, or educational physical spaces. According to Baab, another shift was from an emphasis on individualism to an emphasis on community. Everist (2002) and Palmer (1980, 2004, 2005, 2007) asserted that adult learning occurred in and through community. Bennett (2010) defined a learning community as a group of individual who come together to define and explore meaning. Bennett (2010) used the foundations of Dewey, Piaget, and Vygotsky as a model for learning in community. He saw adult knowledge as shaped through mutual sharing of information and knowledge in community. Cobb (1998) found that the virtual world was a world of inter-relationship where communal knowledge and information was shared.

Facebook, as the dominant Internet usage medium, will transform ministry in the church through authentic communication (Forbes, 2008). Kraut, et al. (2002) in their study spanning 1995-1996 found that the Internet had a positive effect on communication, social involvement, positive affect, trust, and well-being. Pew Research (Raine, Purcell, & Smith, 2011) found that respondents felt that the use of Internet-Mediated Social Network had a major impact on communication. However, Jensen (1987) disagreed maintaining that all Christian communication must involve embodiment and touch. Turkle (2007, 2008) was also suspicious of “tethered” communications and relationships.

Forbes (2008) viewed Facebook as a door to the church and part of hospitality. Baab (2008) in her study of church websites refers to church’s Internet presence as the front door of the church. She found that for many it was the first offering of welcome and hospitality. In addition, a church website had the ability to convey value and

identity. Furthermore, Baab saw Internet-Mediated Social Network as creating environments that offered many opportunities for caring, communication, support, and faith building.

Based on the literature, there appears to be a greater impact on the development of learning communities for adult Christian development using Internet-Mediated Social Network. The level of this impact is difficult to assess without specific empirical data. Nevertheless, based on a historic perspective of adult Christian learning and community, the Internet and specifically Internet-Mediated Social Network is a very useful tool for community building and learning (Hargraves, 2010; Hipps 2009; Hess, 2005, 2008).

2: How does the use of Internet-Mediated Social Networking group page affect the number of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and a computer mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

Facebook became a primary place where people connect as usage of Facebook continued to climb (Rice, 2009). Facebook official statistics stated that there were over 500 million users as of February, 2011 (Facebook.com, n.d.). However, Carlson (2011) reports that it has already reached 600 million users. Another source (Unified Stream, 2010) indicated that Facebook was expected to reach one billion users by 2012.

Officially Facebook (Facebook.com, n.d.) claimed that 50% of all users access the site at least once daily and that 700 billion minutes are spent on Facebook each month. Additionally, the average user was connected to 80 community pages, groups, and events. Pew research (Raine, Purcell, & Smith, 2011) found that 75% of Americans were

members of voluntary groups. Those in voluntary groups who utilized Internet-Mediated social media were 82% more likely to be active in those groups.

As the church considers Christian education methods it can look to areas of success within the public sector. Online instruction and blended forms of instruction are increasingly used in education (Picciano & Seaman, 2010). Usage in K-12 school systems in the United States was widespread. Picciano and Seaman's (2010) research surveyed 441 American high schools. They found that 82% of the surveyed high schools had at least one student participating in an online course with 38% having a student participating in a hybrid or blended course. Additionally, Chivvas (2011) cited New York City schools quest to revolutionize its 300 year old model of education through the pilot program iLearnNYC. The 41 participating schools were using blended instruction which combines traditional instruction with online instruction. Picciano and Seaman (2010) saw this trend continuing and revitalizing American high schools. These trends indicate that people are increasingly knowledgeable and comfortable using computer enhance education.

Roach (2011) reported that LifeWay Research, a subsidiary of the Southern Baptist denomination, conducted research that found that 47% of 1003 churches surveyed actively used Facebook. It was found that large churches used Facebook more than smaller. Of churches with attendance over 500, 81% used Facebook. Fifty-seven percent of suburban churches used Facebook compared to 54% of urban, 46% of small city, and 39% of rural churches. Of those congregations using Facebook, 73% used it for interaction purposes followed closely by 70% who used it for one-way distribution of news and information. Other uses included member to member interaction (52%) and

managing group ministry (41%). Social network was also used by a majority of congregations (62%) to interact with people outside the congregation. In personal conversation with Scott McConnell of LifeWay research (2011), he related that based on current statistics on usage of Internet-Mediated Social Networking it was likely that those having access to this media will interact more frequently when compared to those not using this media.

3: How does the use of Internet-Mediated Social Networking group page affect the frequency of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and an internet-mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

Having a social network and a high frequency of contact within that social network was an indicator of quality of life (Noll, 2004). Quality of life was defined by various domains including religion and spirituality, support, and contact network. While social networks tended to shrink as an individual ages, researchers (Cornwell, Schumm, & Laumann, 2008) found that connectedness was crucial for quality of life. Additionally, those with larger networks were more likely to be healthy. A survey conducted by the New Zealand Ministry of Social Development (2010) reported that both the telephone and the Internet increased an individual's ability to keep in touch with family and friends. Use of media enabled social contact with friends and family in the absence of frequent face-to-face contact. The survey found that social media allowed people to increase the number of people in their networks as well as the frequency of contacts.

The average user of Facebook had 120 friends (The Economist, 2009). The average user interacted closely with between 5% and 10% of those friends (Smith, 2009). These findings were in alignment with the Dunbar Circle (Dunbar, 1992). Hill and Dunbar (2003) analyzed the human brain's neo-cortex in comparison to what was known from research with primates. They estimated that humans have a capacity for social networks of 150 persons. In their study of Christmas card sending habits, it was found that the maximum human social network size was 153.5 individuals corresponding to the size estimated by the size of the neo-cortex.

A significant number of users of Facebook logged in more than once a day. Crepeau (2009) surveyed 90 Facebook users. Of those surveyed, 63% were over the age of 35. Nearly half of them (45%) logged into Facebook several times a day. Those ages 45-54 had the highest percentage of users logging in several times a day at 48%. This was followed by 38% in the 35-44 age bracket and 32% of those 55-75. Those ages 18-24 had the highest percentage of multiple logins per day at 70%. Crepeau's (2009) research found differences based on gender. Women check Facebook more frequently than men. Women utilized Facebook for enjoyment and to keep up with family, friends, and events. Men utilized Facebook to meet new people. Crepeau's (2009) findings were in alignment with those of Dunbar, Marriott, and Duncan (1997) who found that women are particularly concerned with the development of a social network and its ability to create or maintain social relationships. Conversely, men's social networking conversations were dominated by self-advertisement.

Research Question 4: To what degree is there a difference in the perception of the quality of community greater by participants involved in an Internet-Mediated Social

Network hybrid adult Christian learning community, and a virtual adult Christian learning community when compared to a traditional adult Christian learning community?

There is disagreement within social sciences concerning a definition of community (Hillery, 1955). Hillery's (1955) classic work found 94 distinct meanings of the word community. This work serves as foundational for subsequent social science research on community. Likewise many question the validity of disembodied Christian community (Higgs, 2009; Pagitt, 2010; Rice, 2009). In an article by Roach (2011) he quoted Scott McConnell of LifeWay Research. McConnell cautioned that Biblical community required "faces and feet." Subsequently, the researcher conducted a telephone interview with McConnell. McConnell was asked about this comment and the possibility of embodiment through words (Campbell, 2005b). He stated that he saw communication as much broader than verbal communication. He saw presence as an important form of communication. In clarifying his response, he stated that particularly for men, presence creates a communal experience even when absent of speech. Higgs (2009) maintained that true Christian community can never occur when it is disembodied. Embodiment and Incarnation were crucial to the Gospel and its communal expression. Fernback and Thompson (1995) suggested that virtual community was more appropriately referred to as virtually community and does not form true community.

Jankowski (2002) challenged the idea of physicality as necessary to community. He defined community as based on a feeling or sense of connection rather than locality or physicality. Likewise, Jones (2008) was critical of a definition of community that was based in locality. Jones (2008) asserted that if community was only defined by locality, priority was given to organization which was antithetical to the essence of community.

He understood virtual communities as communities that bring together individuals who were physically separate but who were united by common beliefs and practices.

Increasingly, Facebook is viewed as a tool for success in educational venues. The Bill and Melinda Gates Foundation announced on February 9, 2011, that they were investing \$2 million dollars in the promise of Facebook's ability to provide peer-to-peer support for the purpose of retention of college freshmen (National Public Radio, 2011). Virtual community offered a new way of maintaining relationships with members of traditional embodied communities as well as new virtual computer mediated relationships (Hampton & Wellman, 1999). Their study of the "Netville" community found that community was redefined as interaction that was sociable, supportive, and identity-giving rather than based on local physicality.

Raine, Purcell, and Smith (2011) found that people who regularly used the Internet and particularly Internet-Mediated Social Networking were far more likely to be actively socially engaged. Additionally, they found that those who used this technology felt it had become as important as phone or in-person meeting to maintain group cohesion and the flow of information. This research found that 62% of Americans who were "online" use Facebook. These individuals were also significantly more active in offline social groups. However, the research indicated that the use of Facebook did not dominate church, spiritual and/or religious groups or those groups specifically geared to older adults such as AARP.

Research Question 5: To what degree is there a difference in the personal spiritual growth greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network

virtual adult Christian learning community when compared to individuals in a traditional adult Christian learning community?

The educational and community building methods of John Wesley provided a framework for understanding of personal spiritual growth. Wesley desired to see individuals transformed spiritually and materially (Blevins, 1999). The goal of Wesley's educational efforts was holiness of heart and life. Wesley saw the process of education and Christian formation as crucial to the revival movement (Felton, 1997).

Maddix (2009) shed light on the holistic nature of John Wesley's approach to Christian education. Wesley's plan of adult Christian education was more clearly defined than the catechesis of children. Under the influence of the Moravians, a small group system developed called "bands." No instruction was allowed in the "bands." After a split with the Fedder Lane Society, Wesley developed the Foundry Society in 1741 a group that grew to over 900. At this time, class meetings were added to the bands and societies, as a place where individuals with moral and social problems could meet in various locations including the work place, homes, etc. Class meetings were often rehabilitative in nature.

Tracy (1982) saw Christian education in the Wesleyan tradition as holistic and practical. Each of Wesley's groups had a purpose and format. Societies were the largest serving as places of prayer and exhortation. Classes were small consisting of 12 individuals. The leader of each class saw their members at least once a week to inquire of their souls and offered comfort, exhortation, and guidance. The bands were places of intimate relationship where the opportunity for confession and authenticity occurred. Tracy reported that within the band four questions were asked at every meeting. The

questions were concerned with sins committed following the last meeting, temptations met, how these temptations were ameliorated, and what other events or thoughts were of concern to the spiritual health of the individual.

Although the groups in this study did not strictly follow Wesleyan educational methods, his methods provided an understanding of the nature of adult Christian development. Personal piety was an integral part of Christian growth and development from a Wesleyan perspective (Blevins, 1999). Traditional Wesleyan educational methods also bore resemblance to that of Everist (2002). For her, education occurs in a faith community where all were teachers and learners. Individuals saw themselves as growing in their own faith and assisting in the growth of others. Spiritual formation occurred in a communal environment.

Drawn from a sermon by John Wesley, Maddox (2003) maintained that Wesley believed there was a relationship between knowledge of Christian doctrine and Christian character. Wesley believed that teaching and instruction was necessary throughout the lifecycle as Christians were made, not born, and that salvation was an ongoing process (Felton, 1997). The emphasis for Wesley was not on a salvation “experience” but on the ongoing development of disciples (Maddox, 2003). Additionally, Christian communities were to be intentional in their support of the faith journey of its members.

Research Design and Instrument

The research design of this study was quasi-experimental. It analyzed both qualitative and quantitative data gathered through survey instruments and interviews. The researcher recruited three types of Christian learning communities through contacts with churches, pastors, and leaders. Groups were formed from these contacts. The

groups varied in denomination and geographic location. The first type was a traditional group of adult Christians who attended a weekly Sunday School class or small group fellowship. The primary contact for this group was embodied. Instruction and discussion was limited by time, space, and physicality.

The second type of group was a hybrid group. Similarly to the traditional group, adult Christians met weekly in a Sunday School class or small group fellowship. This learning community diverged from the traditional community with the addition of a private Facebook group page. In the Facebook environment participants recorded personal interactions as well as discussion on the lesson. Instruction was limited by time, space, and physicality. Discussion was not limited by these elements.

The third type of group was conducted through various online media. This learning community did not meet face to face but did have a private Facebook group page for personal interaction and discussion on the lesson. Instruction in this group was given in a virtual format. Instruction and discussion was not limited by time, space, and physicality.

Participants in each group were asked to complete a checklist prepared by the researcher indicating any contact with other members of their individual group including type (embodied, telephone, email, Facebook, etc.) and frequency of their contacts. The data collected from the checklist sheets were insufficient to analyze.

None of the groups participating were randomly formed. Therefore, each participant in each group was pretested using the Faith Development Scale (Fowler, 1981; Barnes et al., 1989) and The Spiritual Maturity Index (Ellison, 1984). These instruments were used with the permission of their developers. At the completion of the

learning experience, each participant of each group repeated the Faith Development Scale and The Spiritual Maturity Index. Results from the pre survey of the Faith Development Scale and The Spiritual Maturity Index were compared to the post survey to assess if a level of spiritual growth had occurred. This was done using Analysis of Variance (ANOVA).

At the conclusion of the research period, interviews were conducted by the researcher with 72% of the total participants. Open ended questions were asked to ascertain feelings of community in their respective group, ease of participation, and overall satisfaction with group experience. Additionally, questions were asked concerning personal piety. The results of the interviews were also analyzed.

Conclusion

From the earliest accounts of creation recorded in Genesis, God has called for humanity to be in relationship with other humans and with the Trinity. God has invited humanity to share in the life of God through the Incarnation of His son Jesus the Christ. The ability of humans to build and maintained these God-ordained relationship are threatened by increasingly busy lifestyles (Rand, 2009). The use of Internet-Mediated Social Networking has potential to provide new opportunities for relationship building and community.

Many theological questions have been raised concerning the efficacy of Internet-Mediated Social Networks for building Christian community. These questions center on Incarnation, embodiment and the Trinity. While theological debate continues Hoover (Lature, 2010) calls for a pragmatic understanding of media. He perceived that theologians were behind in their embrace and understanding of the emerging

technologies, including Internet-Mediated Social Networking. Hoover echoed McLuhan (1964) that media or technology defines culture. This included religious culture.

According to Hoover (Lature, 2010), religion existed within the framework of the media. Religion does not control its own symbols. Media frames definitions and symbols. Hoover felt that the church did not understand the power of Internet-Mediated Social Networking to be utilized for an interactive tool. He saw a resistance to religion because it follows a model of authority with passive receivers who were told what to think and who to be. Freedom of choice was a significant factor in the use of Internet-Mediated Social Networking.

Babin and Zukowski (2002) related cyberspace to a new frontier, a new place of being, and communicating. In this new frontier, catechesis joins with conversation to build community in cyberspace as well as in the physical world. Hoover (Lature, 2010) maintained that Internet-Mediated Social Networking was a means to achieve community. Hoover saw community developed on Internet-Mediated Social Network as ultimately leading to embodied community. For him, the trajectory of Internet-Mediated Social Networking was community and connection.

Fowler (1981) found that adults do not continue to mature and develop spiritually throughout the lifespan. Cumming and Henry (1961) found that interest in spirituality and religion increases in later life. The purpose of this study was to determine if Facebook was a tool to reconcile these opposing factors.

CHAPTER III

METHODOLOGY

Introduction

The use of Internet-Mediated Social Networking has revolutionized business, and industry (Bobrowskas, 2012). The Internet-Mediated Social Networking giant, Facebook, has been implicated to constitute a force in the political revolutions of the Middle East (Cohen, 2011). *The Facebook Effect* (Kirkpatrick, 2010) asserted that the use of Facebook has led to an increase in transparency in the personal lives of users. While the power of this media is still being explored and defined, its impact is felt and cannot be ignored. The impact of the development of Web 2.0 and the utilization of Internet-Mediated Social Networking has been compared to the invention of the printing press (Brasher, 2001; Hargraves, 2010; Lundby, 2006).

The focus of this research study was to determine the efficacy of Internet-Mediated Social Network within the Christian church. The church is often slow to embrace new technology and changes (Hargraves, 2010). Using a quasi-experimental model that included both qualitative and quantitative data, Bible study participants were divided into three groups: traditional, hybrid, and virtual. These groups were compared for measures of spiritual growth using pre- and post-surveys. Quantitative data were also analyzed for indications of community formation, spiritual growth, and satisfaction.

In this chapter, the research design is described, conveying the methods and procedures the researcher followed to answer the research questions. The researcher

provides a description of the population, the process of collection of the qualitative and quantitative data, and the methods used to analyze the data. Finally, this chapter identifies limitations of the study.

The major questions that guided the research in the project were:

1. To what degree does the use of Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian learning community have a greater impact on adult Christian learning when compared to a traditional adult Christian learning community?

2. How does the use of Internet-Mediated Social Networking group page affect the number of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and an Internet-Mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

3. How does the use of Internet-Mediated Social Networking group page affect the frequency of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and an Internet-Mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

4. To what degree is there a difference in the perception of the quality of community greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community, and an Internet-Mediated Social Network virtual adult Christian learning community when compared to a traditional adult Christian learning community?

5. To what degree is there a difference in the personal spiritual growth greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian learning community when compared to individuals in a traditional adult Christian learning community?

Research Design

The research conducted comprised a quasi-experimental design. Gay, Mills, and Airasian (2009) explained that an experimental design has two major classifications, those that are single variable, and those that are factorial. This research followed a factorial design because it involved two or more independent variables.

The researcher adapted two research instruments that measure spiritual growth, The Faith Development Scale and the Spiritual Maturity Index (Hill & Hood, 1999); found in Appendix C. These instruments were combined and adapted into a two-part survey. The test was administered twice, pre- and posttest. The first section of the survey consisted of nine questions adapted from James W. Fowler's Faith Development Interview (Fowler, 1981). Fowler determined that people progress through faith stages in a pattern similar to theories of Erikson, Kohlberg, and Piaget. Permission was granted to use the Faith Development Scale, a shortened scale based on Fowler's scale (Barnes et al., 1989). This instrument asked participants to choose between a statement that indicated a literal approach to faith and one that indicated a symbolic approach to faith. These choices were correlated to a stage in Fowler's Faith Development Scale.

The second section of the instrument was composed of 30 questions, adapted from the Spiritual Maturity Index developed by Craig W. Ellison, used with permission

(Hill & Hood, 1999). These questions were designed to measure spiritual maturity based on a continuous developmental process. Utilizing a seven-point Likert scale, the instrument reflects Ellison's view of spiritual maturity constituting a function of relationship and a sense of self.

Demographic information including age, gender, and location was collected. The instruments were coded based on type of group. Matching of pre- and posttest results were assured through the use of a participant self-identifier.

The researcher used the survey instrument for both the pre- and posttest. Data were collected anonymously. The pretest was administered to participants distributed in the three groups: traditional, hybrid, and virtual. The group leaders in the traditional and some hybrid groups administered the instrument. An Internet-based survey was utilized for all of the virtual and some of the hybrid participants. After completion of the pre-test, the individuals attended a Bible study on a weekly basis that was conducted in either an embodied setting or a virtual environment. At the end of six weeks, the subjects were posttested with the identical instrument.

Subsequent to completion of the six-week period and the posttest, a qualitative design was utilized to determine satisfaction, sense of community, and spiritual growth through the use of interviewing. Gay, Mills, and Airasian (2009) perceived interviewing to depict an interaction used to obtain information. They explained that interviewing provides important data that cannot be obtained in other ways. The participants were interviewed by phone or email. The focus of the interview was to ascertain their satisfaction, sense of community, and spiritual growth.

Additionally, an analysis of narrative interactions was conducted. The communications, postings and comments on the Facebook pages of individuals in the hybrid and virtual groups were reviewed. Gay, Mills, and Airasian (2009) described analysis of narrative to portray as a research process of identifying themes and statements in the writing of the participants. Using this methodology, the researcher analyzed the postings and comments regarding such themes, for example prayer, fellowship, spiritual growth, and disciplines.

Participants

Participants were recruited through various methods including word of mouth, paid advertisement, Facebook, and personal contacts. Targeted for participation were mid-life and older adult Christians. Individuals participated in an adult Bible study. Course of study was determined by the team leader in the virtual learning community. The hybrid and traditional groups were existing Bible studies already engaged in the study of a Biblical theme. Two of the traditional groups were using their respective denominational adult learning material from the Assemblies of God, and the United Methodist Church.

There were 43 participants in the research project. Of these 43 individuals, 14 participated in a traditional group, nine participated in a hybrid group, and 20 participated in a virtual group. The majority of participants were female (females 36, males 9). The mean age was 54.75.

The groups had geographic diversity and denominational diversity. Traditional groups met in South Dakota and Connecticut. The traditional group meeting in rural South Dakota was a women's interdenominational home Bible study. The traditional

group in Connecticut was comprised of adults in a Sunday School class in an urban Assemblies of God church. Participants in the hybrid group came from a small rural United Methodist church in the middle Tennessee area.

Participants in the virtual groups were the most diverse. The groups were comprised of individuals from various parts of the country including Connecticut, Wisconsin, Arizona, Massachusetts, Tennessee, and Missouri. There was no data collected on denominational affiliation in the virtual groups. Additionally, there was some international participation with one woman from Australia and another from New Zealand.

Data Collection

Both qualitative and quantitative data were used to address the research questions. Quantitative data were gathered from the pre- and post-instruments. Qualitative data were obtained using interviewing and analysis of narrative. The survey instrument was composed of 39 questions based on the Barnes et al. (1989) Faith Development Scale and Ellison's Spiritual Maturity Index (Hill and Hood, 1999). Within the traditional and hybrid groups, the instrument was administered primarily by the group leader. Within the hybrid group, two of the participants chose to take the instrument online. The virtual participants self-administered the instrument using an online source.

Instruments were coded to assure matching of the pre- and posttest. Additionally, instruments were coded to separate responses based on group participation.

Demographic questions were included indicating age, gender, and location. This information was needed to aid in verifying a good cross-section of adults within the

sample. Data collection began in September of 2011 and continued over several months with the last group (a hybrid group) completing participation in May of 2012.

After completion of the pre-test, the participants began or continued participation in their respective Bible studies. The traditional groups met once a week at a predetermined location for an hour of Biblical study or discussion. Christian Bible studies vary in style, methodology and topic; consequently all groups were given freedom to select their own topics and teaching methodology. The participants were asked to complete a short checklist weekly concerning their interaction outside the designated meeting time. The checklist (See Appendix D) was distributed at the weekly meeting. At the end of six weeks, the participants were given the posttest. Individuals were contacted via phone for a short interview concerning their satisfaction, opportunities for growth, and sense of community.

The hybrid group also met weekly at a predetermined location for an hour of Biblical study or discussion and completed a pre-test at the beginning of the research period. A private Facebook group page was set up by the researcher for use by the participants in the hybrid groups. Participants were made members of the group by the researcher. On a weekly basis, they were asked to complete a short checklist online indicating their interactions outside of the group meeting time. A link was made available for this checklist through the private Facebook group. The researcher did not participate in any discussions on the Facebook group page.

At the end of six weeks, the individuals in the hybrid group completed the posttest. Subsequently, the researcher conducted a short interview to determine their satisfaction, opportunities for growth, sense of community, and the role of Facebook in

determining these factors. The researcher also conducted an analysis of the narrative comments and posts on the Facebook page.

The virtual groups participated in four different virtual Bible studies conducted solely on Facebook. A private Facebook group page was developed by a group leader. The group leader determined the methodology and topic. The group leader added potential participants to the group. During a period of two-weeks, the potential participants were supplied with a link to complete the pre-test online. Discussion and instruction in a Biblical topic continued on the private Facebook group page over a period of six weeks. A link to the checklist was posted weekly which participants were asked to complete online. At the end of six weeks, a link was posted directing participants to take the posttest.

Individuals in the virtual groups were interviewed via email and phoned to determine satisfaction, sense of community, and sense of spiritual growth that had occurred during participation in the group. An analysis of narrative was conducted relating to the comments and postings on the Facebook group.

Analytical Methods

In processing the data, information obtained through the pre- and posttesting was entered into an electronic spreadsheet in order to facilitate analysis of the response using the Statistical Package for the Social Scientist (SPSS). Statistical comparison of the participant responses to the pre- and posttests was conducted using 39 Mixed-Model Analysis of Variance (ANOVA) tests in order to compare pre- and posttest responses on each question of the survey instrument.

Interview responses were reviewed and recorded. The information was summarized, searching for trends and common themes. An analysis of narrative was conducted on the data obtained from the Facebook interactions and summarized for themes and key words.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to determine the efficacy of Internet-Mediated Social Networking on Christian growth and development. Social media such as Facebook has staggering international usage and growth (Miniwatts Marketing Group, 2012). In November of 2012, there were over 835 million users on Facebook worldwide representing growth of nearly 200 million from 2011. The previous research of Fowler (1981, 2000) indicated that there was a lack of spiritual growth throughout the lifespan thus creating a need for the church to find ways to respond to the need for Christian education among adults.

The formation of community is a necessary component of andragogy (Mezirow, 2000; Palmer, 2007). Furthermore, it is a concept found throughout the Christian scriptures starting with the Old Testament narratives of the exodus and continuing through the New Testament (Hanson, 1987). Christian community has been defined as the meeting and interaction of believers (Rand, 2009). The Internet is communal in nature (Campbell, 2005) and therefore has the ability to form community that is significant and meaningful (Carroli, 1997; Hampton & Wellman, 1999). The following research questions directed this study.

1. To what degree does the use of Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian learning community have a greater impact on adult Christian learning when compared to a traditional adult Christian learning community?

2. How does the use of Internet-Mediated Social Networking group page affect the number of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and an Internet-Mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

3. How does the use of Internet-Mediated Social Networking group page affect the frequency of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and an Internet-Mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

4. To what degree is there a difference in the perception of the quality of community greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community, and an Internet-Mediated Social Network virtual adult Christian learning community when compared to a traditional adult Christian learning community?

5. To what degree is there a difference in the personal spiritual growth greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian

learning community when compared to individuals in a traditional adult Christian learning community?

Findings

1. To what degree does the use of Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian learning community have a greater impact on adult Christian learning when compared to a traditional adult Christian learning community?

The researcher compared the pre- and posttest results of each question of the survey instrument (Appendix C) by running 39 mixed-model ANOVAs. This was done to determine if there was a significant difference between individual responses in the virtual learning communities and the hybrid learning communities when compared to those in the traditional learning community by comparing the responses to each question on the survey. See Table 1 for inferential statistics and Table 2 for descriptive statistics.

Questions one through nine of the survey asked the respondents to choose between two fixed answers that indicated a certain level of spiritual maturity. Questions that showed no significance in either the between-subjects variable or the within-subjects variable were two, three, four, six, and nine. Likewise, none of these questions showed a significant interaction.

Question one compared responses indicating a Fowler spiritual developmental of either level two or three. When comparing the pre- and posttest responses of the three groups to this question, there was a significant difference, $p < .001$, in the between-subjects variable. As a follow-up, a Tukey Test was run. A significant difference was

found between the traditional group and the hybrid, $p < .001$. Additionally, there was a significant difference between the traditional and virtual groups, $p < .001$.

Question five asked respondents to choose between spiritual levels three and five. A significant difference was found on question five in both the within-subject variable, $p < .01$, and the between-subject variable, $p < .05$. The Tukey Test determined that there was a significant difference when the traditional group was compared to the virtual group, $p < .05$.

Responses to question seven were a choice between spiritual levels three and four. This question showed significance, $p < .05$, with the within-subjects variable. The choice in question eight was between levels three and five. Analysis showed a significant difference in the between-subjects variable. A follow-up Tukey Test was run that showed there was a significant difference between the hybrid and the virtual, $p < .001$.

Table 1

*Inferential Statistics from Mixed-Model ANOVAs
for the Survey Questions*

Question ^a	Between-Subjects	Within-Subjects	Interaction
	<i>F</i>	<i>F</i>	<i>F</i>
1	97.66**	0.96	1.19
2	0.56	0.35	0.47
3	0.47	1.30	0.47
4	0.76	0.01	1.28
5	3.41***	6.05*	0.17
6	0.20	0.31	0.26
7	2.13	4.41***	0.07
8	5.48*	0.58	0.14
9	1.58	0.13	0.10
10	0.23	0.00	0.17
11	0.11	3.64	0.06
12	7.00*	0.08	0.24
13	0.26	0.80	0.06
14	1.32	0.14	0.63
15	2.33	3.21	0.43
16	2.70	0.01	0.48
17	7.83*	0.04	0.51
18	3.68***	4.00	0.02***
19	3.35***	0.00	0.41
20	4.96***	0.02***	0.72
21	1.66	2.82	0.21
22	0.48	1.33	0.01
23	3.31***	1.03	0.36
24	5.88*	3.46	0.28

(Table continues)

Table 1 continued

*Inferential Statistics from Mixed-Model ANOVAs
for the Survey Questions*

Question ^a	Between-Subjects	Within-Subjects	Interaction
	<i>F</i>	<i>F</i>	<i>F</i>
25	5.97*	0.33	0.60
26	3.21	0.72	0.38
27	7.78*	0.00	0.04
28	1.42	0.00	0.40
29	2.73	0.23	0.39
30	4.54***	5.95***	2.05
31	3.09	1.69	2.51
32	2.74	0.14	0.80
33	3.72***	1.24	1.10
34	1.68	0.05	0.06
35	5.48*	0.26	1.04
36	0.02	0.22	0.58
37	0.14	0.03	0.47
38	0.79	0.08	1.36
39	0.19	0.39	0.19

^a*df* = 1, 40.

**p* < .001.

**p* < .01.

****p* < .05.

Table 2
Descriptive Statistics for Responses to Survey Questions

Question ^a	Condition											
	Traditional ^b				Hybrid ^c				Virtual ^d			
	Pre		Post		Pre		Post		Pre		Post	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	2.00	0.00	2.00	0.00	1.11	0.33	1.11	0.33	1.05	0.22	1.24	0.44
2	1.36	0.50	1.29	0.47	1.44	0.53	1.33	0.50	1.20	0.41	1.25	0.44
3	1.64	0.50	1.79	0.43	2.00	0.00	1.78	0.44	1.60	0.50	1.55	0.51
4	1.29	0.47	1.14	0.36	1.11	0.33	1.33	0.50	1.30	0.47	1.30	0.47
5	1.14	0.36	1.07	0.27	1.56	0.53	1.22	0.44	1.50	0.51	1.45	0.51
6	1.07	0.27	1.07	0.27	1.00	0.00	1.11	0.33	1.10	0.26	1.09	0.29
7	1.57	0.51	1.43	0.51	1.89	0.33	1.67	0.50	1.63	0.49	1.35	0.49
8	1.43	0.51	1.50	0.52	1.89	0.33	1.89	0.33	1.30	0.57	1.40	0.50
9	1.29	0.47	1.29	0.47	1.56	0.53	1.44	0.53	1.50	0.51	1.50	0.51
10	2.21	1.25	2.36	1.60	1.78	0.97	2.11	1.36	2.19	1.33	1.90	0.97
11	1.64	1.22	2.00	1.66	1.33	0.71	1.89	1.36	1.55	0.83	2.05	1.88
12	6.00	1.47	5.79	1.42	5.89	1.27	6.11	2.03	3.95	2.50	3.70	2.47

(Table continues)

Table 2 continued
Descriptive Statistics for Responses to Survey Questions

Question ^a	Condition											
	Traditional ^b				Hybrid ^c				Virtual ^d			
	Pre		Post		Pre		Post		Pre		Post	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
26	2.43	1.56	2.21	1.19	2.11	1.83	1.56	1.33	3.30	2.20	3.35	2.11
27	5.43	1.70	5.57	1.40	5.89	1.76	5.78	1.99	3.40	2.35	3.40	2.68
28	2.93	1.44	2.57	1.45	2.22	0.97	2.44	1.59	2.00	1.56	2.10	1.55
29	2.00	1.62	1.71	0.83	1.89	1.05	1.67	1.32	3.00	2.34	3.15	2.54
30	5.71	1.44	5.64	1.39	3.89	1.69	4.78	1.56	3.55	1.91	4.40	2.23
31	3.21	1.48	3.29	1.68	3.00	1.50	3.89	1.54	2.40	1.23	2.20	1.56
32	2.50	1.09	2.14	0.95	2.56	1.51	2.56	1.67	3.35	1.66	3.50	1.93
33	5.29	1.68	5.21	1.63	5.00	1.66	5.90	0.93	4.05	1.88	4.10	1.89
34	1.50	0.65	1.50	0.76	1.80	1.30	1.78	1.09	2.05	1.32	2.20	1.58
35	1.64	0.93	1.79	0.89	3.56	1.42	2.90	1.97	3.35	2.01	3.50	2.16
36	2.30	1.38	2.21	1.12	2.44	1.60	2.11	1.54	2.10	1.41	2.25	1.52
37	2.80	1.19	2.58	1.09	2.33	1.12	2.56	1.01	2.70	1.34	2.60	1.40
38	5.29	1.54	4.93	1.98	5.56	1.33	4.90	2.32	4.20	2.19	4.90	2.08
39	1.50	0.86	1.57	0.76	1.89	1.36	2.22	1.56	2.25	1.59	2.25	1.29

$${}^a df = 1, 40. \quad {}^b n = 14. \quad {}^c n = 9. \quad {}^d n = 20.$$

2. How does the use of an Internet-Mediated Social Networking group page affect the number of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and an Internet-Mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

Data obtained for this question were incomplete. Participants were sporadic in their completion of the weekly checklist form (see Appendix D) required for this analysis despite numerous weekly reminders by the researcher. Although some individuals completed the checklist, there was insufficient data to complete any comparison or statistical analysis.

3. How does the use of Internet-Mediated Social Networking group page affect the frequency of contacts made between individuals when an Internet-Mediated Social Networking hybrid adult Christian learning community and a Internet-Mediated virtual adult Christian learning community are compared with a traditional adult Christian learning community?

As with guiding question two, the weekly checklist was the instrument for collecting this data. Again, there was insufficient data collect notwithstanding the significant attempts by the researcher to collect this data.

4. To what degree is there a difference in the perception of the quality of community greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community, and an Internet-Mediated Social Network virtual adult Christian learning community when compared to a traditional adult Christian learning community?

The researcher reviewed and analyzed the participants' interactions on Facebook as well as interviewing respondents to determine if there was a difference in the perception of the quality of community by participants. Interviews were conducted by phone or email with 31 out of the 43 participants or 72%. Those in the virtual group had the highest response rate with 18 of the 20 subjects or 90% responding to the interview. Those in the traditional group had the lowest response rate with 6 out of 14 or 43%. Seven out of nine (78%) in the hybrid group responded.

The traditional group, as the control group, did not have the treatment of a Facebook group page. Perception of community was obtained through the interview. When asked to evaluate sense of community, those responding in the traditional group reported that they felt very connected to other members of the group. They reported that others in their respective groups were members of their peer and social groups. Furthermore, these individuals reported that they had been friends for many years, attended the same church, and were of the same age and peer group. The participants in the traditional group from the upper plains region of the United States were all female.

Within the respondents from the hybrid groups, three out of the seven reported that they felt well connected with the group. When asked if they felt that the addition of the Facebook group page had any impact on their sense of connection and community, all the participants responded that it did not have any impact. When asked why they felt this way, they reported that they did not use the page as they felt that their contact during face-to-face meetings was sufficient. Analysis of the group pages also showed that the individuals did not use the Facebook group page at all. For these groups, the only

postings on these pages were the reminders by the researcher to complete the weekly checklist form.

Finally, 16 of the 18 respondents in the virtual group reported that they felt a sense of community with the group participants. When asked to explain, they reported that the immediacy of response from other members of the group added to the sense of community. They reported that the group leaders played a significant role in building community by encouraging individuals to share personal concerns and needs. Two women reported that they have developed and continued to maintain a strong virtual friendship because of participation. Interaction on the Facebook group pages was frequent and noteworthy with daily postings of prayer needs, insights, conversations, questions, and concerns.

On the Facebook group page for the virtual School of Grace group, there was significant conversational posting concerning the theological issues raised in the teaching portion of the group. There were also numerous posts asking for prayer which continued after the research project concluded. Several postings on this Facebook group pages gave a window into the potential of this type of interaction for the building of community. The following are from a middle aged female living in the Northeastern United States who reported having little or no face-to-face spiritual interaction or church attendance.

This group was formed to see if people on FB (Facebook) could become a community. YES! In the beginning of getting on FB I was HUNGRY for Christian fellowship and was trying to find Christians from any church.

And most were like “FB is for friends and family to reconnect and it’s not a church, blah, blah, blah. But my experiences have been different. We

can become as much as a community of believers as being in a church building. God can use anything to unit people. He spoke through a donkey so I think nothing is beyond GOD!

I think most Christians are tied to the physical structure of a church building and find it awfully hard to think outside of the Christian box. I belong to three psychological groups online and the reason they can become connected is because they form bonds with people. They talk about their lives, interests, argue, rage, forgive, accept. The ones who are not open to dialogue cease to grow. How is that different from meeting face-to-face?

Let's keep this closed group going once the survey is done so I can act the same I have been acting this past week here forever?

5. To what degree is there a difference in the personal spiritual growth greater by participants involved in an Internet-Mediated Social Network hybrid adult Christian learning community and an Internet-Mediated Social Network virtual adult Christian learning community when compared to individuals in a traditional adult Christian learning community?

In order to determine if there was a difference in personal spiritual growth, participants were asked open-ended questions regarding perception of personal spiritual growth. Subjects in the traditional group who were interviewed responded that they saw no difference in spiritual growth during the participation period. They reported that they felt that they were actively practicing spiritual disciplines of prayer, Bible reading, and

devotion prior to their involvement in the study. This was also true of those who participated in the hybrid groups.

Of those who were interviewed from the virtual groups, all of the subjects responded that participation in the group had encouraged them in their personal spiritual growth. One participant, a 42-year-old female stated that she had previously not considered regular devotional Bible reading. She reported that she began to read scripture regularly and was striving to make this a daily activity because of group encouragement. She further reported that this had greatly enhanced her spiritual development. In addition, this respondent stated that she was not involved or attended a local church and that this group had served to provide her with the fellowship and encouragement that she felt she needed.

Five participants in the virtual groups reported that they did not attend church regularly. These individuals stated that the group had encouraged them to reconsider local church involvement. However, they also reported that a form of virtual church had provided them with excellent teaching, community, and connection. All of the interview contributors indicated that they would continue to be involved in virtual Christian community as it had a positive impact on their spiritual growth and development.

Summary of Findings

In response to guiding question one, the statistical comparison of responses to the pre- and post-survey suggested that there was spiritual growth occurring within some of the participants. The analysis indicated that those in the virtual group had the most significant difference when compared to the hybrid and traditional groups. There was

very limited indication of any changes in spiritual growth by those in the traditional group or hybrid group.

Guiding questions two and three remain unanswered due to the lack of sufficient data. Participants did not complete the required checklist. Therefore, it is impossible to determine if additional outside interactions of the participants had any impact on number of contacts or frequency of contacts between individuals. Moreover, the impact of these interactions or lack of interactions cannot be determined. Likewise, the impact on the formation of community cannot be ascertained. In interviews with those in the hybrid and virtual groups, the subjects reported that they had very limited or no interactions outside the group either online, in person, or communications by other media.

Post participation interviews yielded significant information. Those responding from the virtual group reported that the interaction and participation on Facebook was important and meaningful. Several reported that they had grown spiritually and had begun participating in activities of personal holiness. Additionally, they felt a communal connection with other participants although never meeting face-to-face.

While individuals in the traditional group reported high levels of community and involvement, this was the result of long-standing relationships. Within the traditional group, individuals described a sense of spiritual growth but no statistical data was able to corroborate this claim. Members of the hybrid groups did not indicate spiritual growth either statistically or in the interview. These individuals also did not state a feeling of community or attachment.

Limitations

As with any study, potential limitations in validity exist that could affect the conclusions of this research. The researcher had difficulty recruiting an adequate cross section of participants in the hybrid and traditional groups. While the traditional group participants represented geographic and denominational diversity, they were all members of a small group that had existing strong cohesion and sense of community. The ethnic and cultural make-up of the groups did not do not provide enough diversity to represent all persons in membership in Christian Bible studies. Furthermore, race was not considered and racial differences were not represented in this study. While some minority representation participated in one of the traditional groups, it did not sufficiently reflect the diversity of the church.

The research was further limited by the lack of sufficient data from the checklists. Completion of the checklist was sporadic and incomplete. The traditional groups completed the checklist and provided some data. The hybrid group and the virtual group participants did not complete the checklists with any regularity despite regular reminders and urgings. This made comparisons and analysis incomplete. This resulted in the inability to answer two of the guiding questions.

Interaction on Facebook by the hybrid group was limited to announcements. This was impacted by the absence of a person who stimulated conversation. As a result, very limited information was available from the hybrid group concerning the role of Facebook in their satisfaction, sense of community, or growth.

Mortality was very high in the virtual groups. Participants would complete the pre-test but fail to complete the post-test or checklists. One group formed to participate

and within a few days had several hundred members. Of that particular group, only three completed the pre- and post-test. The group interaction consisted of political posts and/or spiritual writings. Comments were limited to clicking the “like” button on Facebook. Therefore, qualitative data from interactions on Facebook was very limited for some groups.

Implications and Recommendations

The implications of this research project warrant further study. While significance was found during the analysis of data, the limitations of this study preclude conclusions being drawn. Nevertheless, the findings indicate that the usage of this medium has potential for adult Christian education and should be further explored.

While the researcher aggressively solicited participants, the number of subjects was insufficient. Future research should secure a larger sample. In subsequent studies, attention should be given to denominational, geographical, and ethnic diversity. It is recommended that diversity in age would make analysis of data more difficult. Keeping a generational cohort would address the issues of internet and computer knowledge, access, and ease of use.

The lack of a designated leader or moderator influenced the participation on the Facebook group pages by hybrid group members. It is suggested that future researchers give training to moderators. These moderators should be taught to ask open-ended questions to stimulate discussion on the Facebook wall. In this study, the virtual group had a group leader who served as a moderator. To varying degrees, these leaders stimulated discussion with posts that included questions, videos, and pictures. The hybrid groups did not have a leader or moderator. It is unclear given the number of

participants in the hybrid group and personalities if a moderator would have impacted interaction among the members. Nevertheless, this approach should be explored for future research.

The instruments used in this study are dated. Limited academic research has been done on spiritual growth and development of adults. Nevertheless, the research of Fowler (1981, 2000) has been the standard for measurement since its development. Future researchers should consider developing another instrument or secure a more recent valid survey.

While many churches and para-church organizations are utilizing the Internet and Internet-Mediated Social Networking for evangelism, attention and consideration should be given to its use for adult Christian growth. The feedback from the participants in the virtual group indicated a strong desire to continue spiritually focused interaction via Internet-Mediated Social Networking. Overwhelmingly, the virtual group members expressed the value of this interaction to their spiritual growth and development.

It is the responsibility of the church to attend to the spiritual needs of Christians of all ages and facilitate ongoing Christian growth (Everist, 2002; Hargraves, 2010). The church is traditionally slow in responding to changes in culture and embracing of new technology (Hargraves, 2010b). Hess (2005) asserted that the church must attend to the present culture. Facebook, with its international participation, provides a vehicle for engaging the culture for the purpose of discipleship. The implications of this study strongly indicate that utilization of this medium should become a part of the outreach and education program of the Church.

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Appendix A
Project Approval Letter



Institutional Review Board

June 10, 2011

Joyce Lighari
121 Scenic Harpeth Drive
Kingston Springs, TN 37082

Dear Joyce Lighari:

Thank you for submitting your proposed research project "Can Facebook build Christian community?" to the Trevecca Nazarene University Institutional Review Board for review.

Your project has been approved. Please make sure you follow the research procedures you described in your application when you conduct your research. This approval is effective for a year and will expire on June 10, 2012. Should you make any major modifications to your research project, you must re-submit an application for IRB approval.

A handwritten signature in green ink, appearing to read "Richard Parrott", is written over a faint, light green circular stamp.

Richard Leslie Parrott, Ph.D. Chair, IRB
Associate Professor of the School of Education

CC: IRB records

School of Education

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Appendix B
Informed Consent

Informed Consent

Title of Project: Can Facebook Build Christian Community?

Principal Investigator: Joyce A. Lighari

Advisor: Dr. Ruth Cox

1. **Purpose of the Study:** The purpose of this research study is to explore the potential benefit of the use of Facebook for forming Christian community and aiding in Christian growth and development.
2. **Procedures to be followed:** You will be asked to answer 39 questions on a survey at the beginning of this study. You will answer 39 questions on a survey at the end of this study. You will be asked to complete a log supplied to you indicating contact between you and other individuals in your Bible study group. Those participating in a virtual or hybrid community will be asked to participate in a private Facebook group page. Those participating in a traditional community will not have a Facebook group page.
3. **Duration:** It will take about 20 minutes to complete the survey.
4. **Statement of Confidentiality:** Your participation in this research is confidential. The data will be stored and secured at researchers home in Kingston Springs, TN in a password protected file. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.
5. **Right to Ask Questions:** Please contact Joyce Lighari with questions or concerns about this study.
6. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

You must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this form for your records.

Participant Signature

Date

Person Obtaining Consent

Date

Appendix C
Survey Instrument

Can Facebook build Christian Community?

Please answer as many questions as possible. If you are not comfortable answering a question, you may omit it. Please note that there is no “right” response; your response should honestly describe your personal experience. Do not choose an answer that would make you look “spiritual” if it is not true of yourself and/or your beliefs. All responses will be confidential.

Demographics

Age _____ Gender ____ M ____ F Identifier * _____

(*An identifier is a term that you pick and one that you will remember. For example, pick your favorite flower, flavor of ice cream, candy bar, etc. This term will be used again on the survey you will complete at the end of this study. You may wish to write it down so that you will be able to recall it later.)

In the following, for each item, check the response that you feel is most like you.

1. ____ Those who do what God wants are given special rewards.
____ God grants comfort and strength to those who are loyal and faithful.

2. ____ God can do whatever God wants without any particular reason.
____ It is important to try to make sense out of how God acts and why.

3. ____ A good way to relate to God is to do what God wants, so that God will help you in return.
____ It is best to think of God as utterly and freely giving.

4. ____ Following Christ with loving devotion is more important than having a thorough and correct understanding of true doctrine.
____ It is important to reflect on one’s beliefs to make them reasonable and logically coherent.

5. ____ True followers of Christ will often find themselves rejected by the world.
____ Most people in the world are doing their best to live decent lives.

6. ____ God's revealed truth is meant for all people everywhere.
 ____ No set of religious beliefs is the whole and final truth for everyone.
7. ____ It is important to follow the leaders to whom God has entrusted his church.
 ____ Religious leaders must respect the need for reasonableness, consistency, and coherence in their interpretation of doctrines.
8. ____ It is often hard to understand why people are disloyal to their family and religion.
 ____ People have to make their own best choices about religion, even if it means following new ways.
9. ____ The moral teachings of the church are objectively valid for all people, even though many do not realize this.
 ____ Love of neighbor requires being open to new ideas and values.

In the following, circle the choice that best indicates the extent of your agreement or disagreement with each of the following statements.

SA = Strongly agree	D = Disagree
MA = Moderately agree	MD = Moderately disagree
A = Agree	SD = Strongly disagree
N = Neutral	

1. My faith doesn't primarily depend on the formal church for its vitality.
 SA MA A N D MD SD
2. The way I do things from day to day is often affected by my relationship with God.
 SA MA A N D MD SD
3. I seldom find myself thinking about God and spiritual matters during each day.
 SA MA A N D MD SD
4. Even if people around me opposed my Christian convictions, I still hold fast to them.
 SA MA A N D MD SD
5. The encouragement and example of other Christians is essential for me to keep on living for Jesus.

- | | | | | | | | |
|--|----|----|---|---|---|----|----|
| | SA | MA | A | N | D | MD | SD |
|--|----|----|---|---|---|----|----|
6. I feel like I need to be open to consider new insights and truths about my faith.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 7. I am convinced that the way I believe spiritually is the right way.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 8. People that don't believe the way that I do about spiritual truths are hard-hearted.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 9. I feel that a Christian needs to take care of his or her own needs first in order to help others.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 10. My faith doesn't seem to give me a definite purpose in my daily life.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 11. I find that following Christ's example of sacrificial love is one of my most important goals.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 12. My identity (who I am) is determined more by my personal or professional situation than by my relationship with God.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 13. Walking closely with God is the greatest joy of my life.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 14. I feel that identifying and using my spiritual gifts are not really important.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 15. I don't seem to be able to live in such a way that my life is characterized by the fruits of the Spirit.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----
 16. When my life is done, I feel like only those things that I've done, as part of following Christ will matter.

	SA	MA	A	N	D	MD	SD
--	----	----	---	---	---	----	----

17. I believe that God has used the most “negative” or difficult times in my life to draw me closer to Him.
SA MA A N D MD SD
18. I feel like God has let me down in some of the things that have happened to me.
SA MA A N D MD SD
19. I have chosen to forego various gains when they have detracted from my spiritual witness or violated spiritual principles.
SA MA A N D MD SD
20. Giving myself to God regardless of what happens to me is my highest calling in my life.
SA MA A N D MD SD
21. I don’t regularly study the Bible in depth on my own.
SA MA A N D MD SD
22. I actively look for opportunities to share my faith with non-Christians.
SA MA A N D MD SD
23. My relationship with others is guided by my desire to express the love of Christ.
SA MA A N D MD SD
24. I don’t regularly have times of deep communion with God in my personal (private) prayer.
SA MA A N D MD SD
25. More than anything else in life I want to know God intimately and to serve Him.
SA MA A N D MD SD
26. Worship and fellowship with other believers is a significant part of my Christian life.
SA MA A N D MD SD
27. It seems like I am experiencing more of God’s presence in my life than I have previously.
SA MA A N D MD SD

28. I feel like I am becoming more Christ-like.

SA MA A N D MD SD

29. I seem to have less consistent victories over temptation than I used to.

SA MA A N D MD SD

30. On the whole, my relationship with God is alive and growing.

SA MA A N D MD SD

Adapted by Joyce A. Lighari

Thank you for your participation and may God richly bless you.

Joyce A. Lighari

Appendix D

Checklist

Can Facebook build Christian community?

Contact Checklist

Please indicate each individual contact you had with any other member of your Bible study. Include the date, the type of contact (email, phone, in-person, Facebook, Twitter, texting, etc.). Please list each interaction separately. If your contact is over the phone or in person please also include the duration of the interaction.

For Example:

Date	In person	Phone	Email	Facebook	Twitter	Text	Other
9/1/2011	1 hour						
9/1/2011		10 min.					
9/1/2011			3				
9/1/2011				5			
9/1/2011						1	

Date	In person	Phone	Email	Facebook	Twitter	Text	Other