EXPLAINING DOCTORAL COMPLETION IN THE

CONTEXT OF GROUP COHESIVENESS AND

INDIVIDUAL PERSISTENCE

By

CYNTHIA LEE KOSS

Bachelor of Music Education
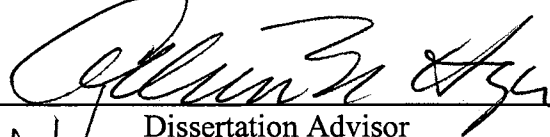Butler University
Indianapolis, Indiana
1972

Masters of Education – Gifted Education
Oklahoma City University
Oklahoma City, Oklahoma
1988

Masters of Education – Secondary Administration
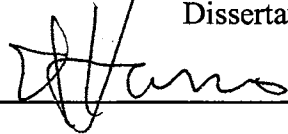University of Central Oklahoma
Edmond, Oklahoma
1997

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
December, 2003

EXPLAINING DOCTORAL COMPLETION IN THE

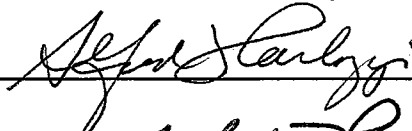CONTEXT OF GROUP COHESIVENESS AND
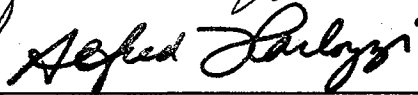
INDIVIDUAL PERSISTENCE

Dissertation Approved:

_____
Dissertation Advisor

_____

_____

_____

_____
Dean of the Graduate College

ii

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

Design of the Study

The process of attaining a doctoral degree is a journey with certain milestones and roadblocks along the way. Several factors influence the direction taken to reach one's destination. Those who successfully reach their destination typically have certain institutional and social forces that have guided them to their doctoral degree (Gillingham, Seneca & Taussig, 1991). Personal factors (isolation, financial concerns, family issues) and institutional factors (inconvenient times for registration, distance to classes) exist that can diminish the likelihood of a student completing his/her doctoral program (Kluever, 1997; Burnett, 1999). Roadblocks may be avoided with a program framework such as a cohort structure, which provides the factors (support and motivation to persist) that assist doctoral students in the successful completion of their degrees (Muth & Barnett, 2001).

As a member of a doctoral cohort, I recognized programmatic advantages available in a cohort structure including most of which are reflected in the research literature on cohorts:

- delivery of books and materials to the student (Kluever, 1997);

- registration through the extension office;

- travel by professors to off-campus site to deliver instruction (Barnett & Muse, 1993);

- program-based learning including developing a leadership platform and reflection in action assignments (Basom & Barnett, 2001; Norris, Barnett, Basom, & Yerkes, 1996); and

- support systems that provide networking as well as personal and professional opportunities (Muth & Barnett, 2001).

As a part-time student with a challenging full time career, demanding family responsibilities, and of an age that is beyond the traditional doctoral student I found myself questioning my need to complete the doctoral program. When I expressed concerns of being overwhelmed or being unsure why I was continuing, cohort members gave me encouragement and support and they advised me to take one day at a time. My fellow cohort members confidently said, "You can do it!" There was an awareness among the cohort group that we all have busy lives and personal and professional commitments but if one of us can complete the program all of us can complete the program.

In contrast, I have witnessed other doctoral students who are not participating in a doctoral cohort that do not have program support. Many of these students remain ABDs (All But Dissertation). These students speak of the isolation, lack of support and demands of work and family (Kluever, 1997) as factors in their decisions to leave their doctoral program of study.

Statement of the Problem

In education, most practicing professionals who decide to pursue an advanced degree combine work with their doctoral studies (Hebert & Reynolds, 1998; Twale &

Kochan, 2000). In other words, they work in schools during the day and attend universities in the evenings and on weekends. These students have many and varied demands on their time which can have an impact on their ability to complete degrees (Dorn, Papalewis & Brown, 1995; Hebert & Reynolds, 1998). Clearly, 50 percent complete their educational leadership programs of study (Dorn, Papalewis & Brown, 1995; Hodges, 1992; Sheridan, Byrne & Quina, 1989). Unbelievably, despite the documented worth of a doctoral degree and the fact that resources expended for its completion require a major investment of time, money and personal commitment (Gillingham, Seneca & Taussig, 1991), 50% in educational leadership programs fail to complete their degrees (Dorn, Papalewis & Brown, 1995). The research of Braddock and McPartland (1989) explains the failure of individuals to complete their degrees in terms of underdeveloped "weak ties". Where "weak ties" exist, the interactions between and among new acquaintances promote original ideas and perspectives. Perpetuation theory describes the importance of "weak ties" in bridging the familiar ("strong ties") to the new ("weak ties"), in the case of this study, learning. Perpetuation theory predicts that the coming together of "weak ties" (diverse group of cohort members) provides the stimulus for cognitive growth and development whereas "strong ties" support only the status quo. In a doctoral cohort, as common goals are established, "strong ties" develop, in addition to "weak ties" and these "strong ties" promote cohesiveness, "social outlets, psychological releases, and emotional support" (Twale, 2000, p.191). Group cohesiveness occurs in a cohort that exists as a diverse group with a common goal. Interconnections that develop as a result of the development of "weak ties" serve as support for individual persistence.

Purpose of the Study

Through the lens of perpetuation theory's strength of ties, and resulting group cohesiveness and persistence, the purpose of this study was to explore the perceptions and experiences of doctoral cohort students and their completion or non-completion of a program. How "cohortness" and its resulting group cohesiveness and individual persistence contribute to completion of a doctoral program was the research question to be explored. This exploration was accomplished through the following:

- collection and presentation of the experiences of a doctoral cohort;
- examination of those experiences through the lens of strength of ties and of group cohesiveness and individual persistence;
- presentation of other realities revealed;
- assessment of the usefulness of perpetuation theory, network analysis strength of ties, group cohesiveness and individual persistence in explaining the phenomenon of program completion.

Orienting Theoretical Framework

The study proceeds from the theoretical framework of perpetuation theory. Perpetuation theory has its roots in segregation sociological literature. Braddock (1980) asserts that segregation typically repeats itself "across the stages of the life cycle and across institutions when individuals have not had sustained experiences in desegregated settings earlier in life" (Mc Partland & Braddock, 1981, p. 49). To fully understand

perpetuation theory, Granovetter's strength of ties research posits the existence of "strong ties" (segregated existence and reliance on family and friends) which perpetuate the status quo. Granovetter (1973, 1983) indicates that "weak ties" include informal, interpersonal networks such as acquaintances or acquaintances of friends. These "weak ties" (Granovetter, 1973) are what allow ideas from "socially distant" acquaintances to reach individuals and eventually lay the groundwork for cognitive growth. "Strong ties" maintain established cultural norms and insulate individuals from possible growth and change. Granovetter (2002) likens individuals with "weak ties" to Toennies' *Gesellschaft* and states that, "people with 'weak ties' live up to the expectations of several others in different places and at different times, which makes it possible to preserve an inner core – to withhold inner attitudes while conforming to various expectations" (p.2). Granovetter (2002) further explains that "strong ties" may be likened to *Gemeinschaft* where individuals, "share norms so thoroughly that little effort is needed to gauge intentions of others" (p. 2).

Considering this theoretical framework, Granovetter's work (1973, 2002) may have application to the ties found in a doctoral cohort. The "strong ties" cohort members have with family and close friends provide stability for cohort members but the "weak ties" of new acquaintances facilitate cohort members' thinking and learning in new, diverse and thoughtful ways. The members of a doctoral cohort begin as acquaintances ("weak ties") and expand to include friends of these acquaintances. These social networks provide a path to new ideas and understandings and thus enhance student learning. Perpetuation theory serves to explain the benefits of interactions within a new group and the impact of "weak ties" as bridges to personal and professional growth. The

"weak ties" found in the initial stages of a cohort eventually become "strong ties" which can be described as the group cohesiveness that develops within a cohort and provides support and strength for cohort members. The group cohesiveness provides the support for individual persistence. In a doctoral cohort "weak ties" serve as bridges that promote growth and change among its members. Perpetuation theory provides a theoretical framework for the personal and professional interactions and growth within a cohort and the impact these interactions have on group cohesiveness and individual persistence as the means to the successful completion of a doctorate. "Weak ties" promote the stimulus needed to make progress toward the cognitive development necessary to complete a doctoral program. Granovetter (1973) indicates:

> the strength of a tie is a combination of the amount of time, the emotional
> intensity, the intimacy (mutual confiding), and the reciprocal services which
> characterize the tie. Each of these is somewhat independent of the other though
> the set is obviously highly intra-correlated (p.1361).

The four areas of perpetuation theory described above (time, emotional intensity, intimacy (mutual confiding), and reciprocal services) align with cohort programs. Cohort members spend focused time developing connections with other cohort members and cohort faculty. The intensity of scheduled coursework focuses on specific, planned areas of study. Group projects expand student thinking and provide an opportunity for personal and professional growth. The cohort process encourages collaboration and reciprocal research. The support systems that develop in a cohort inside and outside the formal class setting provide intimacy and shared stories (mutual confiding) that build personal and professional networks. The development or under-development of these areas has an

impact on the success of doctoral students completing their program of study. New learning only occurs through the development of "weak ties." The "weak ties" associated with perpetuation theory may explain the success of the cohort structure.

The question of the connection between "weak ties" and the development of group cohesiveness and individual persistence was explored and examined as the data from interviews, demographic data sheet and the group cohesiveness and persistence survey (Dorn, Papalewis, & Brown, 1995) was collected and transcribed. The purpose of the survey instrument was not to collect quantitative data but to collect categorical data (Yin, 1994) which would inform the analysis and coding of interview responses.

Procedures

This dissertation is a descriptive, explanatory case study, a qualitative methodology (Yin, 1994). This explanatory and descriptive case study approach was taken to investigate the "how" and "why" questions posed in this research (Yin, 1994).

Researcher, Biographical and Methodological Implications

I am a middle-aged, white, female, full-time working professional and full-time graduate student (as defined by taking nine hours a semester), married, with two collegiate daughters. I am in my fifth year of my doctoral cohort program in educational leadership.

My cohort experience has provided a foundation for commonalities with my research subjects. Faculty and students of the cohorts studied were in different states, one different country and three different universities although they all have participated in educational leadership doctoral cohort programs. Even though they all had a cohort experience, several configurations of cohorts exist and are described in the literature including an open cohort, closed cohort, and fluid cohort (Yerkes, Basom, Barnett, & Norris, 1995).

In a closed cohort students take all of their course work together in a specific sequence. An open cohort includes students who enroll in a core of classes, taking additional courses on their own to fulfill personal agendas and/or university requirements. In the fluid model, students may join at different times through a single entry point (Barnett & Muse, 1993). My experience has been in a "fluid cohort" which includes doctoral students pursuing different degrees (Higher Education Administration and Educational Administration). The cohorts studied included doctoral students pursuing a doctorate of education in Educational Leadership in a closed cohort. The similarities that exist between students participating in a cohort, in this case, the researcher and the researched allowed for thicker description and a deeper understanding of the stories told. Indeed, the multiple realities experienced by the researcher and the researched gleaned significant insights and contributions to the literature on doctoral cohorts.

As I conducted this qualitative study, I was the research tool as the interviewer of cohort doctoral students and doctoral cohort professors. Lincoln and Guba (1985) describe this characteristic:

qualitative methods…are more adaptable to dealing with multiple realities; because such methods expose more directly the nature of the transaction between investigator and respondent hence make easier an assessment of the extent to which the phenomenon is described in terms of the investigator's own posture; and because qualitative methods are more sensitive to and adaptable to the many mutually sharing influences and value patterns that may be encountered (p. 40).

As a qualitative study, this research explored a social, human problem. "The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting" (Creswell, 1998, p. 15). The cohort experience has been explained through transcriptions of interviews as participant voices share stories of being a member of a doctoral cohort as a student or professor.

Verstehen (understanding). This case study used an interpretive approach, specifically symbolic interactionism (Blumer, 1969). As this study has unfolded, the meaning associated with group cohesiveness and individual persistence as factors that influence doctoral completion were revealed. The interactionist assumptions described by Blumer (1969), outline the ideas explored in this study of doctoral students as members of a cohort.

1. That human beings act toward things on the basis of the meanings that these things have for them;

2. That the meaning of such things is derived from, and arises out of the social interaction that one has with one's fellows;

3. That these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters (p.2).

Each cohort member brings a certain set of values, assumptions and traditions associated with their families. The established values, assumptions and traditions define who they are and how they behave as an individual and include certain biases and ways of thinking and feeling about other social actors, in this case, the other doctoral cohort members. As the cohort members begin a relationship with other cohort members, new meanings, understandings and learning take place as a result of interactions with this group. Each cohort member had his/her lens for making sense of his/her experience with the cohort. Each cohort member derived his/her own meaning from the experience.

Using the case study design to understand the connectedness of group cohesiveness and persistence in the process of completing a doctorate aligns with the theoretical perspective.

Psathas (1973) explains symbolic interactionism:

> the implication of the symbolic interactionist perspective is that the actor's view of actions, objects, and society has to be studied seriously. The situation must be seen as the actor sees it, the meanings of objects and acts must be determined in terms of the actor's meaning, and the organization of a course of action must be understood as the actor organizes it. The role of the actor in the situation would have to be taken by the observer in order to see the social world from his perspective (p. 6-7).

Symbolic interactionism emphasizes that through dialogue we come to know an individual's perceptions and feelings and use these interactions to decipher meaning. In a doctoral cohort, continuous dialogue allows members to establish meaning and to act based on their interpretation and organization of that meaning (Crotty, 1998).

Data Needs and Sources

Considering the large percentage of doctoral students in educational leadership who do not complete their doctoral programs, universities and those pursuing their doctorates have a need to know what the contributing factors are to successful completion and conversely to attrition. I anticipated that the in-depth interviews with doctoral cohort members would provide thick description of the students' thoughts, feelings, motivations and experiences related to their lives as a practicing professional and a doctoral student thus providing a framework for action.

Based on information from my doctoral committee, I made contacts with the major professor responsible for the cohort program at three universities in the midwestern United States including one with a program in Europe to request contact information for students and professors to include in the study. I included students from educational leadership doctoral cohort members who did and did not finish their degree. I provided a brief summary of the intended research to the professors. I made continuing contact with the professors in order to acquire cohort program history and basic information as well as access to former cohort members. As the study progressed I made further contact with these professors and those cohort members who agreed to participate in the study and asked all doctoral cohort members to complete a group cohesiveness and persistence survey and complete demographic information. I then interviewed four doctoral cohort members from each university (two completers and two non-completers) and two professors from each university. To situate the study in a research context I reviewed

literature on perpetuation theory, doctoral cohorts, group cohesiveness and individual persistence.

Data Collection

The data were collected in the spring of 2003. All members of each university cohort including faculty and students had the opportunity to complete the group cohesiveness and persistence survey (see Appendix A) and demographic information forms (see Appendix B and C). From this group, four students (two completers and two non-completers) from each university as well as two faculty members from each university participated in an interview. Follow-up member checks were through e-mail and telephone calling due to the distance involved in visiting the states and European country where these students live. Program professors who provided contact names and students were formally contacted after receipt of Institutional Review Board (IRB) approval (see Appendix D). A letter of introduction and consent form is included in Appendix E. Considering the nature of case study research, there were a small number of subjects, thirteen doctoral cohort members (four - five from each university) and six professors (two from each university).

Data Analysis

Since this is a qualitative inquiry, I relied on the data to tell the story. Interviews were conducted to explore the experiences of doctoral cohort students and the

experiences of the doctoral cohort professors. Data were collected, interpreted, and meaning applied. Follow-up interviews, member checks, and peer debriefings were obtained and the findings revised as new themes and patterns emerged (Merriam, 1988).

Merriam (1988) indicates that in a qualitative design:

One does not know whom to interview, what to ask, or where to look next without analyzing data as they are collected. Hunches, working hypotheses, and educated guesses direct the investigator's attention to certain data and then to refining and/or verifying one's hunches. (p.1)

The use of a theoretical framework serves to provide a set of assumptions and guidelines for bringing meaning to the research. The interviews were coded and analyzed to determine recurring themes and patterns from the accounts given by the subjects. Perpetuation theory framed the analysis based on strength of ties (Granovetter, 1973, 1983, 2002).

Research Criteria

According to Lincoln and Guba (1985) meaningful criteria for a constructivist inquiry include credibility, transferability, dependability and confirmability. These contribute to the study's trustworthiness.

Credibility

Credibility is defined as the relationship between the constructed realities created by the subjects of the study and the interpretation and description of those realities generated by the researcher (Guba & Lincoln, 1989). Member checks were used to help ensure the realities presented in this study were accurate representations of the respondents perceptions. Member checks provided the opportunity for subjects to verify the data collected from the interviews and that the researcher's interpretations are accurate from the subjects point of view. Peer debriefing allowed an outside professional to review and analyze the study and provide feedback about the conclusions drawn. The purpose of the feedback was to refine and redirect the research analysis and reporting of the data to reflect an accurate, unbiased account. Interviews were transcribed verbatim and sent to each respondent for their review and edits before inclusion in the data representations and analysis.

Lincoln and Guba (1985) state that triangulation occurs by using different sources, and different methods. Triangulation of data supports the credibility of the study (Lincoln & Guba, 1985). Lincoln and Guba (1985) explain the basis for the concept of triangulation:

> Triangulation had its origins in the metaphor of radio triangulation, that is, determining the point of origin of a radio broadcast by using directional antennas set up at the two ends of a known baseline. By measuring the angle at which each of the antennas receives the most powerful signal, a triangle can be erected and

solved, using simple geometry, to pinpoint the source at the vertex of the triangle opposite the baseline. (p. 305)

Analysis of data, for this study, includes triangulated units from surveys, interviews, demographic information sheets, and data from document review. In addition, I requested two professional peers, one experienced in qualitative inquiry and one experienced in quantitative inquiry, to examine the research data. This third technique to check credibility is peer debriefing. Peer debriefing provided me with confirmation of the credibility of the study. The peers reviewed the interview coding matrix, the document review information, the survey results and analysis, and demographic summary information as a documented audit trail. In addition, my memos to myself (Miles & Huberman, 1994) documented the continuous construction of the realities that emerged as information was added to the data collection.

Transferability

Transferability refers to the degree to which the study's findings can be applied to other situations (Lincoln & Guba, 1985). I developed data tables and unit and category matrices to present data and provide an audit trail. The study provides enough documented evidence that another researcher would be able to replicate the study with similar respondents in similar cohort structures.

Dependability

Dependability in a naturalistic study parallels reliability in a quantitative study. The expectation is that the researcher will provide enough documentation so that the process can be "traced and is publicly inspectable" (Guba & Lincoln, 1989, p. 242). This study includes documentation of data collection for surveys, interviews, demographic information and documents related to cohort program members and cohort program content.

Confirmability

An audit trail of interview transcripts, data analysis and coding, and relevant documents provided the research documentation that indicates the researcher has tried to reduce the potential bias associated with the research investigation. "The naturalistic researcher does not attempt to ensure that observations are free from contamination by the researcher but rather to trust in the 'confirmability' of the data themselves" (Erlandson, Harris, Skipper & Allen, 1993, p. 34). Confirmability was provided by an audit trail that included documentation of all sources for supporting data. The researcher kept individual notebooks for each cohort site that included raw data, individual surveys, demographic information and documents defining cohort program admission and program requirements to cross-reference with the research study findings. All interview transcripts, surveys, demographic information and e-mail communications are available for review. The Group Cohesiveness and Individual Persistence Survey data (see

Appendix F) and the unit coding and categorical coding matrices of the interviews used

for data analysis conclusions are included in Chapter IV.

To ensure that the data are trustworthy documentation and analysis was

completed in the following ways. First, a peer/colleague examined the data collected and

provided comments regarding the plausibility of the data analysis of the patterns and

themes identified in the study. Second, an audit trail provided documentation for analysis

(Guba & Lincoln, 1981). Third, member checking by those interviewed provided an

opportunity for the subjects to review interpretations and correct any factual errors. These

three strategies comprised the multiple sources of data that provided triangulation to

ensure consistency of dependability (Merriam & Simpson, 1995). "The trustworthiness of

the findings of a study with a small sample is dependent upon the internal validity,

reliability and external validity of the study" (Merriam & Simpson, 1995, p. 103).

Considering my participation in a doctoral cohort program, I was cautious to rely on the

data and use the literature to form my interpretations rather than base my interpretations

on my own biases and perspectives. The interview transcripts, notes, coding and analysis

stored by the researcher documented the sources that support the conclusions,

recommendations and interpretations of the study.

Significance of the Study

Knowledge obtained from this study will be valuable to current research, theory

development and practice. The new knowledge provides information related to the

reasons for doctoral student completion or attrition from their programs of study. There

appear to be four gaps in the current research related to doctoral completion. First, there is scant research related to persistence and how its interaction with group cohesiveness relates to doctoral completion. Second, the connection between individual factors and group factors have not been investigated as it relates to strength of ties. Third, investigations have recognized doctoral attrition as a result of individual factors instead of a consequence of a complex social process. Fourth, the voices of the individual students who have been members of a cohort structure will expand the current knowledge of the group dynamics.

Research

The research related to doctoral cohorts does not go beyond the inputs and outputs of doctoral study (Donaldson, Scribner & Perkins, 2001). This study examined the thoughts, motivations, perceptions of personal and professional growth, and group and individual processes necessary for the completion of a doctoral program as described by members of a doctoral cohort interviewed in this study. The intersection of group cohesiveness and individual persistence as two factors that are critical to completion of a doctoral cohort program was explored. This study used perpetuation theory to frame the analysis of the meaning of the cohort experience as described by the cohort members.

Bowen and Rudenstine (1992) report that 55% of doctoral students fail to complete their dissertation (ABD) but have completed all other requirements. Distinctions have been made between early attrition and late attrition. There is greater concern related to late attrition for several reasons:

- A large investment of time and money on the part of the faculty and university.

- Failure at this point is expensive and painful for the student.

- The reputation of the institution is at stake.

For these reasons, "attention has been paid to identifying variables related to delay or failure to complete a dissertation" (Green & Kluever, 1997, p. 4). Dorn and Papalewis (1997) suggest that the formation of doctoral student cohorts promotes the retention of graduate students. "The close collaboration and reinforcement that develops between students and faculty improves task completion while it provides team building practices" (Dorn & Papalewis, 1997, p. 2). Mentorship, cohort structure, classes that specifically address time management and the dissertation process are areas that can remove many roadblocks to the completion of a doctoral program. In the research of Hatley and Fiene (1995) ABD students were reported as "pleading for more structure, opportunity, encouragement, and mentoring in their professional lives" (p. 6).

Practice

Research universities have a vested interest in ensuring that greater percentages of their doctoral students complete their degrees (Golde, 1994). Few studies have researched the high level of student attrition in doctoral programs and it is anticipated that results from this study contribute to the current knowledge base.

De Valero (2001) reports that graduate education requires high dollar funding. The current climate locally and nationally is one of diminishing resources for higher

education (Kluever, 1995). Competition for the limited resources is great between institutions and between undergraduate and graduate programs. Examining indicators of graduate students ability to complete their program requirements in a timely manner has significant dollar implications. This study informs practice concerning the use of cohorts in a doctoral program as well as the advantages and disadvantages of cohorts in relation to doctoral completion.

Theory

This study used perpetuation theory to provide an explanation of how the interaction of group cohesiveness and individual persistence, in a doctoral cohort, contribute toward the completion of a doctorate. Granovetter's (1986) concept of strong and weak ties provides a frame for understanding how "strong ties" (e.g. family) and "weak ties" (e.g. cohort acquaintances) define cohort interactions. This research study adds to perpetuation theory, as it relates to the inner workings of doctoral cohort programs. Currently no studies of doctoral cohorts use perpetuation theory as a theoretical framework. This study adds to the limited knowledge currently available which may explain the high percentages of student attrition in educational leadership doctoral programs. In addition, this study provides possible explanations of the influence of group cohesiveness and individual persistence on doctoral completion within cohort programs.

Summary

The purpose of this study was to use perpetuation theory as a lens to examine strength of ties within a doctoral cohort. In addition, every effort was made to use perpetuation theory to identify the potential influence of group cohesiveness and individual persistence as factors within a doctoral cohort experience that have a connection to doctoral completion. Qualitative methods allowed for interpretation of the data acquired through interviews, demographic data information, and a group cohesiveness and persistence survey (Dorn, Papalewis & Brown, 1995).

Reporting

Chapter II discusses previous research on perpetuation theory, group cohesiveness and individual persistence and doctoral completion and attrition. Chapter III describes the qualitative research procedures and the presentation of data in this study. Chapter IV discusses the analysis of data in this study. Chapter V presents the conclusions, recommendations and suggestions for possible future research related to this study.

CHAPTER II

Review of the Literature

This chapter presents a review of literature that first, defines the need for research

in the area of doctoral completion. Second, an overview of the history of educational

administration university preparation is described to establish the context of doctoral

cohort programs within the evolution of educational administration programs. Third,

characteristics of university cohort programs in doctoral study are defined and the

benefits and challenges of doctoral cohort programs are identified. Fourth, group

cohesiveness and individual persistence as they relate to doctoral completion are

presented. And fifth, the lenses of perpetuation theory and network analysis are used to

understand the complex interactions within doctoral cohorts.

Need for Doctoral Completion Research

Baird (1993) indicates that one out of every four students attending universities is

a graduate student. Fifty percent of doctoral students do not complete their degree

programs in this country (Bowen & Rudenstine, 1992; Tinto, 1993). In countries outside

of the United States, it is reported that the more selective the education level, the higher

the completion rate for students. In the United States, the reverse is true (Tinto, 1993). In

the United States, professions of medicine and law have a 90% or higher completion rate, although in education administration programs, the reported average completion rate is 50% (Bowen & Rudenstine, 1992). Several concerns lead to further exploration of doctoral attrition, particularly in educational administration programs. The following concerns exist:

- The United States higher education institutions do the least to assist the most able students to complete their degree programs at the doctoral level. (Tinto, 1993).

- A large amount of time and money on the part of the faculty and university is invested in doctoral programs and the ability of graduate students to complete their program requirements in a timely manner contributes to significant dollar implications for universities (Bowen & Rudenstine, 1992; De Valero, 2001).

- Failure at the "All But Dissertation" (ABD) stage of doctoral work is expensive and painful for the student (Bowen & Rudenstine, 1992).

- Research universities have a vested interest in ensuring that greater percentages of their doctoral students complete their degrees in order to contribute to their profession (Golde, 1994).

De Valero (2001) reports that graduate education requires high dollar funding. The current climate locally and nationally is one of diminishing resources for higher education. Competition for the limited resources is great between institutions and between undergraduate and graduate programs. Examining indicators of graduate students' ability to complete their program requirements in a timely manner has significant dollar implications. In addition, Nerad and Cerny (1993) discuss the

anticipated shortage of university faculty and the importance to graduate deans of timely completion of doctoral programs.

In the area of Educational Administration, half of the practicing professionals enrolled in doctoral programs complete their studies (Dorn, Papalewis & Brown, 1995). Students who are "All But Dissertation" (ABD) account for 20% of the attrition from doctoral programs in education. Based on the concern of high attrition in doctoral programs in general, and educational administration doctoral programs in particular, identifying variables related to delay or failure to complete a dissertation has become an important research focus (Green & Kluever, 1997).

Institutional factors that are reported to contribute to graduate student attrition include size of the graduate program; the availability and type of financial support; the relationships among students and faculty; the kind of advising available to doctoral students and graduate policies and practices (De Valero, 2001). De Valero states that personal characteristics or institutional characteristics alone do not have an impact on graduate school completion but rather it is the complex interactions of the student personal factors and institutional factors that has an impact on completion.

Relationships between and among students and faculty have an impact on persistence and therefore successful completion of the doctorate. Green and Kluever (1997) identify that advisor/committee functioning is critical in the differentiation of students who are ABDs and students who are Ph.D.s. The Dissertation Barrier Scale, used in the Green and Kluever (1997) research, showed significant differentiation between graduates and ABDs in the following areas:

- Advisor/committee functioning

- Personal organization and skills

- Research skills.

Situational factors identified as having a significant effect on dissertation completion include: amount of financial assistance obtained and whether full-time employment was needed (Germeroth, 1990; Wright, 1991); distance to the university has also been identified as a significant factor (Green & Kluever, 1997; Muszynski & Akamatsu, 1991); family, friends, and peer support (or lack of) have been cited as barriers or facilitators as well (Green & Kluever, 1997; Jacks, Chubin, Porter & Connolly, 1983).

Program-specific factors identified are:

- Substantive problems with the dissertation topic (Bowen & Rudenstine, 1992; Lipschutz, 1993; Miller, 1995);

- Lack of support from or conflict with the dissertation chair (De Valero, 2001; Germeroth, 1990; Nerad & Cerny, 1993);

- Difficulty in time management (Kluever, Green & Katz, 1997);

- Lack of structure of the dissertation phase (Baird, 1993; Lipschutz, 1993; Nerad & Cerny, 1993);

- Inadequate prior exposure to research (De Valero, 2001; Kluever, Green & Katz, 1997; Lipschutz, 1993);

- Lack of confidence in data analysis skills; and

- The persistent view of the dissertation as a magnum opus rather than simply a competent piece of work (Germeroth, 1991; Jacks, Chubin, Porter, Connolly 1983; Muszynski & Akamatsu, 1991).

Mentoring relationships and general faculty-student interactions are significantly related to student success in a doctoral program (Lipschutz, 1993). Doctoral student and faculty cohorts promote the retention of graduate students. "The formation of doctoral student and faculty cohorts has been shown to be highly effective in promoting the retention of graduate students in professional schools. The close collaboration and reinforcement that develops between students and faculty improves task completion while it promotes team building" (Dorn & Papalewis, 1997, p. 2).

Mentorship, cohort structure, classes that specifically address time management and the dissertation process are areas that can eliminate many barriers to the completion of a doctoral program. Green and Kluever (1997) recommend reinforcements and incentives be designed to establish time and task structure for students. Incentives can be marked by completion of a series of landmark events:

- completing the proposal,

- obtaining approval from the human subjects review board,

- presenting the study plans at an in-house symposium,

- submission of a dissertation progress log,

- completion and approval of a dissertational proposal or

- attendance at a dissertation preparation seminar (Green & Kluever, 1997).

Hatley and Feine (1995) report ABD students are "pleading for more structure, opportunity, encouragement, and mentoring in their...professional lives" (p. 2).

With these challenges in mind, the continuing review of the literature explores a brief history of university preparation programs for educational administration and considers the advantages and disadvantages of the cohort structure in educational administration programs.

History of Educational Administration Preparation

Murphy (1992) identifies four historical eras that describe the evolution of the university preparation of school administrators. A brief summary of the eras provide an historical context that establish the philosophical base for the structure of doctoral programs in educational administration. This background places cohort models into perspective and considers the philosophical, theoretical and practical base of educational administration programs.

America experienced major social and economic change during the 20th century. Educational administration programs mirrored the historical perspective of the times as is reflected in the following historical eras: ideological era, prescriptive era, behavioral era and dialectic era. Within each era, specific events shaped the composition of the faculty, students, program structure, and program content.

Table 1 details the eras of educational administration program development.

Table 1

Eras of Educational Administration Program Development

Historical Era	Administrator Role
1820-1900 Era of Ideology	Administrator as Philosopher-Educator
1900-1945 Prescriptive Era	Administrator as Technical Expert
1946-1985 Behavioral Science Era	Administrator as Social Scientist
Era of Professionalism	Administrator as Professional
1986- now Dialectic Era	Administrator as Professional Practitioner

Era of Ideology 1820-1900

In the late 19th century and the beginning of the 20th century, schools were simple

organizations. In the beginning of educational systems, administrators were not

recognized as essential. It was in 1866 that the Department of Superintendence, which is

now the American Association of School Administrators (AASA), was created. In 1875,

William L. Payne, a Michigan school superintendent wrote the first book for educational

leaders, *Chapters on School Supervision* (Murphy, 1992). "Little had been written before

1900 on educational administration, and formal preparation programs for school

administrators had not yet been developed" (Gregg, 1960, p. 20). Educational Leadership

faculty during this era focused on theories related to model school leaders, "the great man

theory" (Cooper & Boyd, 1987, p. 7). Course content focused on knowledge of

curriculum and instruction. During this era, specific courses, degrees or licenses for

educational administrators did not exist (Murphy, 1992). The philosophical basis for

leadership during this time was moral wisdom. Training occurred for the administrator on

the job and little formalized preparation in school management or pedagogical instruction

existed at the school district or university level (Murphy, 1992).

Prescriptive Era, 1900-1946

At the beginning of this era, no comprehensive university program of study in

educational leadership existed. However, after World War II, many states were requiring

formal preparation in educational leadership and certified preparation programs were

required for administrator employment (Moore, 1964). There was a shift from the school

administrator as a philosopher to a manager. A prescriptive training program defined the

job of an administrator as a technical expert.

The faculty in the graduate departments of education during the prescriptive era

were few in number and less than 50% had doctorates. The majority of the students were

white males and most continued with full-time positions as teachers or administrators

(Murphy, 1992). The students' educational goals were to prepare for the superintendency

or university professorship. The program structure after the 1920s included 40 to 47

institutions of higher education that offered a major in educational administration. By

1950, it is reported that the majority of administrators took some graduate level courses

and 38 states "required a graduate degree in administration for superintendents and

principals" (Cooper & Boyd, 1987, p. 11). Program content evolved from business

manager and school executive (1915-1929) to the human relations or social agent phase

(1930-1950). The course content was comprised of "folklore, testimonials of reputedly successful administrators,...and the speculation of college professors" (Griffiths, 1959, p.v).

Behavioral Science Era, 1946-1985

At the beginning of the Behavioral Science Era, educational administration programs came under criticism because there was no scientific or theoretical base for the preparation. Because of this criticism, new program content was developed. The Era of Professionalism began with the growth of educational administration programs that focus on the science of administration. "At the end of World War II, training was still highly practical, a blend of plant management, scheduling, and budgeting interspersed with courses on schools and the social order. Still missing were academic respectability and a sense of full professionalism" (Cooper & Boyd, 1987, p. 11).

Murphy (1992) explains that in 1946 and 1947, four events influenced the development of educational administration programs in this era: The National Conference of Professors of Educational Administration; the creation of the Cooperative Project in Education Administration; the beginning of the Committee for the Advancement of School Administration; the formation of the University Council for Educational Administration.

First, the National Conference of Professors of Educational Administration (NCPEA) was begun in 1947. At a meeting in Endicott, New York, 72 men met to discuss educational administration as a profession. This organization provided an

important link for educational administration scholars in an effort to improve educational administration professors and strengthen educational administration programs (Campbell Fleming, Newell, & Bennion, 1987). This group included scholars from the social sciences that challenged the type of current thinking.

Second, the NCPEA created the Cooperative Project in Education Administration funded by the Kellogg Foundation. The CPEA included a consortium of eight universities. The primary goal of CPEA was to be a "large-scale improvement program that would result not so much in discovery or pronouncement as in changes in the institutions which prepare school administrators" (Moore, 1964, p. 19).

Third, in 1955, The Committee for the Advancement of School Administration (CASA) began. Membership included practitioners and professors. This committee established standards and provided state certification regulations and professional accreditation (Moore, 1964).

Fourth, in 1956, 34 school administration university leaders formed the University Council for Educational Administration (UCEA). University professors created this organization to focus on the study of administration, leadership and best practices necessary to prepare professional education leaders (Murphy, 1992). This organization was instrumental in the 1960's and 1970's in the development of university educational administration programs. (Campbell, Fleming, Newell, & Bennion, 1987, pp. 182-183). Murphy (1992) reports that by the late 1960s educational administration programs numbered 212; by the early 1970s, the number increased to 299; by the late 1970s, the number rose to 375; and by the mid-1980s, there were more than 500 educational

administration programs. The number of dissertations written during this time period, increased from 250 in 1954, to 1031 in 1971 (Immegart, 1977; Silver, 1982).

It is within this context that doctoral cohort programs were developed and sustained. As early as the 1950s, it is reported that educational leadership programs prepared student cohorts. Many of these cohort programs were made possible by particular foundations and reform initiatives including the Kellogg Foundation, Leadership in Education in Appalachian Project and the Cooperative Program in Educational Administration (Achilles, 1994; Barnett, Basom, Yerkes, & Norris, 2000). As the funding disappeared from these foundations, however, so did the cohort structure.

Doctoral cohort programs in educational administration beginning in the 1950s promoted two behaviors, that is, group cohesiveness and individual student persistence. For purposes of this study, a cohort is defined as "a group of students who begin and complete a program of studies together, engaging in a common set of courses, activities and/or learning experiences" (Barnett & Muse, 1993, p. 401).

The faculty during this era remained primarily focused on professional practice. University departments of education employed practicing administrators who taught part-time. Full-time professors were mainly generalists, although specialization within the field grew in the 1970s. Students at the beginning of the scientific era were primarily white male administrators who were admitted based on academic record. Beginning in the 1970s, a third of the students were black and a quarter of the students were women. (Farquhar, 1977, p. 338). In the 1980s, the typical student was female with a full-time job attending a doctoral program on a part-time basis (Campbell, Fleming, Newell, & Bennion, 1987). During the era of professionalization, most students were part-time

commuting students. The program content now included theoretical knowledge and coursework from the behavioral and social sciences. Coursework focused on the exploration of the science of administration. In summary, the transition from the prescriptive era to the scientific era (Getzels, 1977) is described by:

The essential shift was from conceiving of educational administration as a domain of action only to conceiving of it as a domain of study also. The shift moved the focus of effort from an orientation based on solutions, where experienced administrators gave answers to questions of "how to do it," to an orientation based on inquiry, where problems were posed and understanding was sought regarding the phenomena of administration in their own right (p. 9).

Dialectic Era, 1986-present

The beginning of the Dialectic Era is signaled by turmoil and the continued need to raise the professionalism of school leaders. The strong demand of reform measures to implement more effective administrator preparation programs increased during the 1980s through the 1990s. In the 1980s, due to criticism of educational leadership programs in national reports, there was a demand to change leadership preparation at the master's and doctoral level. This demand for change led to a resurgence of educational leadership cohort programs. The National Commission on Excellence in Educational Administration (1987) and the National Policy Board for Educational Administration (1989) indicated the need for change. The National Commission on Excellence in Educational Administration (NCEEA) issued a report and recommendations in 1987. Several

deficiencies were reported including: "lack of sequence, modern content, and clinical experience in preparation programs; lack of quality candidates for preparation programs; lack of preparation programs relevant to the job demands of school administrators; a lack of a national sense of cooperation in preparing school leaders" (Jackson & Kelley, 2002, p. 193). In addition, demographic information indicated that large numbers of school administrators, in particular, school principals, were nearing retirement. This demand for new administrators paralleled a demand for a change in administrator preparation graduate programs (Fenwick, 2000).

As a result of the NCEEA's report, across the United States, many educational administration programs experienced major changes in the content of the curriculum, the delivery system of the curriculum, the use of field-based experiences and peer mentoring (Jackson & Kelley, 2002). Hofstra University, "beginning in fall, 1988, began an overhaul of its preparation programs for school administrators followed by additional changes to the doctoral program" (Shakeshaft, 1999, p. 238). The Hofstra's doctoral program is a cohort. The Fordham University doctoral program was revised in the late 1980s as a part of the Danforth Foundation supported program in educational administration. This Ed.D. program provided a planned sequence of courses within a cohort structure.

As educational administration programs moved into the 1990s, the use of cohorts increased. In 1995, a study "found that half of the UCEA units used cohorts at the master's level and 80% used them at the doctoral level" (McCarthy, 1999, p. 128). UCEA is a recognized organization leader in the development of educational leadership programs. Other recognized educational leadership programs that use a cohort structure

include: the University of Washington, East Tennessee State University, and Wichita

State University (Jackson & Kelley, 2002). Each of these are recognized for the

following reasons:

- tend to be more demanding of participants;

- have more careful selection and screening processes;

- are more coherent and focused, with attention to sequencing of courses,

  scheduling, and strong collaboration with area districts;

- are cohort based; and

- have a coherent program focus due to faculty members working together and

  integrating the program to enable students to master critical competencies

  (Jackson & Kelley, 2002, p. 198).

An effective delivery system of educational administration is the cohort (Barnett

& Muth, 2001; Donaldson, Scribner & Perkins, 2001). In 1995, the University of

Massachusetts at Boston changed all of its educational leadership programs to a cohort

model (Tietel, 1997). Recent research estimates that over half of the educational

administration programs in the United States use a cohort model (Barnett & Muth, 2002).

With the resurgence of the cohort model, researchers have begun to closely examine the

benefits and drawbacks of this program structure (Barnett & Muth, 2002).

Cohorts

Doctoral cohorts vary in definition and delivery. Norris (2001) describes the

following assumptions as best practice for effective cohorts:

- Curriculum and instruction within cohort settings should be guided by the principles of adult learning theory

- The cohort serves as a vehicle for curriculum delivery from both a process as well as content perspective

- Much of what is learned is derived from the process itself. The cohort provides a laboratory for experiencing the concepts taught

- The cohort in its purest form is, in fact, a learning community (p. 2).

These assumptions are explored as cohort structure, cohort as instructional delivery and cohorts as learning communities in the following review of the literature.

Cohort Structure

Doctoral cohorts are defined in a variety of ways in the literature. Reynolds and Hebert (1998) define cohorts this way:

Cohort groupings of students-learning arrangements with required sequences of courses and with student groups that stay intact throughout all or most of their work toward an academic degree or program completion-offer the possibility of formatting the curriculum in ways that can provide a sense of academic and social connectedness among students. Cohorts contrast to the 'stranger group' arrangement of more traditional higher education that allows individual choice in sequencing and in time to completion, and therefore presents students new class groups in each course. (p. 34)

Barnett and Muse (1993) define cohorts this way "A cohort consists of a group of students who begin and complete a program of studies together, engaging in a common set of courses, activities, and/or learning experiences" (p.401).

Yerkes, Basom, Barnett and Norris (1995) define cohorts in broad terms as: "a group of students who engage in a program of studies together" (p.3). The definition used in Reynolds and Hebert's (1995) research defines a "closed cohort," that is, "students enter together and remain together for all their coursework in lock-step sequence" (p. 34). In addition, three cohort models are defined by Barnett and Muse (1993):

- In the closed model, students take all of their course work together in a prearranged sequence.

- In the open model, students enroll in a core of classes together, taking additional course work on their own to fulfill personal agendas and/or university requirements;

- In the fluid model, students may join the cohort at different times rather than at a single entry point.

However, Basom, Yerkes, Norris, and Barnett (1995) state that, "to view cohorts simply as a method of course delivery, as a vehicle for socialization, as a convenient scheduling design, or as a fashionable approach to program delivery, is to do the cohort structure a great injustice" (p. 20).

Some definitions go beyond the structure of cohorts, that is, the course sequence and time frame for completion, to include the type of cohort instructional delivery including the process and the content which is part of the cohort organization and the cohort system of community that is established.

Cohort Instructional Delivery

Cohort programs use a variety of instructional strategies including team teaching (Muth & Barnett, 2001), problem-based learning (Basom & Barnett, 2001; Barnett & Muth, 2001), seminars (Basom & Barnett, 2001), case studies (Barnett & Muse, 1993), integrated curriculum (Muth & Barnett, 2001), reflective journals (Basom & Barnett, 2001; Hill, 1995) and individual learning plans (Yerkes, Basom, Barnett, & Norris, 1995). Certainly all of these strategies can be implemented in a non-cohort program. However, the use of these strategies in concert with the effectiveness of group support and sharing of diverse thinking and expertise presents an opportunity for cohort members to experience academic and affective growth and learning.

Cohort as Learning Communities

Cohorts can be defined as learning communities. Norris (2001) defines four components of cohorts as learning communities. The first is the aspect of interactions between and among the students and the faculty. These interactions have the potential to develop meaningful relationships built on trust and respect. The second component suggests that a true learning community shares a learning purpose (Senge, 1990). Students in a doctoral cohort share the common goal of completing their doctorate program. The third component of a learning community is interdependence. And the fourth component of a learning community is the opportunities for individual growth. In cohorts that are a true learning community, doctoral cohort members experience

programs where the individual has support, encouragement, meaningful connections, and security.

Advantages of Doctoral Cohort Programs

Donaldson, Scribner and Perkins (2001) state that cohorts appeal to adult learners because the program structure provides peer support groups and quality access to professors (Norris & Barnett, 1994; Reynolds & Hebert, 1998; Yerkes, Basom, Norris & Barnett, 1995). The notions of group support and peer encouragement are repeatedly reported by doctoral cohort students as the reasons for their persistence toward degree completion (Dorn, Papalewis & Brown, 1995; Dorn & Papalewis, 1997). Barnett and Muse (1993) studied educational administration cohort groups and found several advantages stated by students interviewed. These doctoral students stated that support, affiliation, diverse perspectives, improved academic performance, and a strengthened ability to reflect were advantages of the cohort program. Burnett (1999) reports that additional advantages identified by students included less isolation and more support to complete the dissertation. "Graduate students feel that their academic performance is improved, and they are more likely to complete their program of studies because of the cohort group structure" (Burnett, 1999, p. 5).

> Similarly, students indicate that they receive more support, feel greater affiliation, are exposed to a variety of perspectives, strengthen their ability to reflect, improve their academic performance, and influence program development as a result of participating in a cohort group (Barnett & Muse, 1993, p. 410).

Cohort advantages can be classified into three significant areas: support, academic growth, and professional connections.

Support

Feelings of membership are especially significant to student retention and to lasting positive feelings toward the entire degree experience (Wehlage, Rutter, Smith, Lesko & Fernandez, 1988). Students reported that they would not have remained in the program without the encouragement and understanding of other students. One student relates that the cohort "pushes me along when I'm worn out," (Hill, 1995, p. 181). Group cohesiveness is identified as a reason that students in a doctoral cohort remain and complete a doctoral degree (Hebert & Reynolds, 1998).

Academic Growth

Graduates felt that being part of a cohort enhanced their academic performance and enlarged their range of understanding (Hill, 1995). Greater breadth of knowledge was a cohort advantage described by Burnett (1999) as was the acquired knowledge and increased understanding of research design and methods. The cohort experience nurtured quality proposals and dissertation documents produced by cohort members (Burnett, 1999). The confidence developed through the cohort experience resulted in individual cohort member persistence.

Professional Collaboration and Networking

Professional collaboration is the unifying force of cohort activity (Hill, 1995). The opportunity to network with others and learn from a variety of perspectives provides support and feelings of affiliation that are commonly cited as affective benefits of cohort membership (Hill, 1995). These increased connections, support and networking exist within a cohort (Teitel, 1997) and strengthen high personal expectations self-imposed as an outgrowth of high group standards (Hill, 1995).

Disadvantages of Doctoral Cohort Programs

Faculty of cohort programs indicate that many times cohorts demand more of their professors and they are more likely to challenge instructional delivery and relevance of the content (Barnett, Basom, Yerkes & Norris, 2000). Because of significant time spent together, students within a cohort may have conflict situations arise (Barnett & Muse, 1993; Hill, 1995). A disadvantage can occur when a few students dominate the direction of the cohort structure and class content (Norton, 1995). Increased time demands for some students "elected" to assist students not performing can be a disadvantage (Hill, 1995).

Persistence and Group Cohesiveness

Group cohesiveness and individual persistence influence doctoral completion

(Dorn, Papalewis & Brown, 1995). The mutual interdependence of group members is

acknowledged in the doctoral cohort literature as one of the supports for persistence to

degree completion.

Persistence

For the purpose of this study persistence is defined as "students completing

assignments and making consistent progress toward their degrees, despite any setbacks."

(Dorn, Papalewis & Brown, 1995, p.306). The cohort structure is often cited as a way to

enhance student persistence on their road to doctoral completion. (Brien, 1992) indicated

that student persistence at the doctoral program at Northern Illinois University was due to

the support and encouragement of cohort members. Dorn, Papalewis and Brown (1995)

attribute an increase in student persistence to cohort programs which meet the needs of

doctoral students including facilitating social interaction and collaboration (Brien, 1992;

Hodges, 1992; Sheridan, Byrne, & Quina, 1989; Tinto, 1988; Trow, 1988). Persistence

enhancers include social interaction, peer mentoring, and group cohesiveness (Dorn,

Papalewis & Brown, 1995; Tinto, 1993). Graduate student attrition includes large

numbers of ABDs. Little research has been done to explore this phenomenon. The

research that has been completed related to doctoral student attrition focuses on

individual student characteristics. Profile surveys of those that complete their degree

highlight the individual student's personal persistence and strong commitment to degree as a major contributing factors for successful completion (Golde, 1994). The limited studies available related to doctoral completion are quantitative and rarely include the voices of the students. Golde (1994) explains, "many of the investigations have been purely quantitative in nature, they conceptualize attrition as a solitary event, rather than the consequence of a dynamic process" (p.2). The contributing factors (persistence enhancers) to student persistence include the degree of social interaction (Baird, 1992; Nerad & Cerny, 1993; Tinto, 1993), peer support and mentoring (Germeroth, D., 1990), faculty mentoring and advising (Baird, 1993; DeValero, Y.F., 2001; Faghihi, Rakow, & Ethington, 1999; Malone, Nelson & Nelson, 2001) and group cohesiveness. Lack of persistence is correlated to absence of support and encouragement, the isolation factor as doctoral candidates work to complete their dissertation, relationships with other students and faculty and lack of institutional support including financial assistance and logistics including location and time of classes.

Group Cohesiveness

Group cohesiveness is identified as a factor that increases educational success (program completion) and within a cohort structure, group members create a collective identity where group success can be defined as individual success (Papalewis & Brown, 1995). "A unifying force of a group whose members feel a strong commitment to each other and to the group" (Dorn, Papalewis & Brown, 1995, p. 307) defines cohesiveness. The subjects of the Dorn, Papalewis and Brown (1995) study stated in open-ended

comments that the doctoral cohort was critical in their ability to complete their coursework, their persistence in staying in the program and their eventual program completion. One hundred and eight doctoral students indicated in open-ended questions that commitment to the group and the completion of their degree were interdependent factors related to being in a doctoral cohort (Miller & Irby, 1999). "Group support and peer encouragement were the main reasons students kept on track toward achieving their degree" (Miller & Irby, 1999, p. 5).

Positive relationships with students' advisors and committee members in conjunction with their self-efficacy in research significantly contributes to doctoral success (Faghihi, Rakow, & Ethington, 1999). Other factors that facilitate doctoral completion are the utilization of faculty as role models and mentors (Baird, 1993; Faghihi, Rakow, & Ethington, 1999), opportunities for financial assistance (Nerad & Cerny, 1993), and close social and academic interaction with fellow graduate students (Baird, 1992). Dorn, Papalewis, and Brown found in the 1995 study that group cohesiveness and individual persistence were highly correlated. This confirmed that, "commitment to group and commitment to tasks (in this case, earning the degree), are highly interdependent aspects of the doctoral experience" (Dorn, Papalewis, & Brown, 1995, p. 311).

Perpetuation Theory

Perpetuation theory provides a lens to explore and analyze the cohort experience of doctoral students. Perpetuation theory has its roots in segregation sociological

literature. Braddock (1980) asserts that segregation perpetuates, "over stages of the life cycle and across institutions when individuals have not had sustained experiences in desegregated settings earlier in life" (McPartland & Braddock, 1981, p. 149). Perpetuation theory is based on the research (McPartland & Braddock, 1981) that Blacks tend to perpetuate segregation if no interventions occur that would break the cycle. Braddock (1980) reports that blacks who attend desegregated elementary schools are more likely to attend desegregated two and four year desegregated colleges. Braddock (1989) states that "social-psychological barriers" that Blacks encounter may be broken down when more opportunities exist to become part of a desegregated group. The sustained desegregated experiences of Blacks led to a change in relationships between groups. Ties were established with the dominant culture. The established social networks were essential in providing connections and opportunities for Black students. Perpetuation theory is applied to doctoral cohort programs as the social networks within the cohorts are examined.

Network Analysis and Strength of Ties

Wells and Crain (1994) expanded perpetuation theory to include network analysis, a structural explanation which extends the findings to include the information related to the ability of Blacks to break the cycle of segregation when they access desegregated institutions of learning and develop ties to social networks that affect career aspirations and expectations. These ties to social networks provide bridges to desegregated institutions of learning and employment opportunities.

Network analysis may be applied to investigations which seek to examine "social change over time-including the transformation of social networks" (Emirbayer & Goodwin, 1994, p.1473). The nature of the group is created by the intersection of the group and the group's individual members "(i.e., by the ties of their members to one another as well as to other groups and individuals)" (Emirbayer & Goodwin, 1994, p.14). The use of network analysis connects microsociology (i.e. study of individual interactions) and macrosociology (i.e. study of group interactions) (Emirbayer & Goodwin, 1994). Individual interactions and group interactions are the subject of the examination of cohorts and the meaning found in the individual and group interactions are essential components of this study.

The work of Granovetter (1973, 1983, 1986) further supports the application of network analysis to perpetuation theory by describing the impact of weak ties "on the diffusion of influence, information and mobility opportunities" (Wells & Crain, 1994, p. 533). According to Granovetter (1973) weak ties serve as, "channels through which ideas that are socially distant from an individual may reach him" (1370-1371). "The strength of a tie is a combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie" (Granovetter, 1973, p. 1361).

Granovetter's research provides a lens through which cohort networks can be examined. In a cohort structure, the cohort begins with weak ties. The cohort members bring diverse thoughts, perspectives and experiences that lead to new learning and culminates with the dissertation. Ties are strengthened as the members spend extensive time together in and out of class. Relationships are built which enable reciprocal services

between and among cohort members as they support each other cognitively and

affectively. The intensity of the cognitive experience produces emotional intensity and

members develop strong connections through mutual confiding during their experiences.

Simultaneously, weak ties continue to exist as cohort members draw from diverse

experiences, backgrounds, and cognitive perspectives. "Weak ties are more likely to link

members of different small groups than are strong ones, which tend to be concentrated

within particular groups" (Granovetter, 1973, p. 1376). Strength of ties (Granovetter,

1973, 1983, 2002) differentiates between the characteristics of strong ties and weak ties

as they exist in social networks (Figure 1). This differentiation defines whether a social

network is closed or open and whether a social network perpetuates status quo or expands

new ideas.

Strong Ties	Weak Ties
Segregated Groups	Acquaintances
Closed Networks	Open Networks
Perpetuates Status Quo	Expands New Ideas and Lays the Groundwork for Cognitive Growth
Maintain Established Norms	Expand Social Networks
Insulate Individuals from Possible Growth and Change	Promote Individual Growth and Change
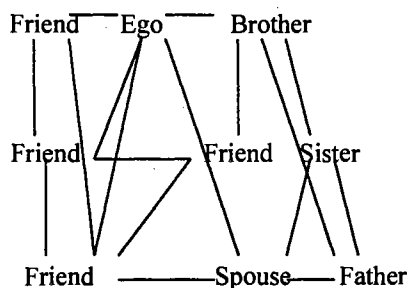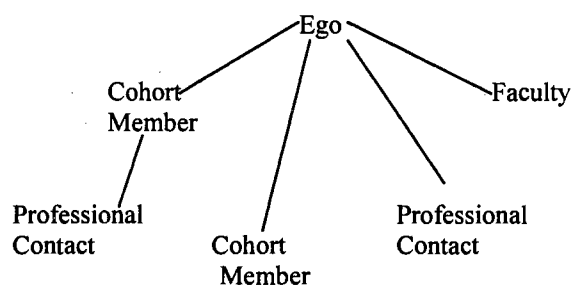
Figure 1. Strength of Ties (Granovetter, 1973, 1983, 2002).

Granovetter (2002) likens individuals with weak ties to Toennies' (1957)

Gesellschaft. *Gesellschaft* is a way of describing social relations that are designed to lead

or contribute to a definite purpose. "Those to whom we are weakly tied are more likely to move in circles different from our own and will thus have access to information different from that which we receive" (Granovetter, 1973, p.1371).

Granovetters' (2002) description of weak ties shares certain characteristics of Toennies' (1957) *Gesellschaft* (German for associative) *Gesellschaft* is defined as a network that provides for the diffusion of influence, information and ideas through local bridges or weak ties and uses elaborate communication codes that have complex meanings. *Gesellschaft* is characterized by:

1. geographical mobility

2. heterogeneity

3. the decline of tradition

4. emphasis on conjugal family ties

5. division of labor resulting in hyper-individuality

6. an emphasis on achieved status

7. secondary relationships, and

8. secularism (Hudgins & Richards, 2000, p. 3).

Granovetter's (2002) description of strong ties shares certain characteristics of Toennies' *Gemeinschaft* (German for communal). *Gemeinschalft* is defined as being insulated from new ideas and uses restricted codes that have simple, implicit meanings. *Gemeinschaft* is characterized by:

1. geographical isolation

2. similarity among members

3. the preeminence of tradition

4. emphasis on consanguine family ties

5. minimal division of labor

6. an emphasis on ascribed status

7. primary relationships, and

8. a sense of the sacred. (Hudgins & Richards, 2000, p. 3).

In a doctoral cohort, the cohort members begin their experience as acquaintances that share a common educational goal, completing a doctorate. This acquaintance relationship begins as weak ties. Cohort members bring different perspectives, ideas and background experiences to the cohort group. The cohort is a group with cognitive flexibility who seek new, complex meanings. The cohort members begin as isolates working toward a common goal. Each student has strong ties with family and friends that currently influence and support him or her. However, it is the influence of the weak ties as channels of new information, ideas and perspectives that sustains the cohort members in their quest for doctoral completion. As the cohort members spend more time together and enjoy mutual confiding they experience strength of ties with other cohort members and simultaneously, the cohort members have the advantage of the weak ties that exist with these same cohort members that lead them to pursue new ways of thinking and learning. This cognitive flexibility is essential for a doctoral student's intellectual growth and the development and completion of a dissertation. So, the cohort structure provides an interplay of weak and strong ties that is unique and carries with it the benefits of both weak and strong ties.

Clearly, the literature of perpetuation theory and strength of ties (Granovetter, 1973) justifies the use of these theoretical perspectives as lenses for exploring the

relationships found in doctoral cohorts and the impact of these relationships on doctoral

completion. Blumer's symbolic interactionism provides the theoretical perspective for

this study as group cohesiveness and individual persistence are examined using the lens

of perpetuation theory (Figure 2).

Blumer's Symbolic Interactionism

1. Act based on meaning
2. Meaning derived from social interaction
3. Meaning is an interpretive process based on person's encounters (ties)

Theoretical Perspective

Application to Study

1. An individual views the world based on unique biases and experiences.
2. The individual derives meaning from the cohort experience.
3. Within the cohort, individual interpretations emerge and research questions are formulated specific to the meaning(s) derived from an individual's experiences inside and outside the cohort.

Perpetuation Theory – Strength of Ties

A cohort begins with "weak ties". A student moves from status quo to new learning as the cohort moves away from the familiar (strong ties) to the new (weak ties). As the ties are strengthened through time, intensity, intimacy and reciprocal services, the cohort develops interconnections that serve to support individuals toward persistence to complete doctoral degrees. Over time, the initial "weak ties" of the cohort members emerge as "strong ties" that translate into group cohesiveness that nurtures persistence.

Theoretical Framework

Group Cohesiveness

As ties are strengthened through time, intensity, intimacy, and reciprocal services, group cohesiveness may occur in the cohort. Ties become strong and can support an individual's persistence.

Individual Persistence

The support of the cohort experience may enable cohort members to develop the ideas needed for development and completion of doctoral dissertations.

Figure 2. Theoretical perspective and theoretical framework as lenses for exploring group
cohesiveness and individual persistence

Chapter Summary

Doctoral students and university administrators and faculty have a vested personal and professional interest in graduate students successful completion of doctoral programs. Currently, 50% of doctoral students in educational administration do not complete their degrees. The research of Dorn, Papalewis & Brown (1995) document that group cohesiveness that exists in doctoral cohorts promotes individual persistence. A doctoral cohort can be an efficient structure, an instructional delivery model and/or a learning community. The literature documents that cohorts that include all three elements in their implementation produce a greater percentage of students completing their doctoral degrees in educational administration. As we examine the group cohesiveness that exists in a cohort and its resulting influence on doctoral completion, perpetuation theory and network analysis provide lenses to explain and understand the strength of ties found in a cohort system.

CHAPTER III

Procedures and Presentation of Data

Ben, ABD: "Being part of a cohort is like having a jogging partner who encourages you to get up early in the morning to run just because you don't want to let down the other person. It is like having someone accompany you to the theatre so you can talk about the play afterwards. It is like traveling through a foreign country with a partner who can help you translate road signs and make sure you are on the right train."

Beverly, Ed.D.: "It was a rare opportunity to share expertise. The cohort members were very valuable to me. We definitely bonded during our time as a cohort. I don't think any other activity would have brought so many diverse people together."

Alisa, ABD: "Without the cohort program I think I would have quit. The cohort program provided the support I needed. I did not want to quit partly because I did not want to let the other members down."

Casey, Ed.D.: "What is amazing to me about the program is that you become very close to each other, in terms of wanting each other to succeed."

Carol, Ed.D.: "I just feel like we were a team. We were kind of the five musketeers. We all knew that as a team we wanted to finish, we wanted to finish what we all started. It was almost an unwritten rule and I think a lot of that has to do with the

instructors and the leadership that was there. The lead instructors prided themselves on having close to 100% graduation rate and we did not want to let them down."

The voices of the respondents tell the cohort story as they explain their academic and social experience. The support and mutual accountability that shape the group cohesiveness within a cohort have led to the individual persistence of the cohort members. Relationships with peers and faculty exist as critical elements that influence doctoral completion.

Case Study Approach

A case study approach investigates "a contemporary phenomenon within some real-life context" (Yin, 1994, p.1). This case explored the contemporary phenomenon of a doctoral cohort as it relates to the real-life context of doctoral completion. The "what" question asked was: *"What are the components in doctoral cohort programs that influence group cohesiveness and individual persistence that results in doctoral completion?"* Three Midwestern universities that provide doctoral cohort programs in educational administration were selected for this multiple case study. Each program was different in number of students, number of faculty, number of years in existence and varying degrees of fieldwork. However, there were commonalities within this multiple case study. Each program includes a common core curriculum for its cohort members, promotes group cohesiveness, provides a philosophical base grounded in adult learning theory, values diversity of thought, and encourages peer mentoring and support.

Study Procedures

I chose the multiple case study design in order to gain insight into the perceptions of doctoral students and faculty as to the advantages and disadvantages of the cohort experience as it relates to doctoral completion and to identify the multiple realities of each program. The use of multiple cases is in some instances seen as an advantage over a single-case study because a multiple-case provides multiple replications that can more thoroughly convince the reader of the phenomenon described (Yin, 1994).

In this multiple case study, first, a large data matrix was created that included key categorical phrases. During the process, I wrote notes to myself about the results of the matrix information to determine broader categories (Miles & Huberman, 1994). I reviewed all the data and began to identify ways to arrange the data as it related to broader categories and how it explained cohortness as it relates to doctoral completion. The broader categories include: cohort structure, cohort instructional delivery and cohort as a learning community. These categories evolved from patterns that arose from the interviews and the survey responses that explained the relationships, group cohesiveness, persistence and learning ties evident in the cohort interactions.

A multiple case study seeks to "build a general explanation that fits each of the individual cases, even though the cases will vary in their details" (Yin, 1984, p. 108). This case study used an interpretive approach, specifically, symbolic interactionism. The lens of symbolic interactionism is especially appropriate for this case study considering the reliance on the voices of the students and professors to describe the meaning and perceptions of their cohort experiences. "Only through dialogue can one become aware of

the perceptions, feelings and attitudes of others and interpret their meanings and intent" (Crotty, 1998, p. 76). Each respondent shared his/her meanings gained from the doctoral cohort experience. I relied on the words of the respondents to build a holistic view of their experiences.

The design used for this research is a multiple-case study design. Multiple case sampling "adds confidence to findings" (Miles & Huberman, 1994, p. 29). Multiple case sampling provides the information that supports an emerging theory "because we have seen it work out-and not work out-in predictable ways" (Miles & Huberman, 1994, p. 29). The uniqueness of this multiple case study represents to some degree a generic conceptual frame of the cohort experience. At the same time, each case includes specific components of a cohort that are experiences only found in that case. A replication logic approach was used in this multiple case study. Data were collected for each individual case. First, each individual case was described, then cross-case conclusions were drawn which present possible theory modifications (Chapter IV).

I provide rich, thick description, in this naturalistic research study and I have implemented purposive research strategies and purposive selection of respondents to provide typical and divergent data (Erlandson, Harris, Skipper & Allen, 1993). The purposeful representation and range of respondents in this study included doctoral cohort members and professors who were selected from doctoral programs in educational administration. These respondents represent cohorts of varying size, varying curriculum and varying years of implementation. The purposive sample selected was based on informational not statistical considerations (Lincoln & Guba, 1985) so as to maximize deep understanding of doctoral cohorts.

Quantitative data and qualitative data were gathered and linked to provide descriptive, explanatory information. The initial exploration of the study began as a qualitative endeavor seeking to determine descriptions of cohort programs at three different sites; the next phase was to use a quantitative instrument, the Group Cohesiveness and Persistence Survey (Dorn, Papalewis & Brown, 1995) to provide categorical data related to doctoral completion; and the final step was to conduct interviews that provided rich detail of the experiences and perceptions of cohort students and professors.

Data Collection and Instrumentation

I used qualitative methods of inquiry to collect data from the respondents: document review, surveys, and interviews. The data were collected over a six-month period of time. Data collection was via telephone, e-mail and postal mail. Before I received approval to contact doctoral students, each program coordinator required a copy of the Oklahoma State University Institutional Review Board approval (IRB: see Appendix D) and also presented the study before a governing board. Approval was granted at each institution and I was provided with e-mail addresses and/or street addresses and phone numbers to contact the individual professors and student respondents. To ensure confidentiality of the student and professor responses, pseudonyms were used for each of these respondents that are cited in this document. Pseudonyms for respondents from University A, B, and C respondents begin with the corresponding letter of the alphabet.

Surveys

A published survey was one data collection instrument. The Group Cohesiveness

and Persistence survey (Dorn, Papalewis, & Brown, 1995) was included in the 85 packets

mailed or e-mailed to 77 doctoral students and eight major professors from three

comprehensive universities (see Appendix A for the survey instrument and Appendix G

for permission to use the survey). All universities are in the Midwestern United States

and one university has a program housed at a Department of Defense Dependent's School

location in Europe. In the doctoral cohort programs identified for the study, 57 responded

to the survey and provided demographic information, for a total sample size of 49

students and eight professors. Follow-up e-mails were sent to those who had not

responded throughout the data collection time period. The rate of return was 67% for all

surveys sent to students and professors. Professors (eight) had a 100% return and students

(49) had a 63.6% return. Dorn, Papalewis and Brown (1995) indicate the basis for the

design of the Group Cohesiveness and Persistence 24-question Likert scale survey

includes the following:

> The item selection for the survey instrument was based on the definition of
>
> persistence as well as the eight factors that clearly emerged as cohesiveness
>
> constructs from the literature (Blake & Mouton, 1985; Cartwright, 1968;
>
> D'Augelli, 1973; Evans & Jarvis, 1980; Fisher & Ellis, 1990; Greene, 1989; Katz
>
> & Kahn, 1978; Lee & Bednar, 1977; Loft, 1961; Mabry & Barnes, 1980;
>
> Rosenfeld & Gilbert, 1989; Shaw, 1976; Stogdill, 1972; Stokes, 1983).
>
> 1. common goals or enemies;

2. success at attaining goals;

3. self-disclosure, risk-taking;

4. member support;

5. common values and interests;

6. interpersonal compatibility;

7. commitment to group; and

8. meeting of needs such as self-actualization needs, (Dorn, & Papalewis, 1997, p. 4).

This survey used a Likert-scale which included 12 items as measures of cohesiveness and 12 items as measures of persistence.

The Group Cohesiveness and Persistence Surveys (Dorn, Papalewis & Brown, 1995) were used for categorical purposes rather than numerical (Yin, 1994). Surveys were completed and returned by doctoral students and professors. The analysis of the survey results of all doctoral students and professors of the doctoral cohort were examined to determine the extent of group cohesiveness and individual persistence as it relates to doctoral completion (see Appendices H, I and J).

Respondents

This qualitative research study has a purposive sample. The selection of respondents represents reputational case selection, that is, the cohort groups and individuals were chosen based on the recommendation of an "expert" (Miles & Huberman, 1994). In this case, the expert recommendations were from my dissertation

committee who are knowledgeable about cohort design and cohort programs and had contacts in the field.

The subjects for this study were 49 doctoral students and eight professors who each completed surveys of the doctoral cohort programs from three separate university sites. Each university operated one or more cohorts ranging from six students to 70 students. The doctoral students and professors participated in the study over a six-month period. The sample consisted of 23 male respondents, 26 female respondents and eight university professors (male = 4 and female =4). Twenty-nine (29) student respondents completed their doctorate and twenty (20) were ABD. The average age of the student participants was 47. Seven student respondents were 34-39 years of age; 18 student respondents were 40-49 years of age; 14 student respondents were 50-59 years of age; two student respondents were 60-65 years of age; eight student respondents did not indicate their age. All respondents participated in an Educational Leadership or Educational Administration doctoral program of study. The average number of years for completion of a doctorate was four years.

In the following sections, demographics for survey respondents are presented in Tables 2, 3 and 4. Cohort members who were interviewed are introduced as well. Each cohort member has been given a pseudonym consistent with their cohort membership.

Cohort A

This program, the largest university program studied, required that I submit my IRB approval and information to its coordinating committee for the committee's review

and electronic approval before I contacted any individual respondents. After that approval, I prepared packets that were mailed to the individual students. A total of 53 student packets were sent and included: a cover letter, an informed consent form to be signed and a duplicate copy for the respondent's file, a demographic information sheet and the Group Cohesiveness and Persistence Survey (Dorn, Papalewis, & Brown, 1995). After the packet information was returned to me, five student respondents were interviewed and included four ABD and one Ed.D. from this cohort. Doctoral groups included 1997 and 1999 cohorts. This Midwestern university had four regional cohorts and one cohort at the main university campus. I was provided contact information for three regional cohort programs that were part of the larger cohort. The cohort respondents included 22 students who had completed their doctorates (Ed.D.) and 13 students who were "All But Dissertation (ABD)" and 18 (ABD and Ed.D.) did not respond.

Table 2 reports demographic information for each of the respondents. Since the collection of data, four additional cohort members completed their degree in May 2003; one anticipates December, 2003 graduation; two anticipate May 2004 graduation and one withdrew from the program.

Table 2

University A Respondents, 1997 and 1999 Doctoral Cohorts

Respondent	Survey Response	Interview Response	Sex	Age	Degree Status	Time to Degree	Current Position
Andrew-1	S		M		Ed.D.	3.5	Principal
Allison-1	S		F	46	Ed.D.	4	Higher Education
Amber-1	S		F	46	Ed.D.	5	Higher Education Dean
Aaron-1	S		M	57	Ed.D.	5	Principal
Al-1	S	I	M	47	ABD		Superintendent
Arthur-2	S	I	M		Ed.D.	3	Assistant Principal
Austin-2	S		M	39	Ed.D.	3	Superintendent
Alisa-2	S	I	F	51	ABD		Associate Commissioner
Anderson	S		M		Faculty		Faculty
Alexander	S	I	M		Faculty		Faculty
Ann-1	S		F	59	Ed.D.		Assistant Superintendent
Alan-1	S	I	M	54	Ed.D.	3	Principal
Anthony-1	S		M	45	Ed.D.	4.5	Assistant Registrar
A.J.-2	S		M		Ed.D.		Extension Specialist
Adam-2	S		M	46	ABD		Registrar
Arlene-2	S		F	36	ABD		Coordinator
Andrea-2	S		F		ABD		
Angela-2	S		F	60	Ed.D.	3.5	Coordinator
Arianna-2	S		F		Faculty		Faculty

Table 2 (continued)

Respondent	Survey Response	Interview Response	Sex	Age	Degree Status	Time to Degree	Current Position
Archie-1	S		M	38	Ed.D.	5	Principal
Alvin-1	S		M		ABD		Principal
Amy-1	S	I	F	48	ABD	7	Reading Director
Autumn-1	S		F	50	Ed.D.	4	Higher Education Dean
Audrey-1	S		F	54	Ed.D.	4	Principal
Ashley-1	S		F	45	ABD		Principal
Aubrey-2	S		F	41	Ed.D.	3	Principal
Amanda-2	S		F	54	Ed.D.	3	Supt.
Albert-2	S		M	34	ABD		Higher Education Dean
Alyssa-2	S		F	34	ABD	4	Curriculum Director
Antoine-2	S		M	33	ABD	4.5	Higher Education Dean
Abner-2	S		M	45	ABD	4	Higher Education
Agnes-2	S	I	F	46	ABD	7	Higher Education
Alec-2	S		M		Ed.D.	3	Higher Education
Ashton	S	I	F		Faculty		Faculty

Al, ABD, has a Bachelor's of Science Degree in Education, Physical Education and Biology and a Master's Degree in Physical Education/Recreation. Al was an assistant superintendent when he began his doctoral cohort program and is currently a school superintendent. Al's professional certifications include: physical education, biology, physical science, secondary principal and superintendent. His reasons for pursuing a doctorate are professional development and career opening. Al's future goals are to

continue as a superintendent and possibly later as a professor. His dissertation research focuses on a study of teacher retention, that is, why large numbers of teachers leave the profession in the first five years.

Arthur, Ed.D., has a Bachelor of Arts degree and a Masters Degree in Secondary Education. His doctoral degree is in Educational Leadership and Policy Analysis. Arthur was a high school principal (650 students) upon entering the program and is currently an assistant high school principal (2500 students). His professional certification is 7-12 Administrator. Arthur's future goals are a high school principalship and central office administrator. His reasons for pursuing a doctorate are professional growth and increased administrative opportunities. Arthur's dissertation was a case study of the implementation of performance-based teacher evaluation in one large suburban school district. He completed his doctorate in June 2002.

Alisa, ABD, has a Bachelors degree in Business Education and a Masters degree in Business Administration. When Alisa entered the doctoral cohort she was a Director of School Finance and is currently an Associate Commissioner in the Department of Elementary and Secondary Education. Alisa's reasons for pursuing a doctorate was "to become more knowledgeable about leadership skills and characteristics and incorporate these in my daily work in order to be a more effective education leader." Alisa anticipates completing her doctorate in December of 2003. Her area of research is studying the equity and achievement issues related to the state funding formula.

Amy, ABD, has a Bachelor of Science in Education and a Masters of Science in Education. Amy anticipates completion of her doctoral program in Educational Leadership and Policy in December of 2003 or the Spring of 2004. Amy was an

elementary principal when she began her cohort program and is currently a state reading director. Her future goal is to finish her dissertation and her reason for pursuing a doctoral program is for personal satisfaction.

Agnes, ABD, has a Bachelor Degree in Education, a Masters Degree in Administration and an Education Specialist degree. Agnes was an instructor at a university lab school and an adjunct professor. Her current position is assistant professor. Agnes' certifications include: elementary education, physical education and health, elementary, middle and high school principal and superintendent. Agnes' future goal is to continue to teach at the university level. Her reason for pursuing a doctoral program is professional development and Agnes plans to complete her dissertation in May, 2004.

Professor Alexander is a Clinical Associate Professor and has 11 years post doctorate teaching experience with nine years at University A and 6 years teaching in a doctoral cohort. Professor Alexander's reason for teaching in a doctoral cohort include his preference for, "working with doctoral students; and his belief in the cohort process, teams, and collaboration."

Professor Ashton is a professor and coordinator of the doctoral program at one of the regional sites for University A. Professor Ashton has 4 years post doctorate teaching experience and 12 years experience at the university. Professor Ashton has taught doctoral cohorts for 4 years. Her reason for teaching in the doctoral cohort program is the quality of students and research via dissertations.

Cohort B

University B included a 20-member cohort and was a program for Department of Defense Dependent's School personnel in Europe. All contact with the respondent students was via e-mail. The cohort respondents included seven students who had completed their doctorates and seven students who were ABD and five who did not respond. Three of the non-responders were ABD and two were Ed.D. After the information was returned via e-mail, six student respondents were interviewed via e-mail. The respondents interviewed included three ABD and three Ed.D. The university program coordinator provided e-mail addresses and general information about the Ed.D. or ABD status of the cohort members.

Table 3 presents the demographics for all survey and interview respondents for this cohort. Since the data collection, two additional respondents (Bonnie and Bud) have earned their doctorate and an additional respondent (Bonner) will graduate in December 2003. The total number of ABDs remaining are 6 from the 19 who began the program in 1997. Two have officially dropped out. Ben dropped out for financial reasons and because he fell behind during one summer's coursework and Barbara for personal reasons.

Table 3

University B Respondents, 1997 Doctoral Cohort

Respondent	Survey Response	Interview Response	Sex	Age	Degree Status	Time to Degree	Current Position
Ben	S	I	M	57	ABD		Teacher
Betty	S	I	F	49	Ed.D.	4	Principal
Bernice	S		F	46	Ed.D.	4	Assistant Principal
Bella	S		F	57	ABD.	6	Teacher
Bonnie	S		F	55	ABD	6	Teacher
Brittany	S		F	53	Ed.D.	4	Counselor
Beau	S	I	M	55	Ed.D.	5	Teacher
Brenda	S		F	50	Ed.D.	4	Psychologist
Beverly	S	I	F	53	Ed.D.	3	Principal
Bonner	S	I	M	45	Ed.D.	5	Teacher
Breanna	S		F	42	Ed.D.	4	Counselor
Barbara	S	I	F	49	ABD		Principal
Bob	S		M	53	ABD		Teacher
Bud	S		M	62	ABD	6	Teacher
Bailey	S	I	F		Faculty		Faculty
Benson	S	I	F		Faculty		Faculty

Ben, ABD, has a Bachelor of Arts degree in secondary education with a major in history and art and a Master of Arts degree in School Management. Ben was a middle school 6th grade teacher when he entered the doctoral program and continues in that role. Ben has professional certification in history, science and special education. Ben's future

goals are to continue to improve his teaching techniques and to write stories and history lessons for classroom use and retire. Ben does not plan to complete his doctoral program.

Betty, Ed.D., has a bachelor's and a master's degree and completed her doctoral program in Educational Administration in 2001. Her reason for pursuing a doctoral program was because she loves education and it was the last degree to earn. Betty began the program when she was an assistant principal and is now a principal. Betty indicates that her professional certification is the Department of Defense Education Association Leadership Academy.

Beau, ABD, has a Bachelor of Science degree in biology and a Master of Arts degree in science education. Beau entered the cohort as a teacher and is currently a teacher at the Department of Defense Dependent School. Beau's research topic was related to calculator anxiety and coping. Beau's future goal is to be an administrator and hopes to complete his doctorate this year (2003).

Beverly, Ed.D., was an assistant high school principal when she began her doctorate and is currently a middle school principal. Beverly pursued her doctoral program for her own personal satisfaction and completed her degree in Educational Leadership in July 2000.

Bonner, Ed.D., has a Bachelor of Science degree in biology and an Ed.D. in Educational Administration. Bonner was a 6th grade science teacher when he began his doctoral program and continues currently as a middle school science teacher. Bonner's research area was curriculum implementation. His future goal is to be a 6th grade science teacher and his reason for pursuing a doctoral program is self-improvement.

Barbara, ABD, has a Bachelor degree in elementary education with a double minor in English and psychology and a Master of Arts degree in curriculum and instruction with an emphasis in staff development. Barbara was an elementary school principal when she entered the doctoral cohort program and remains in that same position now. Barbara has Department of Defense Dependent School administration certification. Barbara's future goal is to, "work to be the best elementary school principal possible." Barbara pursued the doctoral program because, "it seemed the next logical step, and at the same time I was considering the possibility of pursuing the position of an assistant superintendent." Barbara dropped out of the doctoral program and does not plan to return. Barbara states,

> I loved most of the classes and the interaction and discussions between/among the cohort members and professors. Dr. Bailey was wonderful in her support of everyone and her ability to smooth the path. I wasn't successful in finishing, but it was by my choice and my circumstances-no one elses. I just don't seem to be particularly good at dividing energy between my job, life, and studies. I think that the people in our cohort were fairly disparate and that it wasn't as cohesive as it might have been.

Professor Bailey is an Associate Dean at University B and has 15 years experience post-doctoral teaching and 15 years at University B. Professor Bailey has taught 3 doctoral cohorts and has been teaching doctoral cohorts for 8 years. Professor Bailey is the only remaining professor to consistently encourage and facilitate those students still working to complete their degrees.

Professor Benson is currently Associate Dean at a different university than University B. She has 13 years post-doctorate teaching experience and has 3 years at the current university. Professor Benson has taught 3 doctoral cohorts and has 10 years of teaching doctoral cohorts. Professor Benson's reasons for teaching in a cohort are, "her interest and professional responsibility."

University B cohort has some unique challenges. Two professors retired, two professors moved to a new university, and one professor remains who is mentoring the remaining ABD doctoral cohort students to completion.

Cohort C

University C cohorts have been in existence for 11 years and 4 of the 8 cohorts have had 100% completion rate. The two major professors have been involved in this program for nine and five years respectively. The 1997 cohort had 6 students and to date 5 of the 6 have completed their doctorate. Five students and two professors completed the survey and two students and two professors were interviewed over the telephone. I had no contact information for the ABD student. Table 4 presents the demographics for all survey and interview respondents for this cohort.

Table 4

University C Respondents, 1997 Doctoral Cohort

Respondent	Survey Response	Interview Response	Sex	Age	Degree Status	Time to Degree	Current Position
Chuck	S		M		Ed.D.	3	Superintendent
Casey	S	I	M	43	Ed.D.	6	State Director
Carly	S		F	37	Ed.D.	3	Superintendent
Carol	S	I	F	49	Ed.D.	5	Principal
Calvin	S		M	41	Ed.D.	3	Higher Education
Cameron	S	I	M		Faculty		Faculty
Cody	S	I	M		Faculty		Faculty

Casey, Ed.D., has a Bachelor's degree in Science Education, a Masters degree in Educational Administration and an Ed.D. in Educational Administration. All of Casey's degrees are from the same university. Casey was a high school principal when he entered the doctoral program and is currently Executive Director of an Education Service Center (ESC). Casey's doctoral research is scenario planning to design schools of the future. Casey's future goals are to continue as Executive Director of the ESC and work as an adjunct professor.

Carol, Ed.D., has a Bachelor's degree in Elementary Education, a Masters degree in School Counseling, a Specialist in Educational Administration degree and an Ed.D. in Educational Administration. Carol was an elementary principal when she entered the doctoral program and continues in that role. Carol's future goal is to serve as a district administrator. Carol's research involved the perception of parents, students and teachers about the effects of elementary school looping.

Professor Cameron is an Associate Professor at University C with 17 years

teaching experience post-doctorate; 5 years at University C; and 7 years teaching doctoral

cohorts. Professor Cameron's reasons for teaching in a doctoral cohort include: "benefits

of a supportive learning community that reflects my beliefs about an appropriate learning

format for school leaders who function in a profession that should be collaborative and

team-based."

Professor Cody is an Associate Professor at University C with 9 years post

doctorate teaching experience, all at University C in the doctoral cohort program.

Professor Cody's reasons for teaching in a doctoral cohort are the: "teaming, collegiality,

constructivist learning and shared meaning through a dialogic process."

The respondents from all three universities represent a wealth of perspectives

from diverse backgrounds and experiences and they all participated in a cohort program.

Commonalities that exist between and among the three universities include: the specified

delivery of courses; the high expectations for students; and the use of field-based

experiences of varying degrees. The intentionality of the cohort delivery, instructional

practices and components of a learning community are at varying levels of

implementation for each of the cohorts studied.

Interviews

Interviews are a critical data collection instrument, particularly in case study

research. In this study, interviews were conducted with 19 key respondents. The

interview process was focused with open-ended questions based on a defined interview protocol (see Appendix K).

Respondents were provided a cover letter explaining the purpose of the study (see Appendix E). All respondents signed an informed consent form that provided them with assurances of confidentiality, approved by the Oklahoma State University Institutional Review Board (IRB) (see Appendix D).

The interviews, including those with doctoral cohort professors, doctoral cohort Ed.D. degree respondents and respondents who were ABD, were coded to determine the extent of the connection between group cohesiveness and individual persistence and doctoral completion viewed through the lenses of perpetuation theory and network analysis. Additional information was gleaned from six interview questions inviting responses related to the respondents' perceptions of the cohort experience.

E-mail interviews were completed for six doctoral cohort members in a Department of Defense Dependent School doctoral program in educational administration and three other doctoral cohort members. The advantage of e-mail interviews was that they provided a written response. However, e-mail interviews did not provide the same amount of explanation and detail as a verbal response to the questions and was not as conducive to immediate follow-up questions. Two phone interviews were completed with the Department of Defense cohort professors. Each interview was transcribed and provided for the professor for member checking. All other interviews of students and professors were phone interviews. A tape recording of each phone interview was made and transcribed later. The participants were made aware of the tape recording of the phone interview and the respondents were assured that each one's identity would

remain anonymous. Audiotapes, typed transcripts, researcher notes; and other related materials were locked in a file cabinet and I had the only key. The documentation described will be destroyed a year after the dissertation has been defended and approved. The focus of the interviews as qualitative research was to determine the meaning(s) of the cohort experience from the respondents perspective.

To provide consistency and to avoid preconceived analysis, the same interview protocol (see Appendix K) was used with all doctoral cohort respondents whether they were Ed.D or ABD. Thirty phone hours were spent interviewing professors, completers and noncompleters. All interviews generated approximately 200 pages of transcriptions for analysis and coding related to group cohesiveness and individual persistence.

The use of phone interviews allowed for efficient and unobtrusive note-taking. It provided me with the opportunity to create visual diagrams and identify relationships as they emerged from the participant responses. Cohort relationships between and among students and faculty were described. Interviews were semi-structured, open-ended and lasted from one hour to one and half-hours. Interviews were transcribed verbatim. Review of the interview text for descriptive categories, was the constant comparative method used to refine each category through review of examples from the data (Rudestam & Newton, 2001).

Data gathered during the interviews included responses to questions regarding a definition of a cohort, cohort experiences including group cohesiveness, persistence strategies, a description of professor and student interactions and other realities identified by respondents. Data were analyzed for patterns and themes informed by the lenses of perpetuation theory and network analysis.

Document Review

"The review of documents is an unobtrusive method, one rich in portraying the values and beliefs of participants in the setting" (Marshall & Rossman, 1995, p. 82). Documents identified for review included doctoral cohort applications, requirements for program entry, course requirements, and goals and objectives of the program. These documents were obtained from the program Web sites and/or from the major professors of the doctoral cohort programs at my request. This information expanded the understanding of the cohort structure as defined at each university site. Although each program fits a common definition of a cohort, "a group of students who begin and complete a program of studies together, engaging in a common set of courses, activities and/or learning experiences" (Barnett & Muse, 1993, p. 401). Each university had its own unique philosophy and implementation of the cohort concept.

Study Sites

The three university sites in this study represent a 6-member cohort, a 20-member cohort and a 60-member cohort (this includes regional sub-cohorts of 8-10 members). Based on the recommendations of my dissertation committee members, I contacted three university program coordinators for approval from their university to contact members of the doctoral cohorts. Each university program was selected based on the following criteria:

- Doctoral cohort structure in educational leadership;

- Varying size of cohorts; and

- Varying number of cohorts over time.

Since the study was conducted with students after the completion of their doctoral

coursework and comprehensive examinations on-site observations and interviews were

not essential to data collection.

University A

The cohort program at Midwestern University A is a "multi-faceted cohort

program that has the large cohort network that extends across the campuses" (Professor

Alexander).

Admission Requirements. The program application process and criteria for

acceptance are based on multiple factors including competitive Graduate Record

Examination (GRE) scores, grade point averages for graduate and undergraduate course

work, and other program requirements include the following:

1. A minimum grade point average of 3.0 on a 4 point scale in the last 60 hours
   of undergraduate education;

2. A minimum grade point average of 3.5 on a 4-point scale for graduate level
   work;

3. A competitive Graduate Record Examination (GRE) score;

4. Prerequisite: Introduction to Educational Statistics;

5. After initial screening, candidates complete an on-campus interview; an in-basket problem-solving activity; and a writing assessment.

Course Requirement. Professor Ashton indicated that, "all the curriculum is thematically integrated and it is authentic problem-based activities. If we did individual classes...and it wasn't sequential, it wouldn't be nearly as meaningful to the students as the cohort design is." Table 5 presents all course requirements for their 1997 and 1999 cohorts.

Table 5

Course Requirements – University A, 1997 and 1999 Cohorts

Year One	Hours	Year Two	Hours	Year Three	Hours
Organizational Analysis for Educational Leadership	4	Professional Seminar II	2	Dissertation	6
Educational Leadership Inquiry	2	Qualitative Methods in Educational Research	3	Dissertation	6
Professional Seminar	3	Policy Analysis for Educational Leadership	4		
Leadership Theory and Practice	3	Content and Context of Learning	3		
Leadership Theory and Practice Application	1	Team Building and Group Dynamics	1		
Quantitative Methods in Educational Research	3	Program Planning and Evaluation	3		
Educational Leadership Inquiry II	1	Educational Leadership Inquiry III	1		

Degree Requirements. Professor Alexander, indicated that "high expectations have to permeate the program. We are not going to take something not worthy of doctoral effort." Two years of research and development were completed to establish this cohort program which provides a structured plan which includes:

1. Ed.D. candidates shall complete the required 46 hours in the program. This includes 34 hours of course work in six contiguous semesters, beginning in the summer and concluding in the winter two years later. In addition to the 34 hours of coursework, 12 hours of dissertation research is required.

2. All Ed.D. candidates will participate in a Comprehensive Examination process established by the Ed.D. Coordinating Committee.

3. All Ed.D. students complete comprehensive exams. The format of Comprehensive Examinations may vary, and is determined by students' committees.

4. All Ed.D. candidates will complete a dissertation and participate in a final defense.

The focus of this cohort is diversity of cohort members, high expectations for student performance and the inclusion of inquiry-based research learning and practices in the process of working toward doctoral degree completion.

University B

"It (the cohort) grew out of a sabbatical. People who taught for the Department of Defense Dependent's School's...expressed an interest in getting a doctorate" (Professor

Bailey). Development of this cohort program was a single person effort rather than a department initiative.

Admission Requirements. Multiple criteria, including the GRE or MAT, letters of recommendation, and a writing sample are components of this admission process.

1. Completed University application form;

2. Graduate Record Exam (GRE) or Miller's Analogies Test (MAT) results;

3. Three letters of recommendation. Include both academic and professional references;

4. A three to six page, typed essay that demonstrates writing skills. This assignment should reflect the following: of the many activities you have been involved in during your career in education, describe in detail which activity gave you the greatest satisfaction in terms of:

    a. Individual growth

    b. Fostering learning-centered environments

    c. Leadership

    d. Advocating education.

The admission screening process includes:

1. Administrative screening for admission packet completeness;

2. Computation and validation of student graduate level GPA based on student transcripts; and

3. Selection Committee review of all applicants who meet the minimum

admissions criteria.

Up to 20 qualified applicants and alternates were selected.

Course Requirements. University professors from the United States made trips to

Europe for the class instruction. Professors provided coursework on-site and via the

Internet. The cohort members came to the United States for two summers for a 6-week

period. "People got their coursework collectively, they went through the process together,

at least until proposals, one site, one group of faculty, their interactions repeated

interactions together formed them into a group with a unique set of ties – relationships"

(Professor Bailey). Table 6 presents the required coursework for University B.

Table 6

Course Requirements – University B, 1997 Cohort

Year One	Hours	Year Two	Hours	Year Three	Hours
Research	3	Organizational Theory	3	Dissertation	3
Educational Leadership	3	Internship	6	Dissertation	6
Comparative Education	3	Educational Ideas	3	Dissertation	6
Planning and Educational Change	3	Educational Sociology	3		
Quantitative Methods	3	Internet	3		
Fieldwork	3	System Design and Analysis	3		
		Politics of Education	3		
		Comprehensive Exam (Internet take-home)			

Degree Requirements. The Doctorate in Education Administration provides a unique opportunity for university personnel to further their educational expertise through a planned program of coursework designed to explore timely topics, current research and contemporary theory impacting the successful administration of educational organizations. Through both on-site and Internet delivered classes and seminars, this student cohort learned and actively applied their knowledge to the field of education. From core coursework, students become acquainted with the foundational issues in education: politics, change, theory and leadership. Guided by qualitative research methods, explorations and examinations focused on understandings of events and phenomena. The minor in curriculum and foundations helped to focus thought and practice back into schools and classrooms. A minimum of sixty-four (64) semester hours beyond the master's degree was required. Students must possess a master's degree from a United States regionally accredited university of at least 30 credit hours. All students completed the same coursework. A minimum of 15 students was required for the cohort program delivery. This was a three-year (minimum) commitment.

University C

Professor Cameron comments on the value of the cohort experience with the following:

I could tell you that if I was to make a choice on going to a university that did not have a cohort structure and going to one with one and working a doctoral program, I would always, regardless of where it was, select the cohort structure

because I believe that that structure provides students with an experience that is authentic, that replicates the way that I believe that people learn more effectively, than in traditional university stand and deliver lecture. I also think it represents the reality of what schools are like, particularly given that our program is based on school leadership.

University C cohorts have been in existence for 11 years and several cohorts have had 100% completion rate. The two major professors have been involved in this program for nine and five years respectively. University C has a comprehensive screening process to select a cohort of six students from the applicants who meet the admission criteria. The program meets primarily on Wednesdays all day, so students are required to certify that they can arrange to be available all day each Wednesday. In exchange for the administrator's release time, the district that employs the doctoral student has the opportunity to have cohort members conduct research related to an identified district need. In addition, each student accepted into the program must have a Macintosh Powerbook equipped to run the required software programs: Microsoft Office and EndNoteII. Six cohort members are selected each year. The cohort program goals are based on National Policy Board in Educational Administration (NPBEA), the National Council for the Accreditation of Teacher Education (NCATE) standards for administrator preparation programs, and the standards identified by Interstate School Leaders Licensure Consortium (ISLLC).

Admission Requirements. To be admitted to the program, applicants must have a minimum grade-point average of a 3.5 on a 4 point scale for all graduate level hours. An

applicant must also have scores on the three General Tests of the Graduate Record Examinations (target is 500 or above on any two) or on the Miller Analogies Test (target is 46 or above). In addition, applicants must have validated strengths on the multiple indicators listed below:

1. Official transcripts of all college-level work completed and indication of degree conferral;

2. At least three letters of recommendation from supervisors and/or professional peers that attest to the applicant's potential as an administrator;

3. Evidence of certification for a role as an administrator in the public/private sector and at least three years of accredited experience;

4. A resume or curriculum vita of educational and professional experience;

5. A brief statement of professional goals related to competing the doctoral degree in educational administration; and

6. A professional portfolio that includes samples of written or media products disseminated to constituent groups.

Course Requirements. The program coursework provides opportunities for team research.

We have an organized journey through the course work in a way that allows the older cohort to mentor the newer cohort and maintain the culture and prepare a safe place. What these people get over and above the coursework is an understanding of what it is like to collaborate and to be a team member and play together and work together and to move towards a mutually shared and agreed upon goal, Professor Cameron.

From the course requirements presented in Table 7, it is apparent, that there is a

strong emphasis placed on inquiry-based research and application.

Table 7

Course Requirements – University C, 1997

Year One	Hours	Year Two	Hours	Year Three	Hours
Orientation to Program, Content & Inquiry; Course Expectations		Elective I	3	Field-Based Research III	3
Technologies for Academic Writing in Educational Administration	3	Applied Inquiry Seminar III	3	Dissertation	2
Advanced Administrative Theory Seminar	5	Administrative Leadership Seminar	5	Dissertation	6
Applied Inquiry Seminar I	3	Field-Based Research I	3		
Decision-Making & Problem-Solving Seminar	5	Field-Based Research II	3		
Applied Inquiry Seminar II	3	Dissertation	1		

Degree Requirements. The Ed.D. in educational administration requires 55 credit

hours of course work, a comprehensive examination, and an oral examination over the

dissertation. The degree requirements of the doctoral program, "contribute to success

around the core of teaming, collaboration and cohort structures" (Professor Cameron).

This cohort is the smallest of the three in this study. The peer mentoring between and

among the university cohorts is a unique feature of this program that promotes support

and collegiality. This cohort has the highest success rate for completion over an 11-year

period.

Data Organization and Management

Yin (1994) defines three principles of data collection that guide this study. Use of multiple sources of evidence, creating a case study database, and maintaining a chain of evidence, "establish the construct validity and reliability of a case study" (Yin, 1994, p. 90). Descriptions of these principles and examples of their implementation follow.

Principle 1: Use Multiple Sources of Evidence

Principle One requires multiple sources of data collection, "development of converging lines of inquiry, a process of triangulation" (Yin, 1994, p. 92). This process establishes construct validity by providing multiple sources of evidence that are multiple measures of the same phenomenon. Interviews, group cohesiveness and persistence surveys, demographic information and program documents are multiple sources of evidence provided in this research corroborate the explanation of the cohort phenomenon.

Principle 2: Create a Case Study Database

Principle Two requires that the researcher create a case study database. The case study notes include the results of my interviews, observations and document analysis. Yin (1994) suggests that a diary or index card notes be stored so that any person, including the researcher can have efficient retrieval that is available to establish a meaningful classification of data. "Notes should be organized, categorized and complete so they are available for later access" (Yin, 1994, p. 96). My notes are stored in labeled notebooks

that organize interviews, surveys, documents from each site, e-mail communications, coding matrix, and memos to myself related to understandings and possible future research. Second, case study documents should be "readily retrievable for later inspection or perusal" (Yin, 1994, p. 96). Hand-written notes on the interview transcripts and the notebooks described previously are available for documentation review. Third, Yin requires that tabular materials, that is, a count of various phenomena, be documented and "organized and stored as part of the database" (Yin, 1994, p. 97). A matrix was created which labeled recurring units of analysis and documented the number of times these units were identified in each of the interviews. Tables 8, 9, and 10 report tabular data.

Table 8

Perceived Advantages of Cohort Structure Includes Access and Support
N=19 (Interviews)

	N	Percent
Access	11	57%
Support	17	89%
Incompatibility	9	47%
Group Think	3	15%

In Table 9 the 19 interviewed cohort respondents in this study revealed perceived advantages of the cohort delivery of instruction.

Table 9

Cohort Delivery of Instruction – Perceived Advantages

N= 19 (Interviews)

	N	Percent
Authentic Learning	10	52%
Team Learning/Collaboration	18	94%
Safe Environment/Risk Taking	15	78%

Table 10

Cohort as a Learning Community - Relationships
Perceived Areas of Interdependence and Cohesiveness

N=19 (Interviews)

	N	Percent
Student-to-Student Support	19	100%
Faculty-to-Student Support	15	78%
Faculty-to-Faculty Support	4	21% (4 of the 6 faculty interview respondents)
Student-to-Other Support	10	52%
Interdependence	18	94%
Shared Learning Purpose	17	89%
Opportunity for Individual Growth	16	84%

Principle 3: Maintain a Chain of Evidence

To increase the reliability of the information in a case study, Yin establishes the following as providing an appropriate chain of evidence:

1. sufficient citation to relevant portions of the case student database (e.g., citing specific documents, interviews or observations);

2. the database upon inspection, should reveal the actual evidence and circumstances under which the evidence is collected;

3. show data collection followed protocol procedure (Yin, 1994, p. 98).

Throughout chapters 3, 4, and 5, relevant citations from surveys, documents and interviews are referenced.

The survey database and the interview coded database provide the actual evidence of the collection of data. The interview protocol (see Appendix K) documents the uniform procedure and the interview questions for students and professors.

Naturalistic research focuses on the interaction between data collection and analysis. Data gathered from interviews, surveys, and documents were analyzed using the constant comparative method of data analysis (Erlandson, Harris, Skipper & Allen, 1993). Using the constant comparative method, the research disaggregated data into their smallest units of meaning. Erlandson, Harris, Skipper and Allen (1993) define unitizing data:

Disaggregating data into the smallest pieces of information that may stand alone as independent thoughts in the absence of additional information other than a broad understanding of the context. A unit may consist of a few words, a

complete sentence, several sentences, or an entire paragraph. The unit should be able to stand alone. p. 157

Content analysis in qualitative case studies is a process used to analyze data. Data may be in the form of documents, interviews, survey information or demographic information. Content analysis provides a systematic way to categorize and describe communications (Merriam, 1988). Qualitative content analysis is a research tool that guides the researcher in a systematic and analytic way to understandings of "situations, settings, styles, images, meanings and nuances" (Altheide, 1987, p.68). In this study, I systematically listed recurring words and phrases and then categorized these into recurring themes to determine the number of times they were identified from the voices of the professors and students in their interviews.

Lincoln and Guba (1985) suggest two criteria be met for a meaningful unit to be established. First, the unit should provide information that is substantive to the research question and have meaning that connects with other units. The second criteria requires the unit to be, "the smallest piece of information about something that can stand by itself, that is, it must be interpretable in the absence of any additional information other than a broad understanding of the context in which the inquiry is carried out" (p. 345).

I have coded units in the margins of the interview transcripts. A matrix was then created on an Excel spreadsheet that identified 60 coded units. As suggested by Guba and Lincoln (1981), tracking the frequency that a unit is mentioned by individual respondents indicates an important element for a category or theme. After this initial coding process, categories were established, that is, cohort structure, cohort delivery of instruction and cohort as a learning community as emerging themes that organize the case study

database. The conceptual categories developed from the raw data integrated the units into meaningful interpretations of the interviews. "Devising categories is largely an intuitive process, but it is also systematic and informed by the study's purpose, the investigator's orientation and knowledge and the constructs made explicit by the participants of the study" (Goetz & LeCompte, 1984, p.191).

Data organization and management are complex. After I collected data and built categories, perpetuation theory and network analysis were applied to interpret the data. The next step in the data organization process is to make meaning from the data in the cross-case analysis (Merriam, 1988). Strategies for deriving meaning may include: counting, seeing plausibility, clustering, making metaphors, noting relations between variables, factoring, finding intervening variables, building a logical chain of evidence, making conceptual/theoretical coherence (Merriam, 1988).

I used the following strategies to make meaning from the data:

Counting. Counting is typically considered to be a quantitative form of analysis, however, in qualitative analysis, the researcher identifies which units, categories and themes appear most often. Miles and Huberman (1994) suggest that there are three good reasons to counting something that reoccurs in the data:

- to get some idea of the general drift of the data;

- to test or support or verify an emerging hypothesis; and

- and to protect against investigator bias (pp. 215-216).

In this study, counting was first used with the units of analysis, then within the larger categories as described in Tables 9, 10, and 11.

Metaphors. Metaphors can convey research results at a meaningful, yet abstract level. Professor Benson reported that, "cohorts want you to play like basketball, be ready to catch the ball when it is passed to you, rather than like baseball, standing out in the field and waiting for somebody to hit you one."

"Metaphors won't let you simply describe or denote a phenomenon, you have to move up a notch, to a slightly more inferential or analytical level...The metaphor is halfway from the empirical facts to the conceptual significance of those facts" (Miles & Huberman, 1994, p. 252). To clarify my findings as I processed the data, I used the metaphor of a jazz band. In a cohort, group cohesiveness and individual persistence have a connection, similar to the group support, and encouragement of a jazz band for a soloist who improvises a unique solo. The interdependence necessary for a jazz band to create a meaningful musical experience is similar to the interdependence that works to enable individuals to persist in a meaningful way as they complete a dissertation. Each jazz band soloist has a unique sound and contribution and simultaneously a shared goal for creating a musical composition, just as each doctoral student has a unique dissertation but the shared goal and shared experiences of a cohort tend to provide the needed encouragement, respect and motivation to persist and to support the group and the individuals within in the group towards the completion of the doctorate.

Conceptual/Theoretical Coherence

This strategy requires analysis and interpretation of multiple cases to document the how and why of the phenomena being studied, in this case, explaining doctoral

completion as it relates to group cohesiveness and individual persistence found in the structure of a cohort. The multiple cases involved in this study provide evidence for making a conceptual explanation of the realities of group cohesiveness and individual persistence as described by the respondents. Perpetuation theory and network analysis are the lenses that are applied to the evidence provided to make meaning as a coherent theoretical base.

The purpose of the varied strategies is to illicit meaning from the data collected and to provide the reader documentation of the insights and explanations of the themes and patterns that emerged from the data.

Summary

A purposive procedure for determining the sites and respondents who participated in this research was used for this qualitative multiple case study. The research design used qualitative data collection methods to identify student and faculty perceptions of the influence of group cohesiveness and individual persistence on doctoral completion in cohorts. This chapter identified the reason for the research design and the use the Group Cohesiveness and Persistence Survey (Dorn, Papalewis, & Brown, 1995) and the interview protocol. Data organization and management includes the use of multiple sources of evidence, a case study database, and documented chain of evidence. Chapter IV reports the data analysis and Chapter V reports the conclusions, recommendations and possible future research.

CHAPTER IV

Analysis of the Data

Perpetuation theory and network analysis strength of ties serve as analytical

lenses in this study to explain the influence of group cohesiveness and individual

persistence on doctoral completion. The discussion provided in this chapter answers the

research question: *How does "cohortness" and its resulting group cohesiveness and*

individual persistence contribute to completion of a doctoral program? Analysis focuses

around perpetuation theory, network analysis including strength of ties, group

cohesiveness and persistence as it exists in doctoral cohorts as relationships and other

realities as described by respondents.

Analytical Lenses

Multiple lenses frame the analysis in this study. Perpetuation theory (Braddock,

1980; Braddock & McPartland, 1989) is the lens I used to examine the change that occurs

in social networks of doctoral students within educational administration cohort

programs. Perpetuation theory has its roots in segregation research which indicates that

segregation tends to repeat itself, that is, perpetuates, unless individuals experience

integrated settings and opportunities. McPartland and Braddock (1980) suggest that

"segregation tends to be perpetuated across stages of the life cycle and across institutions when individuals have not had sustained experiences in desegregated settings earlier in life" (p. 149). The doctoral cohort is a setting where the student experience is an integration of diverse backgrounds and perspectives that expand student thinking. Granovetter (1973, 1983, 1986, 2002) extends this thinking with his explanation of strength of ties indicating that strong ties in segregated settings perpetuate status quo and weak ties that exist, in integrated settings provide for individual growth and new learning.

Network analysis provides "a strategy for investigating social structure" (Emirbayer & Goodwin, 1994, p. 1411) such as a cohort. As a form of sociological analysis, it examines "the relationship between the individual and society" (Emirbayer & Goodwin, 1994, p. 1414). Network analysis considers individual and group behavior as interdependent. The interdependence and mutual accountability described by the cohort members as relationships between and among students and faculty occur as interpersonal ties or links.

Granovetter (1973) provides a lens for studying the strength of ties in a cohort system and describes four components found in a tie:

> The strength of ties is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie, (1973, p.1361).

> Perpetuation theory and strength of ties includes microsociology and macrosociology perspectives. In this study, group development and group interactions represent the macro experiences found in a cohort and individual development and individual interactions with others represent the micro experiences found in a cohort.

> By facilitating analyses at both the individual and group level, network analysis
> makes it possible to bridge the 'micro-macro gap', that is, the theoretical gulf
> between microsociology, which examines the interaction of individuals, and
> macrosociology, which studies the interaction of groups or institutions
> (Emirbayer & Goodwin, 1994, p.1418).

In this study, the doctoral cohort students and faculty, as individuals, represent the microlevel of interaction and the social cohesion of the cohort groups represent the macrolevel of interaction.

Perpetuation theory and strength of ties frame the analysis of interpersonal interactions and their impact on group cohesiveness and individual persistence as influences to doctoral completion. Perpetuation theory as an analysis tool, is used to examine the context of group interactions. Strength of ties, as an analysis tool is used to explain the interpersonal connections that perpetuate status quo or promote change and learning.

Further, symbolic interactionism (Blumer, 1969) provides a theoretical framework for explaining the meaning found by respondents related to ties (strong ties, weak ties, and learning ties) embedded in a doctoral cohort experience.

From the interviews, it was clear that the reason many initially chose a cohort was because of the convenience and access a cohort afforded. The reason many valued and continued their cohort experience was because of the authentic learning experiences and the importance of relationships found in a cohort, that is, a cohort as a learning community. The components that comprise *cohortness* found in this study include the

cohort structure, cohort instructional delivery and cohorts as learning communities. Descriptions of the cohort categories, as shared by respondents, follow.

Cohort Structure

The use of cohorts has been prevalent in educational leadership programs since the 1950s. As with any structure, different definitions, interpretations and implementations abound. The perception of what the cohort is and is not is defined by the respondents. Based on the interview responses, the cohort structure provides students with access, convenience and support not afforded in many traditionally structured doctoral programs.

Access

Many doctoral cohort members are part-time students and full-time practicing professionals. Access is defined by location proximity; ease of access to professors; and ease of access to registration and course materials. These are reasons doctoral students selected the cohort structure. The most prevalent reason cited in the literature for students choosing a cohort structure is the perceived and actual support from peers and faculty during the coursework, comprehensive examinations and completion of a dissertation (Barnett & Muse,1993; Basom & Barnett, 2001; Hill, 1995; Reynolds & Hebert, 1998; 1993 Teitel, 1997). Participants in this study support these perspectives as well.

Proximity and scheduling are components that led Carol (Ed.D.) to the cohort program, indicating that other university programs, "did not fit as nicely with my family life in that you had to spend either long nights traveling or you had to take a sabbatical and be on campus for a certain amount of time…the other issue is that University C is close to me." Arthur (Ed.D.) comments that he would not have been in a doctoral program if it had been a traditional structure because, "it would have just been too time consuming. And I would not have been able to do my job as a practicing administrator. Other programs (non-cohort) just aren't user friendly." Al (ABD) also chose the cohort program partly because of location, "I was able to take most of the coursework during the year at a campus that was 10 miles away." Arthur (Ed.D.) indicates the reason he chose University A was, "because my regional group met during the year 30 miles from my house." Betty (Ed.D.) from the Department of Defense Dependent School relates, "it is very difficult to earn a doctorate overseas. The set up of having courses offered throughout the school year at our location (instruction was delivered on-site overseas or via the Internet) as well as spending two summers in the States, allowed us to finish in a reasonable amount of time."

Support

The cohort structure provided support for cohort members. Students and professors commented on the academic and affective support that existed in their cohort. Descriptions are reported here as evidence that support was perceived as an important component of the cohort structure.

Casey (Ed.D.) believes that "in the traditional programs it is sink or swim, you are on your own, and the percentage of ABDs are just way too high." Beverly (Ed.D.) relates that "the cohort kept me on task throughout the course work part of the process because I had to show up and be prepared." Alisa (ABD) thinks "doing all the course work with the same people provided a good support group. Finishing the course work in two years was also appealing," Alisa (ABD) continues by saying, "a cohort system allows one focus on one semester at a time and you encourage and are encouraged by the other members."

Professor Bailey suggests that a cohort is a convenient delivery system, "I think it (cohort) was a way to deliver and organize and I didn't plan for it to be a controller of the academic experience. Professor Bailey further comments on the convenience and access a cohort provides, cohorts are not, "an intended experience. I think what we were trying to do was get them (cohort members) through a doctoral program and I don't think that there was any intentionality in the cohort concept, because the only way we could have the program was a cohort. I think half of them (cohort members) were interested in administration. And the others did this (cohort) because it was a means to an end. They didn't have other options."

Professor Cody explains that the cohort structure offers academic support as part of the experience for his students

> They (students) will help each other with the reading, they sometimes with our (professors) concurrence will read the same thing but some will focus on other areas. During the week they are there for mutual support, especially in the field research project they work together.

Professor Cameron believes that the benefits of a cohort system, "present a structural and support framework, scaffolding. It generates visible, palpable, scaffolding that ensures progress toward the goal of completing the doctoral program." He believes that this support framework extends to cohort members an assurance that they can "share the workload in times of stress or undue busyness at work and the colleagues will take that load from them…knowing that at some point in the two or three years (of the cohort experience), they will be paid back."

Incompatibility

The cohort program provides time intensive experiences as part of group work that allows for the development of strong bonds. However, time intensive experiences also provide the opportunity to experience frustrations and irritations with others who may not share the same work ethic or point of view. Personality conflicts when individuals work together for extended periods of time may provide an environment of incompatibility among the cohort members, even if the incompatibility exists for a short period of time. Incompatibility experiences voiced by the cohort members included personality issues and responsibility issues.

The issue of student to group responsibility was shared by Carol (Ed.D.) "some people did not pull their weight and how we had to deal with that and maybe just all of the issues that came up because perhaps someone did not do what they were supposed to do." Barbara (ABD) commented on the lack of cohesiveness in the group "the people in our cohort were fairly disparate and it wasn't as cohesive as it might have been."

As with any group situation, personalities clashed on some occasions. Professor Cody indicates, "we had some cohorts that had personality issues, sometimes gender, sometimes rural vs. urban. They don't see things the same so they struggle with that." Professor Benson describes the sense of family with certain cohort members, but "the flip side is that you see the same people for years and some are irritating and annoying."

Agnes (ABD) recognizes the cohort as a cohesive group although there were some exceptions "the cohort has remained a 'tightly knit' group although there were times we were very frustrated and angry with each other. However, we have not held grudges, we realized stress with the moment affected behavior."

Amy (ABD) considers that the diversity of backgrounds within her cohort also included diversity of personality.

> It was easy to see from the beginning which ones seemed to get on others nerves and which ones were easier to work with. Everyone always wanted to be able to choose whom they worked with on projects. Depending on whom you worked with determined the degree of difficulty of group projects. It was a tough process for those groups with individuals possessing more challenging personalities.

The comments from the 19 interviews included nine respondents (47%) who indicated incidents of incompatibility. The survey response from 57 students and professors indicate that the cohorts were compatible. The majority of respondents (85%) agree that "students look forward to each class meeting because my doctoral group is made up of interpersonally compatible people who enjoy working together." In addition, survey respondents clearly agree (89%) that "the students in this program are my friends." Interpersonal compatibility, that is, liking each other, accepting each other, and

trusting each other, existed within the cohort structure. In summary, although concerns and challenges were mentioned, overwhelmingly, support and camaraderie were evident in survey and interview respondent comments.

Group Think

Group think is found most often in groups that have strong cohesiveness where group participants choose the path that is most compatible rather than choosing the plan that is best (Zander, 1982). Group think as it exists in the cohort structure is addressed by three respondents, each a professor responsible for the cohort and its success. Group think is not described as a regular occurrence but it is suggested that there is potential for group think in a cohort structure due to the extended amount of time, mutual confiding and intensity experienced by individual cohort members.

Professor Alexander shares these experiences, "Group think is a danger and we do run into it from time to time. It is probably the biggest detractor from cohort work, and about the only way we know to deal with it is through the diversity we bring in." Diversity is an area of consideration within a cohort structure. The demographic information identifies that group composition among the universities in this study includes: teachers, principals, superintendents, higher education faculty and business leaders. University A promotes diversity of its members and is open to PK-12, higher education and business students. University B includes K-12 teachers and administrators. University C includes practicing administrators. Professor Alexander continues by saying that the professor's role is vital to avoiding group think, "it is the instructor's role to

challenge that (group think), to get them (cohort members) to think, to create that dissonance that moves them off that group thinking process."

Professor Cameron does not believe the cohort system, if implemented correctly, promotes group think. He believes "this cohort thing is not something that turns people into group think…on the contrary, I think they learn to respect and accept alternative views. They do not have to agree with them, but they certainly respect them, regard them and accept them as legitimate for each person." Professor Cameron continues by explaining that group think is not part of a learning community, "If we are doing this learning community thing the right way, there is nothing that we can do here that would turn people into group think." However, Professor Cameron recognizes that not all cohorts are necessarily implemented in the same way, "I can quite clearly see how some cohorts could end up that way (group think). You can take the same innovation conceptually on a different context and it can end up looking different every time you look at it."

In explaining challenges of a doctoral cohort, Professor Benson says, they become, "extremely powerful because there is power in numbers, and I don't mean a group think in terms of theoretical, but they can manipulate or attempt to manipulate faculty and assignments and other things…not in a negative way necessarily." Professor Benson sees this power not as a negative but explains "there is an energy and a power that has developed…that you might not see with people who see each other once a week from 7 p.m. to 9:50 p.m."

The cohort structure is not a panacea. A cohort is a living organism (Norris, Barnett, Basom, Yerkes, 2002). Living organisms rely on access to nurturing

environments, and support from organisms inside and outside its system to grow and develop just as a cohort needs the elements of access and support.

Cohort Delivery of Instruction

Twale and Kochan (2000) report that active learning which includes a variety of instructional strategies should be the norm for cohorts. The instructional strategies used for the delivery of instruction may include, "case studies, guest speakers, debates, field-based projects, and on-site visits. Students discuss issues, and conduct field research, prepare for key doctoral rites of passage, and practice skills germane to their chosen field" (Twale & Kochan, 2000, p. 193). With these types of constructivist learning strategies, students have more of an opportunity to be involved in their learning than is typically expected in a more traditional didactic approach.

According to the respondents in this study, a cohort is a complex system that includes more than the cohort structure. The content and delivery of instruction define the cohort. Although each program was focused on Educational Leadership, the universities in this study varied in their delivery of instruction. University faculty placed emphasis on authentic learning including inquiry, problem-based learning, and field-based learning; team learning and collaboration including study groups, piñatas, and academic writing for team research; and an emphasis on cooperation that provided a safe environment conducive to risk-taking necessary for the sharing of new ideas and new learning.

Authentic Learning

Each cohort experienced problem-based learning found in field-based studies. Professor Benson believes that, "providing them (cohort students) opportunities to do meaningful and relevant assignments…increases the level of understanding because it is their own experience rather than operating in splendid isolation." Beverly (Ed.D.) describes the authentic learning in her cohort experience: "As a practicing administrator, I could apply what I was learning to what was happening every day on the job." Professor Ashton indicates that authentic learning includes the following:

> significant problem-based big projects that they (cohort members) have to depend on each other and that creates interdependence. They have to trust each other, they have to know what they have to depend on each other to get this project done, because you cannot do these projects by yourself. They are just too massive and so I think curriculum helps with the cohort but the students absolutely love the cohort design.

Professor Cameron explains the depth of the academic learning experience, as an example of authentic learning "We do a heavy introduction to academic writing and technology. When they have finished with the two years, they have an extraordinary library of readings and notes on everything they have done."

University A has four regional cohorts under the umbrella of the main university. Within this cohort framework, Professor Ashton explains the curriculum design that is based on authentic learning opportunities,

from my experience…the only way we could provide a cohort experience at the

regional areas, was to have all the curriculum thematically integrated and use

authentic problem-based activities, because if we did individual classes and

students could pick and choose, and it wasn't sequential, it wouldn't be nearly as

meaningful to the students as this cohort design is.

Team Learning

Senge (2000, p.7) describes team learning as:

discipline of group interaction. Through techniques such as dialogue and skillful

discussion, small groups of people transform their collective thinking seeming to

mobilize their energies and actions to achieve common goals and drawing forth an

intelligence and ability greater than the sum of the individual members' talents.

Team learning exists as a unique component of a cohort and it is reported by the

respondents that the group cohesiveness that occurs as a result of team learning,

influences doctoral cohort students to persist to complete their doctoral program.

Structurally, all of the program events that they (cohort members) do up until the

written comprehensives, they do as a team. They share workloads in the semester,

they share writing responsibilities in research studies, they write their written

comprehensives as a team (Professor Cameron).

Study groups, another team learning opportunity, were identified by members of

each university cohort as a part of the cohort delivery of instruction. Carol (Ed.D.)

explained

Every semester we would break up into two teams to do studies. The teamwork

that went on, the problem solving that went on, and sometimes the arguments that

went on provided total interaction and I think that is very unique. We did a study

four different times and we were involved in every bit of it, including

presentation, including some form of publication. It is just like hands-on learning

and the value of it.

Professor Alexander believes that the focus on research and the use of critical

friends between and among the cohort teams adds depth to learning applications.

University A uses an approach called piñata that promotes critical thinking among their

students.

A piñata exercise occurs when the cohort, (critically examines)...student research

and, they (cohort members) put that research up like a piñata ...share it with their

colleagues at the cohort site, and, colleagues do their best to knock it down.

Everybody understands that this is constructive criticism...to think critically

about ideas (and determine), is that a doable idea, is it worthwhile, is it

significant. The students get in the habit of thinking that way, as they move

through the program. It builds such a tremendous support network for those

students who participate.

The piñata activity is part of Professor Alexander's syllabus.

In addition to the voices of the respondents from the interviews, the survey results

confirm the influence of the cohort structure on the cohort members academic experience

to provide the needed persistence. A large majority of survey respondents (94%) agree

that, "most members of this group are making consistent progress toward completing their degrees."

Safe Environment/Risk-Taking

Norris asserts that providing a positive atmosphere is an important factor for student learning, "the atmosphere within a cohort must be carefully built and modeled by the professor – there must be an atmosphere of trust so that ideas and risk-taking can occur" (2001, p. 3). The intentionality of building a safe environment that nurtures and guides learning is evident in the cohorts studied. A large percentage of survey respondents (90%) agree that the cohort structure is conducive to providing a safe environment that enables risk-taking. Survey Item 13 states, "the students in my doctoral cohort encourage other members to voice opinions." Survey Items 23 and 24, relate to a safe environment that allows for risk-taking. "Group members do not reveal personal information or opinions during group discussions" (94% disagree). An environment that promotes trust allows for risk-taking behavior. Ninety-one percent of the survey respondents agree that, "Doctoral students in this program trust each other." Professor Alexander describes the cohort experience as "a very supportive environment one in which the fact that you know students, you know your colleagues, you tend to step into an area where networking, support and willingness to risk in a safe environment exists. These are the real strengths of it (the cohort), it is just really powerful."

The combination of authentic learning, team support and a safe learning environment contributes to the success of doctoral students who participate in a doctoral cohort.

Cohort as a Learning Community

The present study expands Granovetter's (1973, 1983, 2002) network analysis strength of ties as it exists in doctoral cohorts. Network analysis is particularly helpful in examining the relationships that exist between and among students, faculty and others. These interpersonal links that exist provide insight into the inner workings of a doctoral cohort. Granovetter (1973, p. 1360) explains that "small-scale interaction becomes translated into large-scale patterns, and that these, in turn, feed back into small groups." The unique structure of a cohort promotes the building of relationships. As voiced by the respondents of this study, relationships or interactions between and among the students and faculty are the lifeblood of a cohort as a learning community. "Individuals are intricately interwoven into groups and groups become reflections of individuals. Groups empower individuals; individuals empower groups. It is a reciprocal process known as community" (Norris & Barnett, 1994, p. 3).

Professor Garfield describes that a cohort "is a program where we replicate what the textbooks call learning community. By that I mean, we expect students in the cohorts to be responsible to own and belong and contribute and allow the program to evolve." The interdependence of the individuals of the group and the group support for individual cohort members is a unique feature of cohorts reported by the respondents.

The voices of the respondents clearly identified that the investment of their time and energy was supported and encouraged or discouraged by relationships. Relationships occurred on several levels of intimacy, intensity, reciprocity and time invested. These concepts describe strength of ties based on student interactions (Granovetter, 1973, 1983, 2002). Interactions between and among students-to-students, faculty-to-students, faculty-to-faculty and students-to-others will be discussed here.

When reporting student-to-student relationships, respondents identified at least one cohort partner as a support. The faculty-to-student relationships were reported by faculty and students. The intentionality of faculty teaming experience was reported by four university cohort faculty. In the student-to-other relationships, husbands, sisters, children, wives and friends were identified. However, the support of others was often in addition to support from cohort peers and/or faculty. The dual support systems by cohort students and family or friends in some cases were for different purposes, that is, some relationships provided academic support and some relationships provided affective support and some relationships provided both academic and affective support.

Student-to-Student Relationships

The perceptions of the cohort members and the professors related to student-to-student relationships as support, as a means to extend and challenge their thinking, and as a way to provide encouragement and strength to persist are documented from the comments here.

Agnes (Ed.D.) believes that the cohort experience provided encouragement and the strength to persist: "I think everyone that was in the cohort was serious about completing the program and wished the others success." Betty (Ed.D.) agrees and discusses the support of cohort members and the role the cohort plays in individual persistence "The ties between myself and other cohort members were very close. We assisted one another and offered support. When I moved in the second year from Europe to the Mid-East, I had tremendous support from one particular partner in the cohort."

Betty (Ed.D.) talks about a bond that is formed with fellow cohort members that constitutes an affective benefit of the cohort experience "It (the cohort) allows for a sense of family with certain members that you form a bond...there is the blessing of the closeness you form with certain members." A cohort member from University A, Arthur (Ed.D.) also emphasizes the cohort support as a means to persist "You gain great relationships with people. We all helped each other to get through it."

As the individual voices of the respondents share the importance of group cohesiveness to persist, the evidence from the surveys also indicates that group cohesiveness influences persistence to degree completion. For example, Item 8 (persistence item), "Group members have remained in this program partly due to the support of fellow students," had a 94% agreement from the respondents. This supports the research that reports the mutual interdependence and accountability found within doctoral cohorts influences persistence to degree completion (Norris & Barnett, 1994).

Professor Cameron shares that student-to-student relationships between and among different cohorts at University C extends, challenges and supports student thinking and program performance, "the point is there is far more beyond the course

structure that these guys get. They go away with a ready-made network of collaborators and co-conspirators that extend beyond their initial cohort of the other five members of their team. It goes to the cohort on either side of them, so there is a total of 18 people."

Positive relationships between and among cohort members correlates to persistence in the cohort program (Dorn, Papalewis & Brown, 1995). In this study, survey respondents who agreed (89%) with Item 18 (cohesiveness item), "The students in this program are my friends" and agreed (85%) with Item 20 (cohesiveness item), "Students look forward to each class meeting because my doctoral group is made up of interpersonally compatible people who enjoy working together" also agreed that the cohort members helped them stay in the program and complete their doctorate. Student-to-student relationships within the doctoral cohort are identified as a strong influence for students to persist in their doctoral studies and complete their programs.

Faculty-to-Student Relationships

Baird (1993) identifies that the support or lack of support of faculty during the doctoral program process is a critical element of completion or attrition. The voices of the students and professors are clear that the faculty student relationships were a contributing factor of support that challenged students and encouraged students to doctoral completion.

Cohort students from each university indicate that faculty relationships provided support and encouragement to persist. Beverly (Ed.D.) talks about faculty as mentors. "We had a great rapport with most of the professors. At this level of study, the professor

acts as a mentor. I was very close with Professor Benson and Professor Bailey. Professor Bailey has been our greatest ally and mentor." Arthur (Ed.D.) also describes the faculty student relationship as a mentoring situation:

> We had one person who was our advisor. That relationship was very, very good and Professor Arnold did a wonderful job of getting us through and encouraging us and working with us. He is kind of like the big brother, who was leading the family. My advisor was a key factor in my getting done.

Casey (Ed.D.) continues with the affirmation that the faculty-to-student relationship was a meaningful, supportive connection, "They (faculty) become your friends."

Norris (2001, p. 2) supports the importance of faculty-student relationships found in a cohort, indicating that these relationships "can improve mentoring, advising, collaborative research opportunities, and long-term professional links."

Faculty-to-Faculty Relationships

The strong faculty-to-faculty relationships at two of the universities emerged from the interviews. To prepare for the cohort experience, the faculty became a cohort. Teaming at the faculty level was an integral component of the cohort experience. The faculty cohort shared successes, challenges, frustrations and new learning. This dialogue enhanced the potential of the cohort system to become a dynamic process where relationships grow and develop and expand new learning for students and professors.

Professor Ashton explains the faculty cohort phenomenon in the following:

We are a kind of a cohort, too, the instructional team. It helps you to get depth

with your work and you can interrelate everything together, which is good

because we are now moving to a portfolio model of exit, instead of written comps.

In University C, the two professors interviewed both commented that they were a

team, Professor Cameron said "I feel fairly strongly about the value and the core

component of teaming." Professor Alexander shares that there is open communication

between and among the regional coordinators, "The fact that professors and instructors

can lean on each other...there is a sense across the state that I can pick up the phone and

call Alex or Andy or April or Antoinette, without thought, and lay things on the table, be

honest, talk about it." Professor Alexander continues by explaining that

we (professors) collaborate on designing the program. There is a great deal of

discussion that is built on how did evaluations go, what are areas where students

found weaknesses, what are areas of strength, how do we address these

concerns...is there something we need to change. A big part of the cohort process

is that, we are willing to throw things on the table in that collaborative fashion.

These professors become critical friends as it relates to the cohort program

implementation.

Basom (2001, p. 3) describes the benefits of faculty found in cohorts. "Professors

may see the benefits of operating as their own learning community, growing

professionally as new ideas are explored, tested and revised."

Student-to-Other(s)Relationships

In conversations with the cohort members, many expressed that the support of their fellow cohort members enabled them to continue to persist in the program and eventual completion. In addition, family members were identified as key supporters that helped cohort members complete their doctoral programs.

Agnes (ABD) identifies her sister as a support "My sister has been very helpful and supportive. In fact, she has been my greatest ally." Betty (Ed.D.) identifies her husband as instrumental in her persistence to complete "I could not have finished without my husband's support. He was the key." Alisa (ABD) also cites her husband as important to her work in the program "My husband…he is very supportive and encouraging." Bonner (ABD) indicates his children were critical to his continuing to persist, "There are two huge reasons, both of my teenagers are EXPECTING me to finish." Cohort relationships with family and others contribute to a supportive, risk-taking environment for doctoral students as they persist to complete their doctorate.

Shared Learning Purpose

Within the cohort system there is a shared learning purpose, that is, completion of the doctoral coursework and the writing and acceptance of a dissertation. All cohort members are working together to realize their learning goal as they experience the coursework and authentic learning opportunities provided within the cohort framework. Fifty-one (89%) of the survey respondents agree that "group members pursue many

common goals." Interview respondents affirm the survey responses. "I don't think any other activity (cohort) would have brought so many diverse people together," Beverly (Ed.D.) "We were all professional educators and gave no deference to the role we played in our schools: teacher or administrator. In the cohort we were all equal, pursuing the same goal" (Ben ABD).

The shared goal is focused on learning and extending one's thinking "They (cohort members) talk about how they are all in this together and how the more brain power put together the better the project" (Professor Ashton). Professor Cameron affirms that there is power in shared purpose. "The more we collaborate and share expertise, the more we can learn together. They learn to trust and they learn to own and they learn to contribute in a way that allows them all to learn together." Shared learning is a concept embedded in survey Item 24 that indicates a majority (91%) of respondents believe trust exists in the cohorts and trust is necessary for shared learning.

Interdependence

Within the cohort system, intensive interactions, group projects and shared goals promote the reliance of individuals on the group and the group on individuals. Interdependence evolves as a key component of the cohort implementation. A cohort is "a very good organization that allows interdependence within their members. When doing unfamiliar assignments in an unfamiliar environment, it helps to have other people to share your dilemma" (Beau Ed.D.).

Intensive interactions and shared goals required cohort members to rely on each other. This reliance required mutual accountability and provided support to persist. Agnes (ABD) describes cohort interactions, "Because we spent so much time together, we came to know each other very well and could draw on the strengths of each member." Professor Alexander further explains the mutual accountability found in a cohort, "they all tend to help hold each other accountable for coming to class prepared. People are a great deal less inclined to approach each semester unprepared. When students come to class prepared, they tend to participate more fully and learn more fully." Arthur (Ed.D.) adds to the description of mutual accountability, "We had to trust one another, we had to trust that this person to do their part and they would have to trust me that I would do my part and get it all together."

The mutual accountability is strong in the cohort system, Professor Alexander explains "It almost becomes, in some ways, a point of pride, that they are mutually accountable as they are interdependent and have a responsibility to other people beyond themselves, to graduate and finish." In Item 8 of the survey, a large majority of respondents (94%) share that "group members have remained in this program partly due to the support of fellow students."

The power to persist is attributed to the support and strength of the interdependence found in the cohort, "It is amazing the power this group has to push those individuals and to provide support and willingness to work with to say is there something I can do to help you," Professor Alexander. According to survey results, 77% of the cohort members are "committed to the success of all the doctoral students in this group."

Arthur (Ed.D.) further explains the power of the cohort interdependence

It's (the cohort) the way to do it. You gain great relationships with people.

Everybody, at least from my experience, we all helped each other to get through

it. ...there were times when each one of us probably had thoughts or visions of "I

can't do this anymore," but the others would help pick you up and get you

through...The camaraderie, and everybody helping everybody else get though...

Further perceptions of the group interactions continue to describe the importance of the

group cohesiveness on individual persistence,

"The group inspired me, but the individuals kept me going" (Beau Ed.D.).

A cohort is simply one big study group. It was comfortable to know that if I

missed a point during the lecture, or could not find a particular piece of research, I

knew I could get it from another member of the cohort. We broke into small study

groups to review our notes and to check each other's papers. Another benefit of

being part of a cohort is that you have someone who knows and understands your

frustrations when one of your chapters is returned by the professor with yet more

corrections. A spouse just cannot help here (Ben, ABD).

The survey results indicate a strong consensus (98%) that, "group members influence

each other to attain goals." Interdependence was reported by key respondents to be a core

component of the cohort social structure.

Opportunity for Individual Growth

The research (Barnett & Muse, 1993; Hill, 1995; Norris & Barnett, 1994) documents that the supportive environment of a cohesive group provides an environment for individuals where the individual can take risks, voice diverse opinions freely and safely and try out new ideas. "Encased in a supportive environment, the individual is free to explore his/her own potentialities, risk self-revelation, and experiment with novel ideas" (Norris & Barnett, 1994, p. 11). The respondents in this study confirm these earlier findings.

> The cohort provides a supportive environment one in which you know students, you know your colleagues, you tend to step into an area where networking, support, and willingness to risk in a safe environment exists. Those are the real strengths of it, it (the cohort) is just really powerful. It is amazing how deep conversations can get and how willing people are to challenge each other when someone makes a statement, "Well where did that come from, or what source do you have that supports that or is that just out of your own thinking?" (Professor Alexander)

The cohort environment establishes a safe place for learning. Professor Bailey believes that academic learning is an element of the cohort experience. "I think they all learned something, and gained in some respect a set of skills and knowledge that have been helpful for them. I think they were challenged." Arthur (Ed.D.) comments on the learning environment, "I definitely think there was some growth in learning just in going

through the coursework. I left the cohort with a different way of looking at certain situations."

Diverse opinions are encouraged and respected when a safe environment is established. Professor Cameron comments, "This cohort thing is not something that turns people into group think or mob mentality. On the contrary, I think they learn to respect and accept alternative views. They do not have to agree with them but they certainly respect them, regard them and accept them so legitimate for each person and they go from that point."

Professor Cameron shares the importance of reflection as it relates to the opportunity for individual student growth. "Reflection is a very, very strong component in our program. They (reflections) cover everything they do, their professional lives, their class lives…We respond to them, they hand them back and we keep them on file. So we have at the end of the two years, a fairly extensive set of evidences of the student's growth and thought processes."

The cohort can be compared to a living organism that thrives in a nurturing environment and grows and changes depending upon the experiences and interactions the individual organism has with other organisms.

Strength of Ties

Strength of ties research (Emirbayer & Goodwin, 1994;Granovetter, 1973) suggests strong ties found in social networks maintain status quo rather than producing change and new learning. The respondents in this study report, however, that the group

encouragement and support (strong ties) influenced their persistence to complete their work on dissertation. A dissertation by definition is original and substantive research which examines a new idea or perspective. The question then is, "How then can I use perpetuation theory as a theoretical frame when participation in a cohort seems contrary to the tenets of perpetuation theory?" I have considered the unique characteristics of a cohort as shared by respondents. The voices of the respondents indicate that strong ties and weak ties co-exist within a cohort. The strong ties of a cohort support the feelings of capability that promote risk-taking and reaching out to new social networks, that is, to weak ties that promote change and new learning. The results of this study suggest that the interactions that exist between cohort members, that is, strong and weak ties provide an environment for what I label as learning ties. Human interactions do not exist as only strong ties or weak ties. Learning ties exist when growth and change occurs as the result of the coexistence of strong and weak ties within the cohort system. Questions remain, however, does perpetuation of status quo occur only when the strong ties are deep seated over extended periods of time? What can explain whether strong ties can coexist and nurture weak ties? What effect occurs with strong ties when there is a high level of education?

In the analysis of a cohort as a social organization, ties can be categorized as strong and weak ties similar to the analysis of Breiger and Pattison (1978) who studied two cities and found "that social ties function as strong ties, that business-professional ties are weak, and that community-affairs ties are strong in relation to business ties but weak in relation to social ones (pp. 222-224)." A cohort also has strong and weak ties. Cohort ties are strong in relation to shared group goals but weak in relation to extended

professional ties, that is, weak ties bridge from the cohort group to acquaintances of the different cohort members.

In support of the coexistence of weak and strong ties as a collaborative function, Weimann (1980) asserts that strong ties are relevant to the flow of information. He further asserts that, "most of the influence is carried through strong ties" (1980, p.12). Weimann (1980) continues to suggest that strong ties and weak ties have separate but shared roles. He suggests a division of labor between weak and strong ties where weak ties are the bridges to new ideas between and among social groups and the strong ties influence decision-making of the group and the individual. In a doctoral cohort, the weak ties each student has connects to diverse perspectives. At the same time the strong ties that evolve within the cohort support the individual as a group member who will persist to achieve the shared goals of the cohort.

The strength of ties includes the amount of time, the emotional intensity, the intimacy or mutual confiding and reciprocity that exists within a social network. The respondents explained their experiences in the context of strength of ties as follows.

Time

Students spend extended periods of time in class, including group projects. Academic and social interaction occurs on and off campus. The nature of field studies brings the cohort members to new acquaintances, thereby, extending connections, and bridging connections to new learning. Agnes (ABD) discussed the benefit of extended

time together by cohort members, "Because we spent so much time together, we came to know each other very well and could draw on the strengths of each member."

"Time as spent on reflective seminars, social gatherings, 'get to know me' activities and individual conferences" (Basom, 2001, p. 2) represent the extensive time cohort members spend interacting together. Agnes (ABD) relates, "We spent countless hours working on group projects. E-mail was used often to correspond when we did have meetings scheduled. We always took turns bringing food to class meetings/other meetings."

Emotional Intensity

Instances of emotional intensity are positive and negative as shared by Agnes (ABD)

Sometimes we have become frustrated with each other due to differences in style of studying or finishing projects and as the result of stress. At times, we resorted to humor to reduce the friction. One time, we had really been hard on each other, and I took giant tootsie-rolls to our meeting so we could chew on those instead of each other. We always began class by taking a few minutes to find out good things that had happened during the week.

Beau (Ed.D) talks about the extensive time together provided an opportunity to form strong bonds "We were constantly with each other in class and that naturally sustained itself after class until strong friendships have formed." Beau (Ed.D.) continues to explain the emotional connections that were formed, "We followed the triumphs when

one passed their dissertation and wept when some had friends or relatives pass away or they themselves dropped out of the program."

Intimacy (mutual confiding)

Strong bonds developed between and among the cohort members and the cohort professors as the unique experience developed within each cohort. Professor Alexander comments on the benefits of mutual confiding, "You get conversations that are deeper and people are a great deal more willing to risk saying something and putting their own realness on the line as opposed to being in class where you can't really do that."

A cohort setting provides time inside and outside of class for students to know each other and share ideas and feelings as relationships are built. Basom (2001, p. 3) comments that cohort experiences outside the classroom provide an environment for sharing personal confidences "Social gatherings provide students with opportunities to meet outside of the classroom and celebrate successes." Professor Cameron shares a twelve year tradition, "Every year we have a full meal and invite everybody that has ever graduated from a program back to celebrate with us. We have people come to this event every year from every one of the cohorts. You can start to get an idea...that they have not only contributed to the program but have taken away from it as well."

Cohort members often share successes and challenges, Beverly (Ed.D.) shares her thoughts "The cohort members were very valuable to me. It was easy to get bogged down and feel like I just had too much to do and they would offer their help or we could complain to each other or whatever needed to happen. I was very fortunate to have such a

positive group of people to be around. As a result of the cohort, we also built in social events and even after most of us have our degrees, we continue to celebrate whenever someone else finishes. We definitely bonded during out time as a cohort."

Reciprocity

The cohort members began their experience as acquaintances and the social network existed as weak ties or bridges to new ideas and perspectives. This provided the environment for reciprocity, that is, they had ideas to share. The mutual accountability and interdependence that grew within the group was reported consistently by students and professors. Professor Bailey comments, "they saw each other as resources, they taught each other as much as anybody was taught by anybody else." Professor Cody talks about a culture that is established

It has become somewhat of an unwritten norm, part of a culture…they all seem to help each other to do that (finish the program) and encourage each other. Even though it is an individual effort, it is still part of the team. The cohort essence…builds collegiality, it builds support, accountability, they learn to trust each other.

Norris explains the importance of interdependence within a learning community such as a cohort,

The third cornerstone of a learning community is interdependence, a mutual bonding between the individual and the group. The notion of reciprocity becomes important and there is an increased realization that as the group is strengthened, so

too is the individual as the group develops, it gives back to the individual in positive ways; likewise, as individuals grow, there is enhanced development as the group made possible through gifts provided by individuals (2001, p. 3).

Reciprocity extends beyond the time one spends within the cohort as shared by Casey (Ed.D.) "The Cohort 3...have the paperwork in place to create an endowment to endow a scholarship for one doc student and they want all of us who have graduated through the program to put $100 in and then at some point in time there will be enough money to send somebody through." The graduates continue to support and be connected to the cohort program.

Group Cohesiveness and Persistence

"They can do for each other what we can't do. I think that is a most powerful thing that we need to state clearly here that they (cohort members) can hold each other responsible and accountable in a way that we can't because they listen to each other, " Professor Cody relates the power of the group cohesiveness that exists in a cohort. He further shares that in the history of the cohort, there were only two who did not pass their written comps, " and then delayed their orals because they had to do some extra writing and prepping but the cohort never let them down. They hung in there with them. They help each other."

The results of the Group Cohesiveness and Persistence Survey and the information from the interviews support the research (Barnett, Basom, Yerkes, & Norris, 2000; Norris, 2001; Norris, Barnett, Basom & Yerkes, 1996; Scribner & Donaldson,

2001) that mutual accountability and interdependence are key components of doctoral cohort systems. Tinto (1993) reports that retention of students in graduate programs is dependent on social aspects of learning and student involvement as much as academic aspects of learning. Professor Cody discusses interdependence in this way, "I really believe it (the main goal) is to teach them (cohort members) to work on a team, where they have mutual individual accountability, they develop trust, have a shared vision and a set of norms that they all go by." The mutual accountability is described as the essential component of a working relationship. Professor Ashton explains, "They (cohort members) talk about how they are all in this together and how the more brain power we put together the better the project."

The group cohesiveness exists not only between and among students but also between and among faculty and students. Professor Ashton describes her role as a facilitator of group cohesiveness and the influences of that to persistence to complete the dissertation, "With the design (cohort) you just get so close to them it is like family. I'm very, very close to my students. We meet about once a month socially and while we were working on the dissertation, we met once a month socially to motivate individuals to complete their dissertation. We had a research forum and they talk about how they are going to get the others motivated, e-mail them and meet again."

Other Realities: Learning Ties – Bridge to Learning Community

Learning ties is a label I created to describe the phenomenon found in this study of doctoral cohorts, the dynamics of the interrelationships in cohort systems. It describes

what occurs within a cohort that enables individuals to maximize the mutual interdependence found in a cohort system and persist in their studies to completion of a doctorate. Evidence of learning ties was found in the categorical data of the Group Cohesiveness and Persistence survey (Appendices H, I, and J) and the voices of professors and doctoral students who were active participants in doctoral cohorts.

In considering learning ties, strong and weak ties are equally important in creating pathways to new learning and in experiencing the support of the groups that exist as an individual's strong and weak ties. Learning ties involve complex sets of interactions.

The sociological cultural model of perpetuation theory is not specifically applied as it has been applied in segregation research. The act of learning and the growth and change within an individual in a cohort system occurs when strong ties and weak ties occur simultaneously. This does not refute early descriptions of perpetuation theory but expands this theory as a way of explaining relationships between and among faculty, students and others in a cohort learning community. Granovetter's (1973) explanation of perpetuation theory describes strong and weak ties as discrete, linear concepts. To consider application of perpetuation theory to learning organizations, this study provides evidence of a cohort system. "The essence of the discipline of systems thinking lies in a shift of the mind:

- Seeing interrelationships rather than linear cause-effect chains, and

- Seeing processes of change rather than snapshots" (Senge, 1990, p. 73).

Circles of influence create continuous feedback loops. What occurs in a cohort system is continuous feedback loops that connect elements of strong and weak ties and result learning community. The concept of systems thinking exists as a "reciprocal flow

of influence. In systems thinking it is an axiom that every influence is both cause and effect. Nothing is ever influenced in just one direction" (Senge, 1990, p. 75). So, too, cohort systems have strong and weak ties that have a reciprocal flow of influence. What bridges strong ties and weak ties in a cohort are the elements of a learning community, that is, interactions; shared goals; interdependence; and individual growth (Norris, 2001). Norris and Barnett (1994) define learning community this way,

> Individuals are intricately interwoven into groups and groups are reflections of individuals. Individuals are supported, affirmed and inspired in groups; they are transformed. In turn, individuals transform groups through their collective efforts and commitment to a meaningful purpose. Groups empower individuals; individuals empower groups. It is a reciprocal process known as community. (p. 9)

In Table 11 below I have described the phenomenon of learning ties that involves a reciprocal flow of influence of strong ties and weak ties that is best described as learning community.

Table 11

Strong Ties, Learning Ties and Weak Ties as Found in a Doctoral Cohort.

Strong Ties	Learning Ties (Cohorts)	Weak Ties
Segregated Groups	Cohort members begin as new acquaintances (weak ties). The cohort members strong ties exist with family and friends who are outside the cohort group. The cohort evolves into newly defined cohesive group (strong ties).	Acquaintances
Closed Networks	Closed Network or a special bonding takes place as the cohort members move through the doctoral program. The strong group cohesiveness occurs due to the time; emotional intensity; mutual confiding and reciprocal services that are the multiple realities found in a cohort. Simultaneously open networks are established because the fellow cohort members are pathways to diverse thought and new learning.	Open Networks
Perpetuates Status Quo	Possibility of group think Diversity of group members and facilitation by professors can set the stage for the expansion of new ideas and opportunity for cognitive growth	Expands New Ideas and Lays Groundwork for Cognitive Growth
Maintain Established Norms	A cohort with established norms creates a cohort culture that draws upon expanded social networks which is an aspect of the established cohort culture.	Expand Social Networks
Insulate Individuals from Growth and Change	Foundations for Change Promotes individual growth and change and provides group support to enable individual growth and change Interdependence	Promote Individual Growth and Change
Ego's Strong Ties	Ego's Learning Ties Instead of closed networks, strong and weak ties are connected. Strong ties are not a closed system as they exist in learning ties but a close knit system that provides a protective and supportive but open environment that invites new learning.	Ego's Weak ties

Summary

This chapter analyzed the data through the lenses of perpetuation theory and network analysis strength of ties. The distinction between weak ties and strong ties was described and the analysis of the interaction of weak ties and strong ties within a cohort system led to the expansion of the concept of ties to include learning ties as bridges to learning community. The concept of ties frames the influence of group cohesiveness on persistence to doctoral completion as interdependence and mutual accountability are described by the respondents. Learning ties emerge as a new tie set along with strong and weak ties.

CHAPTER V

Summary, Conclusions, Recommendations, and Possible Future Research

This chapter includes the summary, conclusions, recommendations and possible future research. Implications for theory, research and practice, based on the data gathered and analyzed for this study is described. The research question is addressed and commentary concludes this chapter.

Summary of the Study

In education, most practicing education professionals who decide to pursue an advanced degree, combine work with their doctoral studies (Hebert, 1998; Twale & Kochan, 2000). Through the lenses of perpetuation theory and network analysis strength of ties and resulting group cohesiveness and persistence, the purpose of this study was to explore the perceptions and experiences of doctoral cohort students and professors related to the completion or non-completion of a doctoral program. How "cohortness" and its resulting group cohesiveness and individual persistence contributed to completion of a doctoral program was the research question explored. This exploration was accomplished through the following:

- collection and presentation of the experiences of a doctoral cohort;

- examination of those experiences through the lens of strength of ties and of group cohesiveness and individual persistence;

- presentation of other realities revealed;

- assessment of the usefulness of perpetuation theory, group cohesiveness and individual persistence in explaining the phenomenon of program completion.

Data Needs and Sources

To investigate the realities of the doctoral cohort experience from the perspectives of students and professors, I surveyed 85 respondents with the Group Cohesiveness and Persistence Survey (Dorn, Paplewis & Brown, 1995) and I interviewed 19 respondents including 13 doctoral cohort members and 6 doctoral cohort professors from three universities with educational leadership doctoral cohort programs. Universities were purposefully selected based on the following criteria: doctoral cohort structure in educational leadership; varying size of cohorts; and varying number of cohorts over time. Interview respondents were purposively selected to include individuals who had and had not completed their doctoral program and a balance of male and female students and professors. Two professors from each cohort were selected and interviewed. Documents including sample applications, requirements for program entry, course requirements, goals and objectives of the program and demographic information provided by respondents also informed the study.

Data Presentation

A review of literature related to cohort programs, group cohesiveness and individual persistence and perpetuation theory and network analysis strength of ties was complied before collecting the data. Data were collected, coded, and sorted into categories. From the data, the following categories emerged: cohort structure, cohort delivery of instruction, and cohorts as learning communities. Within the category of learning communities, relationships between and among students and students; faculty and students, faculty and faculty, and students and others surfaced.

Analysis

Survey results were categorized into cohesiveness and persistence information. Interview data was analyzed through the lenses of perpetuation theory and network analysis strength of ties and coded to group cohesiveness and individual persistence, time, intensity, intimacy (mutual confiding) and reciprocity to better understand the perceptions of the respondents related to the influence of group cohesiveness and individual persistence to complete a doctoral program.

Findings

Findings include demographic information about the doctoral cohort students and faculty surveyed and interviewed. The importance of relationships between and among

cohort members, as described by respondents was presented. The description of the cohort structure, cohort instructional delivery and cohort as a learning community as voiced by respondents indicated that the cohort system is complex and not merely a convenient delivery system. Other findings reported the advantages and disadvantages of the cohort, the concept of faculty cohorts, and the existence of learning ties within a cohort system.

Demographics. The students in this study ranged in age from mid 30's to early 60's. The respondents were part-time students and full-time professionals and represented higher education, business and K-12 education and included teachers, administrators, and business leaders. Professors identified these individuals as leaders in their field. The professors of educational administration and leadership who were interviewed were involved in cohorts from 3 to 9 years. The professors believed in teaming, respected adult learners and held high expectations for students.

Relationships. The role of relationships in a cohort was clearly significant for completion or non-completion. The respondents repeatedly acknowledged that group interactions, mutual accountability and group interdependence influenced their persistence to complete the doctoral program. Relationships occurred on several levels and included academic and affective interactions. The voices of the respondents were clear that the relationships, the bonding, and the group experiences provided an environment conducive to deep learning and the deep learning contributed to the successful completion of the doctorate.

Strength of Ties. What began as weak ties between and among the cohort members grew and developed into strong ties, due to the amount of time, the intensity of the emotional experience of working together, the intimacy that occurred because of the mutual confiding as the cohort experienced intense learning, change, and growth and the reciprocity that evolved as the group relied on each other as individuals and individuals relied on the group to persist, learn and grow. What emerged from the data was that the cohorts did not move from weak ties to strong ties, but rather relied on the characteristics inherent in both. The strong ties that developed within the cohort systems supported and enhanced the opportunities inherent in the weak ties that contributed to new learning. I labeled the concept of continuous interaction and interdependence between the strong and weak ties as learning ties.

Combined Realities. These findings indicate that a doctoral program can be named a cohort and the cohort can exist in structure only or a cohort can exist as a learning system that includes intentional delivery of instruction grounded in authentic, team learning. In addition, a cohort can exist as a learning community. A cohort, however, is not a panacea, although a cohort has the potential to increase the likelihood of doctoral completion. Defining the components of a cohort, described by the respondents in this study and supported by the literature, that are likely to promote group cohesiveness and individual persistence would include the following elements: access to the cohort program, peer support, faculty support, faculty teaming, authentic learning, team learning, safe environment, interdependence and mutual accountability, opportunity for individual growth and development of strong ties and weak ties simultaneously, that

is learning ties. The combined realities of this study affirm and expand current literature related to cohorts.

Conclusions

Past research has presented cohorts as a way to organize and deliver instruction efficiently. In addition, qualitative studies of cohorts report that peer support is a major reason for joining a cohort. The findings in this study support those realities as well. In addition, what can be concluded from this study is that the cohort experience has the potential to evolve into a learning community. This study documents that within a learning community, the group cohesiveness developed, contributes to the individual persistence of the cohort members to complete their doctorate.

The results of this study affirm the literature (Dorn, Papalewis & Brown, 1995; Norris, 2001; Scribner & Donaldson, 2001) related to the influence of group cohesiveness on individual persistence. Groups that share common goals experience a mutual accountability and interdependence and are more likely to meet individual and group goals. "Members of cohesive groups more often take on group responsibilities, and persist longer in working toward difficult goals" (Johnson & Johnson, 1975, p. 253).

Considering the impact of group cohesiveness on individual persistence, the data provided documentation for the importance of cohesiveness in the cohort to provide an environment for leadership growth and change, as well as new learning to occur. This finding affirms the research of Norris (2001). This group cohesiveness was nurtured by the opportunities faculty provided for students to engage in field-based studies, team

research and dialogue in and outside the classroom experience. Faculty reported that they were facilitators more often than lecturers and as such, the doctoral cohort members had multiple opportunities to collaborate, dialogue and experience the benefits of mutual accountability and interdependence not always found in a traditional university setting.

An additional result of this learning experience that was not explored but is now evident at the conclusion of this study is self-efficacy. The self-efficacy that was nurtured by the authentic, team learning activities and experiences provided within the cohorts studied empowered these individuals to persist in their completion of their doctoral studies. For example, respondents explained that the field-based research provided the "practice" with research that led them to their success in their own dissertation process. The practice and authentic learning experiences provided meaning and motivation for these students as they worked to complete their doctorates.

Strength of Ties

According to Granovetter (1973, 1983) social networks formed by individuals with family and close friends are primarily characterized by strong ties. However, weak ties are formed with acquaintances and serve to transmit information that is socially distant. Information is communicated by bridges formed from weak ties. Initially, the cohort was comprised of weak ties. The cohort members began as acquaintances from diverse backgrounds, perspectives and experiences. Due to the extended time, intimacy (mutual confiding), intensity and reciprocity that occurred within a cohort, as students experience classes, and interactions inside and outside of the classroom, and collaborative

work, strong ties emerged. Each cohort in this study created a unique cohort personality and developed its own cohort culture. As the cohort culture evolves, the ties are strengthened and the weak ties are expanded which results in the support of the group needed to encourage persistence to complete one's doctorate.

Defining what a cohort constitutes was a challenge of this research. Many respondents indicated that the initial reason for joining a cohort was the access of the program and the potential for group support. Once in the program, respondents indicated that the value of the cohort went deeper than convenience and camaraderie. The resulting group cohesiveness due to extended time together including academic and social interactions, the group projects including field-based learning and the interdependence and mutual accountability carried them through to persist to completion.

Perpetuation Theory

The question remains, *How useful was perpetuation theory and network analysis strength of ties in providing explanations of the phenomenon of doctoral completion in the context of group cohesiveness and individual persistence?* In designing the study, the theoretical framework of perpetuation theory and network analysis strength of ties were determined to be the analysis tools for explaining the phenomenon of program completion of doctoral cohort students. In conclusion, perpetuation theory and network analysis strength of ties proved to be useful lenses for examining the data. The study of the cohort students and professors experiences pushed perpetuation theory beyond its established bounds. The lenses of perpetuation theory and network analysis strength of

ties proved useful for theory development as expanded to include learning ties as an explanation of the group cohesiveness that influenced individual persistence to complete a doctorate.

Implications

This study documents important implications for theory, research and practices. The expansion of perpetuation theory to include learning ties is a significant contribution. New research questions have emerged related to the importance of program intentionality. The intentionality of the cohort's structure, instructional delivery system and its function as a learning community act as an influence on the potential social and academic benefits for students and professors.

Theory

Perpetuation theory and network analysis have not been previously applied to the study of doctoral cohorts. It is hoped that this study provides evidence for the expansion of the concept of strength of ties as it pertains to cohorts to include learning ties. This expanded component can broaden the application of perpetuation theory and network analysis to help to explain the complex interactions of groups and the impact of groups on individuals and individuals on groups. The lenses of perpetuation theory and network analysis have proved to be valuable tools in understanding the change from status quo to cognitive growth and new learning that occurs in a cohort learning community. The

addition of the concept of learning ties made to perpetuation theory and network analysis is an important implication for the expansion of these theories as a way to have a deeper understanding of complex group interactions and the influence of group interactions on learning.

Research

Previous research has included the study of group cohesiveness and individual persistence within a cohort structure. This information has been used to inform university programs, policies and practices. Studies specific to the impact of cohorts on doctoral completion are scarce. Research that specifically links perpetuation theory and network analysis strength of ties to explain doctoral completion in the context of group cohesiveness and individual persistence was not found. This study has attempted to provide data to fill that void. The investigation of the relationship between group cohesiveness and individual persistence as a means of explaining doctoral completion will add to the knowledge of cohort systems and the implications of these systems on student needs, student performance, and university program development. Further investigation in this area would build upon this research as a way of expanding the understanding of the potential benefits of a cohort system to the student, faculty, university and education community.

Practice

Current use of cohorts is prevalent among university educational leadership programs. Within these programs, based on the findings of this study, there is variation with the delivery of instruction, the intentionality of faculty teaming and the focus on group interactions and mutual accountability. Certainly this study raises the question as to how to define a cohort and what the common elements of a cohort that support and encourage group cohesiveness and individual persistence are. University administration should consider the costs involved in these programs, and what benefits exist for the university as well as for faculty and for students. Questions remain:

- Is the extended time required by faculty to prepare, advise and mentor worth the benefits of a cohort program?

- Is the cost of faculty teaming worth the benefits of the cohort program?

- In addition, as reported by the respondents, are the effects of a learning community on professional practice valuable?

Cohorts should be deliberately designed to include authentic learning, faculty teaming, and cross cohort mentoring with shared learning goals. Cohorts should include technology communication and documentation as a core component.

Future Research

Three important areas of research follow as a result of this study. The importance of student relationships was clear in this research and past cohort research. However, the

concept of faculty cohorts emerged from the data and appears to have an influence on the group dynamics and academic learning of students. The academic experience varies within cohorts and although the respondents shared the influence of particular academic delivery, that was not the primary focus of this research, but certainly is worthy of study. Finally, the implications for practice inherent in cohort collaboration, mutual accountability and as a learning community for educational leaders, is critical.

University Faculty Teaming

Two universities in this study shared that faculty cohorts existed as a significant component of the cohort structure and process. Further exploration of this component would raise the following questions for university policy planners.

- What are the costs of faculty teaming, that is, time, money and commitment required to facilitate cohorts?

- What are the benefits to faculty of a faculty learning community related to cohorts?

Academic Experience

The focus of this study was on the group cohesiveness and individual persistence of cohort members and the influence of these on doctoral completion. Respondents shared within the context of their cohort program, the self-efficacy experienced as a result of field-based experiences. In addition, multiple voices described the dialogue and deep

learning that occurs in cohorts and how it occurs. Two questions for further research would include:

- What influence does the cohort have on a student's academic experience?

- How does a safe learning environment contribute to meaningful, substantive adult learning?

Application to Practice for Educational Leaders

In current society, and in particular, in our educational communities, we need to understand the importance of mutual accountability and interdependence. With this in mind, two research questions arise:

- What impact do cohort graduates have on their work learning communities as a result of participation in a doctoral cohort, learning community?

- How is a cohort doctoral experience different and/or more likely to exist as a learning community than a non-cohort doctoral experience?

Commentary

As a member of a doctoral cohort, it has been my experience that the cohort, provided the support and academic experience necessary for my persistence to completion. The support of the cohort occurs at varying levels throughout the doctoral experience but is always critical. The completion rates of students within the cohort programs of this study ranges from 59% to 91% and far exceeds the reported standard

50% completion rate for doctoral programs. University A reports a 68% completion rate for Cohort 1 that began in 1997 and a 59% completion rate for Cohort 2 which began in 1999. University B, by May 2004 is projected to have a 68% completion rate. University C reports an 83% completion rate for the 1997 cohort and over an eight-year period (1992-1999) had an overall completion rate of 91% with four out of the eight cohorts during this period at a 100% completion rate. At each university, students still have time to complete their doctorates within the established required time frames; therefore, additional students will change their status from ABD to Ed.D. The fact that completion depends upon relationships points to the fact that there will always be variance when dealing with human beings and human circumstances. However, certainly the percentages of students in this study that completed their doctorates should cause university faculty and students to examine the cohort as a system that has the potential to provide the environment, the academic and social aspects necessary to complete a doctoral program. I believe that the cohort is a structure available to educators that has the potential to provide for an increase in doctoral completion in educational leadership programs. Beyond that determination, from the voices of the respondents, it is clear that the cohort has significant academic potential, that is, the potential to change thinking, to provide an environment where individuals feel comfortable to take risks and to have deep conversations and deep learning.

As a result of this study, it is clear that the term cohort means different things to different people. Implementation of a cohort, even if descriptions of courses are similar and organizational structures are similar, may be vastly different depending upon the intentionality of the learning principles employed within the doctoral cohort. I suggest

that deliberate implementation of the principles described by Norris (2001) will increase the likelihood of the academic and social potential of cohort being realized. These learning principles represent the components described in this study by the respondents as having a positive impact on student success and student learning by cohort members and cohort faculty. Norris (2001, p. 3-4) identifies seven learning principles and I have included comments from the respondents of this study that support these.

Learning Principle One: Instruction should be deliberately planned to include opportunities for group interaction and active learning.

Carol (Ed.D.) comments on group learning, "The teamwork that went on, the problem solving that went on and sometimes the arguments that went on," are characteristics of the cohort. Carol (Ed.D.) continues, "In a regular program, I see more lecture with some interaction, but this was total interaction and I think that is very unique."

Learning Principle Two: Instruction should take place in an atmosphere conducive to mutual respect and positive relationships.

Arthur (Ed.D.) shares his thoughts of positive group interaction, "You gain great relationships with people. We all helped each other get through it." Arthur (Ed.D.) continues by saying, "We had to trust one another, we had to trust that this person would do his part and they would have to trust me that I would do my part. It was very, very positive."

Learning Principle Three: Learning should have a shared purpose and a mutual connection to the learner and the group.

Professor Alexander shares the purpose and mutual learning that occurs in cohort groups, "It almost becomes, in some ways, a point of pride, that they are mutually accountable as they are interdependent and have a responsibility to other people beyond themselves."

Learning Principle Four: Learning opportunities should promote individual growth and allow individuals to experience the value of their contributions to the group. Individuals should become more acutely aware, too, of the role that the group plays in contributing to their personal development.

Professor Cameron explains the importance of the group and individual interchange this way, "The more we collaborate and share expertise, the more we can learn together." Beverly (Ed.D.) shares her thoughts of the value of the group to the individual, "The cohort kept me on task throughout the coursework part of the process because I had to show up and be prepared." And Beau (Ed.D.) summarizes this learning principle, "The group inspired me, but the individuals kept me going."

Learning Principle Five: Instruction should be designed to facilitate a sense of mutual support, security, and friendship.

Professor Alexander supports this principle, "you tend to step into an area where networking, support and willingness to risk in a safe environment exists."

Learning Principle Six: Instruction should be designed to challenge problem solving, exploration, and the enhancement of higher order thinking through increased opportunities for group discussion and dialogue.

Professor Ashton explains the academic experience at University A, "A cohort forces us to get into a collaborative mode where we really solve problems and challenges

together." Professor Cody discusses the importance of dialogue, "The environment most conducive to learning at the graduate level is dialogue, not discussion, but dialogue where we really talk and try to get shared meaning." Casey (Ed.D.) describes the group work at University C, "you do a big study with the community and with all the school people (the study is in a district represented by a cohort member) and you end up writing as a team of 6, basically a dissertation as a group. Then you do four of those studies throughout your two years of class work. Then when you go out to do your own, your independent research, you have been through it four times." As a way of documenting student growth, University C requires that students submit reflections throughout their course of study. Professor Cameron explains, "They (cohort students) cover everything they do, their professional lives, their class lives, anything that makes sense, that make sense of that they can make meaning from. We respond to them, they (cohort students) hand them (reflections) back and we keep them on file. So we have at the end of the two years a fairly extensive set of evidences of the student's growth and thought processes."

Learning Principle Seven: Instructional management should consider ways in which the individual's self-understanding can be embedded in the knowledge presented. Content should have personal relevance.

Professor Alexander explains the value of personal relevance to students, "Students learn fairly quickly the strength of applying what they learn. That becomes almost a mantra with them." Professor Ashton encourages individual academic and professional growth, "All of my students have presented at a national conference. Four of their papers were presented at AERA last week." Professor Ashton continues by

explaining the importance of personal relevance in coursework, "The projects that they are creating have to be authentic to their life and real to them."

Although these learning principles can exist outside of a cohort structure, based on the findings of this study, a cohort design has the potential to better facilitate these learning principles and the mutual accountability and interdependence found in the data of this study document that a cohort can include all seven principles. A cohort is a vehicle for learning, dialogue and self-renewal when these seven principles are applied.

The intent of this study was to provoke thought as well as consider the implications of a cohort system and its inherent group cohesiveness on doctoral completion. From this study additional questions have emerged concerning the intended or unintended consequences of a cohort experience; how a cohort affects leadership practice; and how a cohort effects the continuation of learning formally or informally. With these considerations in mind, Professor Cameron summarizes the significance of cohorts indicating that the cohort experience has produced "visionary leaders, planners, researchers, team players, collaborators and champions for education."

REFERENCES

Achilles, C. M. (1994). Searching for the golden fleece: The epic struggle continues. *Educational Administration Quarterly, 30,* 6-26.

Altheide, D.L. (1987). Ethnographic Content Analysis. *Qualitative Sociology, 10*(1), 65-77.

Anderson, G. (1998). *Fundamentals of educational research.* Philadelphia, PA: Palmer Press.

Baird, L. L. (1990). Disciplines and doctorates: The relationships between program characteristics and the duration of doctoral study. *Research in Higher Education, 31*(4), 369-385.

Baird, L. L. (ed.) (1993). Increasing graduate student retention and degree attainment. *New Directions in Institutional Research* (80). San Francisco, Jossey-Bass Publishers.

Barnett, B. G., Basom, M. R. Yerkes, D. M., & Norris, C. J. (2000). Cohorts in educational leadership programs: benefits, difficulties, and the potential for developing school leaders [Electronic version]. *Educational Administration Quarterly, 36*(2), 255-282.

Barnett, B. G. & Muse, I. D. (1993). Cohort groups in educational administration: promises and challenges. *Journal of School Leadership, 3,* 400-415.

Barnett, B. & Muth, R. (2002). Ensuring research competence: Using doctoral cohort structures to develop scholar-practitioner leaders. Unpublished chapter.

Barnett, B. & Muth, R. (2001, November). *Issues related to the assessment of cohort-based educational leadership preparation programs* [Electronic version]. Denver, Colorado: University of Northern Colorado and University of Colorado at Denver.

Basom, M. R. & Barnett, B. (2001). Modeling community through cohort development. Paper is an adaptation of material from the book, *The learning community: A model for developing transformational leaders* (in press).

Basom, M. R. (2001, November). *Cohorts and their affects on faculty and instruction in programs of educational leadership* [Electronic version]. San Diego State University. Paper presented at the annual meeting of the University Council of Educational Administration.

Basom, M., Yerkes, D., Norris, C., & Barnett, B. (1996). Using cohorts as a means for developing transformational leaders. *Journal of School Leadership, 6,* 99-111.

Blake, R.R., & Mouton, J.S. (1985). Don't let group norms stifle creativity. *Personnel, 62,* 28-33.

Blumer, H. (1969). *Symbolic interactionism: Perspective and method.* Englewood Cliffs, N.J.: Prentice-Hall.

Bowen, W. G. & Rudenstine, N. L. (1992). *In pursuit of the PhD.* Princeton: Princeton University.

Braddock, J. H. (1980, July). The perpetuation of segregation across levels of education: behavioral assessment of the contact-hypothesis. *Sociology of Education, 53,*178-186.

Braddock, J. H. & Mc Partland, J. M. (1989). Social-psychological processes that

perpetuate racial segregation: The relationship between school and employment

desegregation. *Journal of Black Studies, 19,*267-289.

Breiger, R. & Pattison, P. (1978). The joint role structure of two communities elites.

Sociological Methods and Research 7(2), 213-226.

Brien, S. J. (1992). *The adult professionals as graduate student: A case study in,*

recruitment, persistence and perceived quality. University Microfilms

International, Ann Arbor (No. 1416).

Burnett, P. C. (1999, September). The supervision of doctoral dissertations using a

collaborative cohort model. *Counselor Education and Supervision, 39*(1), 46-52.

Cabrera, A. F., Nora, A., & Castaneda, M. B. (1993). College persistence: Structural

equations modeling test of an integrated model of student retention. *Journal of*

Higher Education, 64(2), 123-129.

Campbell, R., Fleming, T., Newell, J. & Bennion, J. (1987). *A history of thought and*

practice in educational administration. New York: Teachers College Press.

Cartwright, D. (1968). The nature of group cohesiveness. In D. Cartwright & A. Zander

(eds.). *Group dynamics: Research and theory, 3rd edition.* (pp. 91-109). New

York: Harper & Row.

Cooper, B.S. & Boyd, W.L. (1987). The evolution of training school administrators. In J.

Murphy & P. Hallinger (Eds.), *Approaches to administrative training* (pp. 3-27).

Albany: SUNY Press.

Creswell, J. W. (1998). *Qualitative inquiry and research design.* Thousand Oaks, CA:

Sage Publications.

Crotty, M. (1998). *The foundations of social research*. Thousand Oaks, CA: Sage

Publications.

D'Augelli, A.R. (1973). Group composition using interpersonal skills: An analogue study

on the effects of members' interpersonal skills on peer ratings and group

cohesiveness. *Journal of Counseling Psychology, 20*(6), 531-534.

DeValero, Y. F. (2001). Departmental factors affecting time-to-degree and completion

rates of doctoral students at one land-grant research institution [Electronic

version]. *Journal of Higher Education, 72*(3), 341-369.

Donaldson, J. F., Scribner, J. P. & Perkins, M. (2001, November) *Instructional cohorts

and learning: Ironic uses of a social system* [Electronic version]. Paper presented

at the Annual Meeting of the University Council for Educational Administration,

Cincinnati, OH.

Dorn, S. J., Papalewis, R. & Brown, R. (1995). Educators earning their doctorates:

doctoral student perceptions regarding cohesiveness and persistence [Electronic

version]. *Education, 116*(2), 305-315.

Dorn, S.J. & Papalewis, R. (1997). *Improving doctoral student retention*. Paper presented

at the Annual Meeting of the American Educational Research Association.

Chicago, IL, March 24-28.

Elias, J. L. & Merriam, S. B. (1995). *Philosophical foundations of adult education*.

Malabar, FL: Krieger Publishing Company.

Emirbayer, M. & Goodwin, J. (1994). Network analysis, culture, and the problem of

agency. *American Journal of Sociology, 99*(6), 1411-1454.

Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993). *Doing naturalistic inquiry: A guide to methods*. Newbury Park, CA: Sage.

Evans, N. J. & Jarvis, P. A. (1980). Group cohesion: A review and reevaluation. *Small Group Behavior, 11*(4), 359-370.

Faghihi, F., Rakow, E., & Ethington, C. (1999). *A study of factors related to dissertation progress among doctoral candidates: Focus on students research self-efficiency as a result of their research training and experiences*. Annual Meeting of the American Research Association. Montreal, April 19-23.

Farquhar, R.H. (1977). Preparatory programs in educational administration. In L.L. Cunningham, W.G. Hack & R.O. Nystrand (Eds.), *Educational administration: The developing decades* (pp. 329-357). Berkeley, CA: McCutchan.

Fenwick, L. T. (2000). *The principal shortage: Who will lead?* Cambridge, MA: Harvard Principals' Center.

Fisher, B. A. & Ellis, D. G. (1990). *Small group decisionmaking: Communication and the group process*. New York: McGraw Hill Publishing Co.

Forsyth, D. R. (1990). *Group dynamics*. Pacific Grove, CA: Brooks-Cole Publishers.

Germeroth, D. (1990). Lonely days and lonely nights: Completing the doctoral dissertation. *ACA Bulletin, 76*, 60-89.

Getzels, J.W. (1977). Educational administration twenty years later, 1954-1974. In L.L. Cunningham, W.G. Hack & R.O. Nystrand (Eds.), *Educational administration: The developing decades* (pp. 3-24). Berkeley, CA: McCutchan.

Gillingham, L., Seneca, J. J. & Taussig, M. K. (1991, August). The determinants of progress to the doctoral degree. *Research in Higher Education, 32*(4), 449-468.

Goetz, J. P. & LeCompte, M. D. (1984). *Ethnography and qualitative design in educational research.* Orlando, FL: Academic Press.

Golde, C. M. (1994, November) *Student descriptions of the doctoral student attrition process.* Paper presented at the annual meeting of the Association for the Study of Higher Education, Tucson, AZ.

Granovetter, M. (2002). *Granovetter's theory of the strength of weak ties. Retrieved, October 2, 2002 from http://www.analytictech.com/networks/weakties.htm*

Granovetter, M. (1986). The micro-structure of school desegregation. In Prager, J., Longshore, D. & Seeman, M. (Eds.) *School desegregation research: New directions in situational analysis,* 81-110. NY: Plenum.

Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology, 78,* 1360-1380.

Granovetter, M. (1983). The strength of weak ties: A network theory revisited. In R. Collins (Ed.), *Sociological Theory, 1,* (pp.201-233). San Francisco: Jossey-Bass.

Green, K. E. & Kluever, R. C. (1997). *The dissertation barriers scale.* ERIC Document Reproduction Service 410253.

Gregg, R.T. (1960). Administration. In C.W. Harris (Ed.) *Encyclopedia of educational research* (3rd ed., pp. 19-24). New York: MacMillan.

Griffiths, D.E. (1959). *Administrative theory.* New York: Appleton-Century-Crofts.

Guba, E. G. & Lincoln, Y. S. (1981). *Effective evaluation.* San Francisco: Jossey-Bass.

Guba, E. G. & Lincoln, Y. S.(1989). *Fourth generation evaluation.* Newbury Park, CA: Sage Publications.

Hatley, R. V. & Fiene, J. R. (1995, April). *Enhancing doctoral student progress and improving dissertation quality: A success scenario*. Paper presented at annual meeting of The American Educational Research Association, San Francisco.

Hebert, F. T., & Reynolds, K. C. (1998). MPA learning outcomes: Does the cohort format make a difference? *Journal of Public Affairs Education, 4*(4), 253-262.

Hill, M. S. (1995). Educational leadership cohort models: Changing the talk to change the walk. *Planning and Changing, 26*(3/4), 179-189.

Hodges, L. (1992). Fears of isolationism as U.S. forces cutbacks. *The Higher, 1006,* 11

Hudgins, C. & Richards, M.G. (2000). Individual, family and community: An interdisciplinary approach to the study of contemporary life. TX: San Antonio College. http://www.accd.edu/sac/interdis/2370/text.htm

Hughes, R. (1983). The non-traditional student in higher education. A synthesis of the literature. *NASPA Journal, 20*(3), 51-64.

Immegart, G. L. (1977). The study of educational administration, 1954-1974. In L.L. Cunningham, W.G. Hack & R.O. Nystrand (Eds.), *Educational administration: The developing decades* (pp. 298-328). Berkeley, CA: McCutcheon.

Jacks, P., Chubin, D. E., Porter, A. L. & Connolly, T. (1983). The ABCs of ABDs: A study of incomplete doctorates. *Improving College and University Teaching, 31*(2), 74-81.

Jackson, B. L. & Kelley, C. (2002). Exceptional and innovative programs in educational leadership. *Educational Administration Quarterly, 38*(2), 192-212.

Johnson, D. W. & Johnson, F. P. (1975). *Joining together group theory and group skills.* N.J.: Prentice-Hall, Inc.

Katz, D. & Kahn, R.L. (1978). *The social psychology of organizations.* New York: John

Wiley & Sons.

Kluever, R. C. (1995, April). *ABDs and graduates from a college of education:*

responsibility, barriers, and facilitators. Paper presented as part of a symposium

conducted at the annual conference of the American Educational Research

Association, San Francisco.

Kluever, R. C. (1997). Students' attitudes toward the responsibilities and barriers in

doctoral study. *New Directions for Higher Education, 25*(3), 47-56.

Kluever, R. C., Green, K. E. & Katz, E. (1997) *Dissertation completers and non-*

completers: an analysis of psycho-social variables. A paper presented at the

American Educational Research Association Annual Meeting, Chicago, IL.

(ERIC Document Reproduction Service No. ED407885)

Kochan, Jackson, Duke (1999). *A thousand voices from the firing line.* MO: UCEA.

Lee, F. & Bednar, R.L. (1977). Effects of group structure and risk-taking disposition on

group behavior, attitudes, and atmosphere. *Journal of Counseling Psychology,*

24(3), 191-199.

Leithwood, K., Jantizi, D., Coffin, G., & Wilson, P. (1996). Preparing school leaders:

what works. *Journal of School Leadership, 6,* 316-342.

Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage

Publications.

Lipschutz, S. (1993). *Enhancing success in doctoral education: From policy to practice.*

In Baird, L.L. (ed.) Increasing Graduate Student Retention and Degree Attainment

(69-80) San Francisco: Jossey-Bass Publishers.

Malone, B. G., Nelson, J. S., Nelson, C. V. (October, 2001). *An analysis of the factors contributing to the completion and attrition rates of doctoral students in educational administration.* Paper presented at the Annual Meeting of the Mid-Western Educational Research Association. Chicago, IL.

Marshall, C., & Rossman, G. (1995). Designing qualitative research (2nd ed.) Thousand Oaks, CA: Sage.

Maxwell, J. A. (1996). *Qualitative research design.* Thousand Oaks, CA: Sage Publications.

McCarthy, M.M. (1999). The evolution of educational leadership preparation programs. In J. Murphy & K. Seashore-Lewis (Eds.), Handbook of research on educational administration (pp. 119-139). San Francisco: Jossey-Bass.

McPartland, J. M. & Braddock, J. H. (1981). *Going to college and getting a good job: The impact of desegregation.* In Hawley, W.D. (ed.) Effective school desegregation: Equality, quality and feasibility (141-154) London: Sage Publications.

Merriam, S. B. (1988). *Case Study Research in Education.* San Francisco: Jossey-Bass Publishers, Inc.

Merriam, S. B. & Simpson, E. L. (1995). *A guide to research for educators and trainers of adults.* Malabar, FL: Krieger Publishing Company.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis.* Thousand Oaks, CA: SAGE Publications.

Miller, M. M. (1995, April). *ABD status and degree completion: A student's perspective.* Paper presented as part of a symposium conducted at the annual conference of the American Educational Research Association, San Francisco.

Miller, W. D. & Irby, B. J. (1999). An inquiry into the exigency of a beginning doctoral cohort in educational leadership [Electronic version]. *College Student Journal, 33*(3), 358-362.

Moore, H. (1964). The ferment in school administration. In D.E. Griffiths (Ed.), *Behavioral science and educational administration: The sixty-third yearbook of the National Society for Education, Part II* (pp.11-32). Chicago: The National Society for the Study of Education.

Murphy, J. (1992). *The landscape of leadership preparation: Reframing the education of school administrators.* Newbury Park, CA: Corwin Press.

Muszynski, S. Y. & Akamatsu, T. J. (1991). Delay in completion of doctoral dissertations in clinical psychology. *Professional Psychology: Research and Practice, 22,* 119-123.

Muth, R., & Barnett, B. (2001). Making the case for cohorts: Identifying research gaps, improving professional preparation and gaining political support. *Educational Leadership and Administration, 3,* 109-121.

National Commission on Excellence in Educational Administration (1987). *Leaders for America's schools: The report of the National Commission on Excellence in Educational Administration.* Tempe, AZ: University Council for Educational Administration.

National Policy Board for Educational Administration (1989). *Improving the preparation of school administrators: An agenda for reform.* Charlottesville, VA: University of Virginia.

Nerad, M., & Cerny, J. (1993). From facts to action: Expanding the graduate division's educational role. In L.L. Baird (Ed.), *New directions for institutional research 80,* 27-39. San Francisco: Jossey-Bass.

Norris, C.J., Barnett, B.G., Basom, M.R. & Yerkes, D.M. (2002). *Developing educational leaders a working model: The learning community in action.* N.Y. Teachers College Press.

Norris, C. J. (November 3, 2001). *Cohorts and instructional management educational leadership preparation programs.* University of Tennessee.

Norris, C. J., & Barnett, B. (1994, October). *Cultivating a new leadership paradigm: From university council for cohorts to communities.* Paper presented at the annual meeting of the Educational Administration, Philadelphia, PA.

Norris, C., Barnett, B., Basom, M. & Yerkes, D. (1996). The Cohort: A vehicle for building transformational leadership skills. *Planning and Changing, 27*(3/4), 145-164.

Norton, M. S. (1995, October). *The status of student cohorts in educational administration preparation programs.* Paper presented at the annual convention of the University Council for Educational Administration, Salt Lake City, UT.

Psathas, G. (1973). *Phenomenological sociology: Issues and applications.* NY: Wiley & Sons.

Reynolds, K. S. & Hebert, F. T. (1998). Learning achievements of students in cohort

groups. *Journal of Continuing Higher Education*, 43(3), 34-41.

Rogers, E. M. (1983). *Diffusion of Innovations*. N.Y.: The Free Press.

Rosenfeld, L.B. & Gilbert, J.R. (1989). The measurement of cohesion and its relationship

to dimensions of self-disclosure in classroom settings. *Small Group Behavior,*

20(3), 291-301.

Rudestam, K. D. & Newton, R. R. (1992). *Surviving your dissertation: A comprehensive*

guide to content and process. CA: Sage.

Scribner, J. P. & Donaldson, J. F. (2001). The Dynamics of group learning in a cohort:

From nonlearning to transformative learning. *Educational Administration*

Quarterly, 37(5), 605-636.

Senge, P.(1990). *The fifth discipline*. NY: Doubleday.

Senge, P. (2000). *Schools that learn*. NY: Doubleday.

Shakeshaft, C. (1999). A decade half full or decade half empty: Thoughts from a tired

reformer. In Murphy & P.B. Forsythe (Eds.). *Educational administration: A*

decade of reform. Thousand Oaks, CA: Corwin Press.

Shaw, M.E. (1976). *Group dynamics: The psychology of small group behavior*. New

York: McGraw hill.

Sheridan, J., Byrne, A. C. & Quinn, K. (1989). Collaborative learning: Notes from the

field. *College Teaching, 37*(2), 49-53.

Silver, P.F. (1982). Administrator preparation. In H.E. Mitzel (Ed.) *Encyclopedia of*

educational research (5th ed.) *1*, pp. 49-59. New York: Free Press.

Stogdill, R.M. (1972). Group productivity, drive, and cohesiveness. *Organizational Behavior and Human Performance, 8*, 26-43.

Stokes, J.P. (1983). Components of group cohesion: Intermember attraction, instrumental value, and risk taking. *Small Group Behavior, 14*(2), 163-173.

Teitel, L. (1997). Understanding and harnessing the power of the cohort model in preparing educational leaders. *Peabody Journal of Education, 72*(2), 66-85.

Tinto, V. (1988, July/August). Stages of student departure – Reflections on the longitudinal character of student leaving. *Journal of Higher Education, 59*(4), 438-455.

Tinto, V. (1993). *Leaving college: rethinking the causes and cures of student attrition.* Chicago: University of Chicago Press.

Toennies, F. *Gemeinschaft und gesellschaft.* [Community and society] (C.P. Loomis, Ed. And Trans.) New York: Harper Collins, 1957. (Original work published 1887).

Trow, M. (1988). American higher education: Past, present and future. *Educational Researcher, 17*, 13-23.

Twale, D. J. & Kochan, F. K. (2000). Assessment of an alternative cohort model for part-time students in an educational leadership program. *Journal of School Leadership, 10* (2), 188-208.

Wehlage, G. G., Rutter, R. A., Smith, G. A., Lesko, N. & Fernandez, R. R. (1988). *Reducing the risk: Schools as communities of support.* NY: Falmer Press.

Wells, A.S., & Crain, R.L. (1994). Perpetuation theory and the long-term effects of school desegregation. *Review of Education Research, 64*(4), 531-555.

Weimann, G. (1980). *Conversation networks as communication networks*. Abstract of

   Ph.D. dissertation, University of Haifa, Israel.

Wright, L. M. (1991). Full time teaching and the ABD phenomenon. *ACA Bulletin, 76,*

   49-53.

Yerkes, D. M., Basom, M., Barnett, B., & Norris, C. (1995). Cohorts today:

   Considerations of structure, characteristics, and potential effects. *The Journal of*

   CAPEA, 7. 7-9.

Yin, R.K. (1984). *Case study research: Designs and methods*. Thousand Oaks, CA: Sage

   Publications.

Yin, R. K. (1994). *Case study research: Designs and methods*. Thousand Oaks, CA: Sage

   Publications.

Zander, A. (1994). *Making groups effective*. San Francisco: Jossey-Bass, Inc. Publishers.

Appendix A

Group Cohesiveness and Persistence Survey

Group Cohesiveness and Persistence Survey (as cited in Dorn, Papalewis, Brown, 1995)

Faculty: Consider your students and respond based on your experiences with them.

Doctoral Students: Consider your experience in your educational leadership doctoral cohort and please respond to each of the statements by circling the most accurate response in your opinion.

SA = Strongly Agree   A=Agree   D=Disagree   SD=Strongly Disagree

1. The students in my cohort will accomplish their educational goals.   SA   A   D   SD

2. Everyone in my cohort will earn a doctoral degree.   SA   A   D   SD

3. Group members influence each other to attain goals.   SA   A   D   SD

4. This group has trouble meeting goals.   SA   A   D   SD

5. The students in my cohort share similar educational values.   SA   A   D   SD

6. The success of one member is appreciated by the entire group.   SA   A   D   SD

7. Group members complete course assignments on time.   SA   A   D   SD

8. Group members have remained in this program partly due to the support of fellow students.   SA   A   D   SD

9. This group is committed to the success of all the doctoral students in this cohort.   SA   A   D   SD

10. The members of this group would complete their degrees without the support of the cohort.   SA   A   D   SD

11. The members of my cohort have positively influenced my persistence in the program.   SA   A   D   SD

12. Students in my cohort have helped keep me on track toward the degree.   SA   A   D   SD

13. The students in my cohort encourage other members to voice opinions.   SA   A   D   SD

14. We find it difficult to complete course   SA   A   D   SD
    assignments.

15. Membership in this cohort has a profound   SA   A   D   SD
    positive effect toward each of us
    completing the doctorate.

16. Group members disclose personal   SA   A   D   SD
    information to other members of the cohort.

17. The cohort I work with has established   SA   A   D   SD
    its own norms and traditions.

18. The students in this cohort are my friends. SA   A   D   SD

19. The members of this cohort are often late   SA   A   D   SD
    for class.

20. Students look forward to each class meeting SA   A   D   SD
    because my cohort is made up of
    interpersonally compatible people who enjoy
    working together.

21. Group members pursue many common   SA   A   D   SD
    goals.

22. Most members of this cohort are making   SA   A   D   SD
    consistent progress toward completing
    their degrees.

23. Group members do not reveal personal   SA   A   D   SD
    information or opinions during group
    discussions.

24. Doctoral students in this cohort   SA   A   D   SD
    trust each other.

Appendix B

Student Demographic Information

Name _____Study ID # _____

_____Male   _____Female _____Age

As of Fall 2002, number of hours completed with cohort group. _____

Bachelor's Degree _____ Institution _____ Year _____

Masters Degree_____ Institution_____ Year_____

Current Program Status _____ ABD _____ EdD _____ PhD _____

Doctoral Degree Program _____

Major_____

Minor _____

Professional Position when entered Cohort_____

Current Professional Position_____

Professional Certification(s)_____

Future Goal(s)_____

Reason for Pursuing Doctoral Program _____

Doctoral Program Cohort Completion Date_____

Number of Years to Complete Doctoral Program_____

Appendix C

Professor Demographic Information

Name _____   Study ID # _____

University _____   Position at University _____

Number of Years at University _____   Years Teaching Post Doctorate_____

Bachelor Degree Major _____   Institution _____

Master Degree Major _____   Institution _____

Doctoral Degree Major _____   Institution _____

Years Teaching Doctoral Cohort(s) _____

Number of Doctoral Cohorts Taught _____

Reason(s) for Teaching in Doctoral Cohort _____

Appendix D

Institutional Review Board Approval

Oklahoma State University
Institutional Review Board

Protocol Expires: 12/16/2003

Date: Thursday, January 16, 2003   IRB Application No   ED0353

Proposal Title: EXPLAINING DOCTORAL COMPLETION IN THE CONTEXT OF GROUP
COHESIVENESS AND INDIVIDUAL PERSISTENCE

Principal
Investigator(s):

Cynthia Koss   Adrienne Hyle
18501 Laurel Oak Drive   314 Willard Hall
Edmond, OK 73003   Stillwater, OK 74078

Reviewed and
Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of
the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of
individuals who may be asked to participate in this study will be respected, and that the research will be
conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol
   must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar
   year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are
   unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the
IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive
Secretary to the IRB, in 415 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson, Chair
Institutional Review Board

Appendix E

Letter of Introduction to Students and to Professors

Cindy Koss
18501 Laurel Oak Drive
Edmond, Oklahoma 73003
405-340-6973 (home)
405-521-4513 (work)
CINDYKOSS@aol.com

Dear Research Study Participant:

My name is Cindy Koss and I am a doctoral student at Oklahoma State University. I am writing a dissertation researching doctoral cohorts in educational administration and educational leadership and how group cohesiveness and individual persistence may interact as influences on the completion of a doctorate.

The packet you have been sent includes:

1. Consent Form (Two copies are included. Please sign and return one copy and keep one copy for your file.)
2. Demographic Data Sheet (Please complete and return.)
3. Group Cohesiveness and Persistence Survey (Please complete and return.)
4. Postage paid, self-addressed envelope (Please return items 1, 2, and 3 in the envelope provided.)

I am hopeful you will be able to respond and return the consent form, the demographic data sheet and the survey in the enclosed self-addressed, postage paid envelope at your earliest convenience.

Please let me know if you will be willing to participate in an interview related to this study. I am hopeful that four members of your cohort will agree to be interviewed, two cohort members who have completed their doctorate and two cohort members who have not completed their doctorate.

Thank you for your help with my dissertation research.

Sincerely,

Cindy Koss
Doctoral Student
Oklahoma State University

I, _____ am willing to participate in an interview related to the study of doctoral completion in the context of group cohesiveness and individual persistence. My contact information is included on the attached demographic data sheet.

Cindy Koss
18501 Laurel Oak Drive
Edmond, Oklahoma 73003
405-340-6973 (home)
405-521-4513 (work)
CINDYKOSS@aol.com

Dear Professor:

My name is Cindy Koss and I am a doctoral student at Oklahoma State University. I am writing a dissertation researching doctoral cohorts in educational administration and educational leadership and how group cohesiveness and individual persistence may interact as influences on the completion of a doctorate.

The packet you have been sent includes:

1. Consent Form (Two copies are included. Please sign and return one copy and keep one copy for your file.)
2. Demographic Data Sheet (Please complete and return.)
2. Group Cohesiveness and Persistence Survey (Please complete and return.)
3. Postage paid, self-addressed envelope (Please return items 1, 2, and 3 in the envelope provided.)

I am hopeful you will be able to respond and return the consent form, the demographic data sheet and the survey in the enclosed self-addressed, postage paid envelope at your earliest convenience.

Please let me know if you will be willing to participate in an interview related to this study. I am interested in interviewing two major professors of the doctoral cohort selected.

Thank you for your help with my dissertation research.

Sincerely,

Cindy Koss
Doctoral Student
Oklahoma State University

I, _____ am willing to participate in an interview related to the study of doctoral completion in the context of group cohesiveness and individual persistence. My contact information is included on the demographic data sheet.

Consent Form

Doctoral Completion

CINDYKOSS@aol.com or cindy_koss@sde.state.ok.us

I,_____hereby authorize and/or direct Cindy Koss,

doctoral student at Oklahoma State University, to perform the following procedure as

part of her doctoral dissertation:

Procedure: As the individual named above you will be interviewed about your

experiences as a student or faculty member of a doctoral cohort in Educational

Leadership. The information provided here is for you to decide whether you wish to

participate in this study. You have the right to choose not to answer any question at any

time during the interview or on the demographic data sheet or on the group cohesiveness

and persistence survey. After the interview has been transcribed, you as the interviewee

have the right to examine the transcription to make any clarification, if you so choose.

The responses, in conjunction with the documents, will be used to present the perceptions

of the participants. You should be aware that you are free to decide not to participate or to

withdraw at any time without affecting your relationship with your university.

Duration: The demographic data sheet should take fifteen minutes and the survey should

take approximately one half hour. The interviewee will determine the length of the

interview. Most interviews should last no more than one hour.

Confidentiality: Pseudonyms will be used in the final document. Only the researcher will

have access to the actual names of the participants. Tape-recorded interviews will be

transcribed. Any information deemed unacceptable by the interviewee for permanent

documentation will be omitted.

<u>Possible Discomfort:</u> Although no question of a personal or intrusive nature are intended, some questions may cause discomfort; therefore, the respondent may discontinue such questions/answers at any time.

<u>Possible Benefits:</u> The need for quality educational administrators and university professors in the system of higher education indicates that better ways to accomplish a greater percentage of doctoral students completing their programs provides a purpose for this study. Determining an effective program model could provide valuable information to higher education institutions that have educational leadership doctoral programs.

The data sheets, survey and interviews are part of an investigation entitled, "Explaining Doctoral Completion in the Context of Group Cohesiveness and Individual Persistence". The purpose is to use a qualitative method of research to understand the learning experiences of the students participating Educational Leadership Cohort programs. The procedure will be a case study design. At this stage in the research, process will be generally defined as perceptions of the cohort program experience.

Data will be collected over a several month period beginning Winter 2002 through Spring 2003. Data collection will involve interviews (transcripts of interviews), demographic data sheet, and a survey.

Do not hesitate to ask any questions about the study either before participating or during the time that you are participating. I would be happy to share the findings with you after the research is completed. However, your name will not be associated with the research findings in any way, and your identity as a participant will be known only to the researcher.

Consent Form

Doctoral Completion Research Study

My name is Cindy Koss and I am a doctoral student at Oklahoma State University. The information from the *Group Cohesiveness and Persistence Survey* and interview questions will be used for my doctoral dissertation, "Explaining Doctoral Completion in the Context of Group Cohesiveness and Individual Persistence".

Consent Statement

I have read and understand the procedure, duration, confidentiality, possible discomfort, possible benefits as described by the researcher; and I understand that participation is voluntary in the investigation, "Explaining Doctoral Completion in the Context of Group Cohesiveness and Individual Persistence"; that there is no penalty for refusal to participate; and that I am free to withdraw my consent and participation in this project at any time without penalty after notifying the project director. I may contact Sharon Bacher, IRB Executive Secretary, 415 Whitehurst, Oklahoma State University, Stillwater, OK 74078, 405-744-5700 74078, for information on subjects' rights.

I have read and fully understand the consent form. I sign freely and voluntarily. A copy has been provided for me.

Signature of Participant _____ Date_____

Appendix F

Group Cohesiveness and Resistance Survey Results

Results of Group Cohesiveness and Persistence Survey (57 Respondents)
(Dorn, Papalewis, & Brown, 1995)

Survey Question	Agree	Disagree	Other
1. The students in my doctoral program will accomplish their educational goals	95%	5%	
2. Everyone in my doctoral cohort will earn a doctoral degree.	59%	40%	1%
3. Group members influence each other to attain goals. (Members support each other, mutually influence each other).	98%	2%	
4. This group has trouble meeting goals.	23%	77%	
5. The students in my doctoral program share similar educational values. (Sharing of common feelings, norms, customs, values, interests).	81%	19%	
6. The success of one member is appreciated by the entire group. (Success of attaining goals.)	96%	4%	
7. Group members complete course assignments on time.	63%	37%	
8. Group members have remained in this program partly due to the support of fellow students.	95%	5%	
9. This group is committed to the success of all the doctoral students in this group.	78%	22%	
10. The members of this group would complete their degrees without the support of the group.	48%	51%	1%
11. The members of my doctoral cohort have positively influenced my persistence in the program.	88%	11%	1%
12. Students in my doctoral cohort have helped keep me on track toward the degree.	83%	16%	1%
13. The students in my doctoral cohort encourage other members to voice opinions. (self-disclosure, risk-taking)	92%	7%	1%
14. We find it difficult to complete course assignments.	18%	79%	3%
15. Membership in this group has a profound positive effect toward each of us completing the doctorate.	83%	16%	1%

Results of Group Cohesiveness and Persistence Survey (continued)

Survey Question	Agree	Disagree	Other
16. Group members disclose personal information to other members of the group.	89%	11%	
17. The group I work with has established its own norms and traditions.	88%	11%	1%
18. The students in this program are my friends. (Interpersonal compatibility, linking each other, accepting each other, trusting).	90%	9%	1%
19. The members of this group are often late for class.	1%	98%	1%
20. Students look forward to each class meeting because my doctoral group is made up of interpersonally compatible people who enjoy working together.	87%	12%	1%
21. Group members pursue many common goals. (Common goals or enemies, attractive group goals or rewards).	89%	11%	
22. Most members of this group are making consistent progress toward completing their degrees.	95%	5%	
23. Group members do not reveal personal information or opinions during group discussions.	5%	95%	
24. Doctoral students in this program trust each other.	92%	7%	1%

Appendix G

Permission to Use Survey Instruments

Edmond, OK 73003

CINDYKOSS@aol.com (home e-mail)
CINDYKOSS@aol.com (work e-mail)

405-340-6973 (home phone)
405-521-4513 (work phone)
405-521-2971 (FAX)
405-476-5235 (cell phone)

----- Message from "Papalewis, Rosemary" <rpapalewis@csus.edu> on Fri, 25 Oct 2002 16:12:22 -0700

   To: "'CINDYKOSS@aol.com'" <CINDYKOSS@aol.com>, "'CINDYKOSS@aol.com'"
       <CINDYKOSS@aol.com>

Subject Group Cohesiveness and Persistence Survey
     :

Hello Cindy,

I finally got your message forwarded to me. Yes, you can use our survey, Group Cohesiveness and Persistence Survey.

I ask that your share your results with me once you complete your study.

I have put in the mail to you the one of the two articles you asked for: Papalewis & Minnis (1992) California universities joint doctoral study in educational leadership.

I could not find the presentation, but did enclose all articles from that timeframe.

I wish you good luck in completing your degree.

Take care,

Dr. Rosemary Papalewis

Dr. Rosemary Papa (aka Papalewis)
Professor, Educational Leadership
Director, Center for Teaching & Learning
Library 4026, CSU Sacramento 95819-6084
916 278 5945   Fax-916 278 7301

Appendix H

Cohesiveness Survey Results

The following chart reads as follows:

Row 1: Cohesiveness Item

Row 2: Strongly Agree; Agree; Disagree; Strongly Disagree

1. Group members pursue many common goals. – Question 21

   n=11   n=40   n=6
   19.28%   70.17%   10.52%

2. The success of one member is appreciated by the entire group. – Question 6

   n=35   n=20   n=2
   62.5%   33.92%   3.57%

3. Group members disclose personal information to other members of the group. –
   Question 16

   n=18   n=33   n=6
   31.57%   57.89%   10.52%

4. The students in my doctoral group encourage other members to voice opinions –
   Question 13

   n=22   n=30   n=4   n=1
   38.59%   52.63%   7.01%   1.78%

5. Group members do not reveal personal information or opinions during group
   Discussions. – Question 23

            n=3   n=37   n=17
            5.26%   64.91%   29.82%

6. Group members influence each other to attain goals. – Question 3

   n=36   n=19   n=1   n=1
   64.28%   33.92%   01.78%   01.78%

7. The students in my doctoral program share similar educational values – Question
   5

   n=17   n=30   n=8   n=2
   29.31%   51.72%   13.79%   03.44%

8. The group I work with has established its own norms and traditions – Question 17

   n=20   n=30   n=6
   35.08%   52.63%   10.52%

9. The students in this program are my friends. – Question 18

   n=20   n=31   n=5
   35.08%   54.38%   8.77%

10. Doctoral students in this program trust each other – Question 24

    n=18   n=34   n=4
    31.57%   59.62%   7.91%

11. Students look forward to each class meeting because my doctoral group is made up of interpersonally compatibility people who enjoy working together. – Question 20

    n=11   n=38   n=6
    19.28%   66.66%   10.52%

12. This group is committed to the success of all the doctoral students n this group. Question 9

    n=15   n=29   n=12   n=1
    26.78%   50.87%   21.42%   1.78%

Appendix I

Persistence Survey Results

The following chart reads as follows:

Row 1: Persistence item

Row 2: Strongly Agree; Agree; Disagree; Strongly Disagree

1. Students in my doctoral program will accomplish their educational goals – Question 1

n=20	n=34	n=2	n=1
35.71%	59.64%	3.57%	1.78%

2. Everyone in my doctoral group will earn a doctoral degree. – Question 2

n=18	n=15	n=15	n=8	n=1
32.14%	26.78%	26.78%	14.28%	1.78%

3. Students in my doctoral group have helped keep me on track toward the degree. – Question 12

n=24	n=23	n=8	n=1	n=1
42.10%	40.35%	14.03%	1.78%	1.78%

4. We find it difficult to complete course assignments. – Question 14

n=2	n=8	n=31	n=14	n=2
3.50%	14.03%	54.38%	24.56%	3.50%

5. Group members have remained in this program partly due to the support of fellow Students. – Question 8

n=27	n=27	n=1	n=2
48.21%	46.42%	1.78%	3.57%

6. Group members complete course assignments on time. – Question 7

n=18	n=22	n=12	n=5
31.57%	31.42%	21.05%	8.77%

7. The members of my doctoral group have positively influenced my persistence in the program. – Question 11

n=24	n=26	n=6		n=1
42.10%	45.61%	10.62%		1.78%

8. Membership in this group has a profound positive effect toward each of us Completing the doctorate. – Question 15

   n=24   n=23   n=9   n=1
   42.10%   40.35%   15.78%   1.78%

9. The members of this group would complete their degrees without the support of the group. – Question 10

   n=1   n=26   n=23   n=6   n=1
   1.75%   45.61%   40.35%   10.52%   1.78%

10. Most members of this group are making consistent progress toward completing their degrees. – Question 22

    n=17   n=37   n=3
    29.82%   64.91%   5.26%

11. The members of this group are often late for class. – Question 19

    n=1   n=36   n=19   n=1
    1.75%   63.15%   33.33%   1.75%

12. This group has trouble meeting goals. – Question 4

    n=5   n=8   n=27   n=17
    8.77%   14.03%   47.36%   29.82%

Appendix J

Interview Protocol

This includes the six main questions and possible sub-questions for student cohort members.

1. What is the experience of being a cohort member who is a practicing professional and a part-time doctoral student like as one works to complete his/her doctorate?

    a. Tell me about your experience as a member of your doctoral cohort.

    b. What is it like being a part-time doctoral student and a full-time working professional?

    c. What led you to decide to enter the doctoral cohort program?

    d. Describe any professional changes that have occurred during the time of your doctoral program.

    e. What do you see as unique characteristics of this doctoral cohort?

    f. What would you tell a potential doctoral cohort member about participating in a cohort?

    g. What have been barriers you have encountered as a doctoral cohort member?

2. How would you describe the cohort?

    a. How do cohort members interact with other cohort members? With professors who teach in the doctoral cohort?

    b. What role have the other cohort members played in your completing your dissertation? Your doctoral program?

    c. How much time inside and outside of class do you spend with cohort members?

    d. What emotional events occurred in your cohort experience with one or more cohort members?

3. What factor(s) led to your success in this program?

    a. What are some of the important/memorable experiences you have participated in as a cohort member?

    b. Tell me about the type of people in your classes.

    c. Describe the environment that is most conducive to learning at the graduate level.

4. What are personal persistence strategies you use?

    a. How do you organize your time to allow for the many activities involved in being a part-time doctoral student and a full-time practicing professional?

    b. Tell me what you believe has sustained you as you complete your dissertation? Your doctoral program?

5. What personal characteristics do you have that have contributed to your progress toward doctoral completion?

    a. What types of things help you to organize your life (people, tools, organizations)?

6. Is there anything else that you think I need to know about your doctoral cohort experience?

Faculty Questions:

1. How long has the Doctor in Education in Educational Administration and Supervision cohort program been in place?

2. How and why did you become a part of the cohort program?

3. How would you define/describe the doctoral cohort program at your university ?

4. What was the cohort experience intended to be for students?

4.a. For faculty?

5. From a faculty perspective, how do you perceive the cohort member experience for these individuals who are practicing professionals and part-time doctoral students as they work toward completion of their doctorate?

5.a. What do you see as the benefits of a doctoral cohort?

6. What do you see as the challenges of a doctoral cohort?

7. How would you describe the cohort experience to someone considering this structure for his/her doctorate?

7.a. How would you describe the interaction of cohort members with each other? With professors who teach in the doctoral cohort?

7.b. What role did cohort members play in each others' completion of the doctoral program? dissertation?

8. What do you believe are contributing factor(s) that led to student success in the program?

9. Describe the environment that you believe is most conducive to learning at the graduate level.

10. What did you observe to be personal persistence strategies students used?

11. What do you believe sustained the cohort members as the worked to complete their doctoral program? Dissertation?

12.What personal student characteristics do you believe contributed to student progress toward doctoral completion?

13. Is there anything else that you think I need to know about the students' doctoral cohort experience?

VITA

Cynthia Lee Hemery Koss

Candidate for the Degree of

Doctor of Education

Thesis: EXPLAINING DOCTORAL COMPLETION IN THE CONTEXT OF GROUP
COHESIVENESS AND INDIVIDUAL PERSISTENCE

Major Field: Educational Administration

Biographical:

Education: Graduated from Regina Dominican High School in Wilmette, Illinois in
May, 1968; received a Bachelor of Music Education degree in music
education from Butler University, Indianapolis, IN in 1972; received a Master
of Education degree in gifted education from Oklahoma City University,
Oklahoma City, OK in 1988; received a Master of Education degree in
secondary administration from the University of Central Oklahoma, Edmond,
OK in 1997. Completing the requirements for the Doctor of Education degree
with a major in Educational Administration from Oklahoma State University,
Stillwater, Oklahoma in December, 2003.

Experience: Music teacher, Delaware Trails Elementary School, Indianapolis,
Indiana, 1972-1973; Music teacher and teacher of the gifted, Forest View
Elementary School, Mount Prospect, IL, 1973-1979; Gifted/talented director
and language arts elementary teacher, Elmhurst School, Oklahoma City, OK,
1987-89; teacher of the gifted, creative and talented students, Oklahoma City
University Summer Enrichment Program, 1987-88; Associate Director, 1989-
1994 and Director, 1995-1999 of the Oklahoma City University Summer
Enrichment Program; Adjunct professor, Graduate School of Education,
Oklahoma City University, 1989-2000; middle school teacher of the gifted,
Summit Middle School, Edmond, OK, 1989-94; Gifted/Talented specialist,
Edmond Public Schools, Edmond, OK, 1994-95; assistant principal, Edmond
Santa Fe High School, Edmond, OK, 1995-2000; Team Leader Curriculum
and Effective Schools 2000-2003, Assistant Superintendent Standards and
Curriculum 2003-present, Oklahoma State Department of Education.