The impact of cohort group membership on preservice teachers

by

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CHAPTER 1. INTRODUCTION

As educators and administrators examine teacher education programs, there have developed numerous recommendations for restructuring college curricula to coordinate with long-range and complex proposals to improve these teacher education programs. Considerations of school change will be only rhetorical if teachers lack well-developed visions about what good schools look like. The school of education must provide preservice teachers with opportunities for gaining theoretical and practical understandings of schools as organizations, for formulating options for change, and for developing initial visions about possibilities (The Holmes Group, 1986; Goodlad, 1991; U.S. Office, 1991).

The Holmes Group is a consortium of education college deans and academic officers from major research universities across the country. The group has evolved from its formation in 1983 and is committed to improving the teacher preparation profession. The Holmes agenda is essentially a systems view of education and recognizes the importance of enlisting teachers and administrators in the reform process. The Holmes Group addresses changing the teaching profession itself in addition to changing the content, standards, and field experiences of teacher education. The Holmes Group's goals are: 1) to make teacher education a more intellectual exercise in preparing reflective teachers; 2) to distinguish the different preparation levels of teachers and their career levels; 3) to create professional entrance standards which will necessitate new evaluations and assessments of the teaching profession; 4) to connect colleges of education with schools which will require new relationships; and 5) to make schools better working places for teachers and better learning places for students (Sedlack, 1987).

The Holmes agenda includes a professional development school (PDS) concept. The Holmes Group recommendations suggest that a program of teacher education cannot be excellent without an excellent school in which to place student teachers. These collaborative sites would assist the university-based research, strengthen its link to practice and add to the PDS's credibility. The PDS would expand opportunities for practice and offer the preservice teacher guidance from both teacher educators and practicing teachers.

The Holmes Group has specific goals for the university's educational environment which include creating "significant opportunities for teacher education students to develop collegial and professional norms" (Holmes Group, p. 89). Recommended is a sense of community among students enhanced by reasonably-sized cohorts that work with faculty mentors as they pursue their program.

Another highly respected researcher in the educational reform movement is John Goodlad. Goodlad, Director of the Center for Educational Renewal, University of Washington, has researched and written extensively about educational change. Whereas the Holmes Group sets forth a prescriptive agenda for preservice teacher education, for the collaboration between schools and universities and for setting teaching standards, Goodlad has written about less than satisfactory educational practices and stereotypical teaching models left unchallenged and unchanged (Goodlad, p. xiii). In Teachers for Our Nation's Schools, he writes about the role of schools and teachers in a democratic society. The nineteen postulates set forth in this book propose that educational change has a sensitive and moral purpose and is more descriptive rather than prescriptive.

Postulates Four, Five and Six indicate that there must be a clearly identified group of faculty for whom teacher education is a top priority, and they must be rigor-

ous in their selection of preservice teacher candidates. Postulates Seven, Eight, Nine, Eleven and Twelve indicate that preservice teachers must attain high levels of critical thinking, educational inquiry, and democratic citizenry. Theory to practice, field experience, lifelong learning and evaluation are hallmarks of Postulates Sixteen, Seventeen, Eighteen and Nineteen.

Although both the Holmes Group and Goodlad have their own recommendations, areas of consensus emerge: 1) a collaborative or collegial K-12 school-university setting, 2) changed college curricula and methods of providing and modeling authentic assessment, 3) earlier and increased field experiences for preservice teachers, and 4) opportunity to participate in a socialization process to enhance the culture of teaching.

In response to the Holmes Group recommendations and the Goodlad Postulates research, Project Opportunity emerged. Project Opportunity at Iowa State University is a five-year pilot teacher education program which developed through long-range planning and collaboration with ISU faculty members, cohort site school personnel and preservice students. This committee elected to adapt pieces from several reform movements, heed diverse advice, and design an experimental program built around several central themes and beliefs about teacher preparation. One key component of the professional development school (PDS) model as described by the Holmes Group is teacher education as a responsibility shared by the university and school district sites. They are partners in teacher preparation and not just field experience sites. As a member of the Holmes Group, the committee decided to adopt a modified PDS modes and interweave many of Goodlad's Postulates (Sudzina, 1995) that became the focus of curriculum conversations and the committee's shared philosophy. The result is an alternative teacher preparation pro-

gram in which a cohort group of approximately thirty elementary education students, secondary education students and early childhood education students travel through their sophomore, junior and senior years together taking selected courses and participating in expanded field experiences. The first cohort was established in Madrid, Iowa, a rural site, the second in Des Moines, an urban site, and the third in Ames, a suburban site. Each year in the five year pilot program at least one new cohort will be added.

There is growing evidence of the emergence of cohort groups as part of an instructional delivery system. Educational administration programs in the 1980's began organizing their programs to include cohorts of students. One of the most influential principal preparation programs is the Danforth Foundation's Program for the Preparation of School Principals (Barnett and Muse, 1993; Basom et al, 1994; Milstein et al., 1991; Yerkes et al., 1994). Barnett and Muse describe the importance of cohorts in these programs.

> *Initiated as a way to improve the collaboration between universities and local school districts, to allow students to have a meaningful field-based experience with a mentor, and revise the university curriculum, the Foundation has provided grants to over twenty universities. All of these universities have incorporated cohort groups.* (p. 403)

The word cohort at its simplest level means a group, but is generally defined in education programs as a group of students enrolled in an educational program where there is a selection process and a sharing of common coursework, field experiences, and activities. Much of the knowledge base about cohort groups comes from adult learning and group dynamics theory. It appears that cohort groups are beginning to be more commonly used as a means of facilitating undergraduate

and preservice teaching. Characteristics of both undergraduate and graduate cohorts have come to include intensive scheduling of classes together for the cohort students, highly developed selection procedures, development of group purpose and a collegial support system which includes both faculty and students. There is a recognition that students have both cognitive and affective needs (Barnett and Muse, 1993; Hebert and Reynolds, n.d.; Stover, 1990).

A selected number of students alone does not make a cohort. The organizers or faculty must plan to create the environment that will nourish collegiality, collaboration and the development of mutual respect that are characteristics of successful cohort groups. A basic component of Project Opportunity is the development of a sense of community within the student cohort and between the cohort and the faculty, staff and students of the partner school district and faculty of the College of Education. Cohesiveness, shared experiences and on-going dialogue seem to be common strengths of cohort groups (Blankenship, 1989; Holmes Group, 1986). One objective Project Opportunity faculty has designated for the cohort group is to form a bond to support and encourage each other as they practice teacher collegiality in an on-going dialogue about teaching. In most cases, the convenience of the cohort structure and scheduling has been the primary reason for implementing a cohort. It appears from reviewing the literature that other compelling reasons may exist.

Statement of the Problem

Much of the research on cohort groups has focused on graduate education, particularly in the areas of business administration, medical and law schools, and educational administration. There has been little research concerning the role of the cohort as an instructional delivery model in preservice education programs. It

seems apparent that further research is needed about the impact of cohorts on students, faculty, programs, and field experience sites. It is important to identify the dimensions of cohort structure and to design a research study intended to obtain empirical evidence of students' perceptions of being a member of a cohort in a teacher education program.

Purpose of the Study

The purpose of this study is to test student perceptions of their participation in a cohort group as part of an alternative teacher preparation program (Project Opportunity). The study required the development of a survey instrument designed to measure the dimensions found to exist in being a member of a cohort and to solicit student responses about their perceptions on cohort group membership. Those perceptions are evaluated and conclusions drawn about the impact that cohort membership has on Project Opportunity students.

Research Questions

1. Will Project Opportunity students indicate they value being a member of a cohort group more than students in cohort-like groups?
2. Do Project Opportunity students value collaboration: student, teacher, faculty more than students in cohort-like groups?
3. Do Project Opportunity students value field experiences more than do students in cohort-like groups?
4. Do Project Opportunity students, as individuals, perceive they are challenged to perform well academically more

than are students in cohort-like groups?

5. Do Project Opportunity students perceive that student retention is more important than do students in cohort-like groups?

Limitations

This study was conducted near the end of the spring semester when students are traditionally asked to respond to numerous requests from faculty and departments to questionnaires. This repetitive process may have influenced the level of enthusiasm and reflection practiced by the respondents.

Since the researcher was also one of the students' first instructors in Project Opportunity and highly accessible to these students, her presence may have limited the study.

This study examines only one teacher education program at one university and probably cannot be generalized to a larger population without further research.

Definition of Terms

Cohort - a group that moves or works together. This study defines a cohort as a small, no larger than thirty members, group who is selected into the program, takes course work together and develops a group purpose and social relationships.

Cohortlike - students who may be in classes or groups where there are social relationships, high levels of interaction, and where other characteristics of cohort groups may exist.

Project Opportunity - an experimental teacher education program at Iowa State University in which a cohort group of approximately thirty elementary, sec-

onday and early childhood education major students travel through their sophomore, junior and senior years together taking selected courses and participating in expanded field experiences.

CHAPTER 2. REVIEW OF THE LITERATURE

Introduction

An examination of the many reform movements in education provides suggestions for directions for change in school structures, curriculum guidelines and ultimately, a redesign of teacher preparation. From the recommendations of researchers, administrators, and educational visionaries emerges a common thread, the importance of the human element in implementation of educational reform or restructuring. A review of the literature will present new directions or trends in preservice teacher education programs.

One of these trends is the education of students in cohort groups. The nature of groups and group processes will be examined before the discussion on cohort groups and their characteristics or dimensions. In this chapter the literature will be presented in the following order: Directions in teacher education, groups and group processes, cohort groups and cohort dimensions. Directions in teacher education will elaborate on restructured teacher education programs which include trends of several reform movements and leads to a discussion of cohort groups. A review of theory about groups and group processes and characteristics of effective groups precedes a review of the literature on cohort groups and the dimensions found to exist on being a member of a cohort group.

Directions in Teacher Education

In Chapter One, key elements of the Holmes Group goals and John Goodlad's postulates for program design were presented. A large number of teacher education programs are designing new organizational structures that bring together

pieces of the reform movement. All the pieces may be summarized as a theoretical knowledge base, educational inquiry, collaboration, redesigned curricula, selective admission standards, extensive field experience and school/university partnerships that enhance the connection between theory and practice.

Practicing collaboration and collegiality is a common goal for many restructured teacher education programs. Darling-Hammond and McLaughlin report that over 200 PDSs have been created since the late 1980's. PDSs expand opportunities for extensive field experience and create learner-centered foundations where one can learn to be a colleague. PDSs encourage the collaborative redesign of preservice education. University and school-based educators develop curricula, conduct research, supervise students and develop collaborative cultures which are endemic to systemic change (Anderson, 1993; Swanson, 1995). Systemic change generally denotes the reform of an educational system initiated by the teachers, staff and community which is seeking change. It is not an administrative driven initiative but does include administration and board participation as plans are made and momentum escalates.

Systemic change involves the interdependence and complexity of an educational system and seeks to fundamentally change all the parts of the system. Thoughtful discussion about important questions and the seeking of shared vision is an important component of systemic change. Preservice teachers will need to have the opportunity to practice shared decision-making and collaboration if they are to become future change agents.

Another trend in teacher education programs is expanded field experiences. Some of the benefits appear to include more opportunities to put theory into practice, greater self-confidence, stronger communication skills and more risk-taking qualities

(Wilmore, 1996).

As a means of empowering students to become leaders and to practice collaborative cultures, many teacher education programs are experimenting with educating students through cohort groups. A cohort is a group of students enrolled in an educational program where there is a selection process and a sharing of common coursework, field experiences, and activities. The cohort group may be an important link in educational restructuring as tomorrow's educational leaders and their professional communities are created.

Current directions in teacher education include a theoretical knowledge base, educational inquiry, redesigned curricula, selective admission standards, collaboration, extensive field experience, and school/university partnerships. Collaboration that enhances putting theory into practice and empowering preservice teachers to become contributing colleagues through more extensive field experience may be facilitated through educating students in cohort groups.

Groups and Group Processes

Before discussing cohort models and the characteristics of cohorts, it is important to examine theory about groups and group processes. A group may be defined as two or more persons working on a task who are interacting with each other so that each person is influenced by the other. Group members, then, interact with each other and are interdependent (Miles, 1959; Milstein, 1991; Shaw, 1976). Group process implies change over time which means examining "*how* things are happening, rather than *what* is being talked about" (Miles, p.3). The essence of group process seems to be: Interdependence, interpersonal learning, cohesiveness, and the sharing of common goals (Anderson, 1985; Basom, et al., 1994; Knoop,

1986).

Effective groups have similar characteristics: 1) accomplishing their goals, 2) maintaining themselves, and 3) developing and changing to improve effectiveness. There are several dimensions to the above characteristics which are outlined by Johnson and Johnson:

- *Group goals must be clearly understood and be relevant to the needs of group members.*
- *Group members must communicate their ideas and feelings accurately and clearly.*
- *Participation and leadership must be distributed among members.*
- *The equalization of participation and leadership is necessary to make certain that all members are involved in and satisfied with the group, and that all are committed to putting into practice the decisions made by the group.*
- *Appropriate decision-making procedures must be used.*
- *Power and influence need to be equal throughout the group.*
- *Coalitions to help fulfill personal goals should be formed among group members on the basis of mutual influence and interdependence.*
- *Conflicts among those with opposing opinions and ideas are to be encouraged; conflicts promote involvement in the group, quality and creativity in decision making, and commitment to putting decisions into practice.*
- *Group cohesion needs to be at a high level. Cohesion is related to interpersonal attraction among members.*
- *Problems must be resolved with minimal energy and in a way that eliminates them permanently.*
- *The interpersonal effectiveness of members needs to be high.* (pp.3-4)

An effective group, then, is interpersonally competent and is characterized by a high level of mutual trust. An effective group can create a collegial climate which encourages a spirit of openness and risk-taking.

An important aspect of group effectiveness is the cohesion of the group. Group cohesion is the factor influencing members to stay in the group. If a group member expects and receives favorable outcomes from group membership, the more likely it is he/she will remain in the group. Those outcomes may include the group's goals, how likely that the goal may be achieved, and cooperation within the group. Group cohesion constantly changes as individuals in the group change in their attraction to group membership. Cohesion can be increased by structuring cooperative experiences between members, by planning fun activities and by expanding the influence of the group.

As cohesiveness increases, members become more committed to the group's goals, are more loyal and willing to work toward a common goal and communicate more frequently. They are more willing to accept the opinions of other members and to feel pressured toward uniformity (Festinger, 1950; Johnson & Johnson, 1975; Pascale, 1985).

Because a cohort group may be loosely classified as a small group by definition, a discussion of groups and group processes is important to the understanding of characteristics of effective groups and why cohort group membership may be an advantage in redesigning a teacher education program. Important dimensions of effective small groups are group cohesion and interdependence.

Cohort Groups

A cohort group may be defined as a small group. Small groups are usually

defined as having fewer than thirty members. Although Shaw reports groups of thirty may function as a small group if the members relate closely to one another and are highly motivated to achieve a common goal. Cohort groups generally consist of ten to thirty members.

A cohort may become an effective group as described by Johnson and Johnson. Beyond the obvious advantages of scheduling and formatting coursework for class-size groups of students who begin a program together and remain together until graduation, the characteristics of group process which include interdependence, interpersonal learning, cohesiveness, and the sharing of common goals are evident in the activities and behaviors of individuals in an educational cohort as they participate in individual and group learning activities, early field experiences and collaboration with other professionals to improve their knowledge about effective teaching practices.

The "star" of any cohort group is not the leader or facilitator but the members themselves. Faculty leaders are extremely important in this nurturing process. Effective faculty leaders help the group develop and set their own goals, define their structure and help initiate socialization within the group and help the cohort grow to the point where the cohort members are each other's primary source of help (Anderson, 1985; Basom et al., 1994).

Effective facilitators help provide the climate for successful relationships. They also help the group processing develop by providing a cognitive framework for change, by reserving a regularly set time for reflection and feedback and by modeling leadership which creates change. In short, an effective facilitator helps a group evolve (Anderson, 1985; Norris & Barnett, 1994).

Cohort membership and collegial climate are essential to the group evolution.

Facilitation of the cohort group and the type of cohort model chosen seem to be unique to each program design and needs.

Cohort Models

As reported, most cohorts have ten to thirty members. Most of the Danforth principal preparation and leadership programs, collaborative graduate programs between universities and local school districts for prinicipal preparation, average between eighteen to twenty students and prefer a cap of twenty-five students as in the Danforth model (Barnett & Muse, 1993; Blankenship, 1989).

Basom describes three cohort delivery models as:

- The *closed* cohort model, students admitted to the program take all of their coursework together in a prearranged sequence.
- The *open* cohort model is more flexible since students enroll in a core set of classes together, taking additional coursework to fulfill their personal needs and/or the university's academic requirements.
- The *fluid* cohort is even more flexible; students may join the cohort at different times rather than at a single entry point which takes into consideration students' unique financial and/or personal circumstances. (p. 7)

Basom states the the closed cohort model is often regarded as elitist since those advantages are not open for other students. The fluid model so closely resembles traditional educational programs that it doesn't build in the characteristics of effective groups. The open cohort model is most common and resembles the cohort selected for Project Opportunity.

Selection Criteria

Selecting members for a cohort group seems to vary according to the goals and objectives of the educational program. Factors for selection that define graduate programs may include release time of the candidate for internships, professional experiences, diversity of learning styles and commuting distance times. Undergraduate programs may recruit by slot availability in certain programs or majors, ethnic diversity, academic standing, and flexibility of schedules. With both graduate and undergraduate cohorts, the trend seems to be away from self-selection and a move to more structured selection process which may include written application, grade point average, interview and recommendations.

Cohort Dimensions

The literature suggests that in cohort groups there exists several major dimensions. These dimensions represent a synthesis of the literature review of small group processes, the research of the Danforth Principal Preparation programs and more specifically the work with cohorts of Dr. Bruce Barnett, Dr. Margaret Basom, Dr. Cynthia Norris, and Dr. Diane Yerkes. These dimensions have been synthesized by the researcher and added to dimensions observed by Project Opportunity faculty, and named by the researcher in order to facilitate this study.

Dimensions 1 and 2: Social Interaction and Interdependence

Effective cohort groups are characterized by active participation by their members. In the early stages of cohort development, activities are often initiated by faculty and leaders to stimulate interaction and to begin to build trust and a sense of community by learning to appreciate others' diverse backgrounds and their expecta-

tions (Basom, et al., 1994; Kasten, 1992; Knoop,1986; Pascale, 1985; Schlechty, 1985). Those experiences may be purely social such as picnics, barbecues or pizza parties held off-campus and at faculty homes, adventure/challenge programs, mock inservices, or simply commuting to field experience sites together.

This social interaction may be influenced by the cohort size and the frequency of contact (Shaw, 1976). The literature on adult learning indicates that "adults learn best when they can direct their own learning, influence the decision-making process, focus on relevant problems of practice, tap their rich experiential background, and build strong relationships and affiliations with their peers." (Basom, et al., p. 6).

As these relationships build, the cohort group members come to rely on one another and to feel less isolated. This feeling of isolation is prevalent in beginning and student teachers as they begin practice. Cohort groups that are encouraged to support and prepare with each other and to peer coach cut down on that isolation. Lortie emphasizes these strategies when he discusses the lonely ordeal of a beginning teacher. He argues that a *shared* rather than a *private* ordeal helps forge the common bonds, solidarity and "collegial feeling found in established professions" (Lortie, 1975, p. 74). Partnership schools can help reduce that isolation as they incorporate preservice teachers into the social structure of the school (Valli, 1992). Students who can learn to form collegial relationships may find that "new teacher isolation" less threatening and become a valued member of the school community more quickly.

Dimension 3: Developing a Common Purpose

Faculty or facilitators need to assist students in developing common purpose after the cohort has had an opportunity for social interaction and to adjust to the col-

lege program's expectations. Realizing that students learn best when actively participating, students should participate in setting group goals, determining activities and evaluating group and individual progress. This is an appropriate time to involve students in activities at their school site and to practice collegiality. Faculty can empower students to assume ownership of their own programs. A culminating project could be action research designed by preservice students and cooperating teachers to benefit the partnership school. The cohort will develop a sense of common purpose to work toward the larger group goals (Stover,1990; Yerkes, et al., 1994).

Dimension 4: Group and Individual Learning

It is important that opportunities for both group and individual learning be created if the cohort is to become interdependent. As the group evolves, the cohort members must be attentive to not only the larger group's goals but their own personal goals and achievement.

Group goals can be facilitated through collaborative or group projects, presentations, commuting to practicum sites, retreats, serving on departmental committees, and reflective seminars.

Individual needs can be addressed within the activities designed for group participation. Basom states that individual growth is nurtured through activities that encourage self-evaluation, self-initiation, self-confidence, and risk-taking and experimentation.

> *Self-evaluation* results when learners keep reflective journals, develop individual learning plans, and prepare portfolios; *self-initiation* is stimulated through the creation of individual learning

> plans and portfolios; *self-confidence* occurs when learners apply their skills and knowledge during their internship experiences in different field sites and acknowledge their accomplishments, expectations, and frustrations during reflective seminars... (p. 7).

Dimension 5: Cohesiveness

A commonly reported strength of cohort groups is cohesiveness. The cohort experience develops a sense of belonging, support, encouragement, and less isolation (Basom, et al., 1994; Blankenship, et al., 1989). Cohesiveness can be defined as members feeling that they are in a very special group where they share common goals and purpose. J. D. Anderson reports that all groups naturally evolve toward cohesiveness, but groups with early structured interactive experiences tend to be cohesive earlier. As groups become more cohesive there is a tendency toward uniformity by members. Often group members perceive that group purpose will be served by the uniformity (Festinger, 1950). That pressure may impede individual academic performance and be a limitation of cohesiveness.

In empirical studies, Kasten (1992) found cohorts reported that bonding and support were an advantage in the cohort model. Hebert and Reynolds' (n.d.) study about cohort groups and intensive course schedules found that cohort groups exhibit greater cohesiveness, and that faculty noticed that cohort members support each other and formed study groups together. The power of cohesiveness may lead to more opportunities for collaboration.

Dimension 6: Collaboration and Field Experiences

Most cohort members participate in coursework and field experience that

involves working together on projects and presentations, preparing and teaching in pairs, and studying in small groups. Over time, they come to rely on each other for input and feedback, solving problems, and sharing decision-making.

In programs that include extensive field experiences, reflective seminars are usually scheduled. There are further opportunities for collaboration, interaction, and development of group purpose.

These focused practical experiences are a hallmark of the professional development school (PDS) concept. One of the major goals of PDSs is to mix the best of theory, research, and practice at all levels of learning (Stephen, 1994):

> 1) teaching and learning for understanding, 2) creating communities of learning, 3) involving all students in learning for understanding, 4) continuing lifelong learning, 5) reflecting and inquiring into teaching and learning, and if the first five principles are actualized, then 6) inventing a new institution. Basically PDSs are engaged in the process of restructuring schooling. (p. 23).

Project Opportunity has included the PDS or partnership school concept, extensive field experiences and cohort groups as cornerstones for this alternative teacher education program. The cohort can bring structure to the field experiences by structuring activities and interaction to help students interpret and integrate activities through guided reflection to arrive at a meaningful understanding of teaching (Applegate, 1985; Erdman,1983). Students can be empowered by letting them be responsible for discussion topics, selecting cooperating teachers and making logistical arrangements.

Dimension 7: Academic Performance

One can hypothesize that academic achievement may be enhanced by membership in a cohort. Cohesiveness and collaboration as they relate to shared assignments and study groups may encourage students to perform at higher levels. It will be important in the future to test this hypothesis and also question how cohesiveness might relate to learning styles and teaching methods.

Cohesiveness, which is usually regarded as a cohort advantage, can empower students to be more vocal. They may question or ask faculty to justify course structuring, grading criteria and appropriateness of certain topics. Students may need to share in those decisions and receive different types of feedback (Barnett & Muse, 1993). The self-confidence and support may encourage some students to excel.

Dimension 8: Interaction with Faculty

Cohort groups need a leader or facilitator to help structure activities that will enhance program expectations. In many cases the leaders may be faculty. Faculty may have restructured not only their traditional classroom roles, but also, course content, coordination with field experiences and partnership site faculty and evaluation methods. A major characteristic of cohort faculty appears to be the emergence of cohort cohesiveness among faculty members (Hebert & Reynolds, n.d.; Seidman, 1991).

Frequent meetings between students and faculty, both formally and socially, create an opportunity for more interaction. Faculty may expect more discussion, better building on prior learning and creation of more opportunities for collaboration with fellow faculty.

It may be an additional challenge to evaluate and grade cohort members that one knows quite well. Faculty report that intensive scheduling and feeling like an "outsider" are possible drawbacks to teaching a cohort group (Barnett & Muse; Hebert & Reynolds, n.d.).

Dimension 9: Student Retention

It is possible to draw the conclusion that the characteristics found to exist in cohort groups: Cohesiveness, collaboration, interdependence, social bonding, and individual and group learning would lead to greater student retention at the university level. When students feel they are connected to community, intellectually and socially, they learn better. The large, impersonal environment at many public universities isolates students and faculty members and ignores opportunities of collaborative learning (Tinto, 1993). Tinto advocates "learning communities" within universities to engage students in learning and to empower them in the classroom. These "learning communities" closely resemble cohort groups and warrant further research.

Summary

Current trends in the redesign of teacher education programs include enhancement of connections between classroom theory and the knowledge base and practice in expanded field experiences, redesigned college curricula, strengthened admission criteria and assisting students in becoming lifelong learners and researchers. As a means of empowering preservice educators to become leaders and to practice collaboration, many teacher education programs are educating students through cohort groups.

Cohorts may be a convenient way to select candidates and schedule course-

work, but there is evidence that educators need to learn how to make groups work. Small groups generally consist of two to thirty members. Effective groups seem to set and accomplish their goals, maintain themselves, and develop and change. They are interdependent and collegial. It is useful for the purposes of this study to synthesize the dimensions found to exist in cohort groups. Those dimensions are: social interaction, interdependence, development of common purpose, group and individual learning, cohesiveness, collaboration and field experience, academic performance, interaction with faculty, and student retention.

As school transformation continues, societal functioning becomes more complex and more problems and decisions will be made by groups. It is important to continue the study of the impact of the cohort group on teacher preparation.

CHAPTER 3 METHODOLOGY

Introduction

In this chapter the procedures and methods used to examine the impact of being a cohort group member in a preservice teacher education program are described. This study required the development of a survey instrument designed to solicit student responses about their perceptions on cohort group membership. The two groups being compared were those students in the experimental project as contrasted with students who were members of cohortlike classes in the traditional teacher education program. Cohortlike is used to refer to those classes taught in sections consisting of 24-30 students where there is opportunity for interaction between the instructor and students and among students in that section. Some degree of familiarity is established and continuing contact and bonds may have occurred. The research design of this study was constructed to determine if there was a difference in perception as measured by the survey instrument between those students participating in Project Opportunity cohort groups and students in the traditional teacher education program.

The chapter is organized into five sections that describe the following:

1. sample of subjects used in the study
2. development of the instrument used to measure student perceptions about cohort group membership
3. research design used in conducting the study
4. research procedures
5. procedures for data analysis

Sample

Subjects in the experimental group for this study were the 20 students in Cohort I of Project Opportunity (identified as P-1) placed in a rural field experience site, Madrid, Iowa and the 24 students in Cohort II (identified as P-2) placed in an urban site, Des Moines, Iowa. These students are taking part in restructured academic coursework, working with partnership school districts, and participating in expanded field experiences.

Project Opportunity students apply for admission to the program in the spring of their freshman year. If selected, they will become members of a cohort group for the remaining three years of their college career. Each cohort begins with a mix of 30-35 members who are early childhood, elementary or secondary education students. Criteria for selection include a grade point average of 2.5 which is the basic grade point average needed for all students for admittance to the Teacher Education Program, and written responses on the Project Opportunity application which are holistically scored by a faculty screening committee.

Project Opportunity students are invited to an orientation meeting in March each year to meet the faculty they will work closely with the first year and to learn more about the project's goals. In April, a party/social is held, usually at a faculty home to informally meet teachers from the partner school. In the past these informal occasions have provided time for the important step of bonding. These social and informal meetings were continued into the second year for Cohort I as they planned and executed a fall retreat for themselves and continued to meet some Sunday evenings with involved faculty for fellowship and group problem solving.

The subjects in the control group sample were students who were members of one-semester teacher preparation classes from the same department (Curriculum

& Instruction). These classes were selected because of their cohort-type nature as explained in the introduction. Their instructors did include discussion, group projects, papers and presentations and field experience reflections that led to group cohesiveness for that particular semester.

One class had 34 secondary education methods students, and the other had 41 elementary education methods students in two sections. Students in the control group were primarily juniors and at a similar point in their educational programs to those students in Cohort I. Although their class sizes were similar to Project Opportunity sections and the classes were structured to encourage interaction and to build respect, the long-term development of common purpose and social activities to develop belonging were not the instructors' objectives for these courses.

Of the twenty students in Cohort I, sixteen responded (14 females and 2 males). All twenty-four Cohort II students (19 females and 5 males) responded.

Out of the 39 students in the secondary education class (identified as P-3), 34 responded (22 females and 12 males); this was an 87% response rate. Out of the 59 elementary social studies methods class students (identified as p-4), 41 responded to the survey (37 females and 4 males); this was a 69% response rate.

Of the 115 respondents, 92 were female (80%) and 23 were male (20%). The results of the frequency count indicate that the experimental group was 83.7% female and 16.3% male. The control group was 78.7% female and 21.3% male. It is not possible to make gender comparisons on survey responses with such disproportional representation. As the research questions are discussed, gender will not be a consideration.

Instrument

Development of the questionnaire

An attitudinal questionnaire was designed to ascertain the subjects' attitude toward the dimensions that the literature indicates exist in cohort groups. Survey items were written to address the following dimensions of cohortness: Social interaction and interdependence, developing a common purpose, group learning, individual learning, cohesiveness, collaboration, impact on field experiences, academic performance, interaction with faculty and student retention. This instrument was constructed from items that were created to reflect the cohort dimensions and were developed by the researcher.

After the cohort dimensions were identified from the literature, the researcher formed a bank of statements based on conversations held with other researchers from other institutions and a review of the curriculum committee's original discussions. The original bank of items was reviewed by faculty colleagues and their suggestions for clarity and deletion became the basis of the original survey which was later reviewed for validity and reliability.

The first step in the development of this instrument was to categorize all of the items by dimension making certain that both favorable and unfavorable perceptions were represented. A Likert scale with a range of 1 'strongly agree', 2 'agree', 3 'somewhat agree', 4 'somewhat disagree', 5 'disagree', and 6 'strongly disagree' was used.

Content validity, the degree to which an instrument measures the content it purports to measure, was a primary concern. The instrument was written and sent to five faculty members currently involved in Project Opportunity for feedback and

additional survey items. The instrument was then revised and sent to five different Project Opportunity faculty members to be rated for content validity and written clarity. Faculty were asked to rank the survey questions on validity; how well did the item relate to the cohortness dimension, and clarity; how clearly would the item convey its meaning to a student. The following scales were uses: validity: 1) highly related, 2) related, 3) somewhat related, and 4) not related at all; clarity: 1) highly clear, 2) clear, 3) somewhat clear, and 4) not clear at all. An instruction form that was included with the questionnaires and given to the faculty evaluators can be found in Appendix A. Comments and suggestions related to item wording and appropriateness of content were incorporated in the survey revision. Final revisions were made, items deleted and added, and random numbers assigned to items so the ten cohort dimensions would not be obvious to the respondent.

The instrument was field tested using ten sophomore and junior level students from other college majors to check for clarity of instructions and administration time. The resulting questionnaire was tested for reliability.

Reliability of the survey

There were sixty-seven attitude items on the survey. A Kaiser-Meyer-Olkin factor analysis was used to determine the main factors in the instrument. The factor analysis determined seven factors with fifty-one of the items loading at ≥ 0.5 on these seven factors. See Table 1 for the factor analysis result. For data analysis purposes, the factors defined by the factor analysis procedure were used. Given the results of the factor analysis, seven factors were used in the study. These factors were named:

Factor #1 - Importance of Being a Member of a Group

Factor #2 - Collaboration: student, teacher, faculty

Factor #3 - Significance of Field Experiences

Factor #4 - Academic Performance

Factor #5 - Student Retention

Factor #6 - Unique Experience in Project Opportunity

Factor #7 - Cohesiveness

Table 1. Factor Analysis Results (7 factors & loadings > 0.5)

Factors	Questions (Variables)													
1	04	06	08	09	10	11	16	21	22	27	33	37	38	42
		45	48	49	52	53	54	55	60	65	68	69		
2	13	43	46	47	48	62								
3	12	17	20	31										
4	23	40	64											
5	03	14	28	44										
6	35	50	51	66										
7	07	36	59											

Questions Left Out: 5, 15, 18, 19, 24, 25, 26, 29, 30, 32, 34, 41, 56, 57, 58, 61, 63, 67

The fifty-one items are shown in Table 2 with their corresponding loadings. The remaining eighteen survey items did not load into meaningful factors and thus were not used in the data analysis procedures. A Cronbach alpha was used to check the reliability of each factor. It is generally thought that a reliability coefficient of ≥ 0.50 is considered good in terms of making decisions about groups for research purposes. The reliability of the factors is shown in Table 3.

Table 2. Factor Loadings for Cohort Dimension Perceptions

Item Number	Factor 1 Importance of Being a Group Member	Factor 2 Collaboration: Student, Teacher, Faculty	Factor 3 Significance of Field	Factor 4 Academic Performance Experience	Factor 5 Student Retention	Factor 6 Unique PO Experience	Factor 7 Cohesiveness
Q52	.85454						
Q65	.84615						
Q37	.83318						
Q38	.80916						
Q69	.79279						
Q22	.79104						
Q55	.79092						
Q09	.76872						
Q42	.76163						
Q04	.75246						
Q39	.74934						
Q53	.70386						
Q06	.68475						
Q60	.67495						
Q08	.66573						
Q48	.63434	.50380					
Q27	.60587						
Q21	-.60119						
Q11	.56193						
Q54	.54523						
Q10	.53196						
Q16	-.52850						
Q33	.52603						
Q68	.52128						
Q49	.51969						
Q45	.51747						
Q47		.80071					
Q43		.75641					
Q13		.73920					
Q62		.60156					
Q46		.56181					
Q48		.50380					
Q20			.58664				
Q17			.57721				
Q12			.55833				
Q31			.50434				
Q23				.77971			
Q40				.68548			
Q64				.59782			
Q28					.71630		
Q14					.71491		

Table 2. (continued)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Q03					.62744		
Q44					.51574		
Q35						.68519	
Q66						.63180	
Q50						.51153	
Q51						.50155	
Q36							.62988
Q07							.59113
Q59							.57595

Table 3. Reliability Analysis of Individual Factors

Factor	N of items	Reliability Coefficient
1	26	.9315
2	6	.8247
3	4	.7285
4	3	.6407
5	4	.6249
6	4	.5558
7	3	.5094

Procedure

The permission needed to pursue the research was obtained. The proposal for this research study was reviewed and approved by the Iowa State University Human Subjects Committee. In addition, the Project Opportunity research committee was notified and a thesis proposal was filed.

Arrangements were made with faculty who were teaching members of P-1 and P-2 during Spring, 1995 semester to administer the survey during the final week of classes. Instructors of P-3 and P-4 also administered the survey during this time

period. The researcher prepared packets which contained surveys, pencils, answer sheets, and instructions for each instructor and therefore, was not involved in the data collection (Appendices D and E). Each instructor administered the survey for the researcher.

Analysis of Data

A Kaiser-Meyer-Olkin factor analysis procedure was used to determine the seven major factors in the instrument. A Cronbach alpha was used to check the reliability of the survey.

The data collected in the questionnaires were analyzed using t-tests to compare the experimental and control groups and with an analysis of variance to compare responses from all four groups.

CHAPTER 4. RESULTS AND FINDINGS

Introduction

In this chapter the results of the statistical analysis applied to the data collected from the research instrument designed by the researcher are reported. The study focused on students' perceptions of participation as a cohort group member in an alternative teacher preparation program (Project Opportunity). To test the research questions, the survey was administered to the experimental group, Project Opportunity students in Cohort I and Cohort II and to a control group, students who were members of one-semester teacher preparation classes from the same department.

This chapter is organized into three sections. In the first section, results of the survey instrument factor analysis performed on items in the survey will be discussed. In the second section each of the research questions is stated and relevant data presented. The final section of the chapter provides a summary of the research results.

Analysis of the Survey Instrument

The survey instrument offered respondents a six point Likert scale to respond to both favorable and unfavorable perceptions. The Likert scale had a range of 1 'strongly agree', 2 'agree', 3 'somewhat agree', 4 'somewhat disagree', 5 'disagree', and 6 'strongly disagree'. Questions numbers 7, 16, 21, 24, 35, 36, 41, 59, and 67 were inverted before running statistical tests due to their negative wording. The total sample mean was 2.87. The mean for P-1 was 2.64, P-2 was 2.65, P-3 was 3.05, and P-4 was 2.95. The most notable difference was in the responses from P-3, the

secondary education methods students. Cohort groups I and II (P-1 and P-2) have an averaged mean of 2.65 as compared to the control groups (P-3 and P-4) which scored an averaged mean of 2.99. It appears there may be a significant difference between the control and experimental group responses.

Significance of Survey Factor Analysis

As previously reported, the fifty-one items on the instrument loaded at ≥ 0.5 into seven factors. These seven factors relate very closely to the ten dimensions found to exist in cohort groups as identified in the literature. The research questions posed for this study were based on the ten dimensions the literature indicates exist in cohort groups. In order to maintain the integrity of the study, those ten dimensions have been reorganized and referenced in the seven factors into which the instrument items loaded (Table 4). Given the results of the factor analysis, the research questions were revised. The research questions will be answered as they related to the seven factor titles: 1) Importance of Being Part of a Group, 2) Collaboration: Student, Teacher, Faculty, 3) Significance of Field Orientation, 4) Academic Performance, 5) Student Retention, 6) Unique Experience in Project Opportunity, and 7) Cohesiveness.

Data relating to each research question will be presented in two parts: *t*-test results comparing students in Project Opportunity (P-1 and P-2) with students not in Project Opportunity, the control groups (P-3 and P-4) and ANOVA results examining differences among each of the four groups. When the ANOVA results were significant, a Duncan test was run to determine specific group differences.

Table 4. Factor and Original Cohort Dimension Cross-Reference List

Factor	Title	Original Dimension
1	Importance of Being Part of a Group	1. Interdependence & Social Interaction 2. Developing a Common Purpose 3. Group Learning 5. Cohesiveness (group belonging)
2	Collaboration: Student Teacher, Faculty	3. Group Learning 6. Collaboration 9. Interaction with Faculty
3	Significance of Field Experiences	7. Impact of Field Experiences 4. Individual Learning 2. Developing a Common Purpose
4	Academic Performance	8. Academic Performance
5	Student Retention	10. Student Retention
6	Unique Experiences in Project Opportunity	7. Impact of Field Experiences 8. Academic Performance 2. Developing a Common Purpose
7	Cohesiveness	1. Interdependence & Social Interaction 5. Cohesiveness

Research Question One

Research question one was stated as follows:

Do Project Opportunity students indicate they value being a member of a cohort group more than students in cohortlike groups?

The data were analyzed using a *t*-test to compare groups P-1 and P-2 to groups P-3 and P-4 (Table 5). The Duncan test reveals there is a significant difference between Project Opportunity Cohort I students (P-1) and secondary

cohortlike students (P-3), Project Opportunity Cohort I students (P-1) and elementary cohortlike students (P-4), Project Opportunity Cohort II students (P-2) and secondary cohortlike students (P-3) and Project Opportunity Cohort II students (P-2) and elementary cohortlike students (P-4) about the value of cohort group membership (Table 6).

An F statistic from the analysis of variance (ANOVA) was used to determine if there was a difference in perception between all groups on the importance of being a member of a group (Table 7). The data showed there was a statistically significant difference between the experimental (P-1 and P-2) and control groups (P-3 and P-4) on the average score of the twenty-six items of factor 1, $F=6.91, p<.0003$ (Table 8).

Table 5. *t*-Test Comparison of Project Opportunity students (P-1 & P-2) with students not in the project (P-3 & P-4) on factor one, Importance of Being Part of a Group.

Sample	N	Mean	S.D.	F Ratio	T Value	2-Tail Sig
P1 & P2	40	2.24	.617	.491	- 4.45	.000
P3 & P4	75	2.86	.752		- 4.72	.000

Table 6. Display of the Duncan test of least significant differences.

		Grp P-1	Grp P-2	Grp P-3	Grp P-4
Mean	Group				
2.10	P-1				
2.34	P-2				
2.84	P-3	*	*		
2.87	P-4	*	*		

*denotes significant differences

Table 7. Means and standard deviations for experimental and control groups on Factor 1.

Total Sample Mean 2.64 (N=115)

Group	N	Mean	Standard Deviation
P-1	16	2.1	0.66
P-2	24	2.34	0.58
P-3	34	2.84	0.69
P-4	41	2.87	0.80

Table 8. ANOVA for scores between groups.

Source	Sum of Squares	df	Mean Square	F	Significance of F
Between Groups	10.476	3	3.492	6.912	0.0003

The mean for P-1 and P-2 was 2.24 and for P-3 and P-4 was 2.86. Therefore, cohort groups I and II, the experimental groups, scored an average of .62 points on the Likert scale on items pertaining to interdependence and social interaction, group learning and cohesiveness.

Research Question Two

Research question two was stated as follows:

Do Project Opportunity students value collaboration (student, teacher, faculty) more than students in cohortlike groups?

The data gathered to provide evidence for question one were those survey items that loaded into factor two, Collaboration: Student, Teacher, Faculty. The data were analyzed using a *t*-test to compare Project Opportunity students (P-1 and P-2) with students not in Project Opportunity (P-3 and P-4) as seen in Table 9. An

ANOVA was run to compare differences among all four groups. As can be seen in Tables 9 and 10, there was no significant difference between the control and experimental groups on the *t*-test, nor did the ANOVA indicate a significant difference among groups.

The data showed there was no significant difference found to exist between groups on the six items of factor 2, F=.763,p<.517 (Table 11).

Table 9. *t*-Test Comparison of Project Opportunity students (P-1 & P-2) with students not in the project (P-3 & P-4) on factor two, Collaboration: Student, Teacher, Faculty.

Sample	N	Mean	S.D.	F Ratio	T Value	2-Tail Sig
P1 & P2	40	2.75	0.884	0.082	0.41	0.685
P3 & P4	75	2.68	0.828		0.4	0.692

Table 10. Means and standard deviations for experimental and control groups on Factor 2.

Total Sample Mean 2.70 (N=115)

Group	N	Mean	Standard Deviation
P-1	16	2.7	1.02
P-2	24	2.78	0.8
P-3	34	2.84	0.8
P-4	41	2.55	0.74

Table 11. ANOVA for scores between groups.

Source	Sum of Squares	df	Mean Square	F	Significance of F
Between Groups	1.646	3	0.5479	0.7634	0.517

Research Question Three

Research question three was stated as follows:

Do Project Opportunity students value field experiences more than do students in cohortlike groups?

The instrument questions designed to gather data for this question loaded into factors three and six: Significance of field orientation and unique experiences in Project Opportunity. Therefore data from both these factors will be presented. The data were analyzed using *t*-tests to compare the experimental groups (P-1 and P-2) and the control groups (P-3 and P-4). The data show significant differences on both factors three (Table 12) and six (Table 13).

Table 12. ***t*-Test comparison of Project Opportunity students (P-1 & P-2) with students not in the project (P-3 & P-4) on factor three, Significance of Field Experience.**

Sample	N	Mean	S.D.	F Ratio	T Value	2-Tail Sig
P1 & P2	40	1.72	.680	4.73	- 6.09	.000
P3 & P4	75	2.66	.836		- 6.49	.000

Table 13. ***t*-Test comparison of Project Opportunity students (P-1 & P-2) with students not in the project (P-3 & P-4) on factor six, Unique Experience in Project Opportunity.**

Sample	N	Mean	S.D.	F Ratio	T Value	2-Tail Sig
P1 & P2	40	3.73	1.06	10.19	- 2.88	.005
P3 & P4	75	3.18	.65		- 2.50	.015

The Duncan test reveals there is a significant difference between Project Opportunity Cohort I (P-1) as compared with secondary cohortlike group (P-3) and also between P-1 and elementary cohortlike group (P-4). There is a significant difference between Project Opportunity Cohort II (P-2) as compared with secondary cohortlike group (P-3) and also between P-2 and elementary cohortlike group (P-4) concerning the value of field experiences. There is also a significant difference between the elementary cohortlike group (P-3) and the secondary cohortlike group (P-4) (Table 14).

The Duncan test also reveals there is a significant difference between Cohort II (P-2) as compared with all other groups on factor six (collaboration) (Table 15).

Table 14. Display of the Duncan test of least significant differences.

		Grp P-1	Grp P-2	Grp P-4	Grp P-3
Mean	Group				
1.58	P-1				
1.81	P-2				
2.42	P-4	*	*		
2.94	P-3	*	*	*	

*denotes significant differences

Table 15. Display of the Duncan test of least significant differences.

		Grp P-2	Grp P-4	Grp P-3	Grp P-1
Mean	Group				
2.29	P-2				
3.04	P-4	*			
3.36	P-3	*			
3.38	P-1	*			

*denotes significant differences

An F statistic from the analysis of variance (ANOVA) was used to determine if there was a difference in perception between all groups on factor three, the significance of field experience. The total sample mean on those survey items was 2.33 (Table 16). The data showed there was a significant difference between groups P-1 and P-2 as compared with P-3 and P-4 and a significant difference between groups P-3 and P-4 on the four survey items of factor 3, F=16.303, p<.000 (Table 17).

Table 16. Means and standard deviations for experimental and control groups on Factor 3.
Total Sample Mean 2.33 (N=115)

Group	N	Mean	Standard Deviation
P-1	16	1.58	0.50
P-2	24	1.81	0.77
P-3	34	2.94	0.70
P-4	41	2.42	0.87

Table 17. ANOVA for scores between groups.

Source	Sum of Squares	df	Mean Square	F	Significance of F
Between Groups	28.3225	3	9.4408	16.3026	0.0000

Similar tests were run on factor six, unique experiences in Project Opportunity. The total sample mean was 3.02 (Table 18). An F statistic from the ANOVA was utilized to determine if a significant difference existed on factor six of the instrument analysis. The data showed there was a significant difference between group P-2 as compared with groups P-1, P-3, and P-4 on the four items of factor six, F=11.1976,p<.000 (Table 19).

Table 18. Means and standard deviations for experimental and control groups on Factor 6.

Total Sample Mean 3.02 (N=115)

Group	N	Mean	Standard Deviation
P-1	16	3.38	1.15
P-2	24	2.29	0.74
P-3	34	3.36	0.71
P-4	41	3.04	0.56

Table 19. ANOVA scores between groups.

Source	Sum of Squares	df	Mean Square	F	Significance of F
Between Groups	18.7506	3	6.2502	11.1976	0.0000

Research Question Four

Research question four was stated as follows:

Do Project Opportunity students, as individuals, perceive they are challenged to perform well academically more than are students in cohortlike groups?

The data were analyzed using a *t*-test and showed no significant difference between Project Opportunity groups and students not in Project Opportunity as shown in Table 20. The ANOVA run among groups indicates a slight variance as represented in Tables 21 and 22. The data showed there was a significant difference found to exist between group P-1 and P-3 but between no other groups on the three items of factor four, $F=2.501, p<.063$ (Table 22).

Table 20. t-Test comparison of Project Opportunity students (P-1 & P-2) with students not in the project (P-3 & P-4) on factor four, Academic Performance.

Sample	N	Mean	S.D.	F Ratio	T Value	2-Tail Sig
P1 & P2	40	2.70	.791	.684	1.55	.123
P3 & P4	75	2.44	.907		1.62	.109

Table 21. Means and standard deviations for experimental and control groups on Factor 4.

Total Sample Mean 2.52 (N=115)

Group	N	Mean	Standard Deviation
P-1	16	2.98	0.78
P-2	24	2.51	0.75
P-3	34	2.27	0.77
P-4	41	2.57	1.00

Table 22. ANOVA for scores between groups.

Source	Sum of Squares	df	Mean Square	F	Significance of F
Between Groups	5.5156	3	1.8385	2.5012	0.0631

Research Question Five

Research question five was stated as follows:

Do Project Opportunity students perceive they are more likely to remain in the program than do students in cohortlike groups?

The instrument questions designed to gather data for this question loaded into factors five and seven: Student retention and cohesiveness. Therefore, data

from both these factors will be presented. The data were analyzed using a *t*-test to compare the experimental groups (P-1 and P-2) and the control groups (P-3 and P-4). The data show a significant difference on factor five (Table 23) but no significant difference on factor seven (Table 24).

Table 23. *t*-Test comparison of Project Opportunity students (P-1 & P-2) with students not in the project (P-3 & P-4) on factor five, Student Retention.

Sample	N	Mean	S.D.	F Ratio	T Value	2-Tail Sig
P1 & P2	40	4.94	.860	1.52	3.78	.000
P3 & P4	75	4.25	.968		3.92	.000

Table 24. *t*-Test comparison of Project Opportunity students (P-1 & P-2) with students not in the project (P-3 & P-4) on factor seven, Cohesiveness.

Sample	N	Mean	S.D.	F Ratio	T Value	2-Tail Sig
P1 & P2	40	4.03	1.05	.396	1.29	.201
P3 & P4	75	3.78	.929		1.24	.220

The Duncan test reveals there is a significant difference between Project Opportunity Cohort I (P-1) as compared with the cohortlike elementary group (P-4) and also Project Opportunity Cohort II (P-2) as compared with P-4 relating to student retention. There is also a significant difference between Cohort I (P-1) and the secondary cohortlike group (P-3) relating to student retention (Table 25).

The Duncan test also reveals there is a significant difference between Cohort I (P-1) as compared with all other groups on factor seven, cohesiveness (Table 26).

Table 25. Display of the Duncan test of least significant differences.

		Grp P-4	Grp P-3	Grp P-2	Grp P-1
Mean	Group				
4.09	P-4				
4.44	P-3				
4.84	P-2	*			
5.09	P-1	*	*		

*denotes significant difference

Table 26. Display of the Duncan test of least significant differences.

		Grp P-2	Grp P-3	Grp P-4	Grp P-1
Mean	Group				
4.84	P-2				
4.44	P-3				
4.09	P-4				
5.09	P-1	*	*	*	

*denotes significant difference

An F statistic from the analysis of variance (ANOVA) was used to determine if there was a difference in perception between all groups on factor five, student retention. The total sample mean on those survey items was 4.49 (Table 27). The data showed there was a significant difference between groups P-1 and P-2 as compared with P-4 and P-1 as compared with P-3 on the four items of factor 5, $F=5.943, p<.0009$ (Table 28).

Similar tests were run on factor seven, cohesiveness. The total mean sample on these survey items was 3.87 (Table 29). The data showed there was a significant difference between group P-1 as compared with all other groups on the three items of factor seven, $F=6.9659, p<.0002$ (Table 30).

Table 27. Means and standard deviations for experimental and control groups on Factor 5.

Total Sample Mean 4.49 (N=115)

Group	N	Mean	Standard Deviation
P-1	16	5.09	0.75
P-2	24	4.84	0.93
P-3	34	4.44	0.93

Table 28. ANOVA for scores between groups.

Source	Sum of Squares	df	Mean Square	F	Significance of F
Between Groups	15.3036	3	5.1012	5.9425	0.0009

Table 29. Means and standard deviations for experimental and control groups on Factor 7.

Total Sample Mean 3.87 (N=114)

Group	N	Mean	Standard Deviation
P-1	16	4.73	0.86
P-2	24	3.56	0.90
P-3	34	3.58	0.98

Table 30. ANOVA for scores between groups

Source	Sum of Squares	df	Mean Square	F	Significance of F
Between Groups	17.2054	3	5.7351	6.9659	0.0002

Summary

This chapter included results from the analysis of the survey instrument. Because of disproportional representation, gender comparisons will not be made. The fifty-one items on the instrument loaded into seven factors which were cross-referenced with the dimensions found to exist in cohort groups in the literature.

In the second section, the results relating to the five research questions were presented. An F statistic from the analysis of variance (ANOVA) was utilized to determine if a statistically significant difference existed. The results of questions one and five indicated there was a significant difference between the experimental and control groups on their perceptions of the importance of being a member of a group, student retention and cohesiveness.

The results of question two indicated there was no significant difference between the experimental and control groups on the importance of collaboration between students, teachers and faculty members.

The results of question three indicated there were mixed results as to the significance of field orientation and unique experiences in Project Opportunity. An F statistic from the analysis of variance (ANOVA) was utilized to determine if field orientation was an important perception. The data indicated there was a significant difference between the control and experimental groups.

Question four analyzed students' perceptions of academic challenge. The results indicated no significant difference existed.

Factors six and seven included items from the instrument that loaded into factors previously discussed in other research questions. The researcher decided to discuss those factors as implications for the study in the next chapter.

CHAPTER 5. SUMMARY AND RECOMMENDATIONS

Summary of the Research Study

The research study was designed as one facet of the research thrusts planned to evaluate Project Opportunity, an alternative teacher preparation program in which cohort groups of approximately thirty students study three years together taking selected courses and participating in expanded field experiences. The Project Opportunity Research Committee has designed a longitudinal study which will track the cohort group members through student teaching and their first career steps. As part of the entire research plan, this research is a study based on student perceptions of cohort group membership.

The literature review revealed little information about the role of cohort groups as an instructional delivery model in preservice education programs and particularly those at the undergraduate level. The study required the development of a survey instrument designed to measure the ten dimensions found to exist in being a member of a cohort and to solicit student responses about their perceptions of these dimensions on cohort group membership.

Although the researcher began with a set of research questions, those questions were later revised to reflect the factors determined by the participants. A factor analysis was used to determine the factors into which the sixty-seven attitude items loaded. Those seven factors were named: 1) Importance of Being a Member of a Group, 2) Collaboration: Student, Teacher, Faculty, 3) Significance of Field Experiences, 4) Academic Performance, 5) Student Retention, 6) Unique Experience in Project Opportunity, and 7) Cohesiveness. Because of the relatively low factor loadings, factors six and seven were not included in the analysis.

A Cronbach alpha was used to check the reliability of each factor and of the entire survey instrument.

Discussion of the Survey Instrument

An attitudinal questionnaire was designed by the researcher to ascertain the subjects' attitude toward the dimensions that the literature indicates exist in cohort groups. The survey contained sixty-seven attitude items and was administered to four groups of students. Two groups were the Project Opportunity cohort groups I and II which became the experimental groups. The control groups were cohortlike in nature and composed of elementary and secondary education students chosen for their similarity in age, type of course section, and instructors' teaching styles.

A factor analysis procedure was done on the instrument with fifty-one items loading into seven factors. These seven factors relate very closely to the ten dimensions found to exist in cohort groups. Factor one, "Importance of Being Part of a Group" contained the cohort dimensions of interdependence and social interaction, developing a common purpose, group learning and cohesiveness. Factor two, "Collaboration: Student, Teacher, Faculty" contained the cohort dimensions of group learning, collaboration and interaction with faculty. Factor three, "Significance of Field Orientation" contained the cohort dimensions of impact of field experiences, individual learning and developing a common purpose. Factor four, "Academic Performance" contained the cohort dimension of academic performance. Factor five, " Student Retention" contained the cohort dimension of student retention. Factor six, "Unique Experiences in Project Opportunity" contained the cohort dimensions of impact of field experiences, academic performance and developing a common purpose. Factor seven, "Cohesiveness" contained the cohort dimensions of interdepen-

dence and social interaction and cohesiveness. The reliability of the instrument and its potential for further use by other researchers in this field make this a contribution to the literature and the growing body of knowledge about cohort groups.

Summary and Discussion of the Study Results

The survey instrument offered respondents a six point Likert scale with a range of 1 'strongly agree' to 6 'strongly disagree'. On the entire survey cohort groups I and II (P-1 and P-2) scored a mean of 2.65 as compared to the control groups who were participating in cohortlike classes. One group of cohortlike secondary education students (P-3) and one group of cohortlike elementary education students (P-4) scored a mean of 2.99. There was a significant difference between the groups with the most significant difference occurring with the secondary education group (P-3). Their mean was 3.05. Project Opportunity students, in general, perceive cohort group membership as an advantage over being a student in the traditional teacher education program.

Research question one asked about the perceptions relative to interaction and development of group purpose. The literature indicated evidence that cohort members perceive group development as an important advantage. The data showed a significant difference existed between the control and experimental groups. The qualities of interdependence, developing a common purpose, social interaction, and cohesiveness seemed to result in the Project Opportunity Cohort I and Cohort II's group development as evidenced by the scores on factor one.

The expanded field experiences in Project Opportunity are facilitated by cohort members driving to PDS sites in university van pools. Although the transportation expense, distance to sites and time spent in travel have been considered a

disadvantage by the Project Opportunity steering committee members, those factors may be an advantage. That time spent with other cohort members has become valuable for social interaction, bonding, and collaboration. The degree of bonding or group importance as reported in other cohort studies (Hebert & Reynolds, n.d.; Kasten, 1992; Norris & Barnett, 1994) is confirmed with these findings.

Research question two asked if Project Opportunity students would indicate that they valued student, teacher, and faculty collaboration as a member of the cohort. The data loaded into factor two and included the items relating to cohort dimensions of group learning, collaboration, and interaction with faculty. There was no significant difference found to exist which could indicate that although discussions with Project Opportunity faculty indicate they tend to believe that close student/faculty ties and collaboration are beneficial and an advantage to Project Opportunity participation, students perceive that group learning is certainly different than group development and purpose. The researcher may need to construct items about collaboration opportunities with cooperating teachers and faculty and remove the phrase "consult with" in the wording of items numbered 13, 43, and 47. Questions constructed about collaboration may need to refer to a larger vision on this topic.

Research question three asked students about the value they place on field experiences. The dimensions about field experience and common purpose also loaded into factor six which was ultimately named, "Unique Experiences in Project Opportunity." The field experience items were assigned to research question three. The data showed a significant difference among groups. As students feel more included, their opportunities for networking and collaboration increase which are important characteristics of the Project Opportunity program.

Expanded field experiences is a central theme in the experimental program, Project Opportunity. The data from students in Cohorts I and II (P-1 and P-2) show a significant difference to exist between these groups and the cohortlike groups (P-3 and P-4) on the extent to which they value field experiences. Students in Project Opportunity participate in over three times the number of practicum hours than do students in the traditional teacher education program, and the cohort students highly value that experience. Attendance at the PDS sites has been very nearly perfect. Faculty report enthusiastic cohort journal entries and the Project Opportunity video tape relates that cohort students list field experience as a number one advantage to Project Opportunity participation.

Research question four asked if the individual was challenged academically and there was no significant difference among groups on this factor to be found. The results from items constructed for this dimension did not indicate that cohort members were any more likely to pursue individual recognition for academic performance than other students. It is possible that group membership places pressure on students to conform to a group norm. Johnson and Johnson (1975) state that as group cohesiveness increases, members become more committed to the group's goals and may put pressure on members to protect the work of the group which may inhibit individual achievement goals and recognition. Cohort members may expect extra consideration on grades because of Project Opportunity participation and the extra opportunities to communicate with faculty and participate in departmental activities.

Research question five asked if students perceive they are more likely to remain in the teacher education program because they are members of a cohort group. The dimensions of student retention, developing a common purpose and

cohesiveness loaded into this factor. Since cohesiveness loaded into factor one, the researcher chose to use those items in factor one. The data on student retention showed a significant difference among groups. Students who participate in a cohort group feel less isolated and have more opportunities for social interaction which have been found to be particularly important in student retention.

The results of this study seem to support the work of Vincent Tinto. In his book (1993), Tinto describes the principles of effective retention which include an institutional and educational commitment to students but also includes the value of a social community. "Effective programs see active involvement of students in the life of the classroom to be a key element. Among other things, they have looked to the construction of supportive learning settings in which students, individually and in groups, can become actively involved in the learning process" (p. 148). Project Opportunity exemplifies this retention principle.

Tinto's research on student interest groups at several universities and community colleges shows that students in interest groups do a better job of bridging the academic-social gap and enjoy learning more. In addition, some become more active, empowered learners in the classroom. Such students develop higher perceptions of their classes, their campus, their teachers and their ability to learn, and are more likely to remain in that learning setting (Tinto, 1993).

As indicated earlier, factors six and seven had relatively weak loadings and thus some of the items from factors six and seven were included in other factors in which they loaded and some were even eliminated. Thus, the researcher has chosen not to further analyze or discuss these results.

This study has implications for restructuring the teacher education program. The feelings of inclusiveness, cohesiveness, group purpose and interaction gener-

ated in this pilot program have led to the formation of a learning community which would, in turn, transfer to the work or school setting. Some of the strongest results of this study came in the areas of field experience and student retention. It appears that the cohort structure of Project Opportunity provides valuable and unique student experiences. Teacher education programs may want to further investigate the possibility of the use of the cohort structure.

Recommendations

Two of the main strengths of Project Opportunity, as identified by Iowa State University faculty members and the partnership school educators, include the cohort organization designed to build a preprofessional learning community and early and extensive field experiences. Based on the data collected for this study, the members of the cohort groups perceive group membership and opportunities for expanded field experience as advantages to being in Project Opportunity over the traditional teacher education model.

The formation of cohort groups has the potential to impact students. Students who participate in a cohort group feel a sense of group belonging and interdependence. Cohorts have an impact on programs. Curriculum changes, opportunities for leadership and in the case of Project Opportunity, improved relationships with area school districts as plans are made for field experience. Cohorts can impact universities by providing additional networking opportunities for professional dialogue, opportunities for research, and enhanced student retention. Indeed, the cohort group model has implications for generalization to other departments and colleges in the university.

Further research about the impact of the cohort group model could include

studies on: 1) program costs and structure, 2) possible tensions within cohorts, 3) faculty time and resources as impacted by cohorts, 4) cohorts as leadership preparation, and 5) student retention. Both quantitative and qualitative studies could focus on the development of cohorts, extend the research on cohort groups as a tool for student retention, the generalization of cohorts as a retention tool in other programs, colleges and as learning communities throughout the university, review cohort use in undergraduate teacher education programs and the influence of the cohort experience on beginning teachers who may be the leaders in their new learning communities.

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ACKNOWLEDGMENTS

I would like to express my appreciation and acknowledge those who have contributed to this research study and thesis. I am especially indebted to Dr. Ann Thompson for her knowledge, advice and guidance. She has encouraged me from the beginning, been unfailingly patient, and challenged me to explore all possibilities. Her confidence in me has nourished my self-confidence.

I am grateful to committee members Dr. Richard Zbaracki and Dr. Roger Volker. Both have extended deadlines, given valuable suggestions, and refrained from retiring before this project was completed. I am grateful to fellow graduate students Ivan Arzola for his statistical expertise and Julie DeVall McElroy for her computer prowess. Their assistance can never be repaid.

My Project Opportunity colleagues have shared my excitement during the past four years as plans were made and implemented for this experimental program. I enjoyed their questions, support and cooperation during data collection. I am always treated as a colleague and not as a student for which I am very grateful. To all the Project Opportunity cohort groups, "Thank you!" You have allowed me to become a member of your cohort groups, a membership that I cherish.

Above all, my cohort at home deserves my heartfelt thanks. To Chad and Clay, thank you for enjoying my success as a student as much as I have enjoyed yours. To my best friend and husband, Lee, thank you for believing I should begin this journey. Without your love and encouragement, I would have never finished. Now we have the freedom to plan more adventures.

APPENDIX A. REQUEST TO FACULTY FOR DESIGN ASSISTANCE

March 7, 1995

Dear Colleagues,

After reviewing mountains of literature on groups and cohorts, I have not found an instrument that appears useful to my area of research on cohort groups for my thesis. Dr. Thompson and I have identified nine dimensions of the impact of cohort membership, and I have written survey items based on these dimensions.

I am asking Project Opportunity faculty members to review these items for validity and clarity. Many of the items relate to more than one category, but I have placed them where I feel they are most pertinent. In the final instrument the categories will not be noted for the student and all items will be randomly numbered. I would appreciate your assistance by ranking these items for validity and clarity on the attached score sheet. Please feel free to add or modify any of the items.

Thank you in advance for your help. It would be helpful to me if I could have the survey returned by Monday, March, 20. Thanks.

Sincerely,

Gayle Huey

APPENDIX B. HUMAN SUBJECTS APPROVAL

Information for Review of Research Involving Human Subjects

Iowa State University

(Please type and use the attached instructions for completing this form)

1. Title of Project: The Impact of Being a Member of a Cohort Group on Preservice Teacher Preparation

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are protected. I will report any adverse reactions to the committee. Additions to or changes in research procedures after the project has been approved will be submitted to the committee for review. I agree to request renewal of approval for any project continuing more than one year.

Typed Name of Principal Investigator	Date	Signature of Principal Investigator
Gayle Huey	4/20/1995	

Department	Campus Address	Campus Telephone
Curriculum & Instruction	N108 Lagomarcino	294-1915

3. Signatures of other investigators

	Date	Relationship to Principal Investigator
	4/20/95	Major Professor

RECEIVED APR 21 ISU GRADUATE COLLEGE

4. Principal Investigator(s) (check all that apply)
☐ Faculty ☐ Staff ☒ Graduate Student ☐ Undergraduate Student

5. Project: (check all that apply)
☐ Research ☒ Thesis or dissertation ☐ Class project: ☐ Independent Study (490, 590, Honors project:)

6. Number of subjects (complete all that apply)
___ # Adults, non-students 45 # ISU student ___ # minors under 14 ___ # minors 14 - 17 ___ other (explain)

7. Brief description of proposed research involving human subjects: (See instructions, Item 7. Use an additional page if needed.)

See attached sheet

(Please do not send research, thesis, or dissertation proposals.)

8. Informed Consent:
☐ Signed informed consent will be obtained. (Attach a copy of your form.)
☒ Modified informed consent will be obtained. (See instructions, item 8.)
☐ Not applicable to this project.

9. Confidentiality of Data: Describe below the methods to be used to ensure the confidentiality of data obtained. (See instructions, item 9.)

The survey will be accompanied by a cover letter that will ensure participants that at no time will the completed surveys be associated with their names.

Identification numbers will be assigned to the surveys to ensure confidentiality when working with subjects' data. The identifiers will be removed at the end of data analysis.

10. What risks or discomfort will be part of the study? Will subjects in the research be placed at risk or incur discomfort? Describe any risks to the subjects and precautions that will be taken to minimize them. (The concept of risk goes beyond physical risk and includes risks to subjects' dignity and self-respect as well as psychological or emotional risk. See instructions, item 10.)

The only possible risk would be loss of confidentiality. The researcher will ensure that does not occur.

11. CHECK ALL of the following that apply to your research:

- ☐ A. Medical clearance necessary before subjects can participate
- ☐ B. Samples (Blood, tissue, etc.) from subjects
- ☐ C. Administration of substances (foods, drugs, etc.) to subjects
- ☐ D. Physical exercise or conditioning for subjects
- ☐ E. Deception of subjects
- ☐ F. Subjects under 14 years of age and/or ☐ Subjects 14 - 17 years of age
- ☐ G. Subjects in institutions (nursing homes, prisons, etc.)
- ☐ H. Research must be approved by another institution or agency (Attach letters of approval)

If you checked any of the items in 11, please complete the following in the space below (include any attachments):

Items A - D Describe the procedures and note the safety precautions being taken.

Item E Describe how subjects will be deceived; justify the deception; indicate the debriefing procedure, including the timing and information to be presented to subjects.

Item F For subjects under the age of 14, indicate how informed consent from parents or legally authorized representatives as well as from subjects will be obtained.

Items G & H Specify the agency or institution that must approve the project. If subjects in any outside agency or institution are involved, approval must be obtained prior to beginning the research, and the letter of approval should be filed.

Last Name of Principal Investigator Huey

Checklist for Attachments and Time Schedule

The following are attached (please check):

12. ☒ Letter or written statement to subjects indicating clearly:
    a) purpose of the research
    b) the use of any identifier codes (names, #'s), how they will be used, and when they will be removed (see Item 17)
    c) an estimate of time needed for participation in the research and the place
    d) if applicable, location of the research activity
    e) how you will ensure confidentiality
    f) in a longitudinal study, note when and how you will contact subjects later
    g) participation is voluntary; nonparticipation will not affect evaluations of the subject

13. ☐ Consent form (if applicable)

14. ☐ Letter of approval for research from cooperating organizations or institutions (if applicable)

15. ☒ Data-gathering instruments

16. Anticipated dates for contact with subjects:

First Contact	Last Contact
Week of May 1, 1995	Week of May 1, 1995
Month / Day / Year	Month / Day / Year

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:

August 1, 1995
Month / Day / Year

18. Signature of Departmental Executive Officer | Date | Department or Administrative Unit

4-20-95 | C&I

19. Decision of the University Human Subjects Review Committee:

X Project Approved ___ Project Not Approved ___ No Action Required

Patricia M. Keith | 4/27/95 | _____
Name of Committee Chairperson | Date | Signature of Committee Chairperson

APPENDIX C. SURVEY ADMINISTRATION INSTRUCTIONS

Date: April 19, 1995

To: Dr. David Owen, Dr. Loring Sillet, Dr.Maribeth Henney and all Megamethods faculty

From: Gayle Huey

RE: Cohort Survey

I am asking for permission to administer the attached survey to Cohort I and II members in one of your classes before the end of the semester. This research project is designed to measure the different dimensions found to exist in being a member of a cohort group and what impact that membership has on Project Opportunity. This survey is the instrument I have designed to gather data for my thesis. I know that I am asking quite a favor this close to the end of the semester, but hope that all of you will ultimately be able to incorporate my findings in your preparation of Project Opportunity classes in the future.

I will call you very soon to arrange times for this intrusion. Thank you for helping me as I bring closure to this part of my academic career.

APPENDIX D. LETTERS TO STUDENTS

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

College of Education
Department of Curriculum and Instruction
N157 Lagomarcino Hall
Ames, Iowa 50011-3190
515 294-7903
FAX 515 294-0209

May 3 1995

Dear Project Opportunity student,

As I finish my course work for a graduate degree, I have decided to investigate the impact of being a member of a cohort group. This research project includes a survey designed to measure the different dimensions found to exist in being a member of a cohort group.

I need your assistance in this research. Your survey will be assigned a research number and all identifiers will be removed from completed surveys at the end of data analysis. Thus, your name will never be connected to your survey. As you have all participated in the development of Project Opportunity and will be designing research projects of your own, I will be happy to share my results with you during the fall semester.

I appreciate your help. It should take 15-20 minutes to complete this survey. Of course, you may choose not to participate, and that decision would not affect your status in Project Opportunity. Thank you very much.

Sincerely,

Gayle Huey
N108 Lagomarcino Hall
515-294-1915

Dr. Ann Thompson
Department Chair
N157 Lagomarcino Hall

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

College of Education
Department of Curriculum and Instruction
N157 Lagomarcino Hall
Ames, Iowa 50011-3190
515 294-7903
FAX 515 294-0209

May 3, 1995

Dear teacher education student,

As I finish my coursework for a graduate degree, I have decided to investigate the impact of being a member of a cohort group. This research project includes a survey designed to measure the different dimensions found to exist in being a member of a cohort group.

For the purpose of this survey, the phrase, cohort group, means two or more persons working or attending class together who have social interaction and are interdependent as they study, prepare projects or interact in their education class. Please consider this definition as you read and complete the survey.

I need your assistance in this research. Your survey will be assigned a research number and all identifiers will be removed from completed surveys at the end of data analysis. I appreciate your help. I know that I am asking your for fifteen or twenty minutes of your time after completing a final exam. I do appreciate your time and effort. Thank you very much.

Sincerely,

Gayle Huey
N108 Lagomarcino Hall
515-294-1915

APPENDIX E. CONTROL GROUP SURVEY INSTRUMENT

A Survey of the Impact of Being a Member of a Cohort Group on Preservice Teacher Preparation

This survey is designed to be completed by members of College of Education cohort groups. Survey items address several dimensions of cohortness. Please think about your whole experience in being a member of one of the education cohort groups from the first class this semester to the present time. All information that you supply will be kept strictly confidential. No individual will ever be identified in any reports. Thank you for your response.

Section I: Background Information

This section will be used to gather background information about you. Your assistance is very much appreciated. Please enter your social security number using the section labeled **Identification Number.** Using the section labeled **Special Codes,** please indicate your grade point average in bubbles **K,L,M** as it was reported at the end of last semester (Fall, 1994).

Please fill in the bubble next to the corresponding number on the answer sheet to respond to questions 1 & 2.

1. What is your gender?
   a. Female
   b. Male

2. Please identify your cohort group.
   a. Project Opportunity Cohort I
   b. Project Opportunity Cohort II
   c. Other education class section

Section II: Dimensions of the Cohort Experience

Once again think about your whole experience in being a member of one of the College of Education cohort groups from the first class meeting to the present time. Please fill in the bubble next to the corresponding number on the answer sheet using the following scale.

a.) Strongly agree
b.) Agree
c.) Somewhat agree
d.) Somewhat disagree
e) Disagree
f.) Strongly disagree

3. I would not have stayed in the teacher education program without the support of my cohort members.

4. Other cohort members ask me to participate in activities outside of class.

5. I enjoy working for high grades in my classes.

6. I talk about professional issues with my cohort group.

7. Some students in my cohort group feel left out.

a.) Strongly agree
b.) Agree
c.) Somewhat agree
d.) Somewhat disagree
e) Disagree
f.) Strongly disagree

8. When our cohort group is together, we frequently talk about class projects and assignments.

9. I feel that I "belong" in my cohort group.

10. It is an advantage to be evaluated by faculty members who know cohort members well.

11. If I could choose the members of my cohort group, I would choose the cohort I am in.

12. I take great satisfaction in selecting items for a personal portfolio.

13. If I need advice about a project, I consult my cooperating teacher.

14. I considered dropping out of college during my freshman year.

15. I enjoy working on group projects in non-education classes.

16. When our cohort group is together, we talk about faculty members.

17. The Teacher Education Program provides me with expanded field experiences.

18. I am involved in leadership positions in outside activities.

19. I get better grades when I work with a cohort partner.

20. Sharing field experiences creates opportunities for worthwhile discussion.

21. I receive more individualized attention from faculty as a member of a cohort group.

22. I feel other members in my cohort listen to me.

23. I prefer working on class assignments by myself.

24. Being a member of a cohort makes me self-conscious about performing better than my cohort peers.

25. My reasons for being in teacher educatio;n are different from those of my peers.

26. I prefer working on class assignments with other members of the cohort.

27. My cohorts give me valuable feedback after our visits to the schools.

28. I considered dropping out of college during my sophomore year.

29. I would encourage others to apply to the teacher education program.

30. I talk about professional issues with faculty members.

31. I feel I can positively affect the education of future teachers by participating in a teacher education program cohort group.

a.) Strongly agree
b.) Agree
c.) Somewhat agree
d.) Somewhat disagree
e) Disagree
f.) Strongly disagree

32. I seem to be more self-confident in teaching situations than other education students.

33. I believe students in my class section share a commitment in learning to become a teacher.

34. I feel that I am inspired to invest my full energies into learning.

35. I feel it is a disadvantage to go to the same locations when we go to our practicum schools.

36. There are people who annoy me in the cohort group.

37. I have enjoyed the opportunity to be a part of a cohort group.

38. If I need advice about a project, I consult a cohort member.

39. When our cohort group is together, we frequently talk about teachers and teaching.

40. I get better grades when I work alone.

41. Project Opportunity students get too much attention compared to other education students.

42. I feel I get support from other members when I try to get my cohort group to deal with matters important to me.

43. If I need advice about a project, I consult my cooperating teacher.

44. The teacher education program has allowed me the opportunity to help design my own program of study.

45. The mood of the cohort group influences my own mood.

46. Teacher education faculty are sensitive to students' needs.

47. If I need advice about a project, I consult a faculty person.

48. I frequently talk about jobs and the future with my cohort group.

49. Before I make academic related decisions, I consult with others in my cohort group.

50. Project Opportunity students have an academic advantage over traditional program students.

51. Having been a member of a cohort class section, I would apply to the program if I had the decision to make again.

a.) Strongly agree
b.) Agree
c.) Somewhat agree
d.) Somewhat disagree
e) Disagree
f.) Strongly disagree

52. I have become acquainted with other cohort members during class times.

53. The major strength of the teacher education program is the cohort group.

54. I have become acquainted with cohort members when traveling to practicum sites.

55. I am comfortable being frank and spontaneous in my cohort group.

56. The teacher education program has helped me learn to manage my time.

57. I considered dropping out of college during my junior year.

58. The major strength of the teacher education program is the field experience.

59. I feel that I have missed meeting a variety of education students because of the closed nature of the cohort group.

60. Reflecting on field experience with members of my cohort group is a valuable way to become an effective teacher.

61. I have improved my teaching ability as a result of working with the teachers in our partner schools.

62. The major strength of the teacher education program is the integration of technology in my classes and field experience.

63. It is important to me to test my ability to plan effective activities in the classroom by implementing those activities in the schools.

64. I have a sense of pride when praised or singled-out for an assignment well-done.

65. I have become acquainted with cohort members in informal meetings outside of class.

66. The major strength of the teacher education program is the classes I am taking.

67. I would be more creative if I worked alone.

68. I have become better acquainted with cohort members when I am paired for field experiences.

69. The things my cohort group talk about are important to me.

APPENDIX F. EXPERIMENTAL GROUP SURVEY INSTRUMENT

A Survey of the Impact of Being a Member of a Cohort Group on Preservice Teacher Preparation

This survey is designed to be completed by members of Project Opportunity cohort groups I and II. Survey items address several dimensions of cohortness. Please think about your whole experience in being a member of one of the Project Opportunity cohort groups from the first social event after your selection to the present time. All information that you supply will be kept strictly confidential. No individual will ever be identified in any reports. Thank you for your response.

Section I: Background Information

This section will be used to gather background information about you. Your assistance is very much appreciated. Please enter the last five digits of your social security number using the section labeled **Identification Number.** Fill in bubbles **A-F.** Using the section labeled **Special Codes,** please indicate your grade point average in bubbles **K,L,M** as it was reported at the end of last semester (Fall, 1994).

Please fill in the bubble next to the corresponding number on the answer sheet to respond to questions 1 & 2.

1. What is your gender?
   a. Female
   b. Male

2. Please identify your Project Opportunity cohort group.
   a. Cohort I
   b. Cohort II

Section II: Dimensions of the Cohort Experience

Once again think about your whole experience in being a member of one of the Project Opportunity cohort groups from the first social event after your selection to the present time. Please fill in the bubble next to the corresponding number on the answer sheet using the following scale.

a.) Strongly agree
b.) Agree
c.) Somewhat agree
d.) Somewhat disagree
e) Disagree
f.) Strongly disagree

3. I would not have stayed in the teacher education program without the support of my cohort members.

4. Other cohort members ask me to participate in activities outside of class.

5. I enjoy working for high grades in my classes.

6. I talk about professional issues with my cohort group.

7. Some students in my cohort group feel left out.

a.) Strongly agree
b.) Agree
c.) Somewhat agree
d.) Somewhat disagree
e) Disagree
f.) Strongly disagree

8. When our cohort group is together, we frequently talk about class projects and assignments.

9. I feel that I "belong" in my cohort group.

10. It is an advantage to be evaluated by faculty members who know cohort members well.

11. If I could choose the members of my cohort group, I would choose the cohort I am in.

12. I take great satisfaction in selecting items for a personal portfolio.

13. If I need advice about a project, I consult my cooperating teacher.

14. I considered dropping out of college during my freshman year.

15. I enjoy working on group projects in non-education classes.

16. When our cohort group is together, we talk about faculty members.

17. Project Opportunity provides me with expanded field experiences.

18. I am involved in leadership positions in outside activities.

19. I get better grades when I work with a cohort partner.

20. Sharing field experiences creates opportunities for worthwhile discussion.

21. I receive more individualized attention from faculty as a member of Project Opportunity.

22. I feel other members in my cohort listen to me.

23. I prefer working on class assignments by myself.

24. Being a member of a cohort makes me self-conscious about performing better than my cohort peers.

25. My reasons for being in Project Opportunity are different from those of my peers.

26. I prefer working on class assignments with other members of the cohort.

27. My cohorts give me valuable feedback after our visits to the schools.

28. I considered dropping out of college during my sophomore year.

29. I would encourage others to apply to Project Opportunity.

30. I talk about professional issues with faculty members.

31. I feel I can positively affect the education of future teachers by participating in an experimental program like Project Opportunity.

a.) Strongly agree
b.) Agree
c.) Somewhat agree
d.) Somewhat disagree
e) Disagree
f.) Strongly disagree

32. I seem to be more self-confident in teaching situations than other education students.

33. I believe students in Project Opportunity share a commitment in learning to become a teacher.

34. I feel that I am inspired to invest my full energies into learning.

35. I feel it is a disadvantage to go to the same locations when we go to our partner schools.

36. There are people who annoy me in the cohort group.

37. I have enjoyed the opportunity to be a part of a cohort group.

38. If I need advice about a project, I consult a cohort member.

39. When our cohort group is together, we frequently talk about teachers and teaching.

40. I get better grades when I work alone.

41. Project Opportunity students get too much attention compared to other education students.

42. I feel I get support from other members when I try to get my cohort group to deal with matters important to me.

43. If I need advice about a project, I consult my cooperating teacher.

44. Project Opportunity has allowed me the opportunity to help design my own program of study.

45. The mood of the cohort group influences my own mood.

46. Project Opportunity faculty are sensitive to students' needs.

47. If I need advice about a project, I consult a faculty person.

48. I frequently talk about jobs and the future with my cohort group.

49. Before I make academic related decisions, I consult with others in my cohort group.

50. Project Opportunity students have an academic advantage over traditional program students.

51. Having been a member of Project Opportunity, I would apply to the program if I had the decision to make again.

a.) Strongly agree
b.) Agree
c.) Somewhat agree
d.) Somewhat disagree
e) Disagree
f.) Strongly disagree

52. I have become acquainted with other cohort members during class times.

53. The major strength of Project Opportunity is the cohort group.

54. I have become acquainted with cohort members when traveling to partner-school sites.

55. I am comfortable being frank and spontaneous in my cohort group.

56. Project Opportunity has helped me learn to manage my time.

57. I considered dropping out of college during my junior year.

58. The major strength of Project Opportunity is the field experience.

59. I feel that I have missed meeting a variety of education students because of the closed nature of the cohort group.

60. Reflecting on field experience with members of my cohort group is a valuable way to become an effective teacher.

61. I have improved my teaching ability as a result of working with the teachers in our partner schools.

62. The major strength of Project Opportunity is the integration of technology in my classes and field experience.

63. It is important to me to test my ability to plan effective activities in the classroom by implementing those activities in the schools.

64. I have a sense of pride when praised or singled-out for an assignment well-done.

65. I have become acquainted with cohort members in informal meetings outside of class.

66. The major strength of Project Opportunity is the new and restructured classes I am taking.

67. I would be more creative if I worked alone.

68. I have become better acquainted with cohort members when I am paired for field experiences.

69. The things my cohort group talk about are important to me.