

PLACE IN RETURN BOX
to remove this checkout from your record.
TO AVOID FINES return on or before date due.

DATE DUE	DATE DUE	DATE DUE

STATUS OF TEACHER'S AND ADMINISTRATOR'S
CONCERNS ABOUT MIXED-AGE GROUPINGS

By

LISA BREWER DRAUER

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Human Ecology

1997

ABSTRACT

STATUS OF TEACHER'S AND ADMINISTRATOR'S CONCERNS ABOUT MIXED-AGE CLASSROOMS

By

Lisa Brewer Drauer

A significant development in early childhood education during the past decade has been the evolving concept of developmentally appropriate practices in early childhood programs serving children from birth through age eight. One innovation associated with developmentally appropriate practices is heterogeneous groupings, or grouping children of different ages and abilities together. This research explored what early childhood educators know about actual or potential changes in group composition and if they have concerns about moving from a homogeneous grouping to a mixed-age grouping.

Early childhood educators do have concerns about moving to mixed-age groupings. They have concerns that are related to self, to the task of implementing mixed-age groupings in their classroom, and the impact that mixed-age groupings will have on previous experiences and perceptions, programmatic conditions, and personal attributes. There were significant relationships between Stages of Concern and several factors that influence the adoption of an innovation. It was found that there were differences in the Stages of Concern related to mixed-age groupings expressed by respondents based on previous experiences and perceptions, programmatic conditions, and personal attributes. These findings suggest that school districts have many concerns to take into account when planning to implement mixed-age groupings in their schools.

Copyright by
Lisa Brewer Drauer
1997

DEDICATION

To my parents for believing that I could do this and giving me the chance to.

To Dave, who provided the support, patience and understanding for me to complete this project.

ACKNOWLEDGMENTS

I would like to express my appreciation to Dr. Marjorie Kostelnik, my advisor and the chairperson of my committee, for her expertise, encouragement, and endless suggestions in the many phases of this study. I would also like to thank the members of my committee, Dr. Anne Soderman and Dr. June Youatt, for their expertise and assistance.

I would also like to thank Dr. Alexander Voneye, for his assistance in coding and analyzing the data for my project. His expertise was invaluable.

I would also like to thank the Michigan Department of Education and Cheryl Fox for letting me join their training sessions to get participants to fill out my questionnaire for the study. It is their initiatives that helped keep the project going and be successful.

I would also like to thank the Department of Family and Child Ecology for everything they have taught me about the development of children, working with service-oriented programs, and working with other educators. I can now share my journey of knowledge with others.

TABLE OF CONTENTS

	Page
LIST OF TABLES	viii
LIST OF FIGURES	xi
 Chapter	
I. THE PROBLEM STATEMENT	1
Introduction	1
Statement of the Problem	2
Purpose of the Research	3
Research Questions.....	3
Conceptual Framework.....	4
Definitions	7
Summary and Overviews.....	9
 II. REVIEW OF THE LITERATURE.....	 10
Current Educational Concerns	10
Homogeneous Groupings	11
Mixed-age Groupings	12
Benefits of Mixed-age Groupings	12
Innovations	16
Personal Characteristics	17
Communication Behavio	17
Sense of Community	18
Stages of Concern	19
Self Concerns	19
Awareness	19
Information	19
Personal	20
Task Concerns	20
Management	20
Consequence	20
Impact Concerns	21

	Page
Collaboration	21
Refocusing	21
The Characteristics of Innovations	21
Characteristics of the Program	23
Summary	24
 III. METHODS AND PROCEDURES	 26
Subjects and Setting	26
Research Design	27
Instrumentation	27
Questionnaire (SoCQ)	27
Revised SoCQ Questionnaire (SoCQr)	29
Research Questions and Hypotheses	30
Data Collection	31
Data Analysis	32
Limitations of the Study	33
Summary	33
 IV. PRESENTATION OF THE DATA	 35
Introduction	35
Characteristics of the Sample	36
Results Regarding the Research Questions	48
Research Question 1	49
Research Question 2	63
Research Question 3	74
Summary	79
 V. DISCUSSION OF FINDINGS AND RECOMMENDATIONS	 80
Introduction	80
Summary	80
Purpose of the Study	80
Major Findings of the Study	81
Previous Experiences and Perceptions	81
Summary of Results	83
Interpretation of the Data	83
Programmatic Conditions	88
Summary of Results	89
Interpretation of the Data	89
Personal Attributes	92

	Page
Summary of Results	93
Interpretation of the Data	93
Significance of the Results	95
Recommendations for Further Research	96
Observations	97
Conclusion	98

APPENDICES

A.	Letter attached to SoCQr Questionnaire and Demographic Page	99
B.	SoCQr Questionnaire and Demographic Page	100
C.	SoCQ Quick Scoring Device	106
D.	Stage Percentile Scores	107
E.	Histograms of Variables	114
F.	UCHRIS Approval Granted	135

REFERENCES	137
-------------------------	------------

LIST OF TABLES

Table		Page
4.1	Distribution of Sample by Number of Years Involved in Teaching in Mixed-age Classrooms	38
4.2	Distribution of Sample by Self Described Level of Expertise in Using Mixed-age Group Strategies	38
4.3	Distribution of Sample by Observation of Mixed-age Classrooms	39
4.4	Distribution of Sample According to Whether or Not Respondents Had Been Approached About Teaching in a Mixed-age Classroom	40
4.5	Distribution of Sample by Expectation of Ever Teaching in a Mixed-age Classroom	40
4.6	Distribution of Sample by Perception of Degree to Which Mixed-age Groupings are Being Talked About in Respondents School District	40
4.7	Distribution of Sample by Perception of Degree to Which Respondents Get Information Before Trying Something New	41
4.8	Distribution of Sample by Positive Feelings About Mixed-age Groupings	41
4.9	Distribution of Sample by Perception of the Degree to Which Respondents Have Had Formal Training Related to Mixed-age Groupings	42
4.10	Distribution of Sample by Degree of Committee Participation	43
4.11	Distribution of Sample by the Extent to Which New Ideas Were Supported by Respondents at Your School	43
4.12	Distribution of Sample by Perception of Administrative Support for New Ideas	43

Table		Page
4.13	Distribution of Participants by Age	44
4.14	Distribution of Sample by Gender	44
4.15	Distribution of Sample According to Highest Degree Earned	45
4.16	Distribution of Sample by Number of Years Teaching	45
4.17	Distribution of Sample by Grade Level Experience	47
4.18	Distribution of Sample by Involvement in Teaching in a Mixed-age Classroom	47
4.19	Distribution of Sample by Current Job Title	48
4.20	Distribution of Sample by Number of Years Employed at Current School	48
4.21	Relationship Between Previous Experiences and Perceptions of the Respondents Related to the Innovation Mixed-age Groupings and Stage of Concerns (Pearson r coefficients)	60
4.22	Relationship Between Previous Experiences and Perceptions of the Respondents Related to the Innovation Mixed-age Groupings and Stage of Concerns (Phi coefficients)	61
4.23	Variance Between Previous Experiences and Perceptions of the Respondents Related to the Innovation Mixed-age Groupings and Stage of Concerns (F values)	62
4.24	Summary of Previous Experiences and Perceptions of the Respondents Related to Mixed-age Groupings and Stage of Concerns	63
4.25	Relationship Between Programmatic Conditions of Mixed-age Groupings and Stage of Concerns (Pearson r correlations)	71
4.26	Relationship Between Programmatic Conditions of Mixed-age Groupings and Stage of Concerns (Phi coefficients)	72
4.27	Relationship Between Programmatic Conditions of Mixed-age Groupings and Stage of Concerns (F values)	73

Table		Page
4.28	Summary of Programmatic Conditions Related to Mixed-age Groupings and Stage of Concerns	74
4.29	Relationship Between Personal Attributes of the Respondents and Stage of Concerns (Pearson r coefficients)	77
4.30	Relationship Between Personal Attributes of the Respondents and Stage of Concerns (Phi coefficients)	77
4.31	Variance Between Personal Attributes of the Respondents and Stage of Concerns (F values)	78
4.32	Summary of Personal Attributes of the Respondents Related to Mixed-age Groupings and Stage of Concerns	78
5.1	Significant Relationships Between Previous Experiences and Perceptions of the Respondents and Stage of Concern	83
5.2	Significant Relationships Between Programmatic Conditions and Stage of Concern	89
5.3	Significant Relationships Between Personal Attributes of the Respondents and Stage of Concern	93

LIST OF FIGURES

Figure	Page
1 Stage 0 Percentile Scores for Respondents	107
2 Stage 1 Percentile Scores for Respondents	108
3 Stage 2 Percentile Scores for Respondents	109
4 Stage 3 Percentile Scores for Respondents	110
5 Stage 4 Percentile Scores for Respondents	111
6 Stage 5 Percentile Scores for Respondents	112
7 Stage 6 Percentile Scores for Respondents	113
8 Number of Years Respondent has been Involved in Teaching Mixed-age Classroom	114
9 Kind of Teacher Respondent Considers Himself/ Herself to be in Regards to Mixed-age Groupings	115
10 Respondents' Observation of Mixed-age Classrooms	116
11 Distribution of Sample According to Whether or Not Respondent Has Been Approached About Teaching in a Mixed-age Classroom	117
12 Respondents' Expectation of Ever Teaching in a Mixed-age Classroom	118
13 Mixed-age Groupings Being Talked About in Respondents' School District	119
14 Extent to Which Respondents' are Provided with Information Before Trying Something New	120

Figure		Page
15	Positive Feelings About Mixed-age Groupings	121
16	Extent to Which Respondents Received Formal Training About Mixed-age Groupings	122
17	Respondents' Degree of Committee Participation	123
18	Extent to Which New Ideas are Supported in Respondents' School District	124
19	Respondents' Perception of Administrative Support for New Ideas	125
20	Respondents' Age Distribution	126
21	Respondents' Gender Distribution	127
22	Respondents' Highest Degree Earned	128
23	Number of Years Respondent has been Teaching	129
24	Respondents' Grade Level Experience	130
25	Number of Years Respondent has been Involved in Teaching in a Mixed-age Classroom	131
26	Respondents' Job Title Distribution	132
27	Number of Years at Current Job	133
28	Respondents' Educational Endorsements	134

CHAPTER ONE

Introduction

A significant development in early childhood education during the past decade has been the evolving concept of developmentally appropriate practices in early childhood programs serving children from birth through age eight. These practices are aimed at defining high quality early childhood programs in light of current knowledge of child development and learning (Bredekemp, 1987, p.1). As the concept has gained strength, early childhood practitioners have been faced with new ways of thinking about what is best for children and new ways of doing things in their classrooms. One of the innovations associated with developmentally appropriate practices revolves around how children are assigned to groups in early childhood settings. This is referred to as group composition. In the past, children in early childhood programs often were grouped by age or by ability, with children of like age or like ability being grouped together. This approach to group composition is referred to as homogeneous. Homogeneous groupings have enjoyed popularity due to tradition, for reasons of convenience, and for funding purposes (Kostelnik, Soderman, & Whiren, 1993).

More recently, there has been an increasing emphasis on the potential benefits of mixed-age or mixed-ability groupings --- also referred to as heterogeneous groupings. Heterogeneous groupings are thought to be beneficial for children for many reasons: 1) heterogeneous groups resemble the neighborhood and family settings with which children are comfortable; 2) heterogeneous groups promote prosocial behavior among children; 3)

children in heterogeneous groupings show enhanced cognitive skills over time; 4) children in heterogeneous groupings experience shared learning with other children (Katz, Evangelou, & Hartman, 1991; The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1994).

The arguments in favor of mixed-age groupings over homogeneous groupings at the macrosystem level (societal-cultural) have been so persuasive that there are financial pressures as well as legislative initiatives to increase mixed-age groupings for children from birth to eight years of age. Typical examples are the Kentucky Education Reform Act of 1989 and the provincial mandate of British Columbia in Canada for ungraded classes in the primary years. More recently, the states of Nebraska, Iowa, and Michigan have promoted multi-age grouping through specially funded programs at the state level (Nebraska Office of Child Development, 1993; Michigan Department of Education, 1994).

What this means for many early childhood educators is that they are facing a potential change in how they teach --- a change from teaching children in homogeneous groups to teaching children in mixed-age groups. These changes occur at the microsystem level of the classroom where teachers and children have daily direct contact. Changes in group composition have the potential not only to affect individual teachers, but styles of teaching, the way teachers manage their rooms, the way teachers interact with children, and the schedule of the day that teachers follow.

In the process of making any change, people vary in their concerns and the degree to which they implement new procedures. One way to describe how practitioners vary in relation to change is to delineate stages of concern. Seven Stages of Concern have been identified by researchers (Hord, Rutherford, Huling-Austin, & Hall, 1987). These concerns

range from self concerns to task concerns to impact concerns. Self concerns focus on how the change will affect the user. Typical questions in this stage are: What does the new procedure look like? How is the change similar to or different from current practice? What kind of preparation will the user receive regarding the change?

Task concerns center around logistics and human created environments. Concerns expressed in this stage focus on how the user will make time to carry out the new procedures and how he or she will arrange the physical environment. When teachers experience impact concerns, they are focusing on the effects of the change on the children and what can be done to improve the effectiveness of the program. While concerns about a change are said to typically progress through these stages in a developmental fashion, the progression is not absolute and does not happen to each person in exactly the same way. Currently, we do not know how teachers vary in their stages of concern in moving from homogeneous classrooms to mixed-age ones. This research is designed to explore that issue.

Purpose of the Research

The purpose of this research is to explore what early childhood educators know about actual or potential changes in group composition, and if they have concerns about moving from homogeneous groupings to mixed-age groupings, and what factors influence these concerns. The study will document teacher concerns and the extent to which they know about mixed-age classrooms.

This study will seek to answer the following research questions:

1. What are the previous experiences and perceptions of the respondents that influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

2. What are the programmatic conditions that influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

3. What are the personal attributes of the respondents that relate to or influence teachers and administrators differential Stages of Concern related to mixed-age groupings in schools?

In answering these three questions, the research will explore early childhood educators' Stages of Concern about mixed-age groupings as well as the extent to which they report knowing about mixed-age groupings. Previous experiences and perceptions, programmatic conditions and personal attributes impacting Stages of Concern will also be explored.

Conceptual Framework

The previously mentioned ideas about homogeneous groupings, mixed-age groupings, and change are best considered within an ecological framework. This framework is based on ecological psychology and is exemplified by major theorists such as Roger Barker (1968) and Urie Bronfenbrenner (1989).

Gestalt psychology considers individuals as whole, integrated organisms. It states, "every significant new experience can alter the relationship of many or all of the existing elements that have made up the personality to this point, so the patterning of a teacher's or administrator's entire individuality is influenced" (Thomas, 1992, p. 436). This perspective, with the insight as extended by Roger Barker (1968), also encompasses environments or behavior settings through which individuals move. Based on this combination of person and environment, it could be assumed that a great deal of a teacher's and administrator's behavior can be accounted for by knowing his/her current environment. Barker also proposed that

behavior settings are composed of two elements: standing patterns of behavior (typical ways people act) and milieus (the physical elements and time boundaries) that influence behavior.

Like behavior settings, individuals also have limited capacities to process information and if information becomes too great "they ignore peripheral inputs in order to give adequate attention to primary tasks" (Thomas, 1992, p. 438). These early ideas and formulations about ecological psychology provided a model for Bronfenbrenner's model of human ecology. Bronfenbrenner's model (1979) of human ecology emphasizes changing properties of immediate settings, relations between these settings, and the large context with which they are embedded. Bronfenbrenner states the model defines development as a "set of processes through which properties of the person and the environment interact to produce constancy and change in the characteristics of the person over the life course" (Vasta, 1989, p. 191).

Bronfenbrenner's model also acknowledges interactive effects and states "particular environmental conditions have been shown to produce different developmental consequences depending on the personal characteristics of the individual ... or the teacher ... or the administrator ... living in that environment" (Vasta, 1989, p. 192). This takes into account a teacher's or administrator's demographic features, cognitive abilities and skills, temperament, and personality --- allowing for different stages of change that would exist for each individual.

Bronfenbrenner accounts for these environmental conditions using four different units of analysis. The most basic unit is the microsystem (behavior setting). According to Bronfenbrenner, this microsystem is "a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics (Thomas, 1992, p. 439). Analyzing this unit and the interactions of the

individual within the unit could affect the student and teacher and produce new meaning for either or both of them.

The first phase beyond the microsystem is the mesosystem. This comprises the interrelations among two or more settings in which the teacher or administrator actively participate. These interactions can influence perceptions and behaviors in the current setting. These might include: staff meetings, informal staff conversations, PTA meetings, and parent conferences.

The next phase beyond the microsystem is the exosystem. This comprises one or more settings that do not involve the teacher or administrator as an active participant, but events which occur that affect, or are affected by, what happens in the school setting. These might include: the Department of Education, school board decisions, and other school districts.

The most remote influence comes from society at large. The macrosystem (cultural milieu) is the layer that encompasses the array of attitudes, practices, and convictions shared by society. This would include: value of educational practices, importance of children, and money.

Bronfenbrenner's model holds valuable implications for researcher's and others who try to understand development. First, it looks at environmental factors at various levels and how interactions impact the individual. Second, it focuses on gathering evidence about not only the components, but also the transactions among them. In considering these influences Bronfenbrenner identified ecological transitions, or "a shift that occurs whenever the individual's position in the ecological environment is significantly altered due to a change in role, setting, or both" (Thomas, 1992, p. 443). These can be significant or insignificant

in nature. Practices should be noted both before and after the transitions in order to provide evidence of the end product on each individual. For example, a transition may include a change from a homogenous classroom to a mixed-age classroom.

In using Bronfenbrenner's model to study an individual's pattern of activities, roles, and interpersonal relations one must always be reminded of ecological validity or the extent to which the environment experienced by the subjects in a scientific investigation has the properties it is supposed to have or is assumed to have by the investigator. The focus must remain on the teacher's and administrator's interpretations of their surroundings rather than the objective characteristics of those surroundings.

Finally, this study also follows a hermeneutic philosophy of ecology by helping others to understand intentions and reasons behind actions and responses. This will help bring together ideas and help educator's or administrator's to reach some sort of agreement about what is going on in many different classrooms with regard to mixed-age groupings. Every idea or concern that is identified by a teacher or administrator can then be brought together in order to help meet teachers' and administrators' address each stage of concern in order to cope with changes that occur in his/her classroom environment.

Definitions

Innovation: A generic name given to the issue, object, problem, or challenge, the practice that is the focus of one's concerns (Hall, et. al., 1990).

Mixed-age Groupings: Class groupings composed of children who are at least one year apart in age in the same classroom. (Katz, et. al. 1990).

Early Childhood Educators: Educators employed in family day care homes, preschool programs, child care centers, elementary and private schools who work with children birth to eight years of age.

Concern: Composite representation of the feelings, preoccupation, thought, and consideration given to a particular issue or task (Hall, et. al., 1986).

Early Childhood Program: Any part-day or full day group program in a center, school, or other facility that serves children from birth through age eight (Bredekamp, 1987).

Homogeneous Groupings: Placing children who are the same chronological age, who have the same abilities, or share similar interests in the same classroom (Katz, et. al., 1990).

Department of Education: A Department, regulated by the state, that works to establish legislation and policies for the development and implementation of early childhood education and school reform initiatives (Early Childhood Standards of Quality, Michigan State Board of Education, 1992, p.1).

Previous Experiences and Perceptions: Four principles that favorably influence the adoption of an innovation include: philosophy; perception of benefits; amount of time to implement change; exposure to the innovation (Kostelnik, Soderman, & Whiren, 1993, pp. 437-442). This will be measured by the SoCQr score and the statistical analysis.

Programmatic Conditions: Five programmatic conditions that have been found to facilitate change include: information and familiarity with the innovation; ability to contribute to the innovation; peer support; commitment to change; and feedback in relation to the innovation (Kostelnik, Soderman, & Whiren, 1993, pp. 443-447). This will be measured by the SoCQr score and the statistical analysis.

Personal Attributes: Life variables that are specific and independent in each participant. These include: age, length of teaching time, and educational training. These items are noted and identified on the demographic page.

Summary and Overview

This chapter has included an introduction to this study and its purpose. A review of the literature relevant to this research is presented in Chapter II. Chapter III contains a description of the sample, specific measures, the design of the research, a discussion of methodological issues related to the study and a description of the data analysis. The hypotheses for the research are also included in Chapter III. In Chapter IV, the results are reported. In Chapter V the results are discussed.

CHAPTER TWO

Review of Literature

Current Educational Concerns

“Current conversations about the nature of teaching and learning differ dramatically from those 20 or 30 years ago --- both in what is being discussed and in who is doing the discussing” (Prawat, 1992, p. 9). These conversations include practitioners, researchers, teachers, and parents who are concerned with the best ways to educate children. One of the issues that has come under consideration is the issue of how children are grouped in early childhood programs and in the schools. For the past several decades, children, to age eight years, have been grouped according to age and ability with children of like ages and similar abilities being grouped together. For example, toddlers are often placed in one room; all three-year olds are placed in another; all five-year olds are placed together; the older fives are clustered in a group; and first graders are segregated from the second graders in separate classrooms. This age-oriented approach came about because educators believed the delivery of instruction could be more focused in homogeneous groupings. More recently, educators have questioned this tradition and are exploring the effects of mixed-age and mixed-ability groupings, focusing on the belief that “children benefit from interactions with other children who are at varied stages of development” (The Regional Laboratory for Educational

Improvement of the Northeast and Islands, Jan. 1994). This literature review will examine these points of view.

Homogeneous Groupings

Group compositions described as homogeneous are made up of children who are approximately the same chronological age, or have the same abilities, or share similar interests. This approach to grouping children is a traditional phenomenon that has existed for several decades and continues to dominate early childhood programs (Katz, et. al., 1990). The curriculum of programs in which homogeneous grouping is used, is typically determined by norms devised for different age ranges and often remains the same from year to year. Advocates of homogeneous age groupings believe that children perform best when placed in a classroom or small group for instruction with other children like themselves (Katz, et. al., 1990, p.7). They argue that homogeneous groupings are beneficial because educators can target their teaching methods to the specific needs of the group. Which children are grouped together is often determined through an initial screening as children enter the program or on the basis of special funding sources that are received by the schools (ex., Title I funds).

Although homogeneous groupings are widely used, educators have noted drawbacks to children being grouped this way. For instance, grouping children by likenesses may damage children's perceptions of self and their motivation to achieve. According to Glickman (1991), "higher-achieving children do not do better when together, and lower achieving children do much worse in homogeneous classrooms" (p. 22). Children often conform to labels such as "slow," "behind," "affluent," "poor", or "gifted." By separating children into these like groups, they are denied the opportunity to learn the virtues of helping others, to be

decent, and unselfish. According to Jonathoan Kozol (1993), homogeneous groupings create a predictable scenario. He offers this example, "The little girl who gets shoved into the low reading group in 2nd grade is very likely to be the child who is urged to take cosmetology instead of algebra in the 8th grade, and most likely to be in vocational courses, not college courses, in the 10th grade, if she hasn't dropped out by then" (Scherer, 1993, p. 4). Many educators believe these negative outcomes are promoting inequality in education and are exploring other ways to organize children in groups in school. The most common alternative has been to use mixed-age groupings.

Mixed-age Groupings

Mixed-age groupings are defined as: "placing children who are at least a year apart in age into the same classroom groups" (Katz, et. al., 1990, p. 1). Mixed-age groupings are "intended to optimize what can be learned when children of different - as well as same-ages and abilities have opportunities to interact" (Katz, Evangelou, and Hartman, 1990, p. 1). This form of group composition is "based on the belief that children benefit from interactions with other children who are at varied stages of development" (The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1994, p. 2). By bringing children of varied ages, abilities, and understandings together, mixed-age groupings mirror family and community life.

Benefits of Mixed-age Groupings

Advocates for grouping children in mixed-age configurations argue that this approach to group composition is advantageous for children who learn better by using a variety of

hands-on experiences and other stimuli to learn, who need more time to grasp concepts, and who prefer continuity in their relationships. These benefits come about because structures are not rigid and children have more time to practice knowledge and skills using several different mediums (The Regional Laboratory for Educational Improvement of the Northeast and Islands, 1994). The research suggests support for these rationales.

Social Benefits

The effects of mixed-age groupings on children's social development have been found to be positive. The atmosphere of the mixed-age classroom not only promotes cooperation, but enhances children's responsibility, nurturing, leadership skills and attitudes. Mounts and Roopnarine (1987), reported research findings in which, "Children prefer to imitate older models and children find it more rewarding if they are imitated by younger peers; children make accommodation shifts in accordance with the speech levels of their younger social partners; younger children adjust their levels of moral reasoning after being exposed to older peers; and the effectiveness of peer tutoring and "social rehabilitation" depends largely on age-related differences in social and cognitive competence among children" (p. 464).

For example, when children from four to six years of age are placed in the same group, a wider range of behavior becomes acceptable and tolerated in the classroom than is true in homogeneous classrooms. Therefore, a wider range of standards becomes acceptable. This wider range of standards allows children the freedom to continue developing at their own pace without becoming separated from the rest of the classroom. In addition, the activities in mixed-age groupings are designed to address children's varying abilities and developmental levels. Therefore, children have more opportunities for success. Finally, because children are encouraged to work together, competition is decreased and cooperation

is increased (Katz, et. al, 1990). This creates a caring atmosphere rather than a competitive one. Teachers are aware of each child's capabilities and recognize varying levels of development as they use a variety of ways for children to master concepts (Mounts and Roopnarine, 1987).

Findings related to attachment also support mixed-age groupings. The evidence suggests that the stability of the group over time maximizes opportunities for strong attachments to adults and peers with minimal disruptions in the developmental cycle (Regional Laboratory for Educational Improvement of the Northeast and Islands, 1994). Children come to trust and depend on their care givers' routine and demeanor. This, in turn, enhances their relationship building abilities and sense of self-worth.

Play Benefits

Play is also said to be enhanced in mixed-age groupings. Using Parten's observed sequential categories of social participation in preschoolers, it has been found that children's demonstrated play skills were more advanced in mixed-age groups than in homogeneous groups. For example, "three year-olds in mixed-age classrooms were more likely to engage in solitary-manipulative and cooperative-constructive play than were 3 year-olds in same-age classrooms. Among 4 year-olds, children in mixed-age classrooms were more likely to engage in cooperative-constructive and parallel-manipulative play than 4 year-olds in same-age classrooms" (Roopnarine, Ahmeduzzaman, Donnely, Gill, Mennis, Arky, Dingler, McLaughlin, and Talukder, 1992, p. 770).

Cognitive Benefits

Although social benefits are very important to early childhood educators, cognitive benefits, although not as highly researched, are also of keen interest. The theory of Vygotsky (1962) has been used to provide a rationale for how children's cognitive development could be enhanced in a mixed-age setting. Vygotsky maintains that "internalization occurs when concepts are actually transformed and not merely replicated" (Katz, et. al., 1990). Based on this premise, early childhood educators such as Lillian Katz (1990) have concluded that younger children experience cognitive conflicts within mixed-age groupings. Such conflicts arise as children strive to accommodate the different understandings around them. Cognitive conflict, therefore, helps with internalization, making learning more likely, because children learn concepts that exist between the point of their actual ability and their potential ability. This increases the chances that a number of children will be operating in the same zone of proximal development and will stimulate each other's thinking greatly. The zone of proximal development as described by Thomas (1992) is, "the set of actions that the child can perform when helped by another person, but which are not yet available to the child in his individual acting" (p. 256). Therefore, in mixed-age groupings, children who are older or at a higher developmental level become facilitators (as well as the teachers) in providing the other children with ideas and skills just beyond their capabilities in a familiar and nurturing environment. This results in greatly increased self-initiated learning experiences and cooperation because everyone in a classroom has strengths and areas that need strengthening. Vygotsky also identifies children as being "experts" and "novices." The experts provide prompts and leading questions that cause the novices to defend or alter their actions,

influencing impromptu learning experiences and scientific-like reasoning (Katz, et. al., 1990).

According to much of the current literature, the potential benefits for children enrolled in mixed-age and mixed-ability groups are numerous (Katz, et. al, 1990; Roopnairine, et. al., 1992; Thomas, 1990). Consequently, many early childhood practitioners are being urged to make a switch from same-age group compositions to mixed-age compositions. However, there is very little information about how teachers decide to make such a change and the factors that influence their success in moving from same-age to mixed-age classes.

Innovations

An individual teacher making a transition from homogeneous groupings to a heterogeneous groupings is experiencing an innovation in the field of education. An innovation, according to Hord, Rutherford, Huling-Austin, & Hall (1987), is "any program, process, or practice --- new or not --- that is new to a person" (p. 3). As such, an innovation represents a change in behavior for the person adopting it. People adopt innovations to varying degrees with different influences affecting their concerns. Use of an innovation varies from individual teacher to individual teacher. "One of the reasons for this variation is the commonly overlooked fact that innovation adoption is a process rather than a decision-point --- a process that each innovation user experiences individually" (Hall, et. al., 1987, p. 52). By identifying the process an early childhood educator is experiencing, administrators and other decision makers will be better able to offer support and resources

to

et.

m

in

in

in

Pe

re

va

th

co

to

ha

in

si

C

(1)

be

to individual teachers and to ease possible stresses that occur in innovation adoption (Hord, et. al, 1987).

Once it has been realized that innovations evolve as a process, other components must also be considered. Research shows that each person's success in adopting an innovation is influenced by three components: human elements, the characteristics of the innovation itself, and the characteristics of the program in which the innovation is being implemented.

Personal Characteristics

Elements such as personality, motivation, and personal concerns influence individual responses to potential innovations. According to Rogers (1983), there are many personality variables associated with innovativeness. He includes: empathy; open belief systems; the ability to deal with abstract ideas; the ability to be rational; intelligence; the ability to cope with uncertainty and risk; favorable attitudes toward education; favorable attitudes toward science; the perceived ability to control situations; high levels of motivation; and having high aspirations. He maintains that individuals who are most likely to adopt innovations possess the above personality characteristics. Those whose personality traits significantly vary from these are less likely to be innovative in their behavior.

Communication Behavior

Communication also influences the adoption of an innovation according to Rogers (1983). He states that users who easily adopt an innovation have distinctive communication behaviors. These include: being available to social participation; having contact with

networks outside their own social system (ability to leave boundaries); having contact with others trying new ideas; having opportunities to use mass media communication; having increased time for interpersonal communication; seeking new information; having greater knowledge of innovations; having exposure to an environment favorable to change; and being involved in highly interconnected systems. Individuals possessing these communication behaviors and opportunities have a better chance of adopting an innovation than those who do not.

Sense of Community

Along with the individual human elements that affect innovation adoption, there are organizational factors that affect how likely it is that individuals will adopt the innovation. A study by Newmann, Rutter, and Smith (1989) identifies efficacy (a teacher's perception of his/her efforts), sense of community (unity, belonging, cooperative interdependence among peers), and expectations (teacher's perception of it being good for the students) as being essential in the acceptance of an innovation. These items support issues within the organization that revolve around a deep understanding of the "what and why of the changes needed" (Anderson, 1993, p. 15). Including all individuals is critical in developing a commitment to the innovation and maintaining that commitment. According to Murphy (1991), "people who are well-informed about the effects of the program hold it in higher esteem than those who either don't have the information or who don't pay attention to the information" (p. 12).

inc

em

co

fir

se

im

Se

sin

A

T

b

b

L

ir

w

th

Stages of Concern

Although personality, communication, and a sense of community affect an individual's ability to respond to an innovation, there are additional individual concerns that emerge in a sequence through which individuals pass in the adoption process. Hord and his colleagues (1987) have identified seven Stages of Concern in which earlier concerns must first be resolved before later concerns can be processed. Concerns that emerge first deal with self; task-related concerns emerge next and, finally, concerns arise about the impact of the innovation on others.

Self Concerns

Self concerns focus on wanting to know more about the innovation --- how is it similar and different from one's current practice. Self concerns include:

Awareness: Awareness involves having little concern or involvement with the innovation. The individual only knows that the innovation exists. Awareness concerns may be expressed by the experienced user who is concerned about issues not related to the innovation or may be expressed by a non user who is just becoming aware of the innovation.

Information: Information concerns consist of a general awareness of the innovation and an interest in learning more details about it. The person who has information concerns is not worried about himself/herself in relation to the innovation but rather the characteristics of the innovation, its effects, and the requirements for use.

Personal: Personal concerns involve being uncertain about the demands of the innovation, wondering about one's adequacy to meet those demands, and wondering about one's role in relation to the innovation. Issues about which people have personal concerns include: the reward structure of the organization and how it will affect users and nonusers; decision making; and the risk of potential conflicts with other personal commitments. Concerns about status and finances may also be expressed.

Task Concerns

Concerns shift from the self to task concerns as more intense preparations are made to begin actual innovation use. Task concerns revolve around the management of the innovation and the consequences of using it.

Management: People who have management concerns focus their attention on the processes and tasks related to using the innovation and its impact on them. Efficiency, organization, managing, scheduling, and time demands become of primary interest of the potential user.

Consequence: Eventually, potential users of the innovation become concerned about the impact the innovation will have on the students in their immediate setting. These concerns are categorized as consequence concerns. The user is interested in the relevance of the innovation for students, the evaluation of student outcomes, and changes needed to increase positive student outcomes. It is at this point that users of the innovation become more concerned with their students than with themselves.

Impact Concerns

Impact concerns revolve around the effect of the innovation on students and what can be done to improve effectiveness. This involves users broadening their focus on self and students to encompass others who could benefit from their information and their use of the innovation. Such concerns revolve around potential collaboration and ways to move beyond current innovation use.

Collaboration: A person who has collaboration concerns focuses on possible coordination and cooperation with others regarding the use of the innovation. The user wants to work with others to get new ideas for how to carry out the innovation and how to increase the innovation's impact.

Refocusing: Persons who have refocusing concerns involve themselves in exploring how to achieve universal benefits from the innovation. This includes making changes or using replacement alternatives when implementing the innovation. Such individuals form definite ideas about the alternatives available in relation to the innovation. At this point the user develops either a positive attitude about the continued use of the innovation or displays negative concerns about the continued use of the innovation and shifts his or her focus to a new innovation.

The Characteristics of Innovations

Although human elements such as personality, communication, sense of community, and individual concerns play a role in influencing how an individual deals with change,

certain experiences and perceptions of the innovation itself determine to what extent it will be adopted by individuals.

According to Kostelnik, Soderman, & Whiren (1993, pp. 437-442) there are four principles that favorably influence the adoption of a particular innovation.

Principle 1: Innovations people perceive as consistent with their existing values have higher rates of adoption than less congruent ones. Potential users who see a connection between their own personal values and those involved in the innovation will have more success in adopting the innovation. Innovations with which strong associations can be developed for individuals are more easily internalized and carried out.

Principle 2: Innovations are most easily adopted when they meet innovators' current needs and when they offer personal advantages over old practices. For example, educators who perceive mixed-age groupings as meeting their current programmatic needs or as a way to alleviate some of the problems inherent in same-age groupings, may be more inclined to try the innovation than those who do not perceive such advantages.

Principle 3: New strategies that can be introduced gradually have a higher rate of adoption than ones requiring total implementation right away. Conversely, innovations that must be taken on suddenly are less likely to be adopted than ones that can be broken into stages. Adoption also becomes more likely when potential users have a chance to make modifications over time.

Principle 4: Tangible innovations are more easily adopted than abstract ones.

For example, the more demonstratable and explicit the innovation, the easier it is to adopt. Educators who are allowed to see demonstrations or modeling of the potential innovation are more likely to adapt it for their classrooms than people who only hear about it.

Characteristics of the Program

Besides the characteristics of the innovation itself, the conditions under which the innovation is implemented will either enhance the success of the innovation or detract from it. Five principles related to programmatic conditions that facilitate change have been identified in the literature (Kostelnik et. al., pp. 443-447). These principles are listed below.

Principle 5: The more involved people are in developing an innovation, the more likely they are to support it. Educators who have the opportunity to contribute to the innovation have a better chance of accepting the innovation than those who are not involved. People at all levels of the organization benefit from such involvement.

Principle 6: The better people's informational needs are satisfied, the greater the level of innovation use and the higher the adoption. This includes having access to knowledge and skills necessary to do a different job, knowing one's role in the change, and knowing how the information one receives compares to what others are exposed to in the same circumstances. Isolation and risk are detrimental to the adoption of an innovation.

Principle 7: The more peer support an innovation enjoys within an organization, the more likely it is to be adopted. The more people in the group who support the innovation, the easier it is for individuals in the organization to adopt the innovation. Anxiety is decreased as support increases and individuals are more likely to take the risk of trying something new.

Principle 8: The more obvious the organization's commitment to change, the more likely it is that change will occur. The more support, information, resources, and communication that administrators or directors provide individual teachers the more likely it is that they will adopt the innovation. Providing materials, resources, planning time during work hours, professional growth opportunities, and additional funds are ways programs offer support and encourage adoption of innovations.

Principle 9: Innovation adoption is favorably influenced when people receive timely, accurate, useful feedback about their efforts at change. Corrective feedback allows setbacks to be noted and corrected; positive feedback helps users to know what actions to maintain over time. Feedback should be an ongoing part of the adoption process if the innovation is to succeed.

In summary, it can be said that the adoption of any innovation (in this case an early childhood educator making the transition from a homogeneous classroom to a mixed-age classroom) is a complex process involving previous experiences and perceptions, programmatic conditions, and personal attributes in which the innovation is to be employed. The literature reviewed here has influenced the research questions addressed in this study,

the

Cha

the methods, and the instrumentation that has been developed. These are described in

Chapter Three: Methods.

CHAPTER THREE

Methods

The purpose of this research is to explore what early childhood educators know about **actual** or potential changes in group composition and to what extent they have concerns about **moving** from a homogeneous classroom to a mixed-age grouping. This chapter will: identify **the** subjects of this study; the setting in which the research was conducted; the research **design**; instrumentation; hypotheses; data collection; data analysis; and limitations of the study.

Subjects and Setting

The sample was drawn from the population of early childhood educators and **administrators** working in elementary schools in Michigan and attending training sessions **in** early childhood education sponsored by the Michigan Department of Education during the **summer** of 1996. Subjects were teachers and administrators from grades kindergarten **through** second grade. The data for the research was gathered at two training sessions for **teachers** and administrators in the State of Michigan, conducted by a consultant from the **Department** of Education Early Childhood Unit. These sessions were held in June and July **1996** at the following locations: Kent County and Washtenaw County. Approximately 200

teachers and administrators were present at each training session, yielding a population size of 400 potential subjects'. Each participant was invited to voluntarily complete a questionnaire and demographic page on the first day of each training session. The questionnaire and demographic page were distributed and returned on the same day. A brown envelope was provided for participants to return the questionnaire and demographic page when they were finished. All appropriate permissions were obtained prior to any subject's inclusion in the study. Results were made available to those subjects who request it.

Research Design

This study involved a descriptive, non-experimental, case study design. Data collection took place at each site on a one-time basis.

Instrumentation

The Stages of Concern Questionnaire --- (SoCQuestionnaire) (SoCQ)

The Stages of Concern Questionnaire (SoCQ) (1974) was developed by G. Hall, A. George, and W. Rutherford to assess teachers' Stages of Concern about any innovation introduced into their classroom. The SoCQ consists of three parts.

Introduction to the SoCQ

The introduction to the SoCQ presents the purpose of the questionnaire, provides directions for completing the instrument, and gives examples. The "innovation" that the individual is to consider in response to each item is identified and defined. A final function

of

op

Pa

Co

ite

th

co

co

P

to

c

U

n

s

s

R

of the introduction is to focus the respondent's attention on his or her present concerns as opposed to past or future concerns.

Part II of the SoCQ

The second segment of the SoCQ is designed to assess each respondent's Stages of Concern. It consists of 35 Likert scale items that respondents rate in terms of how well each item describes a current concern felt by him or her. The Likert scale is from 0 to 7. Zero on the scale means that the item is completely irrelevant; seven on the scale indicates complete congruence with the respondent's present concern. The items take about 10-15 minutes to complete and are completed by the respondent without consultation with others.

Part III of the SoCQ

Demographic information is recorded in part three of the SoCQ. It serves as a useful tool for gathering information about the participants both for sample description and correlation purposes.

A cover letter accompanies the SoCQ to explain the purpose of the research and how the results will be used. Hall and his colleagues report that the SoCQ is easy and convenient to score either by computer or by hand (Hall, et. al., 1986). The scores are converted into raw score totals for each scale and then changed to percentiles in order to determine the most significant concern for each respondent. This is depicted through a graphical profile display for every subject.

The authors of the SoCQ (Hall, et. al., 1986) report high internal reliability. Alpha coefficients ranged from .64 to .83 while test-retest correlations ranged from .65 to .86 with four of the 7 correlations being above .80.

A series of validity studies were also reported, all of which provided evidence that the SoCQ measures seven separate constructs identifiable as the Stages of Concern as they have been conceptualized (Hall, et. al., 1986).

Revised SoCQuestionnaire (SoCQr)

The SoCQ has been used in several studies. For this study, a revised questionnaire was developed specifically for gathering information on teacher's and administrator's concerns related to mixed-age groupings. This revision consisted of substituting the words 'mixed-age groupings' for the word 'innovation' as it appeared in each item of the original SoCQ.

In addition, the demographic page outlined in Part III of the SoCQ was altered to add specific items relating to the teachers and administrators current school position, educational background, knowledge of current practices and standards, and organizational perceptions.

Pilot

The SoCQr was piloted in May, 1996. A consultant from the Michigan Department of Education distributed the instruments to approximately 100 teachers and administrators in two different training sessions related to collaborative teaming. Individuals were asked to review the questionnaire and demographic page, circling items they did not understand. These items were revised as necessary for clarity. Next, the SoCQr was submitted to a panel

of early childhood experts to establish content validity. The panel determined that the items were congruent with the original SoCQ in relation to mixed-age groupings.

There are several limitations related to the SoCQr that must be considered when using the questionnaire. 1) the SoCQr is a diagnostic tool only, it is not to be used for screening or to measure the adequacy of the respondents' performance; 2) the SoCQr is not a personality assessment; 3) the SoCQr was standardized on teachers and administrators in educational institutions grades K to higher education; 4) the SoCQr Questionnaire measures perceptions, not reality.

Research Questions and Hypotheses

This study will answer the following research questions:

1. What are the previous experiences and perceptions of the respondents that influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

The following null hypothesis was tested to determine what relationships existed between background experiences and Stages of Concern related to mixed-age groupings in schools.

Hypothesis 1: There will be no difference in the Stages of Concern based on previous experiences and perceptions of the respondent related to the innovation for teachers' and administrators' regarding mixed-age groupings.

2. What are the programmatic conditions that relate to or influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

The following null hypothesis was tested to determine what relationships existed between programmatic conditions and Stages of Concern related to mixed-age groupings in schools.

Hypothesis 2: There will be no difference in the Stages of Concern based on programmatic conditions related to the innovation for teachers' and administrators' regarding mixed-age groupings.

3. What are the personal attributes of the respondent that relate to or influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

The following null hypothesis was tested to determine what relationships existed between personal characteristics and Stages of Concern related to mixed-age groupings in schools.

Hypothesis 3: There will be no difference in the Stages of Concern regarding mixed-age groupings for teachers' and administrators' due to personal attributes of the respondents.

Data Collection

The data was collected on a one-time basis at each of the two training sessions. Each participant completed a revised SoCQuestionnaire and a demographic sheet. The researcher was at the training sessions on the first day and gave participants the questionnaire and demographic page when they registered and asked them to turn them in before the training session began. All questionnaires had a number designation at the top ranging from 1 to 350. The forms were randomly distributed at the sessions. After the data was collected each SoCQr was scored to determine the participants' score at each Stage of Concern. Each participant received seven raw scores, or the sum of responses to the five statements on the scale. The total score, which is the sum of the seven raw scores, was converted into a

percentile score, which identifies a score for each Stage of Concern in relation to mixed-age groupings.

Participants had a score for each Stage of Concern.

Data Analysis

Each stage of concern was analyzed using correlations. Pearson r correlations were used to determine if relationships existed between previous experiences and perceptions, programmatic conditions, and personal attributes and the Stages of Concern respondents expressed related to mixed-age groups. Phi coefficients were calculated to clarify the strength of all significant relationships found in previous experiences and perceptions, programmatic conditions, and personal attributes and how teacher's and administrator's differing Stages of Concern related to mixed-age groupings. Phi coefficients measure the strength of association between two variables and are more sensitive than chi-square to small cell size. McDavid (1976) verbally describes the strength of the degree of the phi coefficients:

.0000 to .1000	Weak
.1001 to .3000	Moderate
.3001 to .6000	Strong
.6001 to .10000	Very Strong

Analysis of variance (ANOVA's) was used to determine if variance in group means differed across previous experiences and perceptions, programmatic conditions, and personal attributes between how teacher's and administrator's differed in Stages of Concern related to

mixed-age groupings. ANOVA is a more precise measure than either the Pearson r correlations or the phi coefficients. ANOVA's were used to add strength to the analysis.

Significance Level

The 0.01 level of significance was chosen for the statistical analyses. The selection is supported by educational research.

Limitations of the Study

Although participants were already gathered at the training sessions, there was no guarantee that they would complete the SoCQr questionnaire and demographic page to be used for analysis.

There was also the limitation that not everyone completed the SoCQr questionnaire before the keynote speaker began talking about mixed-age groupings. This means some participants had some exposure to the concept of mixed-age groupings before completing the questionnaire.

Another limitation was that the participants were most likely at the training session because they chose to participate and were interested in the topic. Therefore, it should be noted that the population samples does not represent the general population of teachers overall.

Summary

In this chapter, the subjects and setting, research design, instrumentation, hypothesis, data collection, and limitations of the study were presented.

The results from the statistical analysis, characteristics of the sample, and a summary of findings is presented in Chapter Four.

CHAPTER IV

PRESENTATION OF DATA

Introduction

Presented in this chapter are the results of the data gathered from Michigan elementary teachers and administrators using the SoCQr Questionnaire described in Chapter Three.

Research questions will be presented in the order in which they are listed below.

1. What are the previous experiences and perceptions of the respondents, that influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?
2. What are the programmatic conditions' that are related to or influence respondents' differential Stages of Concern related to mixed-age groupings in schools?
3. What are the personal attributes of the respondents that relate to or influence their differential Stages of Concern related to mixed-age groupings in schools?

For each question, Pearson r coefficients were used to determine if relationships existed between the Stages of Concern respondents expressed related to mixed-age groups and: 1) their previous experiences and perceptions, 2) programmatic conditions, and 3)

respondents' personal attributes. Phi coefficients were calculated to clarify the strength of all significant relationships. ANOVA's were calculated to determine if specific variables were different across group means related to levels of concerns.

Readers are reminded that the seven Stages of Concern are defined as follows:

Stage 0 (Awareness): The individual knows only that the innovation exists.

Stage 1 (Information): The individual has a general awareness of the innovation and an interest in learning more about it.

Stage 2 (Personal): The individual is uncertain about the demands of the innovation, his or her adequacy to meet the demands, and may wonder about his or her role in relation to the innovation.

Stage 3 (Management): The individual focuses attention on the processes and tasks related to using the innovation and its impact on self.

Stage 4 (Consequence): Potential users of the innovation become concerned about the impact the innovation will have on the students in their immediate setting.

Stage 5 (Collaboration): The individual focuses is on possible coordination and cooperation with others regarding the use of the innovation.

Stage 6 (Refocusing): Individuals involve themselves in exploring how to achieve universal benefits from the innovation.

Characteristics of the Sample

Three hundred early childhood educators and principals were asked to complete the SoCQr Questionnaire in June and July 1996 at two different training sessions sponsored by

the Michigan Department of Education. Of that three hundred, 196 returned questionnaires. Only 168 could be accurately scored to determine Stage of Concern scores due to incomplete data. This produced a return rate of 53%.

In Tables 4.1 to 4.20, the sample is described.

Table 4.1 shows that 91 (57.2%) of the respondents never taught in a mixed-age classroom; 24 (15.1%), taught in a mixed-age classroom for less than two years. Forty-four (27.8%) taught in a mixed-age classroom for two years or more.

When respondents were asked to classify their degree of expertise in using strategies related to mixed-age group teaching, seven (8.4%) considered themselves to be nonusers; 39 participants categorized themselves as novices (47.0%); 21 (25.3%) considered themselves to be intermediate users; only four (4.8%) considered themselves to be old-hands. Twelve (14.5%) considered themselves to be past users (see Table 4.2).

Respondents were asked to what extent they had observed mixed-age classrooms. Table 4.3 shows that the majority of participant 86 (52.8%) said such observations were extremely like them, 48 (29.4%) said such observations were somewhat like them, and 29 (17.8%) said that observations of mixed-age classrooms were not like them.

Table 4.1: Distribution of Sample by Number of Years Involved in Teaching in Mixed-age Classrooms

TIME	Number of Respondents	Percentages (%)
Never	91	57.2
1 year	24	15.1
2 years	16	10.1
3 years	9	5.7
4 years	9	5.7
5 years or more	10	6.3
Missing	9	
Total	168	100.0

Table 4.2: Distribution of Sample by Self Described Level of Expertise in Using Mixed-age Group Strategies

TYPE OF USER	Number of Respondents	Percentages (%)
Nonuser	7	8.4
Novice	39	47.0
Intermediate	21	25.3
Old-hand	4	4.8
Past user	12	14.5
Missing	85	
Total	168	100.0

Table 4.3: Distribution of Sample by Observation of Mixed-age Classrooms

RESPONSE	Number of Respondents	Percentages (%)
Not like me	29	17.8
Somewhat like me	48	29.4
Extremely like me	86	52.8
Missing	5	
Total	168	100.0

One hundred and one of the respondents (62.0%) had been approached about teaching in a mixed-age classroom, 43 (26.4%) reported that being approached to teach in a mixed-age classroom was somewhat like them; 18 (11.0%) said that the item was not like them. These results are shown in Table 4.4.

Table 4.5 shows that 132 (82.5%) of the respondents believe they will teach in a mixed-age classroom; 25 (15.6%) of the participants believe it is somewhat likely that they will teach in a mixed-age classroom; three (1.9%) reported that don't think they'll ever teach in a mixed-age classroom.

One hundred and twenty-nine (78.7%) participants reported that new ideas are being talked about in the district; 28 (17.1%) reported new ideas are being talked about somewhat in the district; seven (4.3%) reported that new ideas were not being discussed (see Table 4.6).

When asked about trying new things, 104 (63.8%) respondents reported it was extremely like them to receive information before trying it; 50 (30.7%) reported it was somewhat like them to receive information before trying something new; and nine (5.5%) said they didn't get information before trying something new (see Table 4.7).

Table 4.4: Distribution of Sample According to Whether or Not Respondents Had Been Approached About Teaching in a Mixed-age Classroom

RESPONSE	Number of Respondents	Percentages (%)
Not like me	18	11.0
Somewhat like me	43	26.4
Extremely like me	101	62.0
Missing	5	
Total	168	100.0

Table 4.5: Distribution of Sample by Expectation of Ever Teaching in a Mixed-age Classroom

RESPONSE	Number of Respondents	Percentages (%)
Not like me	3	1.9
Somewhat like me	25	15.6
Extremely like me	132	82.5
Missing	8	
Total	168	100.0

Table 4.6: Distribution of Sample by Perception of Degree to Which Mixed-age Groupings are Being Talked About in Respondents School District

RESPONSE	Number of Respondents	Percentages (%)
Not like me	7	4.3
Somewhat like me	28	17.1
Extremely like me	129	78.7
Missing	4	
Total	168	100.0

Table 4.7: Distribution of Sample by Perception of Degree to Which Respondents Get Information Before Trying Something New

RESPONSE	Number of Respondents	Percentages (%)
Not like me	9	5.5
Somewhat like me	50	30.7
Extremely like me	104	63.8
Missing	5	
Total	168	100.0

In Table 4.8, the sample is described in terms of positive feelings about mixed-age groupings. One hundred thirty-one (85.1%) participants responded that positive feelings about mixed-age groupings were extremely like them, 21 (13.6%) reported positive feelings as being somewhat like them, and two (1.3%) reported that positive feelings were not like them (Table 4.8).

Table 4.8: Distribution of Sample by Positive Feelings About Mixed-age Groupings

RESPONSE	Number of Respondents	Percentages (%)
Not like me	2	1.3
Somewhat like me	21	13.6
Extremely like me	131	85.1
Missing	14	
Total	168	100.0

In Table 4.9, the sample is described by perception of the degree to which respondents have had formal training related to mixed-age groupings. Eighty-two (51.3%) reported receiving formal training related to mixed-age groupings was extremely like them;; 48 (30.0%) received some training, and 30 (18.8%) reported not receiving any formal training.

Table 4.9: Distribution of Sample by Perception of the Degree to Which Respondents Have Had Formal Training Related to Mixed-age Groupings

RESPONSE	Number of Respondents	Percentages (%)
Not like me	30	18.8
Somewhat like me	48	30.0
Extremely like me	82	51.3
Missing	8	
Total	168	100.0

As shown in Table 4.10, 132 respondents (81.0%) reported that they participated in committees at their school; 29 (17.8%) reported that they participate in committees somewhat; two (1.2%) reported not participating in committees.

Respondents were asked to what extent new ideas were supported in their current school, 67 (48.5%) reported this statement as extremely like them; 79 (48.5%) reported this statement as somewhat like them; 17 (10.4%) reported it was not like them (see Table 4.11). Administrative support for mixed-age groups, according to 113 participants (69.3%) was strong at their current school; 43 (26.4%) participants felt they had some administrative support; six (3.7%) reported such support was not evident at their schools (see Table 4.12).

Table 4.10: Distribution of Sample by Degree of Committee Participation

RESPONSE	Number of Respondents	Percentages (%)
Not like me	2	1.2
Somewhat like me	29	17.8
Extremely like me	131	81.0
Missing	5	
Total	168	100.0

Table 4.11: Distribution of Sample by the Extent to Which New Ideas Were Supported by Respondents at Your School

RESPONSE	Number of Respondents	Percentages (%)
Not like me	17	10.4
Somewhat like me	79	48.5
Extremely like me	67	41.1
Missing	5	
Total	168	100.0

Table 4.12: Distribution of Sample by Perception of Administrative Support for New Ideas

RESPONSE	Number of Respondents	Percentages (%)
Not like me	6	3.7
Somewhat like me	43	26.4
Extremely like me	113	69.3
Missing	5	
Total	168	100.0

As shown in Table 4.13, 27 (16.5%) of the respondents were 20-29 years old; 33 (20.1) of the respondents were 30-39 years old; 65 (39.6%) were 40-49 years old; 35 (21.3%) were 50-59; and 4 (2.4%) were 60-69 years old.

The majority of respondents, 153 (92.7%) were females, only 12 (7.3%) were males (Table 4.14). The majority (95 or 57.9%) had a Master's degree and 68 (41.5%) had a Bachelors degree (see Table 4.15). When asked the number of years they had been teaching, 119 (72.1%) of the respondents said they had taught for 20 years or less, 31 (18.8%) had taught for 21-25 years, 14 (9.1%) had taught for 26 years or longer (see Table 4.16).

Table 4.13: Distribution of Participants by Age

AGE	Number of Respondents	Percentages (%)
20-29	27	16.5
30-39	33	20.1
40-49	65	39.6
50-59	35	21.3
60-69	4	2.4
Missing	4	
Total	168	100.0

Table 4.14: Distribution of Sample by Sex

SEX	Number of Respondents	Percentages (%)
Female	153	92.7
Male	12	7.3
Missing	3	
Total	168	100.0

Table 4.15: Distribution of Sample According to Highest Degree Earned

DEGREE EARNED	Number of Respondents	Percentages (%)
Bachelor	68	41.5
Masters	95	57.9
Doctorate	1	.6
Missing	4	
Total	168	100.0

Table 4.16: Distribution of Sample by Number of Years Teaching

NUMBER OF YEARS TEACHING	Number of Respondents	Percentages (%)
0-5 years	40	24.2
6-10 years	29	17.6
11-20 years	50	30.3
21-25 years	31	18.8
26-30 years	12	7.3
31 or more years	3	1.8
Missing	3	
Total	168	100.0

In Tables 4.17 and 4.18, respondents are described in terms of grade levels taught and involvement in teaching in a mixed-age classrooms. Fifty-one (31.1%) of the respondents taught preschool through second grade. Nineteen (11.6%) of the participants taught third through fifth grade. The majority 92, (56.1%) taught in a variety of grades (preschool through fifth grade) (see Table 4.17).

Table 4.18 shows respondents' involvement in teaching in a mixed-age classroom. Seventy-four (45.7%) said, it is not like them, 35 (21.6%) said it is somewhat like them, 53 (32.7%) said such teaching is extremely like them.

Table 4.17: Distribution of Sample by Grade Level Experience

GRADES TAUGHT IN	Number of Respondents	Percentages (%)
Preschool through second grade	51	31.1
Third through fifth grade	19	11.6
Mixed (preschool through fifth grade)	92	56.1
Other	2	1.2
Missing	4	
Total	168	100.0

Table 4.18: Distribution of Sample by Involvement in Teaching in a Mixed-age Classroom

RESPONSE	Number of Respondents	Percentages (%)
Not like me	74	45.7
Somewhat like me	35	21.6
Extremely like me	53	32.7
Missing	6	
Total	168	100.0

Table 4.19 shows the distribution of the respondents' by current job title. One hundred and forty-six (91.3%) were teachers, ten (6.3%) were administrators, and four (2.5%) said they held a role of teacher and administrator.

Seventy-five (46.3%) were employed at their current school for up to five years; 41 (25.3%) were at their current school six to ten years; 27 (16.7%) for 11-20 years; and 19 (11.7%) of the respondents were at their current school for 21 years or more (see Table 4.20).

Table 4.19: Distribution of Sample by Current Job Title

TITLE	Number of Respondents	Percentages (%)
Teacher	146	91.3
Administrator	10	6.3
Combination	4	2.5
Missing	8	
Total	168	100.0

Table 4.20: Distribution of Sample by Number of Years Employed at Current School

NUMBER OF YEARS EMPLOYED AT CURRENT SCHOOL	Number of Respondents	Percentages (%)
0-5 years	75	46.3
6-10 years	41	25.3
11-20 years	27	16.7
21-25 years	12	7.4
26 or more years	7	4.3
Missing	6	
Total	168	100.0

Results Regarding the Research Questions

Three research questions were formulated for the purpose of this study. In the pages that follow, each research questions is restated, followed by a report of the data related to that question.

Research Question 1

What are the previous experiences and perceptions of the respondents that influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

To answer this research question, hypothesis one was tested. It is stated below followed by the results of the statistical analysis. To test whether there existed any relationships between previous experiences and perceptions and the respondents' Stages of Concern, Pearson r correlations were performed. To test the strength of the relationship, phi coefficients were calculated. ANOVA's were performed to compare whether group means were different across groups.

Hypothesis 1: There is no difference in the Stages of Concern based on previous experiences and perceptions of the respondents related to the innovation for teachers' and administrators' regarding mixed-age groupings.

To test this hypothesis the following previous experiences and perceptions of the respondents were analyzed: 1) number of years involved in teaching in mixed-age classrooms; 2) self described level of expertise in using mixed-age grouping strategies; 3) observation of mixed-age classrooms; 4) whether or not respondents had been approached about teaching in a mixed-age classroom; 5) expectation of ever teaching in a mixed-age classroom; 6) perception of degree to which mixed-age groupings are being talked about in respondents district; 7) perception of degree to which respondents get information before trying something new; 8) positive feelings about mixed-age groupings; 9) perception of the degree to which respondents have had formal training related to mixed-age groupings. It was determined that all nine variables yielded significant findings (see Tables 4.21, 4.22, and 4.23).

Number of Years Involved in Teaching in a Mixed-age Classroom

A Pearson r correlation analysis of the relationship between the number of years respondents taught in mixed-age classrooms and the seven Stages of Concern, revealed that three out of the seven were significant at the .01 level. There were negative relationships between the number of years respondents taught in mixed-age classrooms and the following stages: Information (-.34), Personal (-.39), and Management (-.32). These outcomes indicate that the more years a person teaches in a mixed-age classroom, the fewer informational, personal, and management concerns they have (readers are referred to Table 4.21 for these results).

The strength of these relationships was determined by calculating phi coefficients (see Table 4.22). All seven Stages of Concern had a 'very strong' relationship with the number of years respondents taught in a mixed-age classroom.

Analyzing the variance between the number of years respondents taught in mixed-age classrooms in relation to each of the seven Stages of Concern, three of the seven group means differed across groups. That is, number of years involved in teaching in a mixed-age classroom does have an effect on Stages of Concern. At the .01 significance level, the Information stage (5.84), the Personal stage (8.69), and the Management stage (5.15) differed across number of years involved in teaching in mixed-age classrooms (readers are referred to Table 4.23 for the results). Fifty-seven percent had never taught in a mixed-age classroom, 24 (15%) for one year, 16 (10%) for two years, and 28 (18%) had been teaching in a mixed-age classroom for three or more years.

The null hypothesis was rejected.

Self-described Level of Expertise in Using Mixed-age Grouping Strategies

A Pearson r correlation analysis of the relationship between the respondents' self described level of expertise in using mixed-age grouping strategies and the seven Stages of Concern, revealed that three out of the seven were significant at the .01 level. There were negative relationships between self described level of expertise in using mixed-age grouping strategies and the following stages: Information (-.26), Personal (-.29), and Management (-.38). The higher the self described level of expertise in using mixed-age grouping strategies, the fewer information, personal, and management concerns respondents seem to have (readers are referred to Table 4.21 for these results).

The strength of these relationships was determined by calculating phi coefficients (see Table 4.22). All seven Stages of Concern had a 'very strong' relationship with the self described level of expertise in using mixed-age grouping strategies.

Analyzing the variance between self described level of expertise in using mixed-age grouping strategies in relation to each of the seven Stages of Concern, three of the seven group means differed across groups. That is, self described level of expertise in using mixed-age grouping strategies does have an effect on Stages of Concern. At the .01 significance level the Information stage (3.91), the Personal stage (4.27), and the Management stage (5.86) differed according to self described level of expertise in using mixed-age grouping strategies (readers are referred to Table 4.23 for the results). Only seven (8%) considered themselves to be a non-user. Thirty-nine respondents (47%) considered themselves to be a novice user, while 21 (25%) considered themselves to be intermediate users. Four (4.8%) called themselves old-hands 12 (14.5%) said they were past users.

The null hypothesis was rejected.

Observation of Mixed-age Classrooms

A Pearson r correlation analysis of the relationship between observation of mixed-age classrooms and the seven Stages of Concern, revealed that two out of the seven were significant at the .01 level. There were negative relationships between observation of mixed-age classrooms and the following stages: Information (-.20) and Personal (-.27). The more mixed-age classrooms that the respondent observed, the fewer informational and personal concerns they have (readers are referred to Table 4.21 for these results).

The strength of these relationships was determined by calculating phi coefficients (see Table 4.22). Five of the stages had 'strong' relationships with observation of mixed-age classrooms. Two of the stages (Personal and Refocusing) had 'very strong' relationships with observation of mixed-age classrooms.

Analyzing the variance between observation of mixed-age classrooms in relation to each of the seven Stages of Concern, two of the seven group means differed across groups. That is, observation of mixed-age classrooms does have an effect on Stages of Concern. At the .01 significance level the Information stage and (6.35) 5) the Personal stage differed across observation of mixed-age classrooms (readers are referred to Table 4.23 for the results). Twenty-nine (17.8%) said it was not like them, 48 (29.4%) said it was somewhat like them, and 86 (52.8%) said it was extremely like them.

The null hypothesis was rejected.

Whether or Not Respondents had been Approached About Teaching in a Mixed-age Classroom

A Pearson r correlation analysis of the relationship between whether or not respondents had been approached about teaching in a mixed-age classroom and the seven

Stages of Concern, revealed that four out of the seven were significant at the .01 level. There were negative relationships between whether or not respondents had been approached about teaching in a mixed-age classroom and the following stages: Awareness (-.18) and Personal (-.21). If respondents had been approached about teaching in a mixed-age classroom they had fewer awareness and personal concerns, but respondents expressed more consequence and collaboration concerns. Positive relationships existed between the Consequence stage (.23) and the Collaboration stage (.31). (Readers are referred to Table 4.21 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.22 for these results). Awareness had a 'strong' relationship with whether or not respondents had been approached about teaching in a mixed-age classroom. The other six stages had 'very strong' relationships with whether or not respondents had been approached about teaching in a mixed-age classroom.

Analyzing the variance between whether or not respondents had been approached about teaching in a mixed-age classroom in relation to each of the seven Stages of Concern, three of the seven group means differed across groups. That is, whether or not respondents had been approached about teaching in a mixed-age classroom does have an effect on Stages of Concern. At the .01 significance level, the Personal stage (3.55), the Consequence stage (3.68), and the Collaboration stage (6.70) differed according to whether or not respondents had been approached about teaching in a mixed-age classroom (readers are referred to Table 4.23 for the results). Eighteen (11%) said they had not been approached, 43 (26.4%) had someone approach them, and 101 (62%) said it was extremely like them to be approached.

The null hypothesis was rejected.

Expectations of Ever Teaching in a Mixed-age Classroom

A Pearson r correlation analysis of the relationship between expectations of ever teaching in a mixed-age classroom and the seven Stages of Concern, revealed that two out of the seven were significant at the .01 level. There were positive relationships between expectations of ever teaching in a mixed-age classroom and the following stages: Consequence (.26) and Collaboration (.27). The higher the expectation of teaching in a mixed-age classroom the more consequence and collaboration concerns respondents seem to have (readers are referred to Table 4.21 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.22 for these results). Three of the stages had a 'strong' relationship with expectations of ever teaching in a mixed-age classroom (Awareness, Information, and Refocusing). Four of the stages had a 'very strong' relationships with expectations of ever teaching in a mixed-age classroom (Personal, Management, Consequence, and Collaboration).

Analyzing the variance between expectations of ever teaching in a mixed-age classroom in relation to each of the seven Stages of Concern, three of the seven group means differed across groups. That is expectations of ever teaching in a mixed-age classroom did have an effect on Stages of Concern. At the .01 significance level the Management stage (4.32), the Consequence stage (6.03), and the Collaboration stage (6.27) differed according to expectations of ever teaching in a mixed-age classroom (readers are referred to Table 4.23 for the results). Three (1.9%) responded not like me, 25 (15.6%) responded somewhat like me, and 132 (82.5%) said it was extremely like them.

The null hypothesis was rejected.

Perception of Degree to Which Mixed-age Groupings are Being Talked about in the Respondents District

A Pearson r correlation analysis of the relationship between perception of degree to which mixed-age groupings are being talked about in the respondents district and the seven Stages of Concern, revealed that one out of the seven were significant at the .01 level. There was a positive relationship between perception of degree to which mixed-age groupings were being talked about in the respondents' district and the Collaboration stage (.21). The higher the perception of the degree to which mixed-age groupings are being talked about in the district the higher the collaboration concerns respondents have (readers are referred to Table 4.21 for these results). Seven (4.3%) said it was not like them, 28 (17.1%) responded somewhat like them, and 129 (78.7%) said it was being talked about in their district.

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.22 for these results). Five of the stages had a 'strong' relationship with perception of degree to which mixed-age groupings are being talked about in the respondents district. Two of the stages (Consequence and Collaboration) had a 'very strong' relationship with perception of degree to which mixed-age groupings are being talked about in the respondents district.

Analyzing the variance between perception of degree to which mixed-age groupings are being talked about in the respondents district in relation to each of the seven Stages of Concern, none of the seven group means differed across groups. That is perception of degree to which mixed-age groupings are being talked about in the respondents district does have an effect on Stages of Concern (readers are referred to Table 4.23 for the results). Seven (4.3%) said it was not like them, 28 (17.1%) responded somewhat like me, and 129 (78.7%) said it was being talked about in their district.

The null hypothesis was rejected.

Perception of Degree to Which Respondents get Information before Trying Something New

A Pearson r correlation analysis of the relationship between perception of degree to which respondents get information before trying something new and the seven Stages of Concern, revealed that two out of the seven were significant at the .01 level. (readers are referred to Table 4.21 for these results). There was a negative relationship between perception of degree to which respondents get information before trying something new and the Personal stage (-.20). The higher more information respondents get before trying something new, the fewer personal concerns they have. There was a negative relationship between perception of respondents getting information before they try something new and the Collaboration stage (.25). The higher the perception of getting information before trying something new the fewer collaboration concerns they have.

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.22 for these results). Five of the stages had 'very strong' relationship with perception of degree to which respondents get information before trying something new. Two of the stages (Awareness and Consequence) had a 'strong' relationships with perception of degree to which respondents get information before trying something new.

Analyzing the variance between perception of degree to which respondents get information before trying something new in relation to each of the seven Stages of Concern, two of the seven group means differed across groups. That is perception of degree to which respondents get information before trying something new does have an effect on Stages of Concern. At the .01 level, the Personal stage (4.41) and the Collaboration stage (5.72) differed across perception of degree to which respondents get information before trying

something new (readers are referred to Table 4.23 for the results). Nine (5.5%) responded it was not like them to get information first, 50 (30.7%) said it was somewhat like them to get information first, and 104 (63.8%) said it was extremely like them to get information first.

The null hypothesis was rejected.

Positive Feelings About Mixed-age Groupings

A Pearson r correlation analysis of the relationship between positive feelings about mixed-age groupings and the seven Stages of Concern, revealed that two out of the seven were significant at the .01 level (readers are referred to Table 4.21 for these results). At the .01 level a negative relationship exists between the Information stage (-.21) and Management stage (-.26) and respondents positive feelings about mixed-age groupings. As positive feelings about mixed-age groupings increases information and management concerns increase.

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.22 for these results). Five of the stages had 'very strong' relationships, the Collaboration stage and Awareness stage could be categorized as 'strong'.

Analyzing the variance between respondents' positive feelings about mixed-age groupings in relation to each of the seven Stages of Concern, two of the seven group means differed across groups. That is positive feelings about mixed-age groupings does have an effect on Stages of Concern. At the .01 level of significance the Management stage (6.04) and the Refocusing stage (5.39) differed across positive feelings about mixed-age groupings (readers are referred to Table 4.23 for the results). Two (1.3%) said they did not feel

positively, 21 (13.6%) said they felt somewhat positively, and 131 (85.1%) said they felt positively about mixed-age groupings.

The null hypothesis was rejected.

Perception of the Degree to Which Respondents have had Formal Training Related to Mixed-age Groupings

A Pearson r correlation analysis of the relationship between perception of the degree to which respondents have had formal training related to mixed-age groupings and the seven Stages of Concern, revealed that four out of the seven were significant at the .01 level. There were negative relationships between perception of the degree to which respondents have had formal training related to mixed-age groupings and the following stages: Information (-.32), Personal (-.36), and Management (-.29). The lower the perception of the degree to which respondents have had formal training in relation to mixed-age groupings the more information, personal, and management concerns they have (readers are referred to Table 4.21 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.22 for these results). Four out of the seven had 'very strong' relationships, while three had relationships described as 'strong' (Awareness, Consequence, and Refocusing).

Analyzing the variance between perception of the degree to which respondents have had formal training related to mixed-age groupings in relation to each of the seven Stages of Concern, four of the seven group means differed across groups. That is perception of the degree to which respondents have had formal training in mixed-age groupings does have an effect on the Stages of Concern. At the .01 level of significance the Information stage

(12.88) , Personal stage (19.15), Management stage (12.61) and the Collaboration stage (8.11) differed across perception of the degree to which respondents have had formal training related to mixed-age groupings (readers are referred to Table 4.23 for the results). Thirty (18.8%) responded they had not received formal training, 48 (30%) said they had received some training, and 82 (51.3%) said they had received training.

The null hypothesis was rejected.

In summary of the significant variables related to Research Question 1 are listed in Table 4.21 on the following page.:

Table 4.21: Relationship Between Previous Experiences and Perceptions of the Respondents Related to the Innovation Mixed-age Groupings and Stages of Concern (Pearson r coefficients)

Previous Experiences and Perceptions of Respondent	Stage 0 Awareness	Stage 1 Information	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Number of years involved in teaching in a mixed-age classroom	-.18	-.34*	-.39*	-.32*	-.05	.13	.09
Self described level of expertise in using mixed-age group strategies	-.07	-.26*	-.29*	-.38*	-.14	.00	-.09
Observation of mixed-age classrooms	-.17	-.20*	-.27*	-.16	.08	.17	.11
Whether or not respondents had been approached about teaching in a mixed-age classroom	-.18*	-.16	-.21*	-.00	.23*	.31*	.12
Expectations of ever teaching in a mixed-age classroom	-.04	-.01	-.00	.03	.26*	.27*	.10
Perception of degree to which mixed-age groupings are being talked about in the respondents district	-.06	-.14	-.13	-.06	.16	.21*	.04
Perception of degree to which respondent gets information before trying something new	.03	-.12	-.20*	-.12	.03	.25*	.02
Positive feelings about mixed-age groupings	-.13	-.21*	-.18	-.26*	-.05	.01	-.18
Perception of the degree to which respondents have had formal training related to mixed-age groupings	-.16	-.32*	-.36*	-.29*	.01	.30*	.07

*significant .01 level

Table 4.22: Relationships Between Previous Experiences and Perceptions of the Respondent Related to the Innovation of Mixed-age Groupings and Stages of Concern (Phi coefficients)

Previous experiences and perceptions of respondent	Stage 0 Awareness	Stage 1 Informational	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Number of years involved in teaching in a mixed-age classroom	.76	1.29	1.12	1.09	.95	1.03	1.09
Self described level of expertise in using mixed-age group strategies	.85	1.36	1.28	1.16	1.05	1.11	1.14
Observation of mixed-age classrooms	.52	.60	.66	.55	.49	.59	.61
Whether or not respondents had been approached about teaching in a mixed-age classroom	.51	.72	.81	.63	.62	.70	.73
Expectations of ever teaching in a mixed-age classroom	.46	.55	.70	.76	.63	.71	.53
Perception of degree to which mixed-age groupings are being talked about in the respondents district	.42	.55	.58	.54	.67	.63	.60
Perception of degree to which respondents get information before trying something new	.44	.61	.77	.69	.60	.67	.65
Positive feelings about mixed-age groupings	.60	.70	.74	.74	.71	.57	.92
Perception of the degree to which respondents have had formal training related to mixed-age groupings	.51	.69	.72	.62	.52	.66	.60

Table 4.23: Variance Between Previous Experiences and Perceptions of the Respondents Related to the Innovation Mixed-age Groupings and Stages of Concern (F values)

Previous experiences and perceptions of respondent	Stage 0 Awareness	Stage 1 Informational	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Number of years involved in teaching in a mixed-age classroom	2.76	5.84*	8.69*	5.15*	1.61	1.58	.126
Self described level of expertise in using mixed-age group strategies	.53	3.91*	4.27*	5.86*	2.72	.11	.39
Observation of mixed-age classrooms	3.55	6.35*	9.34*	3.72	.74	2.55	1.03
Whether or not respondents had been approached about teaching in a mixed-age classroom	2.46	2.94	3.55*	.322	3.68*	6.70*	2.42
Expectations of ever teaching in a mixed-age classroom	1.09	.37	2.96	4.32*	6.03*	6.27*	.94
Perception of degree to which mixed-age groupings being talked about in the respondents district	.71	1.82	1.53	.46	2.31	3.89	.93
Perception of degree to which respondents get information before trying something new	.58	1.22	4.41*	3.33	.11	5.72*	1.12
Positive feelings about mixed-age groupings	1.74	3.75	2.76	6.04*	3.42	2.40	5.39*
Perception of the degree to which respondents have had formal training related to mixed-age groupings	3.72	12.88*	19.15*	12.61*	.25	8.11*	.93

*significant .01 level

Table 4.24: Summary of Previous Experiences and Perceptions of the Respondent to Mixed-age Groupings and Stages of Concern

Variable Related to Previous Experiences and Perceptions	Hypothesis Supported or Rejected
Number of years involved in teaching in a mixed-age classroom	Rejected
Kind of teacher respondent considers himself/herself to be in regards to mixed-age groupings	Rejected
Extent to which respondent has observed mixed-age classroom	Rejected
Subjects had been approached about teaching in a mixed-age classroom	Rejected
Subjects think they will ever teach in a mixed-age classroom	Rejected
Mixed-age classrooms being talked about in the district	Rejected
The extent to which subjects are provided with information before trying something new	Rejected
Positive feelings about mixed-age groupings	Rejected
The extent to which subjects had received formal training about mixed-age groupings	Rejected

Research Question 2

What are the programmatic conditions that influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

To answer this research question, hypothesis two was tested. It is stated below followed by the results of the statistical analysis. To test whether there existed any relationships between specific variables and the respondents Stages of Concern, Pearson r correlations were performed. To test the strength of the relationship phi coefficients were

calculated. ANOVA's were performed to compare whether group means were different across groups.

Hypothesis 2: There will be no difference in the Stages of Concern based on the programmatic conditions related to the innovation for teachers' and administrators' regarding mixed-age groupings.

To test this hypothesis, the following programmatic conditions were analyzed: 1) whether or not respondents have been approached about teaching in a mixed-age classroom; 2) their degree of committee participation; 3) to what extent new ideas were supported in respondents' schools; 4) perception of administrative support for new ideas; 5) respondents' perception of degree to which mixed-age groupings are being talked about in their school district; 6) respondents perception of the degree to which they get information before trying something new. It was determined that all programmatic variables studied had a significant relationship with Stages of Concern (the reader is referred to Tables 4.25, 4.26, and 4.27).

Whether or Not the Respondent has been Approached about Teaching in a Mixed-age Classroom

A Pearson r correlation analysis of the relationship between whether or not the respondent has been approached about teaching in a mixed-age classroom and the seven Stages of Concern, showed that four out of the seven were significant at the .01 level. There were negative relationships between whether or not respondents were approached about teaching in a mixed-age classroom and the following stages: Awareness (-.18) and Personal (-.16). The more respondents have been approached about teaching in a mixed-age classroom the fewer awareness and personal concerns they have. Positive relationships existed between the Consequence stage (.31) and the Collaboration stage (.31). If respondents had been approached about teaching in a mixed-age classroom the more

consequence and collaboration concerns they will have (readers are referred to Table 4.25 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.26 for these results). Six of the seven had 'very strong' relationships, with only the Awareness stage having a 'strong' relationship.

Analyzing the variance between whether or not respondent has been approached about teaching in a mixed-age classroom in relation to each of the seven Stages of Concern, three of the seven group means differed across groups. That is whether or not respondent has been approached about teaching in a mixed-age classroom does have an effect on Stages of Concern. At the .01 level of significance the Personal (3.55), Consequence (3.68), and the Collaboration (6.70) stages differed across whether or not respondent has been approached about teaching in a mixed-age classroom (readers are referred to Table 4.27 for the results). Eighteen (11%) had not been approached, 43 (26.4%) had been approached, and 101 (62%) said it was extremely like them to be approached.

The null hypothesis was rejected.

Degree of Committee Participation

A Pearson r correlation analysis of the relationship between degree of committee participation and the seven Stages of Concern, revealed that one out of the seven was significant at the .01 level. A positive relationship existed between the Collaboration stage (.21) and the degree of committee participation. The more respondents reported participating in committees to be high the greater their collaboration concerns (readers are referred to Table 4.25 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.26 for these results). Three of the seven had 'strong' relationships, with Information, Personal, Management, and Collaboration being 'very strongly' related.

Analyzing the variance between degree of committee participation in relation to each of the seven Stages of Concern, two of the seven group means differed across groups. That is degree of committee participation does have an effect on Stages of Concern. At the .01 level of significance the Personal (4.62) and the Collaboration (4.21) stages differed across degree of committee participation (readers are referred to Table 4.27 for the results). Two (1.2%) did not participate on committees, 29 (17.8%) participated on committees, and 131 (81%) reported it was extremely like them to participate on committees.

The null hypothesis was rejected.

Extent to Which New Ideas Were Supported by Respondents' Schools

A Pearson r correlation analysis of the relationship between extent to which new ideas were supported by respondents school and the seven Stages of Concern, showed that none of the seven were significant at the .01 level (readers are referred to Table 4.25 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.26 for these results). Six of the seven had 'strong' relationships, with only the Information stage having a 'very strong' relationship.

Analyzing the variance between extent to which new ideas were supported by respondents school in relation to each of the seven Stages of Concern, one of the seven group means differed across groups. That is extent to which new ideas were supported by

respondents school does have an effect on Stages of Concern. At the .01 level of significance the Refocusing stage (4.42) differed across extent to which new ideas were supported by respondents school (readers are referred to Table 4.27 for the results). Seventeen (10.4%) reported that new ideas were not supported at their school, 79 (48.5%) reported new ideas were somewhat supported, and 67 (41%) reported that new ideas were supported at their schools.

The null hypothesis was rejected.

Perception of Administrative Support for New Ideas

A Pearson r correlation analysis of the relationship between perception of administrative support for new ideas and the seven Stages of Concern, revealed that one out of the seven were significant at the .01 level. A positive relationship existed between the Collaboration stage (.18) and perception of administrative support for new ideas. If respondents reported a high perception of administrative support for new ideas the collaboration concerns were high (readers are referred to Table 4.25 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.26 for these results). Five of the seven had 'very strong' relationships, with only two (Awareness and Information) having a 'strong' relationship.

Analyzing the variance between perception of administrative support for new ideas in relation to each of the seven Stages of Concern, none of the seven group means differed across groups by perception of administrative support for new ideas. That is perception of administrative support for new ideas does not have an effect on Stages of Concern (readers are referred to Table 4.27 for the results). Six (3.7%) said administrators were not supportive

of new ideas, 43 (26.4%) said administrators were somewhat supportive, and 113 (69.3%) said their administrators were supportive of new ideas.

The null hypothesis was rejected.

Perception of Degree to Which Mixed-age Groupings are Being Talked about in Respondents School District

A Pearson r correlation analysis of the relationship between perception of degree to which mixed-age groupings are being talked about in respondents' school district and the seven Stages of Concern, revealed that one out of the seven were significant at the .01 level. A positive relationship existed between the Collaboration stage (.21) and perception of degree to which mixed-age groupings are being talked about in the respondents' school district. If respondents reported that mixed-age groupings were being talked about in their district the collaboration concerns were high (readers are referred to Table 4.25 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.26 for these results). Five of the seven had 'strong' relationships, with Consequence and Collaboration having 'very strong' relationships.

Analyzing the variance between perception of degree to which mixed-age groupings are being talked about in respondents school district to each of the seven Stages of Concern, none of the seven group means differed across groups by perception of degree to which mixed-age groupings are being talked about in respondents school district. That is, perception of degree to which mixed-age groupings are being talked about in respondents school district have an effect on Stages of Concern (readers are referred to Table 4.27 for the results). Seven (4.3%) said mixed-age groupings were not being talked about, 28 (17.1%)

said mixed-age groupings were somewhat being talked about, 129 (78.8%) reported mixed-age groupings were being talked about.

The null hypothesis was rejected.

Perception of Degree to Which Respondents Get Information Before Trying Something New

A Pearson r correlation analysis of the relationship between perception of degree to which respondents get information before trying something new and the seven Stages of Concern, revealed that two out of the seven were significant at the .01 level. There was a negative relationship between perception of degree to which respondents get information before trying something new and the Personal stage (-.20). The higher respondents perception of the degree to which they get information before trying something new, the fewer personal concerns they have (readers are referred to Table 4.25 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.26 for these results). Five of the seven had 'very strong' relationships, with only Awareness and Consequence having a 'strong' relationship.

Analyzing the variance between perception of degree to which respondents get information before trying something new to each of the seven Stages of Concern, two out of the seven group means differed across groups by perception of degree to which respondents get information before trying something new. That is perception of degree to which respondents get information before trying something new have an effect on Stages of Concern. At the .01 level of significance Personal (4.41) and Collaboration (5.72) stages differed across perception of degree to which respondents get information before trying something new (readers are referred to Table 4.27 for the results). Nine (5.5%) reported they do not get information before trying something new, 50 (30.7%) said it is somewhat like

them to get information before trying something, and 104 (63.8%) reported it was extremely like them to get information first.

The null hypothesis was rejected.

Table 4.25: Relationship Between Programmatic Conditions of Mixed-age Groupings and Stages of Concern (Pearson r coefficients)

Programmatic conditions	Stage 0 Awareness	Stage 1 Information	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Whether or not respondent has been approached about teaching in a mixed-age classroom	-.18*	-.16	-.21*	-.00	.23*	.31*	.12
Degree of committee participation	-.07	-.08	-.12	-.04	-.00	.21*	.11
Extent to which new ideas supported were supported by respondents school	-.01	-.08	.01	.03	.08	.12	.14
Perception of administrative support for new ideas	-.04	-.09	-.11	.03	.15	.18*	.15
Perception of degree to which mixed-age groupings are being talked about in respondents school district	-.06	-.14	-.13	-.06	.16	.21*	.04
Perception of degree to which respondents get information before trying something new	-.03	-.12	-.20*	-.12	.03	.25*	.02

*significant .011 level

Table 4.26: Relationships Between Programmatic Conditions of Mixed-age Groupings and Stages of Concern (Phi coefficients)

Programmatic conditions	Stage 0 Awareness	Stage 1 Information	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Whether or not respondent has been approached about teaching in a mixed-age classroom	.51	.72	.81	.63	.62	.70	.73
Degree of committee participation	.34	.65	.72	.85	.52	.74	.51
Extent to which new ideas were supported by respondents school	.53	.69	.59	.56	.57	.53	.58
Perception of administrative support for new ideas	.47	.60	.67	.71	.70	.83	.75
Perception of degree to which mixed-age groupings are being talked about in respondents school district	.42	.55	.58	.54	.67	.63	.60
Perception of degree to which respondents get information before trying something new	.44	.61	.77	.69	.60	.67	.65

Table 4.27: Variance Between Programmatic Conditions of Mixed-age Groupings and Stages of Concern (F values)

Programmatic conditions	Stage 0 Awareness	Stage 1 Information	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Whether or not respondent has been approached about teaching in a mixed-age classroom	2.46	2.94	3.55*	.322	3.68*	6.70*	2.42
Degree of committee participation	.48	2.56	4.62*	3.04	1.30	4.21*	1.09
Extent to which new ideas were supported by respondents school	1.65	.67	.07	.47	1.16	1.75	4.42*
Perception of administrative support for new ideas	.15	.70	.93	.13	.12	3.36	2.01
Perception of degree to which mixed-age groupings are being talked about in the respondents school district	.71	1.82	1.53	.46	2.31	3.89	.93
Perception of degree to which respondents get information before trying something new	.58	1.22	4.41*	3.33	.11	5.72*	1.12

*significant .01 level

A summary of the significant variables related to Research Question 2 are listed below:

Table 4.28: Summary of Programmatic Conditions Related to Mixed-age Groupings and Stages of Concern

Variables Related to Programmatic Conditions	Hypothesis Supported or Rejected
Approached about teaching in a mixed-age classroom	Rejected
Committee participation	Rejected
New ideas supported by respondents school	Rejected
Administrators supportive of new ideas	Rejected
Mixed-age groupings being talked about in the district	Rejected
Provided with information before trying something new	Rejected

Research Question 3

What are the personal attributes of the respondent that relate to or influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

To answer this research question, hypothesis three was tested. It is stated below followed by the results of the statistical analysis. To test whether there existed any relationships between specific variables and the respondents Stages of Concern, Pearson r correlations were performed. To test the strength of the relationship phi coefficients were calculated. ANOVA's were performed to compare whether group means were different across groups.

Hypothesis 3: There will be no difference in the Stages of Concern regarding mixed-age groupings for teachers' and administrators' due to personal attributes of the respondents.

To test this hypothesis the following personal attributes were analyzed: 1) age; 2) sex; 3) educational endorsements; 4) highest degree earned; 5) number of years teaching; 6)

grade level experience; 7) involvement in teaching in a mixed-age classroom. It was determined that the following variables had significant relationships: grade level experience and involvement in teaching in a mixed-age classroom (reader refer to Tables 4.29, 4.30, and 4.31).

Grade level experience

A Pearson r correlation analysis of the relationship between grade level experience and the seven Stages of Concern, revealed that one significant relationship existed. At the .01 level a negative relationship exists between the Information stage (-.26) and grade level experience. The more vast grade level experience is, the fewer information concerns they have (readers are referred to Table 4.29 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.30 for these results). Six of the seven stages had a 'very strong' relationship with grade level experience, while Awareness was categorized as having a 'strong' relationship.

Analyzing the variance between grade level experience in relation to each the seven Stages of Concern, one out of the seven group means differed across groups. That is grade level experience does have an effect on Stages of Concern. At the .01 level of significance the Information stage (5.58) differed across grade level experience (readers are referred to Table 4.31 for the results). Fifty-one (31.1%) had taught preschool through second grade, 19 (11.6%) had taught third through fifth grade, and 92 (56.1%) had taught in classes ranging from preschool to fifth grade.

The null hypothesis was rejected.

Involvement in Teaching in a Mixed-age Classroom

A Pearson r correlation analysis of the relationship between involvement in teaching in a mixed-age classroom and the seven Stages of Concern, revealed that three out of the seven were significant. At the .01 level a negative relationship exists between the Information (-.34), Personal (-.39), and Management (-.32) stages in involvement in teaching in a mixed-age classroom. The more involvement in teaching in a mixed-age classroom the fewer information, personal, and management concerns respondents have (readers are referred to Table 4.29 for these results).

The strength of these relationships was determined by calculating phi coefficients (readers are referred to Table 4.30 for these results). All stages had a 'very strong' relationship with involvement in teaching in a mixed-age classroom.

Analyzing the variance between involvement in teaching in a mixed-age classroom in relation to each the seven Stages of Concern, three out of the seven group means differed across groups by involvement in teaching in a mixed-age classroom. That is involvement in teaching in a mixed-age classroom does have an effect on Stages of Concern. The Information stage (5.84), the Personal stage (8.69), and the Management stage (5.15) differed across involvement in teaching in a mixed-age classroom (readers are referred to Table 4.31 for the results). Seventy-four (45.7%) said they had never taught in a mixed-age classroom, 35 (21.6%) felt they had some involvement and 53 (32.7%) felt they had been involved in teaching in a mixed-age classroom.

The null hypothesis was rejected.

Table 4.29: Relationship Between Personal Attributes of the Respondents and Stages of Concern (Pearson r coefficients)

Personal Attributes	Stage 0 Awareness	Stage 1 Information	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Age	.02	-.11	-.09	-.09	.00	-.01	-.02
Sex	.07	.05	.04	.01	.12	-.09	.01
Educational endorsements	-.07	-.04	-.04	-.07	-.03	.14	.04
Highest degree earned	-.06	-.03	.01	-.02	.02	-.02	.10
Number of years teaching	.06	-.11	-.13	-.12	-.06	.00	-.00
Grade level experience	-.05	-.26*	-.15	-.08	-.07	-.04	-.01
Involvement in teaching in a mixed-age classroom	-.18	-.34*	-.39*	-.32*	-.05	.13	.09

*significant .01 level

Table 4.30: Relationships Between Personal Attributes of the Respondents and Stages of Concern (Phi coefficients)

Personal Attributes	Stage 0 Awareness	Stage 1 Information	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Age	.72	1.04	1.08	.85	.86	.90	.91
Sex	.23	.41	.38	.40	.50	.50	.50
Educational endorsements	.79	.93	.99	.85	.76	.93	.78
Highest degree earned	.54	.86	.57	.59	.56	.80	.59
Number of years teaching	.85	1.09	1.20	1.01	.93	1.00	1.06
Grade level experience	.58	.83	.76	.69	.68	.70	.70
Involvement in teaching in a mixed-age classroom	.76	1.29	1.12	1.09	.95	1.03	1.09

Table 4.31: Relationship Between Personal Attributes of the Respondents and Stages of Concern (F values)

Personal Attributes	Stage 0 Awareness	Stage 1 Information	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Age	.55	1.50	1.11	.77	.19	.32	.20
Sex	1.00	.58	.29	.02	2.53	1.35	.05
Educational endorsements	1.07	.45	.38	.48	.14	1.29	.54
Highest degree earned	1.48	2.39	.35	.48	.14	1.29	.54
Number of years teaching	.75	1.61	1.27	1.68	2.56	1.05	1.08
Grade level experience	1.18	5.58*	2.49	1.29	1.11	.81	.64
Involvement in teaching in a mixed-age classroom	2.76	5.84*	8.69*	5.15*	1.61	1.58	1.26

*significant .01 level

The summary of the significant variables related to Research Question number 3 follow:

Table 4.32: Summary of Personal Attributes of the Respondent Related to Mixed-age Groupings and Stages of Concern

Variables Related to Respondents' Personal Attributes	Hypothesis Supported or Rejected
Age	Supported
Sex	Supported
Educational endorsements	Supported
Highest degree earned	Supported
Number of years spent teaching	Supported
Grade level experience	Rejected
Involvement in teaching in a mixed-age classroom	Rejected

Summary

In this chapter the characteristics of the sample were described and displayed. Reports of the data analysis were presented. It was found that all variables related to background experiences and perceptions of the respondent, all variables related to programmatic conditions, and certain personal attributes (grade level experience and involvement in teaching in a mixed-age classroom) significantly influenced the Stages of Concern reported by teachers' and administrators'.

In Chapter V, a discussion of these finding and recommendations for future research are presented.

CHAPTER V

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

Introduction

This chapter contains a summary of the purpose of the study, conclusions, and observations made from the study. Recommendations for further study are also made.

Summary

Purpose of the Study

The purpose of this research was to explore what early childhood educators know about actual or potential changes in group composition and to what extent they have concerns about moving from homogeneous groupings to mixed-age groupings. A review of literature indicated that variables related to teachers' and administrators' previous experience and perceptions, programmatic conditions, and personal attributes were possible indicators of Stages of Concern expressed by the respondents regarding mixed-age groupings. The following research questions were studied:

1. What are the previous experiences and perceptions of the respondents that influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

2. What are the programmatic conditions that relate to or influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

3. What are the personal attributes of the respondents that relate to or influence teachers' and administrators' differential Stages of Concern related to mixed-age groupings in schools?

Major Findings of the Study

In this study, it was found that there were differences in the Stages of Concern related to mixed-age groupings expressed by respondents based on previous experiences and perceptions of the subjects, programmatic conditions, and personal attributes of the respondents. It was also found that each respondent had concerns at each stage. Some of the stages were influenced by multiple items --- some stages had only one influential variable. In the following pages, the three research questions are addressed separately on a stage by stage basis.

Previous Experiences and Perceptions

What are the previous experiences and perceptions of the respondents that influence teacher's and administrator's differential level of concerns related to mixed-age groupings in schools? Findings indicate that there were significant relationships between all variables considered and the following Stages of Concern: number of years involved in teaching in a mixed-age classroom; self described level of expertise in using mixed-age grouping strategies; observation of mixed-age classrooms; whether or not respondent had been approached about teaching in a mixed-age classroom; respondents' expectation of ever

teaching in a mixed-age classroom; their perception of degree to which mixed-age groups are being talked about in the district; perception of the degree to which respondents got information before trying something new; positive feelings about mixed-age groupings; and the perception of the degree to which respondents had formal training related to mixed-age groupings (the reader is referred to Table 5.1 for the results).

Table 5.1: Significant Relationships Between Previous Experiences and Perceptions of the Respondents and Stages of Concern

Variable	Awareness Stage 0	Information Stage 1	Personal Stage 2	Management Stage 3	Consequence Stage 4	Collaboration Stage 5	Refocusing Stage 6
Number of years involved in teaching in a mixed-age classroom		-	-	-			
Self described level of expertise in using mixed-age grouping strategies		-	-	-			
Observation of mixed-age classrooms		+	+				
Whether or not respondent had been approached about teaching in a mixed-age classroom	-		-		+	+	
Expectation of ever teaching in a mixed-age classroom				+	+	+	
Perception of degree to which mixed-age groupings are being talked about in respondents district						+	
Perception of degree to which respondents get information before trying something new			-			+	
Positive feelings about mixed-age groupings		-		-			-
Perception of the degree to which respondents have had training related to mixed-age groupings		-	-	-		+	

- = a significant negative correlation

+ = a significant positive correlation

Interpretation of the Data

What this may mean varies according to the Stages of Concern.

Awareness: The only significant relationship between respondent's background experience and the awareness stage was whether respondents had been approached about teaching in a mixed-age classroom. The negative correlation indicates that the more often people had been approached to teach in mixed-age classrooms the fewer their awareness concerns. Since awareness is a function of either knowing about something or not knowing about it, it can be assumed that once people had been approached about this kind of teaching assignment, it was no longer something about which they were unaware.

Information stage: Significant variables related to the information stage included number of years involved in teaching in a mixed-age classroom, self described level of expertise, positive feelings, perception of the degree to which respondents had training related to mixed-age groupings. All of these were negatively correlated to information concerns. The more years people taught, the greater they assessed their expertise, the more positive they felt, and the more mixed-age group training they had, the fewer information concerns they reported. It seems obvious that these background experiences provided valuable information, reducing respondents' anxieties in this regard. On the other hand, observations of mixed-age groupings were positively correlated to information concerns. It would seem that the more people observe, the more questions they have. This makes sense, since a focus of the information stage is data gathering related to the innovation and mental comparisons between old and new practices.

Personal stage: Findings for the personal stage in relation to respondents' background experiences mirrored those of the awareness stage with one exception (positive feelings

about mixed-age groupings) and one addition (respondent's getting information before trying something new). The exception was that there was no significant relationship between the respondents' positive feelings about mixed-age groups and the personal stage. On the other hand, there was an additional negative correlation between the respondents' access to information and their concerns. The more information they got in advance the fewer personal concerns they had. An explanation is that information helps people to feel more confident.

Management stage: This stage of concern was significantly related to: number of years involved in teaching in a mixed-age classroom, self described level of expertise, perception of degree to which respondents get information before trying something new, and perception to the degree to which respondents have had formal training related to mixed-age groupings. These were all negative correlations. They indicate that the more years teachers taught, the more the expert they believed themselves to be, the more positive they felt about mixed-age groups, and the more formal training they had, the fewer concerns they had related to managing mixed-age classrooms. Conversely, there was a positive correlation between anticipated teaching in mixed-age groups and management concerns. The more likely people believed they were to teach in mixed-age groups, the more management concerns dominated their thinking. Thus, teachers who see themselves moving into mixed-age groups are concerned about a variety of logistical things. Time management, daily schedules, lesson planning, group management, materials, and room arrangements are all elements teachers at this stage must consider.

Consequence stage: Two background variables were positively correlated to consequence concerns: whether or not respondent had been approached about teaching in a mixed-age classroom and their expectations of ever teaching in a mixed-age classroom. The data indicate these teachers had received clear signals that teaching in a mixed-age grouping was a likely future assignment. Thus, teachers on the verge of changing from a homogeneous to heterogeneous grouping begin to focus on how those groupings will influence the children involved. It seems evident that as the reality of teaching in a mixed-age classroom draws near, teachers think not only of themselves, but of the children as well.

Collaboration stage: Five background variables were positively correlated to respondents collaboration concerns. These were: whether or not respondent had been approached about teaching in a mixed-age classroom, their expectation of ever teaching in a mixed-age classroom, their perception of the degree to which mixed-age groupings were being talked about in the district, the perception of degree to which respondents get information before trying something new, and the perception of the degree to which respondents had formal training related to mixed-age groupings. These relationships indicate that the more information people have about the innovation and the more exposure they have to it in practice the more concerns people have regarding collaboration. According to the literature, such concerns revolve around how to get others to adopt the innovation and how to have an innovation like mixed-age grouping become more widely accepted. It would seem that the more teachers are “sold” on the idea mixed-age groups the more they want others to join them.

Refocusing stage: The only significant variable correlated with the refocusing stage was the respondents' positive feelings about mixed-age groups. The correlation was negative. That is, the more positive respondents felt about the innovation the fewer refocusing concerns they expressed. It makes sense that people who feel very positive about the use of an innovation are better able to refocus on some new adaptation of that innovation. People who are not yet satisfied with the innovation in its current use are less likely to express refocusing concerns. The latter teachers would more likely try to perfect their use of mixed-age groups, rather than move into a new and different innovation.

Although human elements play a major role in influencing how an individual deals with change, certain attributes of the innovation itself determine to what extent it will be adopted by individuals (Kostelnik, et. al., pp. 437-442). The findings of this research support this statement by showing that previous experiences and perceptions of the respondents about mixed-age groupings do influence teachers and administrators Stages of Concern. Previous finding also indicate that personal characteristics are associated with individuals' adopting innovations. Rogers (1983) states there are many personality variables associated with innovativeness. These include open belief systems, ability to deal with abstract ideas, favorable attitudes toward education, high levels of motivation, and personal concerns.

According to this research, previous experiences and perceptions do determine to what extent an individual will adopt the innovation. Therefore, school districts and administrator's should consider many strategies and techniques when approaching staff in regards to making a change. By considering teacher's educational beliefs and personal values, they can include them in the adoption process rather than alienating them. New strategies and classroom practices should be introduced gradually. Because there is no ideal

way to approach teachers in general about making a change in their current teaching situation, administrators must take into account each teacher's concerns at the various stages. By working with each individual teacher to address their concerns administrators can help teachers become comfortable with their concerns, find solutions to help them cope with the concerns, and help increase their confidence in relation to using mixed-age grouping strategies. Concepts should be presented in a variety of ways (articles, videos, class visits, workshops) so that teacher's can become comfortable with the new situation. By doing this administrators can help provide a climate positive for change with not only their staff, but with the children and parents in the program.

Programmatic Conditions

What are the programmatic conditions that influence teacher's and administrator's differential Stages of Concern related to mixed-age groupings in schools? Findings indicate that there were significant relationships between all variables considered and the following Stages of Concern: whether or not respondents had have training related to mixed-age groupings; degree of committee participation; extent to which new ideas were supported by respondents at your school; perception of administrative support for new ideas; perception of degree to which mixed-age groupings are being talked about in the district; perception of degree to which respondents get information before trying something new (reader is referred to Table 5.2 for the results).

Table 5.2: Significant Relationships Between Programmatic Conditions and Stages of Concern

Variable	Awareness Stage 0	Information Stage 1	Personal Stage 2	Management Stage 3	Consequence Stage 4	Collaboration Stage 5	Refocusing Stage 6
Whether or not respondents have had training related to mixed-age groupings	-		-		+	+	
Degree of Committee Participation			-			-	
Extent to which new ideas were supported by respondents at your school							+
Perception of administrative support for new ideas						+	
Perception of degree to which mixed-age groupings are being talked about in respondents school district						+	
Perception of degree to which respondents get information before trying something new			-			+	

Interpretation of the data

What this may mean varies according to the Stages of Concern.

Awareness stage: the only significant relationship between programmatic conditions and the awareness stage was whether or not respondents had training related to mixed-age groupings. The negative correlation indicates that people who had received formal training were aware of mixed-age groupings. Therefore, awareness concerns were not an issue for them.

Informational stage: There were no significant correlations between programmatic conditions and Stages of Concern.

Personal stage: Significant variables related to the personal stage included: whether or not respondents have had training related to mixed-age groupings, degree of committee participation, and perception of the degree to which respondents got information before trying something new. All of these were negatively correlated to personal concerns. The more training received, the more committee participation, and the more information respondents get before trying something new the fewer personal concerns they reported. Once again, information helps people feel more confident.

Management stage: This stage had no significant correlations between programmatic conditions and Stages of Concern.

Consequence stage: One programmatic condition was positively correlated to consequence concerns: whether or not respondents had training related to mixed-age groupings. As respondents received more training related to mixed-age groupings the more consequence concerns they reported. Once again teacher's are not only thinking of themselves, but of the children in their classrooms also.

Collaboration stage: Three programmatic conditions were positively correlated to respondents' collaboration concerns. These were: whether or not respondents had training related to mixed-age groupings, their perception of administrative support for new ideas, their perception of degree to which mixed-age groupings were being talked about in respondents' school district, and the perception of the degree to which respondents got information before trying something new. These relationships indicate that the more training, the more administrative support, the more mixed-age

groupings are being talked about, and the more information respondents got, the more concerns people had regarding collaboration. A negative correlation was found with between respondents' degree of committee participation and the collaboration stage. The more committee participation the respondent had the fewer collaboration concerns they expressed. Typical concerns revolve around getting others to adopt the innovation and ways to get others to accept the innovation.

Refocusing stage: The only significant variable correlated with the refocusing stage was the extent to which new ideas were supported by respondents at your school. The correlation was positive. That is, the more new ideas were supported the more refocusing concerns respondents expressed. This indicates that teachers who feel supported are likely to adopt more than one innovation at a time.

The conditions under which the innovation is implemented will either enhance the success of the innovation or detract from it (Kostelnik, et. al., pp. 443-447). Previous research has also concluded that both communication behavior and sense of community influence the adoption of an innovation. According to Murphy (1991), "people who are well-informed about the effects of the program hold it in higher esteem than those who either don't have the information or who don't pay attention to the information" (p.12).

According to findings in this research study, programmatic conditions do influence teacher's and administrator's Stages of Concern in relation to mixed-age groupings. Administrators who approach teacher's about teaching in a mixed-age classroom, who encourage committee participation, and who provide staff with information before trying something new are engaging in programmatic strategies that enhance the adoption of the innovation. In addition, administrator's should concentrate on initiating these contacts with their teaching staff on a personal basis rather

than addressing them as an entire staff that thinks and feel exactly alike. Meeting with individual teachers will help them feel comfortable and confident with mixed-age groupings.

Administrator's should practice the following: involve teachers in the development of mixed-age groupings in the district, offer them opportunities to seek peer support, commit to the change and what it will take to make the change successful, and most importantly, provide feedback.

Personal Attributes

What are the personal attributes of the respondent that relate to or influence teacher's and administrator's differential Stages of Concern related to mixed-age groupings in schools? Findings indicate that significant relationships exist between grade level experience and involvement in teaching in a mixed-age classroom and the Stages of Concern (reader is referred to Table 5.3 for the results).

**Table 5.3: Significant Relationships Between Personal Attributes
of the Respondents and Stages of Concern**

Variable	Awareness Stage 0	Information Stage 1	Personal Stage 2	Management Stage 3	Consequence Stage 4	Collaboration Stage 5	Refocusing Stage 6
Age							
Sex							
Educational Endorsements							
Highest degree earned							
Number of years teaching							
Grade level experience		-					
Involvement in teaching in a mixed-age classroom		+	+	+			

- = a significant negative correlation

+ = a significant positive correlation

Interpretations of the data

What this may mean varies according to the Stages of Concern.

Awareness stage: There were no significant correlations between programmatic conditions and Stages of Concern.

Information stage: A negative correlation existed between the information stage and teacher's grade level experience. The more different grade level experiences a teacher had the fewer information concerns they reported. On the other hand, involvement in teaching in a mixed-age classroom was positively related to information concerns. Teachers with a wider range of grade

experiences had fewer concerns, while those involved in teaching mixed-age groupings have more concerns.

Personal stage: The only significant relationship at the personal stage was the respondents involvement in teaching in mixed-age classrooms. The positive correlation indicates that the more involved respondents were in teaching in a mixed-age classroom the more personal concerns they have. Information and experience helps people feel more confident.

Management stage: The only significant relationship for this stage was the respondents' involvement in teaching in a mixed-age classroom. The positive correlation indicates that the more involved respondents were in teaching in a mixed-age classroom, the more management concerns they had. Thus teachers in this stage have many logistical concerns with which they must cope with on a daily basis.

Consequence stage: There were no significant correlations between programmatic conditions and Stages of Concern.

Collaboration stage: There were no significant correlations between programmatic conditions and Stages of Concern.

Refocusing stage: There were no significant correlations between programmatic conditions and Stages of Concern.

Prior research by Stern and Keisler (1975), concluded that overall, no demographic variables were good predictors of success in adopting an innovation. However, the findings in this research indicate that personal attributes can influence teacher's and administrator's differential Stages of Concern at various stages. According to this researcher's results administrators should consider grade level experience and involvement in teaching in mixed-age classrooms when making heterogeneous grouping assignments. Teachers who are most likely to be receptive to a mixed-age assignment are those who have taught more than one grade level and those who have had some contact with mixed-age classrooms in the past. According to this research age, sex, educational endorsements, highest degree earned, and number of years teaching didn't influence teachers reported concerns. Teachers grade level experience and involvement in teaching in a mixed-age classroom are concerned with gaining information, whether or not they are capable of teaching in a mixed-age classroom, and how daily routines will change. Administrators who address these individual concerns can help make smoother transitions.

Significance of the Results

According to authors of the Stages of Concern (Hord, et. al. 1987), "individuals do not have concerns at only one stage at a time, but, rather, experience all stages concurrently, with varying degrees of arousal, intensity, and resolution" (p.28). Stages of Concern are also not static, but can change over time. The current research supported these observations. However, this study provided a statistical element previously not attempted. A person to person conversation with G. Hall revealed that the Stages of Concern have never before been statistically analyzed. Instead, the data has only been treated qualitatively using individual respondent profiles with peak scores. The

authors claim this provides an overall picture of where an individual has the biggest concerns in regard to any innovation. The current study translated that analysis into a quantitative one.

Results of the quantitative analysis indicate that people are in more than one stage at a time. In addition, respondent concerns are influenced by their previous experiences and perceptions, by programmatic conditions, and by the personal attributes they bring to the innovation. It is worth noting that the original profiles created by Hord and his colleagues did not include the influence of programmatic conditions. This study added those variables based on the importance of the literature.

It is also worth noting that the utility of the original SoCQ questionnaire is misleading. By focusing on the profiles of the respondents, a researcher is forced to generalize and assume where the teacher has the largest amount of concerns. This is a vague interpretation, because each interpretation made could vary depending on who is interpreting it. It is also misleading because each respondent really has concerns at each stage, not just at a “peak” profile score. Researcher should also use care when revising the demographic page to meet their needs. This researcher recommends not using vague categories, but rather using specific categories for respondents to identify themselves in. This will eliminate a conflict between continuous and categorical variables.

Recommendations for Further Research

This study indicated that certain previous experiences and perceptions of the respondent, programmatic conditions, and personal attributes influenced teacher's and administrator's Stages of Concern related to mixed-age groupings. Teachers and administrators were from various school districts throughout Michigan, most of which had been exposed to

mixed-age groupings previously. Therefore, it would be beneficial to compare and contrast teacher's and administrator's Stages of Concern in school districts where mixed-age classrooms are currently being implemented. Looking at school differences in regard to previous experiences and perceptions, programmatic conditions, and personal attributes could determine if these items varied from school to school or if they existed at all schools.

It is also recommended that attempt to identify unexplored previous experiences and perceptions, programmatic conditions, and personal attributes be made in order to help administrators identify actions and interpersonal relations that will help ease transitions for teachers.

A second recommendation would be to follow teachers as they make the transition from same-age to mixed-age groupings. A longitudinal study of changes in their Stages of Concern over time would be useful.

Observations

According to Hord, et. al. (1987, pp. 5-6), there are several assumptions about implementing change. These include the notion that:

1. **Change is a process, not an event.** Change occurs over time. This assertion is supported by the findings in this study which indicate that staff needs time to prepare, receive information, and to adopt new practices. Not only will teachers have different concerns at different times, but each will need different strategies for dealing with the change. Each will also need various forms of support and evaluation.

2. **Change is accomplished by individuals.** Individuals should be the focus of innovation efforts. As can be seen by the results reported here, each person had a unique profile.

People experience the Stages of Concern individually, not as a cohort group. Each person will resolve concerns at their own pace and with their own techniques.

3. Change is a highly personal experience. Each teacher is unique. Each has different needs at different stages and times in relation to mixed-age groupings. Teachers do not have significant concerns at only one stage at a time. Administrators should not look for a simple model procedure, but rather focus on working with teachers in their current role and changing role.

4. Change involves developmental growth. Unfortunately educators often receive insufficient preparation when asked to try something new and innovations often fail to succeed because of frustration and lack of interest. Working with staff to improve programmatic conditions (such as: whether or not respondent had been approached about teaching in a mixed-age classroom; the degree of committee participation; the extent to which new ideas are supported within the school; degree of administrative support for new ideas; mixed-age groupings are being talked about in the district; the degree to which respondents get information before trying something new) will show teachers that administrators are concerned about their individual concerns, that they will be patient and work with staff as they move through the Stages of Concern.

Conclusion

From this study it seems clear that innovations are complex interrelated processes. No one variable explains people's willingness or lack of interest in an innovation. In addition, variables that influence innovations and people's concerns about them are not contained wholly within the individual or wholly within the environment. Instead, variables from both contexts combine to influence people's perceptions and actions. This is in keeping with the ecological focus of this research.

APPENDICES

APPENDIX A

**Letter Attached to SoCQr Questionnaire
and Demographic Page**

Date, 1996

Dear Teacher/Administrator:

The idea of mixed-age classrooms is one in which many teachers and administrators are becoming interested. This letter is an invitation for you to express your ideas about the use of mixed-age classrooms in early childhood education.

As a graduate student in the Department of Family and Child Ecology at Michigan State University, I am focusing on the **kinds of concerns** teachers/administrators have about children in mixed-age classrooms. This study will complete my work at the master's level.

Please fill out the attached questionnaire. It will take you approximately 15 minutes to finish. Place the completed forms in the brown envelop that has been provided. These will be collected at the end of today's session.

Your answers will remain confidential and no one will be able to identify you from the responses you give. However, the compiled results will be useful in developing future training sessions for educators in Michigan. Although you will receive no direct benefits from your participation, I would be pleased to send you a copy of the results after they have been tabulated. If you would like this summary, sign your name on the list that will be circulated among your group.

You are not obligated to complete this survey. However, I would appreciate your considering to do so. "You indicate your voluntary agreement to participate by completing and returning this questionnaire."

Thank you for your assistance in helping me learn more about teachers'/administrators' concerns related to mixed-age classrooms.

Sincerely,

A handwritten signature in cursive script that reads "Lisa Brewer".

Lisa Brewer
507 North Ct., Mason, MI 48854
H(517)676-2173
W (517)851-4262

Marjorie Kostelnik
Supervising Professor
107 Human Ecology, MSU, E. Lansing, 48824
(517)355-7680

APPENDIX B

SoCQr Questionnaire and Demographic Page

Number _____

Training Location: _____

The purpose of this questionnaire is to determine the kind of concerns teachers and administrators have about mixed-age groupings in early childhood education.

Each item consists of a statement and a series of numbers from zero to seven. Read the statement, then circle the number that most closely reflects your current reaction to mixed-age groupings.

If the statement seems irrelevant --- Circle 0

If the statement is not at all true of you now --- Circle number 1 or number 2

If the statement is somewhat true of you now --- Circle number 3, number 4, or number 5

If the statement is very true of you now --- Circle number 6 or number 7

Remember to respond to the items in terms of your present concerns, or how you currently feel about your involvement or potential involvement with mixed-age groupings. The term mixed-age groupings in this study refers to **groups of children who are at least one year apart in age**.

Thank you for taking the time to complete this questionnaire.

101
Revised SoC Questionnaire Items

0	1 2	3 4 5	6 7
Irrelevant	not true of me now	somewhat true of me now	very true of me now
1. I am concerned about students' attitudes toward being in a mixed-age grouping.		0 1 2 3 4 5 6 7	
2. I know of other approaches that might work better than mixed-age groupings.		0 1 2 3 4 5 6 7	
3. I don't even know what mixed-age groupings are.		0 1 2 3 4 5 6 7	
4. I am concerned about not having enough time to organize myself each day.		0 1 2 3 4 5 6 7	
5. I would like to help other teachers in their use of mixed-age groupings.		0 1 2 3 4 5 6 7	
6. I have a very limited knowledge about mixed-age groupings.		0 1 2 3 4 5 6 7	
7. I would like to know the effect of reorganization on my professional status.		0 1 2 3 4 5 6 7	
8. I am concerned about conflict between my interests and my responsibilities in regards to my teaching in a mixed-age classroom.		0 1 2 3 4 5 6 7	
9. I am concerned about revising my use of mixed-age groupings.		0 1 2 3 4 5 6 7	
10. I would like to develop working relationships with teachers within my building and other teachers using mixed-age groupings.		0 1 2 3 4 5 6 7	
11. I am concerned about how mixed-age groupings will affect students.		0 1 2 3 4 5 6 7	
12. I am not concerned about mixed-age groupings.		0 1 2 3 4 5 6 7	
13. I would like to know who will make the decisions regarding mixed-age groupings in my school.		0 1 2 3 4 5 6 7	
14. I would like to discuss the possibility of my classroom being a mixed-age classroom.		0 1 2 3 4 5 6 7	

0	1 2	3 4 5	6 7
Irrelevant	Not true of me now	Somewhat true of me now	Very true of me now

- | | |
|---|-----------------|
| 15. I would like to know what resources are available to me if I were teaching in a mixed-age grouping. | 0 1 2 3 4 5 6 7 |
| 16. I am concerned about my inability to manage all that mixed-age groupings may require. | 0 1 2 3 4 5 6 7 |
| 17. I would like to know how my teaching or supervision is supposed to change in relation to mixed-age groupings. | 0 1 2 3 4 5 6 7 |
| 18. I would like to familiarize other schools with the use of mixed-age groupings. | 0 1 2 3 4 5 6 7 |
| 19. I am concerned about evaluating my impact on students. | 0 1 2 3 4 5 6 7 |
| 20. I would like to revise the mixed-age groupings supported instructional approach. | 0 1 2 3 4 5 6 7 |
| 21. I am completely occupied with other things. | 0 1 2 3 4 5 6 7 |
| 22. I would like to modify our use of mixed-age groupings based on the experiences of the students. | 0 1 2 3 4 5 6 7 |
| 23. Although I don't know about mixed-age groupings, I am concerned about new ideas in this area of education. | 0 1 2 3 4 5 6 7 |
| 24. I would like to excite my students about their part in participating in a mixed-age grouping. | 0 1 2 3 4 5 6 7 |
| 25. I am concerned about time spent working with nonacademic problems related to mixed-age groupings. | 0 1 2 3 4 5 6 7 |
| 26. I would like to know what the use of mixed-age groupings require in my immediate future. | 0 1 2 3 4 5 6 7 |
| 27. I would like to coordinate my effort with other staff members to maximize the effect of mixed-age groupings in my school. | 0 1 2 3 4 5 6 7 |
| 28. I would like to have more information on time and energy commitments required by me in regards to mixed-age groupings. | 0 1 2 3 4 5 6 7 |
| 29. I would like to know what other teachers are doing with mixed-age groupings. | 0 1 2 3 4 5 6 7 |

0	1 2	3 4 5	6 7
Irrelevant	Not true of me now	Somewhat true of me now	Very true of me now

30. At this time, I am not interested in learning anything about mixed-age groupings. 0 1 2 3 4 5 6 7

31. I would like to determine how to supplement, enhance, or replace mixed-age groupings. 0 1 2 3 4 5 6 7

32. I would like to use feedback from students to change the way mixed-age groupings are used in my classroom or school. 0 1 2 3 4 5 6 7

33. I would like to know how my teaching role will change when I am teaching in a mixed-age grouping. 0 1 2 3 4 5 6 7

34. Classroom planning and team management is taking too much of my time in the mixed-age classroom. 0 1 2 3 4 5 6 7

35. I would like to know how mixed-age groupings are better than a homogeneous classroom. 0 1 2 3 4 5 6 7

Revised Demographic Page

1. Age: 20-29 _____ 30-39 _____ 40-49 _____
 50-59 _____ 60-69 _____ 70 & older _____
2. Female _____ Male _____
3. What percentage of your job is:
 teaching _____ %
 administration _____ %
 other (specify) _____ %
4. Degrees and endorsements earned (check all certifications and endorsements that apply):
- | | Grades | Subjects |
|--|--------|----------|
| _____ 1. Elementary certificate | _____ | _____ |
| _____ 2. Specialization in early childhood at bachelor's level | _____ | _____ |
| _____ 3. Specialization in early childhood at advance degree level | _____ | _____ |
| _____ 4. ZA endorsement | _____ | _____ |
5. Highest degree earned:
 Associate _____ Masters _____
 Bachelors _____ Doctorate _____
6. Year you earned your first degree _____
 Year you earned your second degree _____
7. Total years teaching: _____
8. Number of years at your present school: _____
9. Grades you have taught:
- | | | |
|-----------------|--------------------|--------------|
| preschool _____ | kindergarten _____ | first _____ |
| second _____ | third _____ | fourth _____ |
| fifth _____ | | |
10. What prompted you to come to this training offered by the Michigan Department of Education?

11. Identify yourself on a scale:

not like me

somewhat like me

extremely like me

0

3

5

_____ have you ever seen a mixed-age classroom?

_____ have you ever been involved in teaching in a mixed-age classroom?

_____ have you ever been approached about teaching in or implementing a mixed-age classroom?

_____ do you participate in committees at your school?

_____ do you think you will ever teach in a mixed-age classroom?

_____ are new ideas supported by the staff in your school?

_____ are administrators supportive of new ideas in your school?

_____ are mixed-age groupings being talked about in your district?

_____ are you provided with new information before making a decision about trying it?

_____ do you feel positively or negatively about mixed-age groupings?

_____ have you ever received formal training in teaching in a mixed-age classroom (workshops, courses, videos, etc.)

12. How long have you been involved in teaching in a mixed-age classroom?

_____ never

_____ 1 year

_____ 2 years

_____ 3 years

_____ 4 years

_____ 5 or more years

13. If you have taught in a mixed-age classroom, do you consider yourself to be a:

nonuser _____

novice _____

intermediate user _____

old hand _____

past user _____

14. Name of school district _____

15. Is your school accredited through:

State _____

North Central _____

NAEYC _____

16. Are you currently using the K-2 Standards of Quality for pre-kindergarten through second grade presented at the excellence in Early Childhood Training Conference?

Yes _____

No _____

Don't know _____

Did you attend the conference? _____

What stage is your school at in the implementing process? _____

APPENDIX C

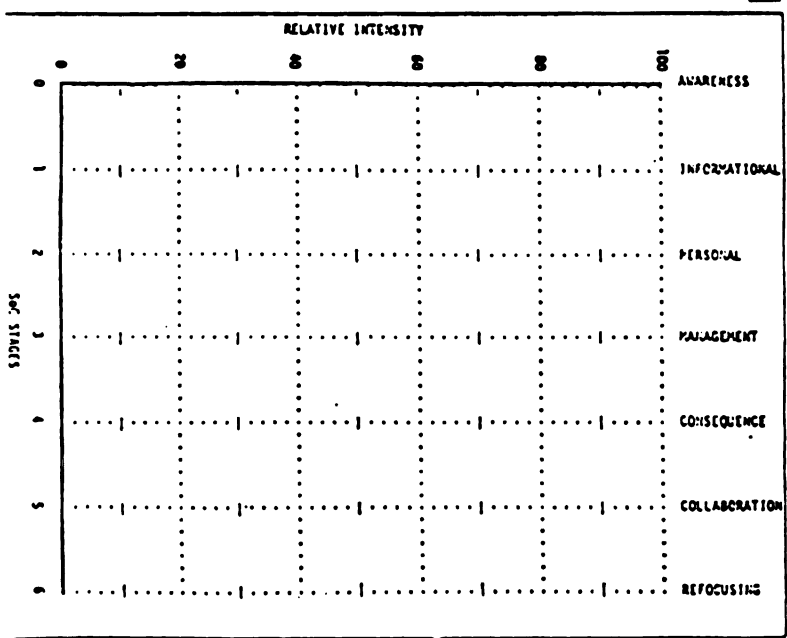
SoCQ Quick Scoring Device

For further information on national conventions, contact Project Directors for various divisions. The University of Texas at Austin

DATE: _____
SITE: _____ SSM: _____
INNOVATION: _____

Run, Time Low water 5 min. Tidal	Percentage for										
	Stages 0	Stages 1	Stages 2	Stages 3	Stages 4	Stages 5	Stages 6				
0	10	5	5	2	1	1	1				
1	23	12	12	5	1	2	2				
2	20	16	16	7	1	2	2				
3	17	19	17	9	2	3	3				
4	16	22	21	11	2	4	6				
5	53	27	25	15	3	5	9				
6	60	30	20	10	2	7	11				
7	64	16	21	23	4	9	14				
8	32	27	25	27	5	10	17				
9	37	40	30	36	7	12	20				
10	41	43	41	34	7	14	22				
11	44	45	45	30	8	16	26				
12	46	40	40	43	9	19	30				
13	49	51	52	47	11	22	34				
14	51	54	55	52	13	25	38				
15	53	57	57	56	16	28	42				
16	49	60	59	60	19	31	47				
17	55	63	61	65	21	36	52				
18	56	64	63	69	24	40	57				
19	57	69	70	72	27	44	60				
20	50	72	72	77	29	48	65				
21	50	75	76	80	32	52	69				
22	50	80	70	83	36	55	73				
23	50	84	80	85	43	59	77				
24	50	80	83	80	40	64	81				
25	50	90	85	80	54	66	86				
26	49	91	87	92	59	72	87				
27	50	93	89	94	63	76	90				
28	50	95	91	95	64	80	92				
29	50	96	92	97	71	84	94				
30	50	97	94	97	76	88	96				
31	50	90	95	90	82	91	97				
32	50	90	94	96	86	93	98				
33	50	90	94	96	90	95	99				
34	50	90	97	99	92	97	99				
35	50	99	99	99	96	99	99				

	AWARENESS	INFORMATIONAL	PERSONAL	MANAGEMENT	CONSEQUENCE	COLLABORATION	REFOCUSING
0	—	—	—	—	—	—	—
1	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—
3	—	—	—	—	—	—	—
4	—	—	—	—	—	—	—
5	—	—	—	—	—	—	—
6	—	—	—	—	—	—	—



19	—
20	—
21	—
22	—
23	—
24	—
25	—
26	—
27	—
28	—
29	—
30	—
31	—
32	—
33	—
34	—
35	—

APPENDIX D

Stage Perentile Scores

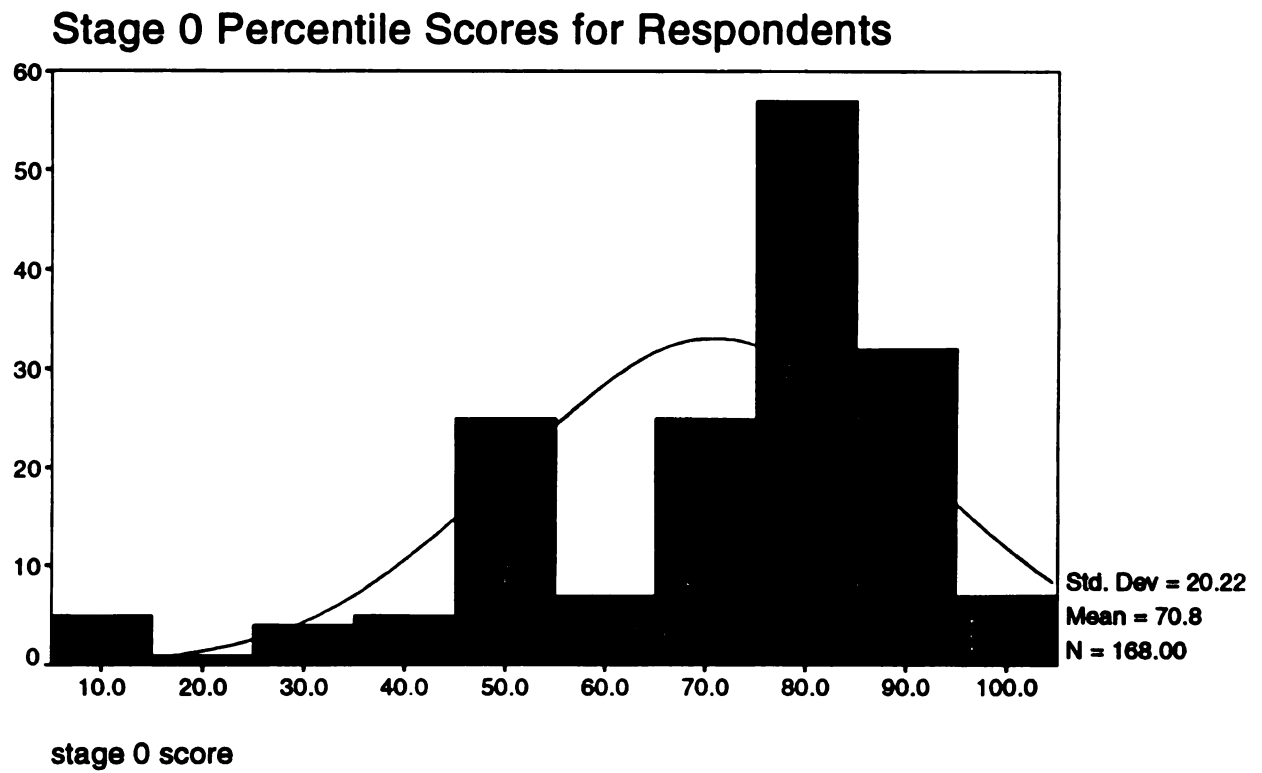
Figure 1

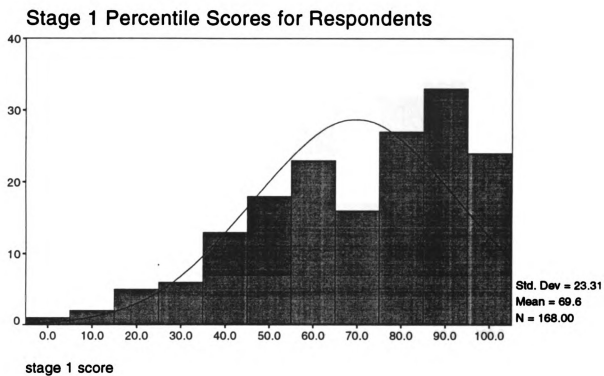
Figure 2

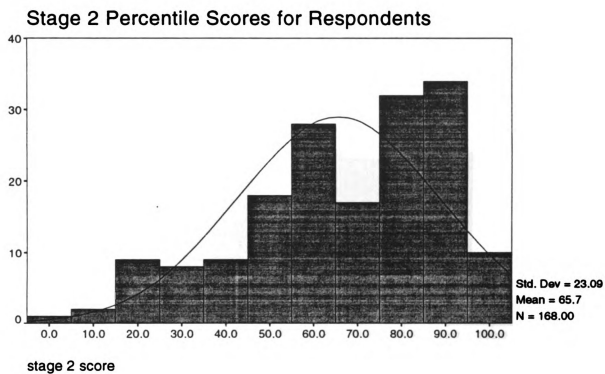
Figure 3

Figure 4

Stage 3 Percentile Scores for Respondents

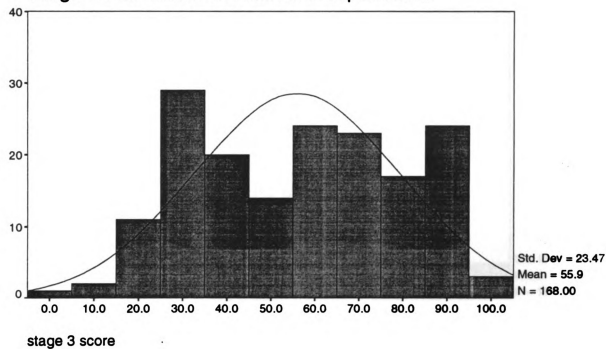


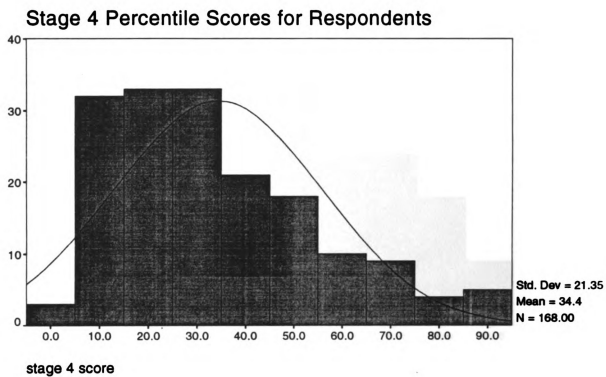
Figure 5

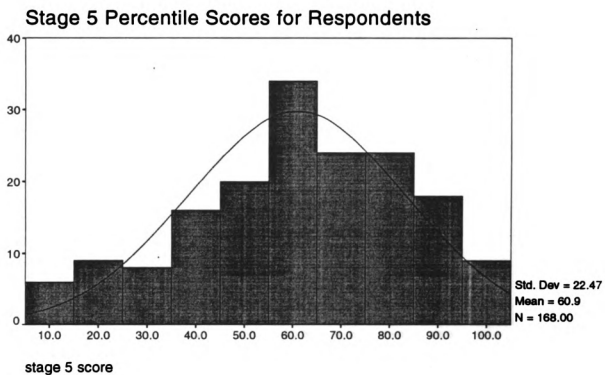
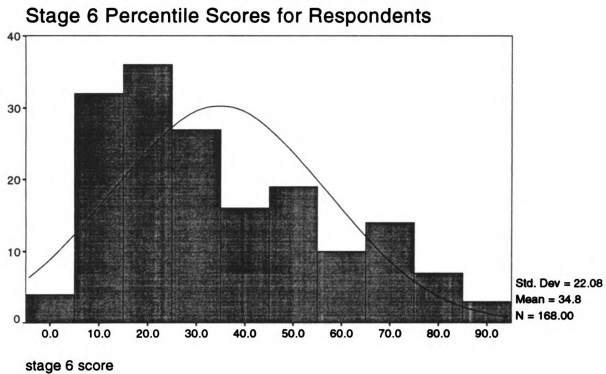
Figure 6

Figure 7

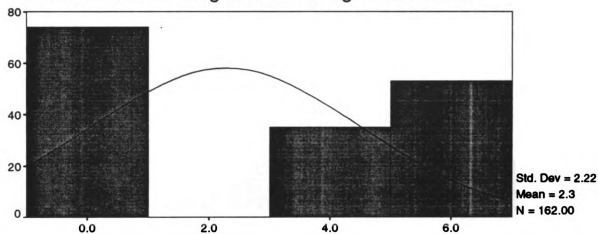


APPENDIX E

Histograms of Variables

Figure 8

**Number of Years Respondent Has Been
Involved in Teaching in a Mixed-age Classroom**

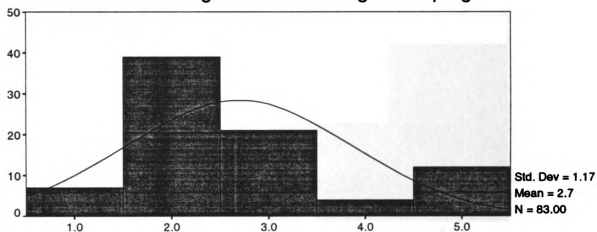


involved in teaching

Key: not like me = 0; somewhat like me = 3;
extremely like me = 5

Figure 9

**Kind of Teacher Respondent Considers Himself/
Herself to be in Regards to Mixed-age Groupings**



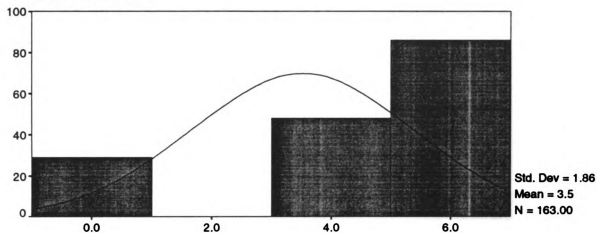
type of user

Key: nonuser = 1; novice = 2; intermediate = 3;

old hand = 4; and past user = 5

Figure 10

Respondent's Observation of Mixed-age Classrooms



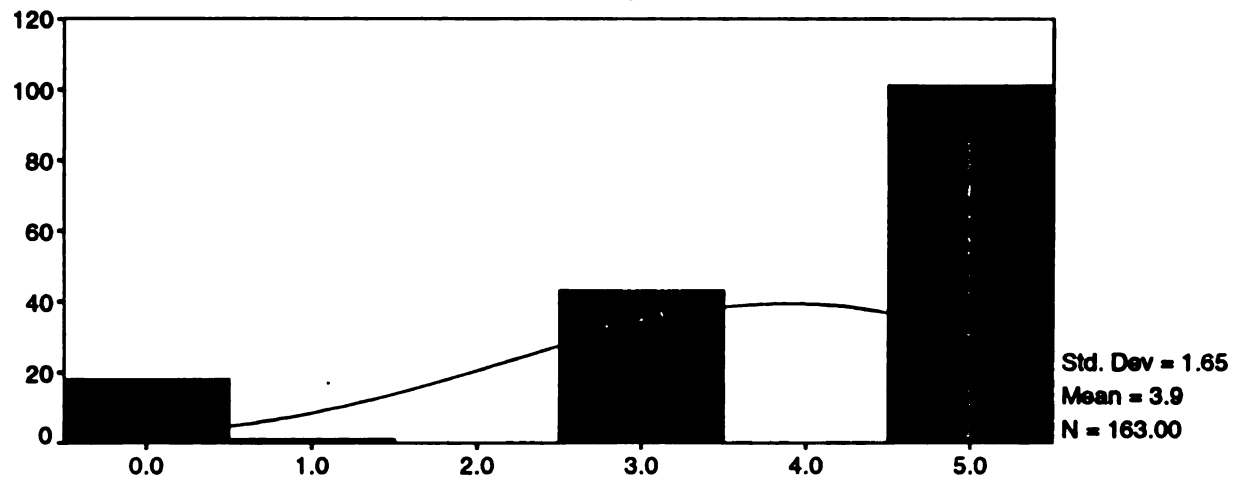
seen a mixed-age room

Key: not like me = 0; somewhat like me = 3;

extremely like me = 5

Figure 11

Had Respondent Been Approached About Teaching in a Mixed-age Classroom



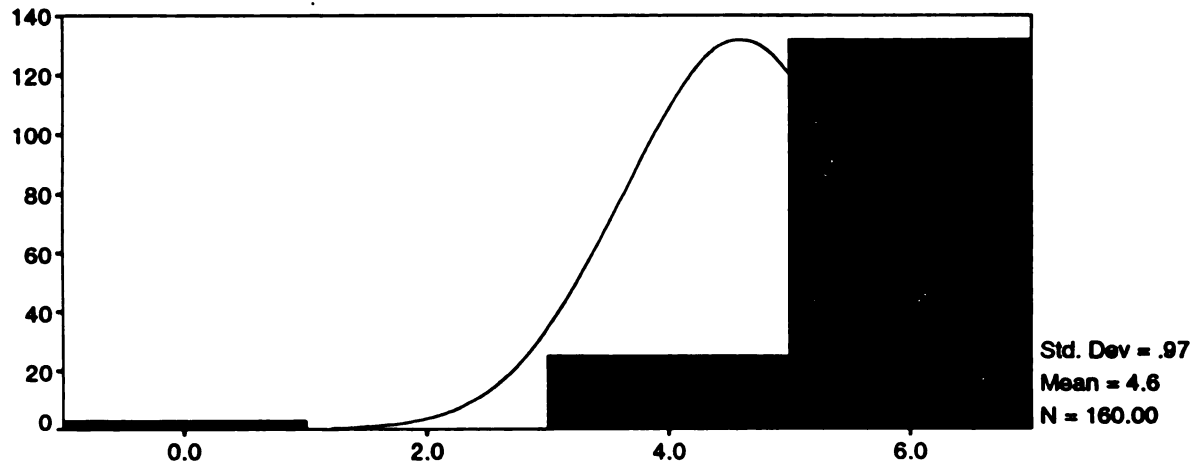
approached about teaching

Key: not like me = 0; somewhat like me = 3;

extremely like me = 5

Figure 12

Respondent's Expectation of Ever Teaching in a Mixed-age Classroom



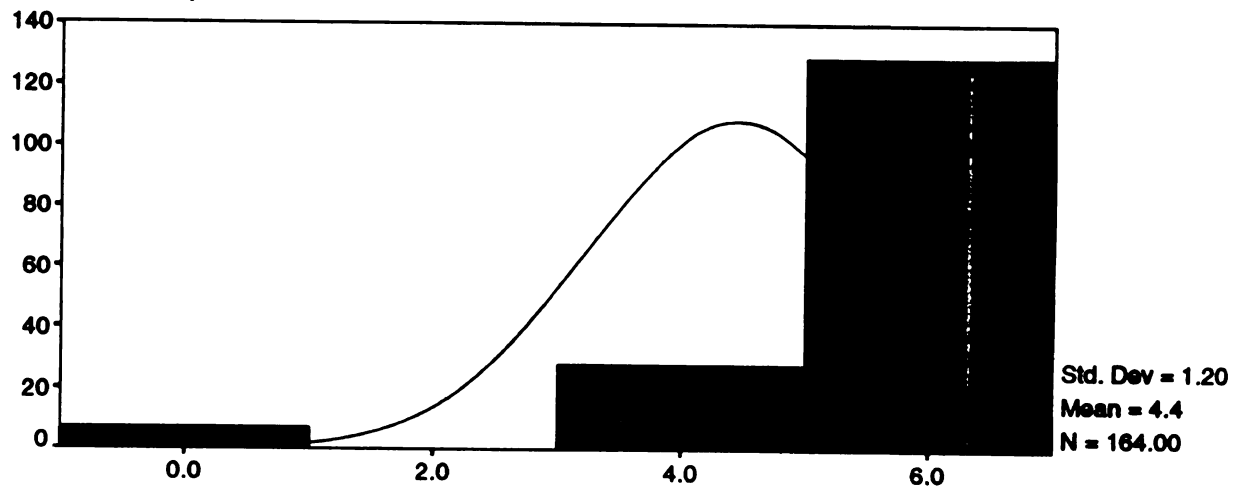
will you ever teach in one

Key: not like me = 0; somewhat like me = 3;

extremely like me = 5

Figure 13

Mixed-age Groupings Being Talked about in Respondent's School District

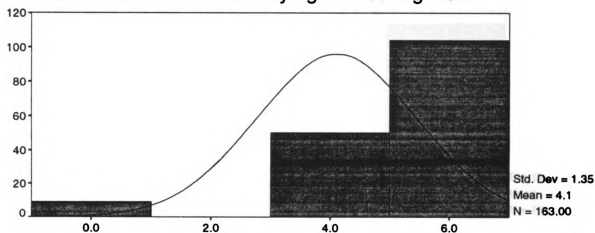


being talked about in the district

Key: not like me = 0; somewhat like me = 3;
extremely like me = 5

Figure 14

**Extent to Which Respondent's are Provided
With Information Before Trying Something New**



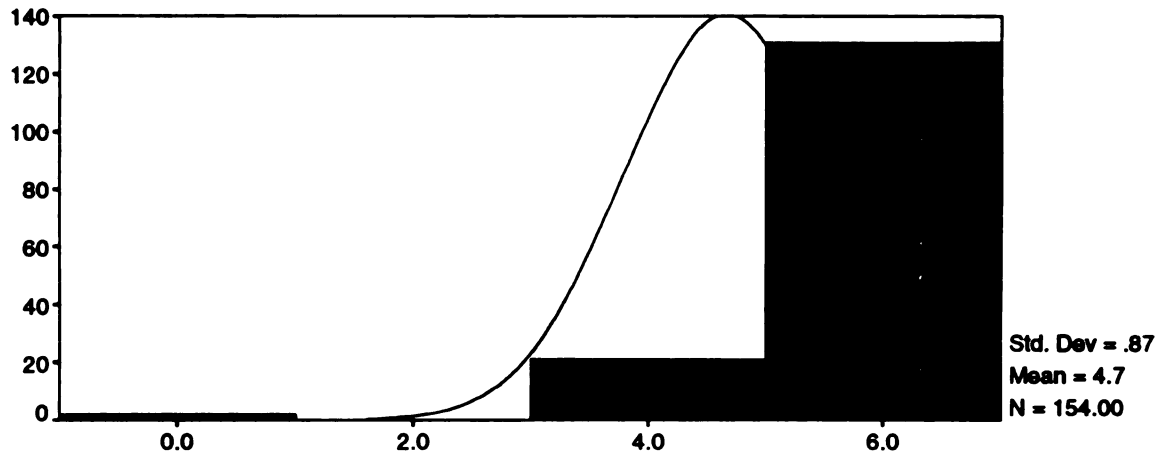
do you get info before you try something

Key: not like me = 0; somewhat like me = 3;

extremely like me = 5

Figure 15

Positive Feelings About Mixed-age Groupings



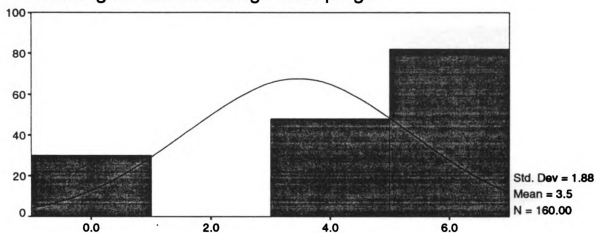
positive feelings about mixed-age groupings

Key: not like me = 0; somewhat like me = 3;

extremely like me = 5

Figure 16

Extent to Which Respondents Received Formal Training About Mixed-age Groupings



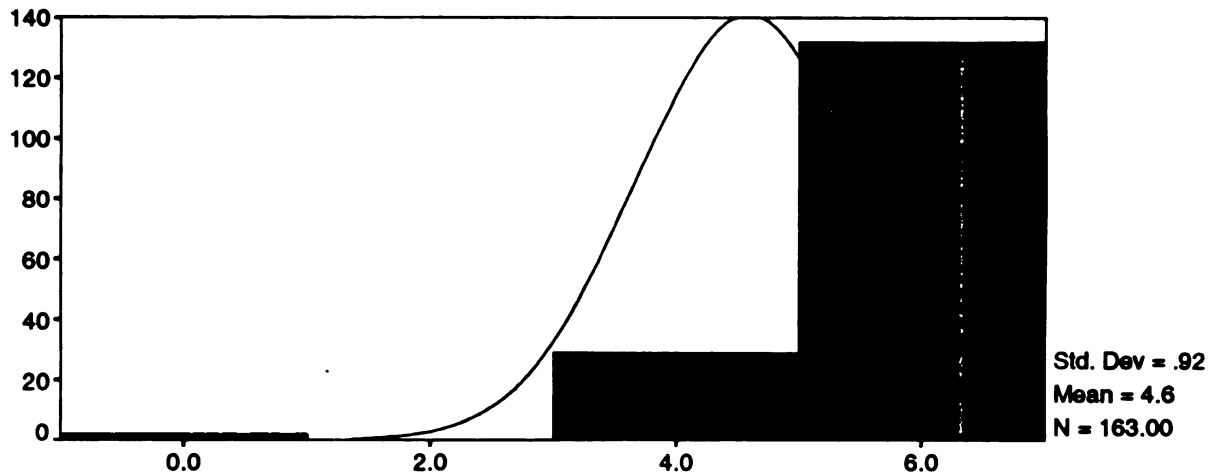
formal training

Key: not like me = 0; somewhat like me = 3;

extremely like me = 5

Figure 17

Respondent's Degree of Committee Participation



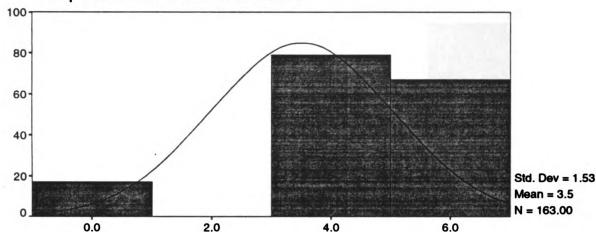
committee participation

Key: not like me = 0; somewhat like me = 3;

extremely like me = 5

Figure 18

**Extent to Which New Ideas are Supported in
Respondent's School District**



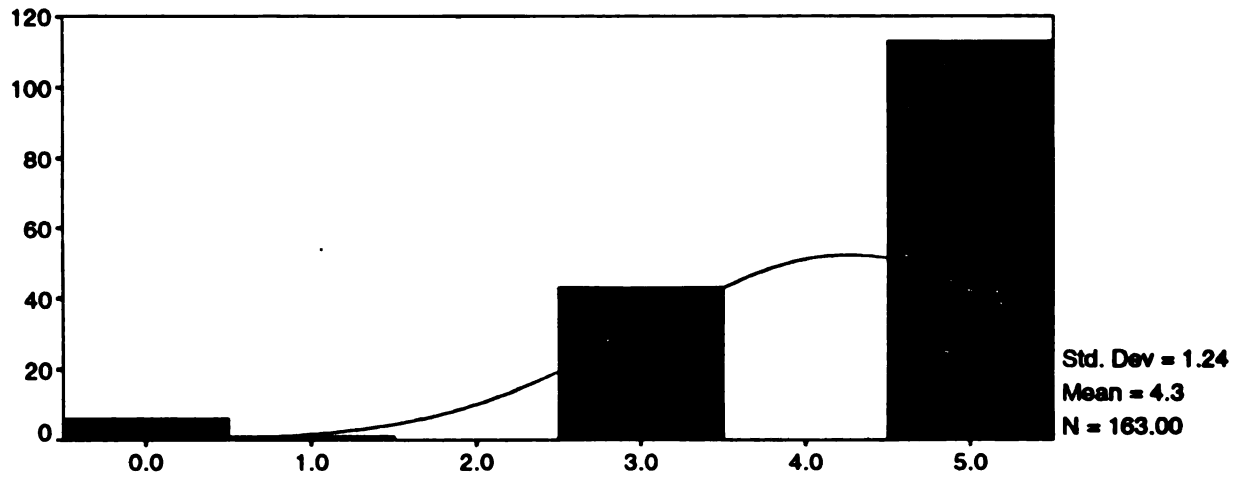
new ideas supported in your school

Key: not like me = 0; somewhat like me = 3;

extremely like me = 5

Figure 19

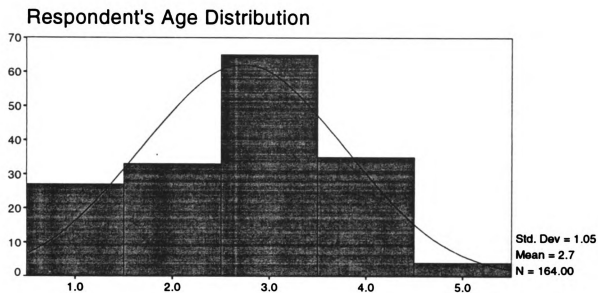
Respondent's Perception of Administrative Support for New Ideas



administrators supportive of new ideas

Key: not like me = 0; somewhat like me = 3;

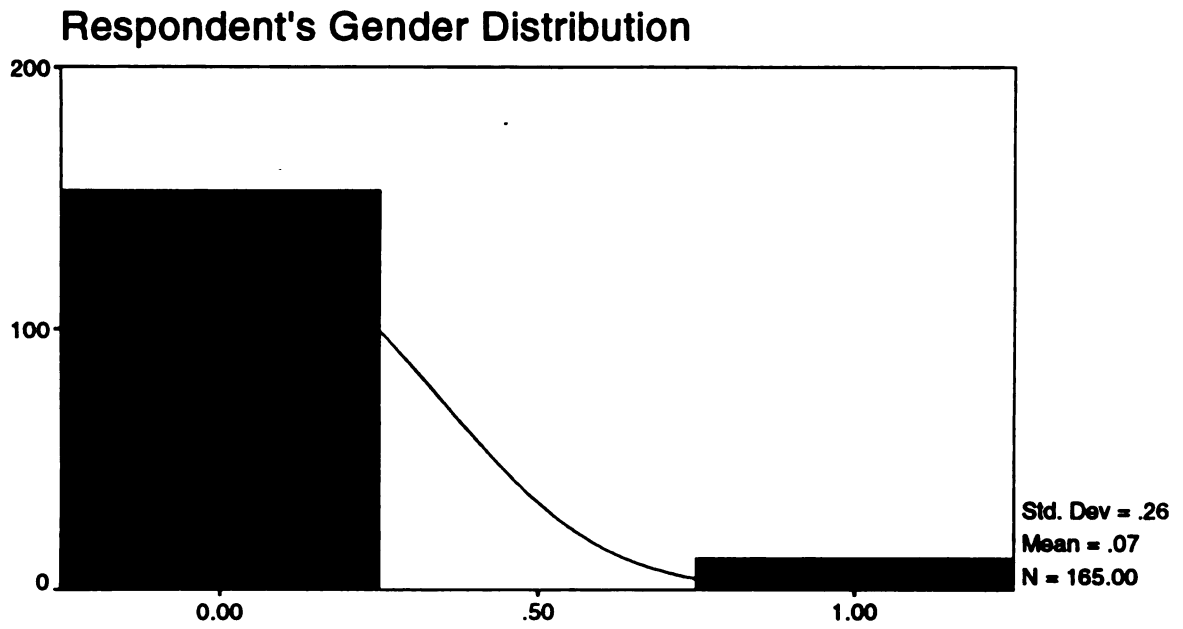
extremely like me = 5

Figure 20

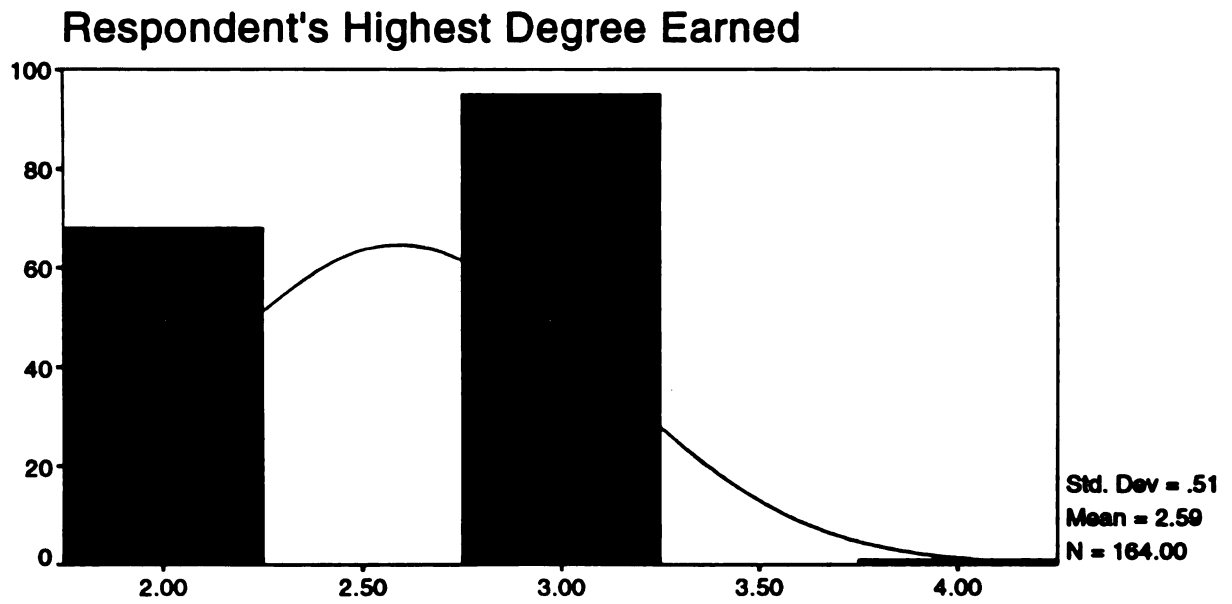
age

Key: 20-29 = 1; 30-39 = 2; 40-49 = 3; 50-59 = 4;

60-69 = 5; 70 and older = 6

Figure 21**sex**

Key: female = 0; male = 1

Figure 22

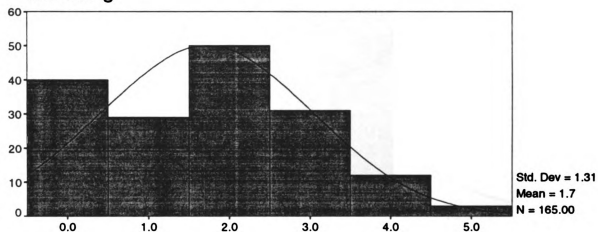
highest degree earned

Key: Associates degree = 1; Bachelors degree = 2; Masters degree = 3;

Doctorate = 4;

Figure 23

Number of Years Respondent Has Been Teaching

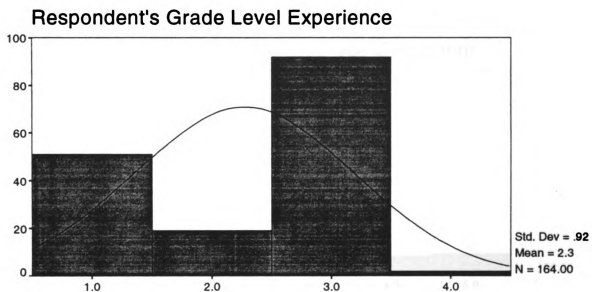


number of years teaching

Key: 0-5 years = 0; 6-10 years = 1; 11-20 years = 2; 21-25 years = 3;

26-30 years = 4; and 31 or more years = 5

Figure 24



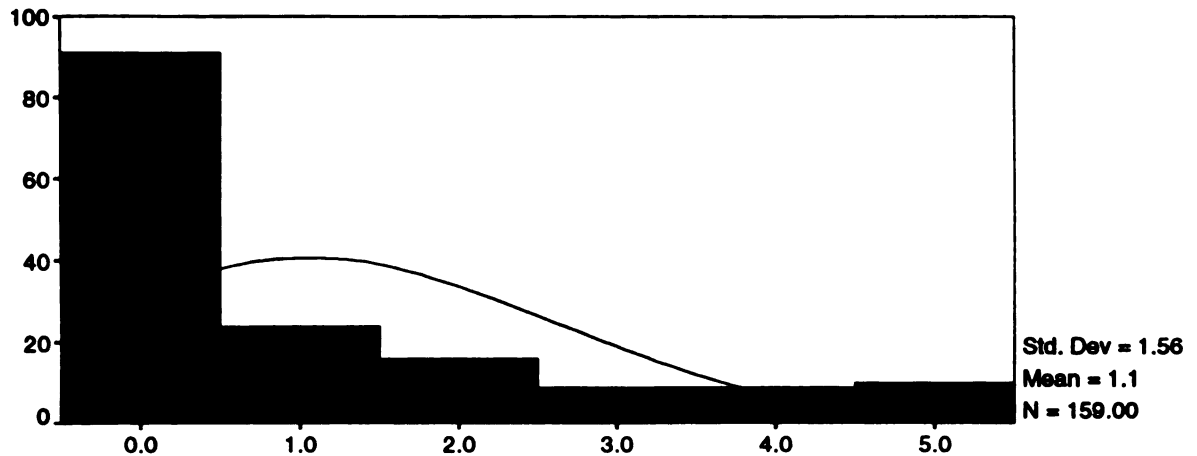
grades you have taught in

Key: preschool - second grade = 1; third - fifth grade = 2;

mixed grades = 3; other grades = 4

Figure 25

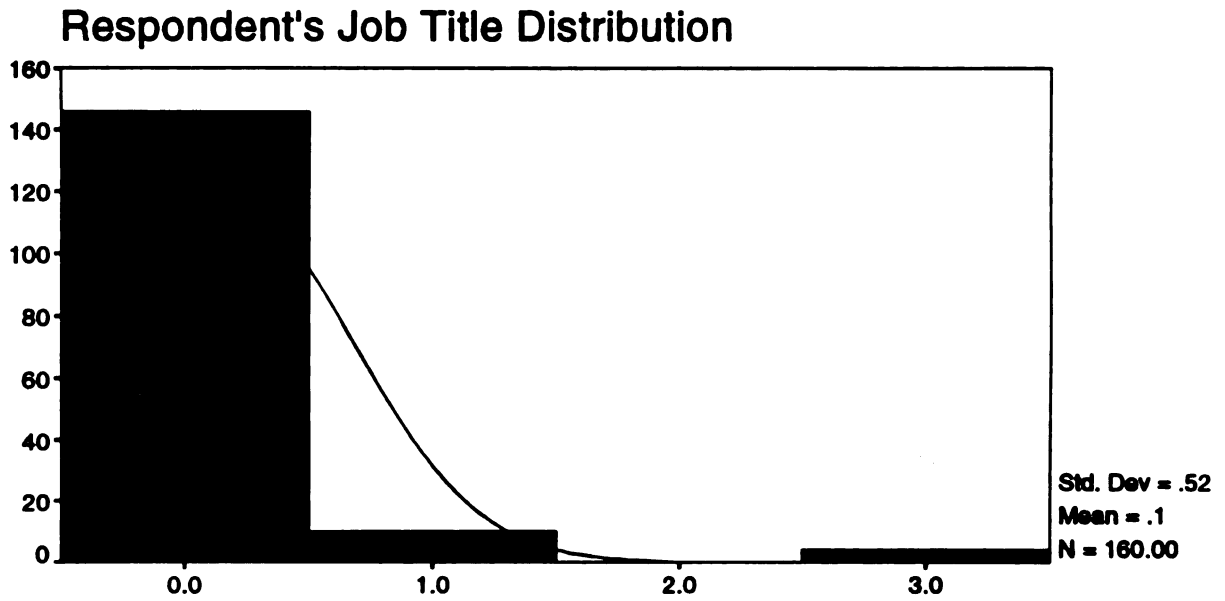
**Number of Years Respondent Had Been
Involved in Teaching in a Mixed-age Classroom**



involved in teaching in a classroom

Key: never = 0; 1 year = 1; 2 years = 2; 3 years = 3;

4 years = 4; and 5 years or more = 5

Figure 26

current job title

Key: teacher = 0; administrator = 1; other = 2;

teacher and administrator = 3

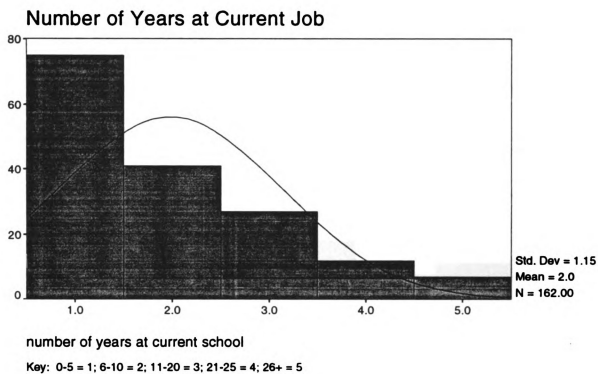
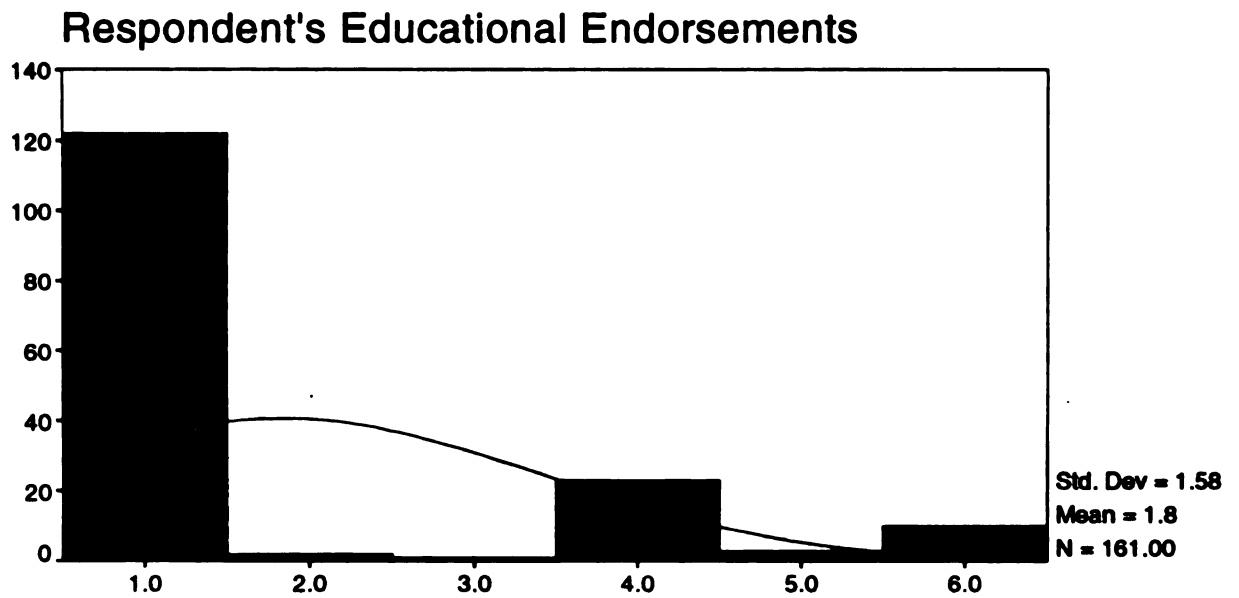
Figure 27

Figure 28

endorsements

Key: elem cert. & spec. in ECE = 1; spec. in ECE at M.A. level = 2;

ZA end. = 3; other = 4; 1 & 3 = 5; 1,3, & 4 = 6

APPENDIX F

Uchris Approval

**MICHIGAN STATE
UNIVERSITY**

135

June 13, 1996

TO: Lisa Brewer
507 North Ct.

RE: IRB#: 96-398
TITLE: STATUS OF TEACHER'S AND ADMINISTRATOR'S CONCERNS
ABOUT MIXED-AGE CLASSROOMS
REVISION REQUESTED: N/A
CATEGORY: 1-C
APPROVAL DATE: 06/11/96

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project and any revisions listed above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.



OFFICE OF
**RESEARCH
AND
GRADUATE
STUDIES**

**PROBLEMS/
CHANGES:**

Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517) 355-2180 or FAX (517) 432-1171.

Sincerely,

David E. Wright, Ph.D.
UCRIHS Chair

DEW:bed

cc: Marjorie Kostelnik

University Committee on
Research Involving
Human Subjects
(UCRIHS)
Michigan State University
232 Administration Building
East Lansing, Michigan
48824-1046

517/355-2180
FAX: 517/432-1171

Dear Teacher/Administrator:

The idea of mixed-age classrooms is one in which many teachers and administrators are becoming interested. This letter is an invitation for you to express your ideas about the use of mixed-age classrooms in early childhood education.

As a graduate student in the Department of Family and Child Ecology at Michigan State University, I am focusing on the **kinds of concerns** teachers/administrators have about children in mixed-age classrooms. This study will complete my work at the master's level.

Please fill out the attached questionnaire. It will take you approximately 15 minutes to finish. Place the completed forms in the brown envelop that has been provided. These will be collected at the end of today's session.

Your answers will remain confidential and no one will be able to identify you from the responses you give. However, the compiled results will be useful in developing future training sessions for educators in Michigan. Although you will receive no direct benefits from your participation, I would be pleased to send you a copy of the results after they have been tabulated. If you would like this summary, sign your name on the list that will be circulated among your group.

You are not obligated to complete this survey. However, I would appreciate your considering to do so. "You indicate your voluntary agreement to participate by completing and returning this questionnaire."

Thank you for your assistance in helping me learn more about teachers'/administrators' concerns related to mixed-age classrooms.

Sincerely,



Lisa Brewer
507 North Ct., Mason, MI 48854
H(517)676-2173
W (517)851-4262

**UCRIHS APPROVAL FOR
THIS project EXPIRES:**

JUN 1 1 1997

**SUBMIT RENEWAL APPLICATION
ONE MONTH PRIOR TO
ABOVE DATE TO CONTINUE**

Marjorie Kostelnik
Supervising Professor
107 Human Ecology, MSU, E. Lansing, 48824
(517)355-7680

REFERENCES

REFERENCE LIST

- Anderson, B.L. (1993, September). The Stages of Systemic Change. Educational Leadership, 51(1), 14-17.
- Anderson, R.H., & Pavan, B.N. (1993). Nongradedness Helping it to Happen. Lancaster, Pennsylvania: Technomic Publishing Company, Inc.
- Barker, R.G. (1968). Ecological Psychology: Concepts and Methods for Studying the Environment of Human Behavior. Stanford, California: Stanford University Press.
- Bredekamp, S. (Ed.). (1987). Developmentally Appropriate Practice in Early Childhood Programs Serving Children From Birth Through Age 8. Washington, DC: NAEYC.
- Bronfenbrenner, E. (1989). Ecological Systems Theory. In R. Vasta (Ed.). Annals of Child Development (Vol. 6). Greenwich, CT: JAI Press Inc.
- Blasco, P.M., Bailey, D.B., & Burchinal, M.A. (1993). Dimensions of Mastery in Same-Age and Mixed-Age Integrated Classrooms. Early Childhood Research Quarterly, 8, 193-206.
- Bubolz, M.M., & Sontag, M.S. "Human Ecology Theory." Sourcebook of Family Theories and Methods: A contextual Approach. CH. 17, 1990 (in press).
- Burchfield, D.W., & Burchfield, B.C. (1992). Two Primary Teachers Learn and Discover Through a Process of Change. In Bredekamp, S., & Rosegrant, T. (Eds.), Reaching Potentials: Appropriate Curriculum and Assessment for Young Children (Vol. 1). Washington, DC: NAEYC.
- Byrnes, D.A., Shuster, T., & Jones, M. (1994, Fall/Winter). Parent and Student Views of Multiage Classrooms. Journal of Research in Childhood Education, 9(1), 15-23.
- Cohen, D.H., & Stern, V. (1978). Observing and Recording the behavior of Young Children (2nd ed.). New York: Teachers College Press.
- Cohen, L. (1971, November). Age and Headteachers' Role Conceptions. Educational Research, 14(1), 35-39.
- Corwin, R.G. (1975, Winter). Innovation in Organizations: The Case of Schools. Sociology of Education, 48, 1-37.
- David, J.L. (1991, May). What it Takes to Restructure Education. Educational Leadership, 48(8), 11-15.

- Espinosa, L. (1992). The Process of Change: The Redwood City Story. In Bredekamp, Potentials: Appropriate Curriculum and Assessment for Young Children (Vol. 1). Washington, DC: NAEYC.
- Giacquinta, J.B. (1975, Winter). Status, Risk, and Receptivity to Innovations in Complex Organizations: A Study of the Responses of Four Groups of Educators in Elementary School. Sociology of Education, 48, 38-58.
- Goldman, J.A. (1981). Social Participation of Preschool Children in Same-Versus Mixed-Age Groups. Child Development, 52, 644-650.
- Grosos, M.S., & Sardy, H. (1985). A Research Primer for the Social and Behavioral Sciences. Orlando, Florida: Academic Press, Inc.
- Hord, S.M., Rutherford, W.L., Huling-Austin, L., & Hall, G.E. (1987). Taking Charge of Change. Alexandria, Virginia: Southwest Educational Development Laboratory.
- Irwin, D.M., & Bushnell, M.M. (1980). Observational Strategies For Child Study. New York: Holt, Rinehart and Winston.
- Kantor, D., & Lehr, W. (1975). Inside the Family. San Francisco, CA: Jossey-Bass Publishers.
- Katz, L.G. (). Nongraded and Mixed-age Grouping in Early Childhood Programs. Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education, (ERIC Document Reproduction Service No. EDO PS-92-9)
- Katz, L.G., Evangelou, D., & Hartman, J.A. (1990). The Case for Mixed-Age Grouping in Early Education. Washington, DC: NAEYC.
- Kostelnik, M.J., Soderman, A.K., & Whiren, A.P. (1993). Developmentally Appropriate Programs in Early Childhood Education. New York: Macmillan Publishing Company.
- Lloyd, B., & Smith, C. (1986). The Effects of Age and Gender on Social Behaviour in Very Young Children. British Journal of Social Psychology, 25, 33-41.
- Malone, J., & Crone, R. (1978, February). A New Approach to Innovation in Schools. Educational Research, 20(2), 83-88.
- McDavid, J. The use of chi square based on statistics. Unpublished manuscript, The Pennsylvania State University, 1976.
- Michigan Department of Education (1994)

- Michigan Education Directory, Inc. (1995). Michigan Education Directory. (Report). Lansing, MI: Lansing Printing Company.
- Michigan State Board of Education, Early Childhood Education, Parenting, and Comprehensive School Health Unit. (1992, December 15). Early Childhood Standards of Quality for Prekindergarten Through Second Grade. Lansing, Author.
- Mounts, N.S., & Roopnarine, J.L. (1987). Social-Cognitive Play Patterns in Same-age and Mixed-Age Preschool Classrooms. American Educational Research Journal, 24(3), 463-476.
- Murphy, C.U. (1991, May). Lessons From a Journey into Change. Educational Leadership, 48(8), 11-15.
- Nebraska Office of Child Development (1993).
- Newmann, F.M., Rutter, R.A., & Smith, M.S. (1989, October). Organizational Factors That Affect School Sense of Efficacy, Community, and Expectations. Sociology of Education, 62(4), 221-238.
- Parten, M.B. (1932). Leadership Among Preschool Children. Journal of Abnormal and Social Psychology, 27, 430-440.
- Pincus, J. (1974, Winter). Incentives for Innovation in the Public Schools. Review of Educational Research, 44(1), 113-144.
- Prawat, R.S. (1992, April). From Individual Differences to Learning Communities --- Our Changing Focus. Educational Leadership, 49(7), 9-13.
- The Regional Laboratory for Educational Improvement of the Northeast and Islands. (1994, January). Multiage Grouping. Andover, MA.
- Research and Development Center for Teacher Education (1975). Measuring Levels of Use of the Innovation: A Manual for Trainers, Interviewers, and Raters. (Report). The University of Texas at Austin: S.F. Louchs, B.W. Newlove, & G.E. Hall.
- Research and Development Center for Teacher Education (1986). Measuring Stages of Concern About the Innovation: A Manual for Use of the SoCQuestionnaire. (Report). The University of Texas at Austin: G.E. Hall, A.A. George, & W.L. Rutherford.
- Research and Development Center for Teacher Education (1975). Stages of Concern About the Innovation: The Concept, Initial Verification and Some Implications. (Report No. 3065). The University of Texas at Austin: G.E. Hall and A.A. George.

- Rogers, E.M. (1983). Diffusion of Innovations (3rd ed.). New York: The Free Press.
- Roopnarine, J.L. (1981). Peer Play Interaction in a Mixed-Age Preschool Setting. The Journal of General Psychology, 104, 161-166.
- Roopnarine, J.L., Ahmeduzzaman, M., Donnely, S., Gill, P., Mennis, A., Arky, L., Dingler, K., McLaughlin, M., & Talukder, E. (1992). Social-Cognitive Play Behaviors and playmate preferences in Same-Age and Mixed-Age Classrooms Over a Six Month Period. American Educational Research Journal, 29(4), 757-776.
- Rubin, K.H., & Ross, H.S. (Eds.). (1982). Peer Relationships and Social Skills in Childhood. New York: Springer-Verlag.
- Scherer, M. (1992/1993, December and January). On Savage Inequalities: A Conversation with Jonathan Kozol. Educational Leadership, 50(4), 4-9.
- Siegel, S.M., & Kaemmerer, W.F. (1978, October). Measuring the Perceived Support for Innovation in Organizations. Journal of Applied Psychology, 63(5), 553-562.
- Simpson, G.W. (1990, May). Keeping It Alive: Elements of School Culture That Sustain Innovation. Educational Leadership, 47(8), 34-37.
- Smilansky, S. (1968). The Effects of Sociodramatic Play on Disadvantaged Preschool Children. New York: Wiley.
- Stern, C. & Keisler, E. Teacher attitudes and attitude change -- Vol. 2: Summary and analysis of recent research. Los Angeles: California University. Teacher Educational Lab, 1975.
- Stone, S.J. (1994/1995, Winter). Strategies for Teaching Children in Multiage Classrooms. Childhood Education, 71(2), 102-105.
- Theilhmeimer, R. (1993). Something for Everyone: Benefits of Mixed-Age Grouping for Children, Parents, and Teachers. Young Children, 48(5), 82-87.
- Thomas, R.M. (1992). Comparing Theories of Child Development. (3rd ed.). Belmont, CA: Wadsworth.
- Weins, J. (1970, June). Differences Between Influential and Non-influential Administrators. The Alberta Journal of Educational Research, 16(2), 103-110.
- Whaley, K.L., & Kantor, B. (1992). Mixed-Age Grouping in Infant/Toddler Child Care: Enhancing Developmental Processes. Child and Youth Care Forum, 21(6), 369-384.

MICHIGAN STATE UNIV. LIBRARIES



31293015758711