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CHANGING PERSPECTIVES IN EARLY CHILDHOOD EDUCATION: RECASTING THE REGGIO EMILIA APPROACH

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee

Elizabeth M. Elliott
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DEDICATION

This dissertation is dedicated to

Charles R. Barksdale, my husband

who gave me encouragement, inspirations, physical and emotional love and support whenever I needed it throughout my education. He never lost faith in me or my ability to succeed; for this, I will be eternally grateful. To quote a popular song,

"I am everything I am, because you loved me."

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Finally, to my Mom, thank you may be too simple, but thanks for EVERYTHING! I love you with all my heart. I now have direction in my life!!

ABSTRACT

This national study used descriptive cross-sectional quantitative research methods to examine and describe the perceptions and concerns of individuals from selected university early childhood teacher education programs. The programs were involved in the process of change through the recasting and the reconceptualization of early childhood education through the Reggio Emilia Approach. Traditionally, early childhood education has been influenced by developmental theory and recently selected university early childhood teacher education programs have focused on early childhood education curricula reflective of constructivist and social constructivist approaches.

This study used the Stages of Concern Questionnaire developed by Hall and associates at the University of Texas (1974) to examine individual concerns about the adoption of an educational innovation. The Description of Program Questionnaire examined specific program variables. To gain a deeper perspective, one individual from each university program was interviewed by telephone. The participants of the study were faculty, laboratory school staff and graduate students from the selected university programs. Specific program variables were described and examined for relationships. Individual and group profiles of the stages of concerns were visually examined and graphed to determine individual and group profiles. Statistical analyses were conducted using the computer software SPSS.

Data analysis indicated statistically significant differences in the stages of concern between the university programs; and by primary positions of faculty, laboratory school

staff, and graduate student. The most interesting finding of this study was that the highest overall means score in the Stages of Concerns for every university program was in Stage 5-Collaboration. In addition, the Stages of Concerns and the Description of Program questionnaires were correlated for relationships and again, there were positive correlations among five specific university program variables and Stage 5-Collaboration. In the Description of Program Questionnaire, collaboration again emerged as a success and a challenge of these programs. Interviewees' responses revolved around the idea of collaboration as well.

The research indicated that although the programs may have had different issues regarding REA, globally their focus of concern was the same. Previous research on the reconceptualization of early childhood education has concluded that collaboration is an essential tenet in organization growth (Fu, Stremmel, & Hill, 2002). The present study yielded a similar portrait in that every university program reported both concerns about collaboration, while also maintaining that collaborative efforts were their number one success. The results of the study were discussed with regard to the National Research Council on Teaching and Learning's recommendations for the future of early childhood education.

PREFACE

This dissertation is organized into several sections and appendices. The first section provides an overview of the study and the stated purpose of assessing individual perceptions and/or concerns during the process of change in higher education. In this section, there is a description of the theoretical framework considered in this research: Concerns Theory and literature related to educational change; a brief overview of the history of early childhood education including the emergence of constructivist and social constructivist approaches; and an explanation of how Concerns Theory is an appropriate model for the study of change at the selected university teacher education programs whose focus is to advance the reconceptualization and the recasting of the Reggio Emilia Approach to early childhood education in the United States.

The next section outlines the methodology of the study. This includes the research methods, the population and sample demographics, instrumentation, an overview of the data analysis, and the role of the researcher.

The final two sections focus on the analysis of the data. The analysis examines and describes the concerns and perceptions of the individuals involved in the process of change at the selected universities. The last section contains a discussion of the results along with recommendations for future research.

Appendix A contains an expanded review of the literature on the process of change in education, the models of change that have influenced educational reform, a brief interpretation of maturationism, behaviorism, and contemporary perspectives in early childhood education, teacher education in the 21st century. Appendix B contains

the review of the Concerns-Based Adoption Model. Appendix C contains the Stages of Concern Questionnaire (SoCQ) and the modifications. Appendix D includes the Description of Program Questionnaire (DP), and the focused interview protocol. Appendix E consists of the human subjects reviewed cover letter and informed consent. Finally, Appendix F contains the complete list of successes and challenges from the respondents by percentage.

TABLE OF CONTENTS

SECTION		PAGE
I.	INTRODUCTION	1
	Introduction	1
	Purpose of the Study	2
	Concerns Theory	3
	Innovations	4
	Change Agents	6
	Change in Higher Education and Public Schools	7
	Concerns-Based Adoption Model	8
	History of Early Childhood Education	12
	Introduction	12
	From Caretaker to Researcher	13
	Constructivism	17
	Social Constructivism	19
	Co-Construction of Knowledge	21
	Reconceptualization of Early Childhood Education	23
	Rationale for the Use of CBAM and The DP Questionnaires	24
	The Concerns-Based Adoption Model and The Reggio Emilia Approach	26
	Significance of the Study	28
	Overview of the Methods	29
	Research Questions	29
	Limitations	30
	Definition of Terms	31
II.	METHODS	33
	Introduction	33
	Research Methods	34
	Variables	34
	Population and Sample	37
	Procedures	39
	Response Rate	40
	Demographics of the Sample	40
	Experience	41
	Instrumentation	41
	Data Analysis Overview	46
	Researcher's Role	46
	Summary	47
III.	ANALYSIS OF DATA	48
	Introduction	48

Analysis by Research Questions 49
Research Question One 49
Research Question Two 49
Research Question Three 50
Overview of Data Analysis 50
Introduction 50
Response Data and Analysis of the SoCQ – Research Question 1 52
Response Data and Analysis of the SoCQ and the DP – Research Question 2 57
ResponseData and Analysis of the SoCQ and the DP – Research Question 3 60
Response Data and Analysis of the DP – Research Question 3(cont) 61
Length of Involvement 63
Professional Development 63
Intensity of Efforts Towards Change 66
Ratings of Intensity of Efforts Towards Change 66
Collaboration 72
Contextual Variables 72
Successes 73
Challenges 73
Turnover Rates 73
Focus Interviews 74
Summary 75

IV. SUMMARY AND DISCUSSION 76
Introduction 76
Major Findings 77
Collaboration 78
Concerns 83
Change 87
Curricular Changes 90
Successes and Challenges 92
Conclusions 94

LIST OF REFERENCES 100

APPENDICES 113
Appendix A: Review of the Literature 114
Appendix B: Concerns-Based Adoption Model 147
Appendix C: Sample Stages of Concern Questionnaire & Modifications 157
Appendix D: Sample DP Questionnaire and Focus Interview 160

Appendix E: Cover Letter, Informed Consent 166
Appendix F: Ranking Responses by Percentages of Responses ... 170

VITA 172

LIST OF TABLES

TABLE		PAGE
1.	Research Questions Matched by Variable and Questionnaires	36
2.	University Program Participants by Age	42
3.	Teaching Experience by Years	42
4.	Coefficients of Internal Reliability	44
5.	Mean Percentile Scores and Standard Deviations of Schools by Stages of Concern	56
6.	Correlation Matrix: Seven Stages of Concern by Specific Program Variables	62
7.	Professional Development Activities	65
8.	Faculty Research-Oriented Activities	67
9.	Intensity of Efforts Towards Change by Category with Range, Means, and Standard Deviations	69
10.	Correlation Matrix of Specific Categories	70
11.	Intensity of Efforts in Lab Curricular Changes and Teacher Education Curricular Changes by REA Years	71

LIST OF FIGURES

FIGURES **PAGE**

1. Stages of Concerns Definitions 10

2. Graphic Profile of the Seven Stages of Concerns 53

3. Mean Group Scores for the Seven University Programs by Stages of Concerns 55

4. Stages of Concern by Primary Positions 59

SECTION I

INTRODUCTION

Introduction

The event of change is a highly personal experience for the individual within an educational institution involved in the process of change (Hall & Loucks, 1978). Change is not unique; rather, individual perceptions of the process of change are different. Oppenheimer (1955) pointed out that in an important sense, "this world of ours is a new world in which the unity of knowledge, the nature of human communities, the order of society, the order of ideas, the very notions of society and culture have changed and will not return to what they have been in the past" (p. 10). Thus, to paraphrase an old adage, the only constant is change. The focus of this research on educational change considered the individual's perceptions about the scale and scope of the process of change.

In these times of change, federal, state, and local forces in teacher education have called for higher student achievement and have demanded greater accountability on the part of teachers in the 21st century (Creech, 2000; Feiman-Nemser & Remillard, 1996; National Council for the Accreditation of Teacher Education, 1995). Along with this current trend of accountability, issues relating to teacher shortages, recruitment, and retention has attracted renewed attention to teacher preparation programs nationwide. Formal program evaluation continues to examine these issues. Although there have been many research studies in teacher education, little guidance exists on individual perceptions or concerns regarding the process of change in the adoption and implementation of new approaches to education at the university level. Consequently,

this study on the process of change in early childhood teacher education programs is timely and may contribute to our understanding of innovation in teacher preparation.

Purpose of the Study

The purpose of this study was to examine and describe the perceptions and concerns of individuals involved in the reconceptualization of early childhood teacher education curricula using the Reggio Emilia Approach (REA). Specifically, the study examined individuals' stages of concerns and the process of change as perceived by the identified program variables involved in innovative change at the selected early childhood teacher education programs nationwide.

Change is often brought about through the implementation of an innovation. The innovation identified in this study was the reconceptualization and recasting of early childhood curricula according to constructivist and social constructivist approaches set forth by the early childhood programs of Reggio Emilia, Italy (Fu, 1999). This innovation presented individual challenges and concerns to deans, faculty, and laboratory school staff by its philosophical nature and by the goals and outcomes orientation of teacher education. These challenges and concerns arose from individual interpretations and understandings of the innovation to their practical applications.

To examine and describe these perceptions, concerns, and the process of change, the study used (a) the Concerns-Based Adoption Model, Stages of Concern Questionnaire, (b) the Description of Program Questionnaire, and (c) when necessary and appropriate, a focused interview was conducted with selected faculty and/or teachers. The fundamental framework used to develop the Concerns-Based Adoption Model

(CBAM) was Fuller's (1969) Concerns Theory. This theory led to a model of change that considered the behaviors and the concerns of individuals as they go through the process of adopting an innovation. Concerns Theory (1969) was the underlying framework of the assessment model used for this study.

Concerns Theory

Adult perceptions of change were addressed as "concerns" by Fuller's (1969) Concerns Theory. In Concerns Theory, change must be considered as a process rather than as an event. Individuals experience the process of change at different times and express different concerns. This implies that those individuals involved in the process of change went through a developmental pattern. Concerns Theory (1969) examines the concerns of and the developmental path taken by preservice and inservice teachers.

Dr. Frances Fuller developed and administered the Teacher Concerns Statement (TCS) questionnaire and identified two areas of concern – concerns for self and concerns for students. Her model was refined and modified over time to include three areas of concern: (a) concerns unrelated to teaching, (b) concerns for the role of the teacher and, (c) concerns about teaching and the needs of the student.

From this theory, Fuller (1969) proposed a developmental conceptualization of the concerns of teachers. Teachers' concerns were then categorized into three phases: preteaching, early teaching, and late concerns. Preteaching concerns were characterized as low involvement in teaching with little or nothing to do with the act of teaching. Consequently, this phase became known as non-concerns and unrelated to teaching. Early teaching concerns were appropriately labeled self-concerns, as they centered on

concerns related to expectations of the classroom and the role of teaching. Late concerns were characterized by concerns for student outcomes and professional development.

To continue Concerns Theory research, Fuller, Parsons, and Watkins (1973) examined the dynamics of teachers' concerns, and Fuller and Brown (1975) studied the arousal, assessment, and resolution of those concerns. The results of these studies verified the hypothesis that a developmental process of concerns commonly experienced by teachers was not unique to teachers in a specific teacher education program.

Using this theoretical framework, and seeing similarities in teachers and professionals involved in the adoption of new innovations, The Texas Research and Development Center for Teacher Education at the University of Texas in Austin (R&DCTE) began to gather qualitative data and document individuals concerns in the process of change. As a result, Hall, Wallace, and Dossett (1973) developed an assessment of innovations model known as the Concerns-Based Adoption Model (CBAM).

Innovations

Innovations may be considered processes, such as constructivist teaching; or new product inventions, such as computers. Specifically, an educational innovation is a concept in which the focus of change is characterized as different from present educational practices. The innovation for this study was a process, adoption of the social constructivist approach based on the Reggio Emilia Approach to early childhood education.

Rogers and Shoemaker's (1971) study of rural sociology based the definition of innovation on an analysis of perceived attributes of innovations. Adopters of innovations organized their perceptions of the innovation around five attributes: relative advantage, compatibility, complexity, trialability, and observability. Rogers and Shoemaker (1971) suggested that for relative advantage to occur, the innovation had to be perceived as having a relative advantage over present practices. In the same study, compatibility was perceived as having the potential to be compatible with present practices. Complexity was viewed when easier innovations were more readily adopted, and innovations that were more complex were perceived as requiring more time. In the trialability of an innovation, Rogers and Shoemaker (1971) indicated that a new innovation should be used in comparison with or alongside present practices. Finally, observability was implied when innovations were readily observable they became easier to adopt. These attributes established a set of categories for educational innovations.

Educational innovations were defined by two orientations: (a) philosophical and, (b) goals and outcomes. Teacher education and practices are based on philosophical orientations, and so it may be difficult at times to make concrete descriptions of what teachers do in real situations (Hall & Hord, 1987). From the orientation of goals and outcomes, change agents describe the innovation in terms of what it will accomplish and what needs to be achieved. In both orientations, individuals were seen as progressing through a variety of developmental stages while at the same time, using the innovation at predictable levels (Havelock, 1969; Hall, Wallace, & Dossett, 1974; Hall, 1975; Hall & Hord, 2001).

Change Agents

While Fuller engaged in research on teacher concerns, other researchers began to discuss the process of social change through the adoption of innovations with change agents (Hall, Wallace, & Dossett, 1974). By determining the concerns of the individuals involved in a change effort, "change agents" develop strategies for dealing with the concerns that are the most threatening and help to facilitate transition from status quo to the innovation. Change agents describe the innovation in terms of what it will accomplish and what needs to be achieved.

Social change occurs when a person, acting as a catalyst, initiates change. This person is a "change agent." For this study, the change process required social change between an organization (the university) and change agents (deans, faculty, and laboratory school staff) working together to influence the change process. Change is a concept and not a personal role. While change varies conceptually, the role of individuals is to facilitate change. The agent works within a system to develop a relationship with the system and the individuals. This relationship is similar to that of organization and client. Change agents, however, can and may be within the same organization but work in a variety of capacities. For example, the dean of a college may be the change agent and the faculty and students in that college may be the client; or the faculty may be change agents with students and dean as clients. According to Zyss (1984), the change agent monitors the client implementation of the innovation. The change agent offers support and may run "interference" at an administrative level for the

client. As the client begins to implement the innovation beyond the novice level, the change agent removes him/herself from the situation.

Change in Higher Education and Public School

In education, the roles of faculty and student are clearly differentiated and have separate functions. Historically, faculties are the most experienced; students learn from faculty. There is no role ambiguity. However, in facilitating change, some individuals seem to understand the process of change better than others do, be they students, faculty, or deans. In the process of change at the post secondary level, facilitation of change and implementation of innovations may take on different forms. Such as, faculty, with the support of deans and/or department heads, become front line change agents and may elicit a similar role from students. Students become front line agents when they graduate and begin full-time teaching and use the innovation in their daily activities. This parallels the Rand Study (1974) propositions: establish a working relationship (faculty-student), active support of the project (implementation of the innovation), and assumption of leadership roles by change agents (using the innovation after graduation).

Similarly, in public schools, the roles of the principal, teachers, and students are clearly defined. Again, there is no role ambiguity. Berman and Laughlin's (1978) study of the process of change viewed the principal's role as being supportive in the facilitation of an innovation. The Rand Study suggested that principals influenced the success of change by the working relationship with teachers, by active support of the project, and by being an effective leader. Huling, Hord, and Hall (1982) studied the effects principals had on teachers during the change process by analyzing principal-teacher interactions.

These interactions would be similar to dean-faculty interactions or faculty-dean interactions in higher education. Rutherford, Hall, and George (1982) concluded that by understanding individual's perceptions and behaviors during the adoption process it is possible to develop and design appropriate strategies for effective change.

Concerns-Based Adoption Model

Fuller's Concerns Theory (1969) examined the concerns of preservice and inservice teachers by collecting data on individual teaching experiences. Havelock (1969) examined the personal characteristics that effect arousal of concerns. These data became the theoretical basis for the Concerns-Based Adoption Model (CBAM). The CBAM evolved from teacher education research at the R&DCTE in the early 1960s. This group of researchers conducted a series of studies regarding teachers' concerns, personality characteristics, the change process, and innovative implementation. The results of these studies became the CBAM conceptual framework that outlines the processes individuals experience when they are involved in educational change (Hall & Hord, 1987).

The CBAM perspective emphasized that change is a process and each individual experiences the process differently. During the process of change, emphasis should be placed on assisting the concerns of individuals who are involved in the innovation rather than evaluating of the process of change. The concept of "the stages of concern" developed for the CBAM originated by Hall and associates in 1973, directly related to the three categories of concerns identified by Fuller's 1960s research. Hall, George, and

Rutherford (1977) defined a concern as a feeling, preoccupation, thought, or consideration given to a particular task.

Using Fuller's theoretical framework, and seeing similar patterns when working with professors, principals, and teachers involved in adopting educational innovations, Hall, Wallace, and Dossett (1973) presented their conceptualizations of the stages of concern. Figure 1 describes the stages of concern. The underlying principles of the CBAM derived from the research states that:

1. In educational institutions, change is a process, not an event.
2. There are significant differences in what is entailed in development and implementation of an innovation.
3. Mandates can work.
4. An organization does not change until the individual within it changes.
5. Innovations come in different sizes.
6. Interventions are the actions and events that are key to the success of the change process.
7. Although both Top-Down and Bottom-Up change can work, a Horizontal perspective is best.
8. Administrative leadership is essential to long-term change success.
9. The school is the primary unit for change.
10. Facilitating change is a team effort.
11. Appropriate interventions reduce the challenges of change.
12. The context of the school influences the process of change (Hall & Hord, 2001, pp.4-15).

Based on these twelve principles, the CBAM is a unique and dynamic approach to gaining an understanding of individual concerns and perceptions to educational reform

Stages of Concern: Definitions

6 **Refocusing:** The focus is on the exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.

5 **Collaboration:** The focus is on coordination and cooperation with others regarding use of the innovation.

4 **Consequence:** Attention is focused on the impact of the innovation on clients in his/her immediate sphere of influence. The focus is on relevance of the innovation for clients, evaluation of outcome including performance and competencies, and changes needed to increase client outcomes.

3 **Management:** Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.

2 **Personal:** Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organization, decision-making, and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.

1 **Informational:** A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner, such as general characteristics, effects, and requirements for use.

0 **Awareness:** Little concern about or involvement with the innovation is indicated.

Figure 1: Stages of Concern - Definitions

From: Hall, G. E., George, A. A., & Rutherford, W.L. (1977). *Measuring Stages of Concern about the Innovation: A Manual for Use of the SoC Questionnaire*. Austin, TX: Southwest Educational Development Laboratory.

and change. From these principles, the model hypothesizes that concerns change as users become more familiar with the innovation. The "event" of change is more than an announcement, workshop, or two-day seminar, rather change is an organizational process in which individuals move from gradual understanding, to more competent and skilled users of the innovation. The progression is similar to Fuller's model: early concerns deal with *self*, later concerns relate to *tasks*, and finally, users of the innovation have concerns about the *impact* on others. According to the CBAM model, the individuals involved in the change process go through seven steps that are categorized by three stages of concern.

In the first stage, SELF, individuals identify concerns of awareness about the innovation. The SELF-stage describes the demands placed upon the individual once the innovation is implemented and individuals require additional details regarding the innovation.

In stage two, TASK, the attention focuses on the processes and tasks that must be employed to organize and manage the innovation. Once the tasks are identified and activated, individuals shift to the final stage of concern, IMPACT.

The IMPACT-stage focuses on how the innovation will influence student and faculty outcomes, performances, competencies, and evaluation. Collaboration, reflection, and dialogue with others become a major concern in implementing the innovation at this stage. The IMPACT-stage addresses universal benefits and discusses changes, alternatives, alterations, and/or replacements to the innovation.

History of Early Childhood Education

Introduction

In order to construct a contemporary view of curricula for young children, a discussion and brief review follows the four major theoretical perspectives that have historically influenced early childhood education. The first three perspectives are behaviorism, maturationism, and constructivism. A review of behaviorism and maturationism is included in Appendix A. These basic theories of child development serve to organize and integrate hypotheses about children's biological, social/emotional, and cognitive development. Theories help to answer the broader questions for teacher education, such as "How do children learn," "What do they need to learn," and "Why do they need to learn it" (New, 1999). The answers to these questions directly influence the philosophies, beliefs, knowledge base, and practices embraced by early childhood education teachers and teacher education. For the past one hundred years, these three dominant theoretical perspectives have had a significant influence on the field of early childhood education while continuing to reconceptualize the role of teachers. Over the past 15 years, a fourth theory, social constructivism has received national attention in early childhood education.

The field of early childhood education began its history in developmental psychology. In response to the necessity of caring for and educating young children, Friedrich Froebel established the kindergarten movement in mid 1800s (Froebel, 1887; Beatty, 1995). The kindergarten movement was an effort to gain information about child development and guide the early care and education of young children with current social

reforms (Bloch, 1991). This alliance influenced the knowledge base and methodology of teaching for early childhood pedagogy; developmental psychology formed an alliance at the turn of the century with teacher education. Through the study of developmental psychology teachers were encouraged to ask critical questions about children's learning (Bloch, 1991). This questioning of children's learning and development has become the current challenge in early childhood education as the profession begins to reconceptualize teacher education programs.

From Caretaker to Researcher—A Historical Perspective on Early Childhood Educators

Over the past one hundred years, early childhood teachers typically were young, single females working in daycare centers or kindergartens such as those of Friedrich Froebel or Pauline Shaw (Beatty, 1995). Few had a formal education; in fact, many had not finished grade school. Over the first three decades of the twentieth century, colleges and universities established laboratory schools with the focus on teacher training, research, and innovative education (Gordon & Williams-Browne, 1995).

Notable early laboratory schools included, the Hampton Institute opening in 1873, the University of Chicago School, founded in 1896 by John Dewey, Bank Street School in 1919, and the laboratory nursery school established at Columbia Teacher's College in 1921 by Patty Smith Hill. These early childhood laboratory schools helped to establish the profession we know today. However, the roots of early childhood go back even further in our history.

Comenius, a Czech educator wrote the first children's book in 1658; a picture book guide for teachers to train children about nature and their senses. He was an early

proponent of what is recognized as "school readiness" today. Comenius stressed the importance of learning by doing and suggested that social reforms include education for the poor as well as the rich (Gordon & Williams-Browne, 1995). Locke, Rousseau, and Pestalozzi influenced the profession in the late 1600s to the early 1800s, as well. However, the most widely recognized contributor to early childhood education is Friedrich Froebel, the father of kindergarten.

Froebel advocated for young children by suggesting that they have toys, play together, and be taught by trained teachers (Beatty, 1995). Before the opening of this type of school, the public belief was that to become an early childhood teacher, you must have been female, and loved to care, feed, and play with children. Prior to the kindergarten movement, little emphasis was placed on the academic aspect of young children's learning and developing experiences.

The Froebelian movement influenced teacher education by the use of materials, activities, and the role of teachers as guides and instructors of children's unfolding abilities (Morrison, 1991). The metaphoric name— kindergarten or child garden— suggested that teachers were gardeners and the children were seeded in the learning context. What is most significant today is the notion that learning begins at birth, not age five. The implication of this notion is formal training for early childhood educators. This major reconceptualization in thinking has meant that early childhood education is critical for later development and learning for children.

In an effort to determine what young children knew before they entered primary school, G. Stanley Hall began to study the charity kindergartens of Pauline Shaw in 1880

(Beatty, 1995). One of the outcomes of this study was the validation of the role of early childhood education teachers (Hall, 1921). Another outcome was recognition of the fact that teachers began the process of researching critical aspects of their work. This established Hall's reputation of bringing science into the child study movement (Bjorklund & Bjorklund, 1992). By 1900, Hall's child study movement contributed to the change in the image of the teacher from caretaker to the new image as researcher. This image forged the way for early childhood teachers to begin the process of learning more about how children learn and develop.

As a result of this new image, and the emphasis on early childhood teacher education, colleges and universities began to establish teacher-training programs with the explicit goal of teacher preparation and practice. John Dewey was among the first Americans to significantly influence the American educational process (Gordon & Williams-Browne, 1995). Dewey (1938) believed the focus of school should be on the child. He initiated child-oriented and child-involved activities that later became known as the child-centered approach. Dewey also emphasized the importance of learning communities in which children and teachers determine and pursue activities together. Some of these pursuits continued over extended periods of time (Cuffaro, 1995). This perspective considered teachers and children as active, cooperative, and social members of the teaching and learning community. Dewey (1943) suggested that it is the teachers' business to know what children are striving for at a given period in their development.

By the 1920s, teachers began to assume a role more closely associated with pedagogy and less with caretaker, the field of early childhood education became a

defined profession. The professional image of early childhood teachers included the understanding of a specific knowledge base that reflected the tenets of child development theories.

In the latter part of the twentieth century, another educator and early childhood educational system have influenced early childhood education and teacher education. The late Loris Malaguzzi developed an approach for working with infants, toddlers, and pre-kindergarten children in the preschools of Reggio Emilia, Italy. His approach included creating "an amiable school" that welcomed families and communities in a relationship with teachers and children with the notion of strengthening the identity of the child (Malaguzzi, 1993). This philosophy and approach to working with young children is the foundation from which the participants of this study continue the process of reconceptualizing their ideas for early childhood teacher education.

The key components of the early childhood programs of Reggio Emilia, Italy are:

- The child as protagonist
- The child as collaborator
- The child as communicator
- The environment as the third teacher
- The teacher as partner, nurturer, and guide
- The teacher as researcher
- Documentation as communication
- The parent as a partner (Edwards, Gandini, & Forman 1998; Cadwell, 1997; Hendrick, 1997).

These views embrace the constructivist and social constructivist theoretical perspectives of children's learning and development. Teachers and children actively engaged in this learning environment encourage multiple exchanges of ideas (DeVries & Kohlberg, 1989). Children have the ability, preparedness and potential to engage in and construct their learning (Gandini, 1997).

Constructivist and social constructivist theories are among those discussed in the literature about the Reggio Emilia Approach (REA). They are briefly reviewed here. The REA to teaching and learning has adapted and reinvented constructivist and social constructivist theory for use in classrooms, schools, and teacher education programs in the United States. This approach integrates theory into practice by creating learning environments that are responsive to children's development within the socio-cultural context.

Constructivism

Constructivist theory was introduced over sixty years ago by Jean Piaget, an epistemological biologist from Switzerland, who applied biological principles to the study of human development (Slavin, 1991). Piaget's constructivist theory suggested that cognitive development evolves from a psychological interchange between the individual and the environment that includes multiple exchanges of ideas between what is known and what is unknown (DeVries & Kohlberg, 1989). In addition, children must think for themselves in order to construct knowledge (Kamii, 1985). Inhelder (1972) suggested that the constructivist nature of Piaget's theory is derived from opportunities where

children can act on objects, observe other peoples' actions, and discussions that correspond to the child's current level of development.

DeVries and Kohlberg (1989) indicated that constructivism is a theory about learning in which there is an interaction between the physical and social environment enabling children to reorganize their thought processes through experiences of exploration. Because knowledge is constructed from children's innate abilities and their relationship with the environment, the role of the teacher is to try to "make sense out of the sense" the children are making (Duckworth, 1987). Constructivists have emphasized the interaction between the environment and children with teachers actively providing appropriate experiences (Fosnot, 1996; Kamii &DeVries, 1989; Inhelder, 1972; Piaget, 1932).

Piaget's (1952) cognitive developmental theory reflects the way children perceive the world and experience the environment. Piaget (1952) indicated that children structure their intelligence through development by two processes: organization and adaptation. Once the mind organizes these processes into systems, children adapt to changes in the environment. Adaptation of the environment occurs through two additional processes known as accommodation and assimilation.

Piaget's (1952) cognitive developmental stage theory implied that development is sequential and in continual movement over time. Even though Piaget did not directly recognize a relationship between teachers' and child development, the cognitive developmental stage theory has been interpreted by educators and guides teachers and parents in their understanding of how children develop over time (Cohen, 1983). Stage

theory tends to limit children's thought processes, something that the Reggio Emilia approach seems to move beyond. Piagetian-influenced constructivists believe that construction of knowledge is the result of continually assimilating new information and accommodating previously acquired knowledge, and adapting behaviors to construct new knowledge; thus self-reorganization (Fosnot, 1996).

From the constructivist perspective, teachers' understanding of children's development focuses on how children organize, retrieve, and use strategies for constructing knowledge. Through observation and facilitation, teachers guide children in their construction of knowledge. Constructivism remains a dominant theory in teacher education programs today.

Social Constructivism

Over the past twenty years, teacher education programs and researchers have begun to recognize the reciprocal influence between children and adults' cognitive and social development and the interaction of the two. Through this recognition and research efforts, social constructivist theory in early childhood teacher education programs, have become the center of attention worldwide. This is especially true in the "recasting" of the Reggio Emilia Approach to early childhood teacher education.

In social constructivist theory there is a dynamic interaction between the teacher, the child, and the environment that promotes the construction of knowledge within social, cultural, and historical contexts. Using a multidimensional approach directed towards the social and cultural aspect of mental activity, Vygotsky's (1978) theory identifies with *social constructivism.* In social constructivism, it is implied that a mental activity is

bounded within the social context in which the activity occurred (Wertsch, 1985; Edwards, Gandini, & Forman, 1998).

Vygotsky's theoretical frameworks are supported by three themes: (a) genetic development, (b) higher mental processes have an origin in social processes, and (c) mental processes can only be understood when framed within the context using psychological "tools" (speech, language, and thought) (Wertsch, 1989; Daniels, 1996; Bodrova & Leong, 1996). The early works of Vygotsky (1978) concentrated on the processes of development and the changes that occurred over the course of life. As he studied higher mental processes, Vygotsky (1986) indicated that individuals changed and reacted in response to the social setting. Finally, Vygotsky suggested that mental processes constantly evolved as individuals applied psychological and technical "tools" to the tasks at hand (Bodrova & Leong, 1996). Through these processes, Vygotsky suggested that development occurs in context, and is socially and culturally guided by the social setting (Wertsch, 1985).

These fundamental frameworks support the most widely used educational concept explained by Vygotsky (1986), the zone of proximal development (ZPD). Vygotsky's (1986) concept of the zone of proximal development—the area that lies between the actual development and the potential for greater development—depicts the importance of the possibilities for collaborative interactions among children and teachers. Vygotsky's ZPD connects a psychological perspective on child development with a pedagogical perspective (Hedegaard, 1996). Scaffolding becomes the educational metaphor used to explain the concept of ZDP. Scaffolding, a concept viewed as a support system used by

children and teachers, allows children to move forward and build new competencies that help to foster cognitive growth and increase performance on variety of tasks (Wood, Bruner, & Ross, 1976; Berk & Winsler, 1995). In the Reggio Emilia Approach (REA), children are viewed as complex social beings who are motivated by and learn from interactions and relationships with others (Gandini, 1993). To enhance the concept of scaffolding in the REA, teachers stay with the same children for three years. Consequently, children develop the ability to scaffold more effectively through development of complex skills and the sustained opportunities to form meaningful relationships (Berk & Winsler, 1995).

Co-construction of Knowledge

Constructivism and social constructivism are important theories in the field of early childhood teacher education programs. From this perspective, teachers co-construct their knowledge of teaching practices and guide children's construction and co-construction of knowledge. Co-construction of knowledge is a process, or an experience, in which teachers consider themselves as partners in the process of learning with children. In co-construction, children and teachers may proceed with pauses and setbacks; ultimately, the learning experience is enjoyed together with children and embedded in team cooperation and continual inquiry (Hendrick, 1997). Learning occurs through a series of discovering and revisiting experiences for the child and the teacher. Cooperation then becomes the mode of achieving learning goals and outcomes for children (Gandini, 1997). Reflection, collaboration, and dialogue are key tenets of these

educational change efforts geared towards teacher preparation that encourages the co-construction of ideas that fosters the notion that theory informs practice.

Collaboration is defined as interactive planning and problem solving in the educational setting involving teams of two or more teachers (Welch, 1998). Collaborative activities include exchange of ideas, materials, and decisions about the use of both tangible and intangible resources toward a common goal. Reflection and dialogue are integral parts of this process since collaboration requires interpersonal communication between teachers. Collaboration promotes a broader conceptualization of problems and generates more solutions to problems (Welch, 1998). Reggio educators view "theory into practice" as a bi-directional collaborative process of interactive exploration and creative problem solving (Hendrick, 1997). Collaborative dialogues enable educators to critically analyze and creatively develop curriculum. Reflective practice also allows for analysis of teaching activities for the purpose of professional improvement and self-development.

In classrooms where the ideas of constructivism are embraced, teachers conduct classroom activities that promote inquiry and discovery learning for children through problem solving. Similarly, social constructivism promotes inquiry and also emphasizes learning through the development of relationships among children, teachers, families, and communities (New, 1998). Malaguzzi (1994) suggested that social constructivism supports teacher education and professional development. By inspiring creative teaching for young children through the process of re-reading, reflection, and revisiting of teachers' work, teachers attempt to analyze their teaching, and in turn, facilitate young

children's learning and developmental processes. This continuous process is dynamic and bi-directional.

Finally, developmental theory continues to influence our understanding of children's learning. In the 1980s, Piaget's theories of children's development and learning were challenged and rethought. Around this same time, the field of early childhood education began to recognize that children's progression through the stages of development was less dependent upon specific knowledge or acquisition of discrete skills, but rather on their use of operations to retrieve, organize, and use development in relationship to learning (Moran, 1998). In this light, early childhood teacher education has begun efforts towards developing a broader and deeper understanding of the process of learning and development.

Reconceptualization of Early Childhood Education Through the Reggio Emilia Approach

The study of reconceptualized and innovative approaches to early childhood education (ECE) is a focus of national concern in teacher education (Fosnot, 1996; Darling-Hammond & McLaughlin, 1995; DeVries & Kohlberg, 1989). Traditionally, developmental theory has influenced early childhood education. Currently, a shift in focus for the field of early childhood teacher education highlights and broadens the influence to consider constructivist and social constructivist teaching whereas developmental theory continues to guide the understanding of how children develop, but may not direct teacher's thinking (Cannella, 1997; Dahlberg, Moss, & Pence 1999). This change in orientation from the developmental approach to constructivist approach comes with implications for the field of early childhood teacher education. Those implications

include studying what processes teachers use to construct their knowledge, and what processes teachers use to guide children in their construction of knowledge (New, 1998).

In Fu's (1999) discussion of the recasting of the Reggio Emilia Approach for the United States, she suggested three shifts in thinking for early childhood educators. First, Fu invited the field of early childhood "to participate in the reconstructing of REA into the social, cultural and political realities of our respective communities" (p.1). This may be accomplished through acknowledgment of the multiple opportunities for teaching and learning afforded by the approach. Second, in the recasting of the Reggio Emilia Approach for the field, Fu indicated that teaching and learning opportunities should include three protagonists, the teacher, the child, and the parent. The Italians indicate the primary protagonist is the child (Gandini, 1997). The collaboration of all three establishes a cooperative relationship between and among the three individuals. Finally, Fu implied that through the study of REA, teachers in the United States are encouraged to embrace a pedagogy of hope and possibilities—schools becomes a place where children, parents, and teachers work together to rediscover and revisit the art of teaching.

Rationale for the Use of The CBAM and The DP Questionnaires

Educational innovations are only as successful as the individuals who implement the innovation. Given the importance of the individual to the success of innovations, it is critical to identify and describe the perceptions and concerns of students, faculty, and staff as they engage in the process of change through the reconceptualization of early childhood education and teacher preparation. Osborne (1994) indicated that successful

organizations – such as university programs – use innovative processes to strengthen the culture in order to bring about long-term institutional change.

The CBAM Stages of Concern Questionnaire (SoCQ) was developed to assess the strength of the institutional change and the process of long-term change. Moreover, such assessments may aid in the development of strategies for assisting other institutions with similar goals regarding change. Examining ideas about reconceptualization and innovations in education, may help to stabilize the institutions who are currently involved in change (Hall & Hord, 2001). Strategies derived from such an examination may include inservice instruction, site visitation with similar institutions, development of better management procedures to aid in facilitation of the existing change process.

For this study, three areas were identified as important areas for assessing institutional change in the identified university teacher education programs: (a) professional development activities, (b) curricular changes in teacher education and laboratory schools, and (c) the contextual variables that have either hindered or strengthened the process of change. Both the literature on educational change (Darling-Hammond, 2000; Hendrick 1997), and through personal experience (J. Goldhaber, personal communication, February 2001; D. Tegano, personal communications, June, 2000; February, 2001) have substantiated the need to examine change in these three areas. New (1999) suggested that early childhood curricula and teachers begin to examine contemporary theories such as constructivism and social constructivism, but also "go public with their understandings and hopes for children" (p. 279). New (1999) advocated the use of the Reggio Emilia Approach as an avenue to explore and examine

these new ideas for early childhood education. To examine these ideas and variables germane to this study, a second questionnaire, the Description of Program Questionnaire was developed to examine relationships between these three areas and the results of the CBAM SoCQ.

The CBAM has been used to study a variety of innovations in the public school setting (Rutherford, Hall, & Newlove, 1982; Huling, Hall & Hord, 1982; Neugebauer, 1991). These studies included classroom instruction, day-to-day behaviors of principals experiencing change, and teachers' behaviors and attitudes towards peer coaching. The majority of these studies dealt with implementation of innovations by principals and teachers engaged in the process of change at the local school level.

In higher education, the CBAM has been used to examine, (a) how university faculty implemented an instructional module (Hall, 1999); (b) in the evaluation of a federal program (Meehan, 1998); and (c) in medical education (Bresnitz, Ross, Hall, & Steigelbauer, 1997; Mennin & Kalishman, 1998). These studies dealt with innovations that were implemented at the post-secondary level by university faculty and the U.S. Department of Education personnel.

The Concerns-Based Adoption Model and The Reggio Emilia Approach

Because of the nature of this study where university laboratory schools are embedded within the higher education system, the CBAM was determined to be an appropriate model for understanding individual concerns in a teacher education program (Anderson, 1997). Stephen Anderson (1997) reviewed many of the CBAM-based research studies worldwide and indicated in his critique, that the CBAM is the most

significant and widely applied model of assessing educational change. Anderson (1997) further suggested that the model reflected the shifting focus of teacher education and development policies in its ability to describe and explain strategic trends and shifts in educational change. Hord (2001), a leading author on educational change and a consultant to the CBAM, indicated in a personal communication that with the scarcity of research studies in higher education using the CBAM, this study "may make a very real contribution to the literature."

Two levels of change were examined in this study: (a) higher education—deans, faculty, graduate students and, (b) university laboratory school—staff, directors, co-directors, teachers and graduate students. These two levels represented the individuals associated with early childhood education and teacher education currently involved with the reconceptualization and recasting of the Reggio Emilia Approach (REA) for this study. Some of the individuals represented more than one level in the change process. For example, undergraduate and graduate students and faculty interacted in different capacities: faculty, who taught in higher education, may have also taught in the laboratory school. Undergraduate and graduate students interacted in their student role in higher education and participated as undergraduate and graduate student teachers in the laboratory school setting. In addition, many of the undergraduate and graduate students are potential teachers, and in some cases teacher candidates in four and five-year teacher preparation program models. In similar fashion, laboratory school staff interacted with both graduate and undergraduate students, faculty, teachers, and deans in a variety ways. All of these interactions added to the complexity of the analysis of this study and aided in

the challenges and concerns of the reconceptualization and recasting of REA. Although undergraduate students are an integral part of the change process in teacher education, as university students, their concerns and perceptions are more complex for a variety of reasons; undergraduate students were not included in this study. Graduate students who have lead teacher and co-director positions in the laboratory schools were included in the study.

Significance of the Study

This national study examined the perceptions and concerns of selected individuals from specific university early childhood teacher education programs that are currently immersed in the process of reconceptualizing of early childhood education based on current theoretical perspectives. As discussed earlier, change is often brought about through the implementation of an innovation. The innovation identified for this study is the reconceptualization of early childhood teacher education curricula according to constructivist and social constructivist theories set forth by the early childhood programs of Reggio Emilia, Italy. This innovative early childhood curriculum is also known as the Reggio Emilia Approach (REA).

The Reggio Emilia Approach (REA) to early childhood education has drawn worldwide attention for its use of the current theoretical and philosophical perspectives of constructivism and social constructivism (Fu, 1999, New, 1999; Newsweek, 1991). However, little research has been conducted examining the reconceptualizing of early childhood curriculum for teacher education using REA by university faculty and laboratory school staff. Other current practitioners in the field of early childhood

education may find the results meaningful and of value to their own individual programs. Hopefully, this study will contribute to a better understanding of the process of change through the recasting of the Reggio Emilia Approach in early childhood education by providing positive indicators of change in teacher education curricular knowledge bases and practices. In addition, some of the individuals who were selected for the study are leaders in the field; the results of the study may help to advance the field of early childhood education.

Overview of the Methods

A quantitative approach for data collection and analysis using the CBAM Stages of Concern Questionnaire (SoCQ) and the Description of Program (DP) Questionnaire was used to address specific variables regarding the process of change. To add depth and help to provide rich descriptions of the process of change to this descriptive study, two qualitative questions were added to the end of the SoCQ. In addition, when necessary and appropriate to clarify information from the DP Questionnaire, a focused interview was conducted by telephone with selected individuals.

Research Questions

1. What are the concerns, regarding the process of change, that individuals have in the reconceptualization of the early childhood teacher education curricula at the selected university programs?
2. Are there identifiable patterns of concerns about change among and between the selected university programs; among and between faculty/laboratory school staff/graduate students?

3. What are the distinguishing characteristics of the process of change identified by the individuals and the selected university programs through the specific program variables (a) length of time, (b) professional development, (c) changes in laboratory and teacher education curricula, and (d) the contextual variables that have either hindered or enhanced the reconceptualization of the Reggio Emilia Approach to early childhood teacher education?

Limitations

This study was limited by the following:

1. The sample was small because the study consisted of deans, faculty, and laboratory school staff from the universities who were purposefully selected to address the research questions of the study.
2. For some analyses, the small sample size may have reduced the power of the statistical analysis.
3. The generalizability of the findings beyond this population is limited.
4. The universities involved in the study have different geographic locations and may be affected by social norms that exist in their area. Assessing these social norms was beyond the scope of this study.
5. It was assumed that the participants completed the Stages of Concern Questionnaire conscientiously and truthfully.
6. It was assumed that the interviewees provided a truthful representation of the process of change regarding questions in the focused interviews.

7. The faculty and laboratory school teachers that were interviewed at each university were assumed to represent the best-qualified informant.

Definition of Terms

The following essential terms were used throughout this research study:

1. Adoption—the acceptance of a new concept or process that is on-going within a system (Zyss, 1984; Green, 1993).
2. Change —In a social system, the disruption of the status quo caused by a variety of events such as development of new products or strategies, or the creation of new relationships.
3. Change agent —A person(s) who acts as a catalyst in social change; change facilitator; change leader.
4. Concerns – The concept developed by Hall and George (1978) who indicated, "the composite representation of the feelings, pre-occupation, thought, and consideration give to a particular issue or task...the mental activity composed of questioning, analyzing, and anticipating consequences...an aroused state of personal feeling and thought."
5. Concerns-Based Adoption Model (CBAM) – A model of change developed by Gene Hall and associates at the Research and Development Center for Teacher Education (R&DCTE) at the University of Texas in Austin. The model is based on the premise that individual concerns follow a developmental sequence as they familiarize themselves with the innovation (see Figure 1).

6. Teaching Faculty – Professors and Instructors in the selected university programs who teach core teacher education courses only.
7. Implementation – The incorporation of all components of a process within a system's on-going activities.
8. Innovation – A concept that is the focus of change characterized as different from present practices.
9. Institutionalization – The process by which an innovation becomes the standard within a system and becomes the status quo and incorporates or eliminates the old.
10. Reggio Emilia – a city in Italy where the Municipal Infant, Toddler, and Preschools have received international notoriety. The Reggio Emilia Approach is an innovative educational experience for early childhood that includes collaboration, reflection, and dialogue, consideration of the child's potential, communication of the experience through documentation of work, and close relationships with families (Malaguzzi, 1993; Hendrick, 1997).
11. Staff – Laboratory School Directors, Site Coordinators (Co-Directors), and Teachers at the selected university program; may include graduate students.
12. Stages of Concern (SoC) –A developmental scale developed by Gene Hall and associates at R&DCTE, representing seven developmental levels individuals experience as they move from awareness to adoption and implementation of an innovation.

SECTION II

METHODS

Introduction

This cross-sectional descriptive research study examined the perceptions and concerns of individuals who had been involved with an educational innovation from one to twelve years. Specifically, the study examined selected university early childhood teacher education programs nationwide that were currently immersed in the process of change. The process of change for these programs was an effort to conceptualize early childhood teacher education curricula reflective of constructivist and social constructivist approaches. More specifically, all of the programs that participated were currently involved in the study of the Reggio Emilia Approach for young children.

The purpose of the study was to describe the stages of concerns and the process of change as perceived by the individuals involved in innovative change in the selected university teacher education programs. To describe these concerns and the change process, the study used the Concerns-Based Adoption Model (CBAM) Stages of Concern Questionnaire (SoCQ), and the Description of Program (DP) questionnaire. To clarify information received on the questionnaires, a focused interview (by telephone) was conducted with selected faculty and/or teachers from specific university programs.

Change is often brought about through the implementation of an innovation. The innovation identified in this study was the reconceptualization of early childhood curricula according to constructivist and social constructivist theories set forth by the early childhood programs of Reggio Emilia, Italy. This innovation presented individual

challenges and concerns to deans, faculty, and laboratory school staff by its philosophical nature and by the goals and outcomes orientation of teacher education. These challenges and concerns arose from individual interpretations and understandings of the innovation to its practical applications.

Research Method

The method chosen as a means to examine the research questions was a descriptive cross-sectional study. Descriptive research methods are designed to describe, compare, and explain any association or relationship that may occur in the data (McMillan, 2000). A cross-sectional method was used to develop comparisons among and between the university programs (Verma & Mallick, 1999). A questionnaire was favored for its ease in design and data collection. Babbie (1990) discussed the benefits of questionnaire data collection: (a) the ability to identify the characteristics of the population from a small sample and (b) the collection of descriptive and explorative information. Recognizing that change is a process, a cross-sectional methodology was used to assess concerns at the various stages of transition through the change process. Specifically, the Stages of Concern Questionnaire (SoCQ) from the CBAM was preferred for its ability to assess individual perceptions and concerns in the process of change for this study. The Description of Program questionnaire and a focused interview protocol were developed to address relevant variables associated with the process of change.

Variables

Recognizing that the perceptions and concerns of individuals involved in the process of change were highly personal, this study examined the process of change as

experienced by individual faculty, laboratory school staff, and graduate students at the selected university teacher education programs. The variable, the process of change, was the catalyst for that discovery of concerns and perceptions of the individuals involved in the study. The specific program variables about change were: (a) length of time, (b) professional development, (c) curricular changes in teacher education and laboratory schools, and (d) the contextual variables associated with educational change. See Table 1 for a composite of the variables.

Verma and Mallick (1999) indicated that a descriptive method is primarily concerned with "depicting the present position of a given situation" (p. 77); thus a descriptive study using cross-sectional research methods was chosen to address the variables in this study. One of the most commonly used methods to gather descriptive research is a questionnaire. Also, descriptive research is concerned with making accurate assessments of educational problems, describing the relationship between the phenomena that may exist, and then proceeding to another and/or next levels (Verma & Mallick, 1999).

A cross-sectional method was chosen to examine the variables in this study because the approach provided for collecting data from comparable university programs and investigating the possible developmental differences or relationships with regard to involvement in the process of change at the various stages of change (McMillan, 2000). Cross-sectional data collection is considered to be less time-consuming and a less expensive method of data collection because of the ability to collect a large amount of

Table 1: Research Questions Matched by Variables and Questionnaires

Stages of Concern Questionnaire:

Variable:	Research Question #	Item # questionnaires/interview
All Sites	1, 2	all items
Each site separately	1, 2	all items
Individuals	1, 2	all items

Description of Program Questionnaire:

Variable:	Research Question #	Item #
Length of Time	3	all items
Professional Development	3	all items
Curricular changes in Teacher education & Laboratory school	3	items 3, A, B, C, D
Contextual Variables	2	items 1, 5, 6, 7, 8

Focus Interview:

Variable:	Research Question #
1. Please describe the intensity of your efforts towards professional development activities directed towards your translation of REA. Please identify specific activities of professional development. Please rate the intensity of your efforts in these activities.	3
2. Please describe the curricular changes you have made in efforts towards adapting/modifying the REA in either one or both of your teacher education and/or laboratory school curricula. Please rate the intensity of your efforts.	3
3. What are the contextual variables that have helped or hindered your change process in the adapting/modifying the REA? Please rate the intensity of the importance of these variables in your efforts towards the process of change.	3

data from a diverse population (Babbie, 1990; Verma & Mallick, 1999; McMillan, 2000). Verma and Mallick (1999) suggested that the researcher can collect data with "relative cheapness and speed" using cross-sectional methods (p. 84).

Population and Sample

The selected university teacher education programs identified as the population for the study had several common characteristics. All were members of the Reggio Inspired Teacher Education (RITE) group and all currently identified themselves as engaged in the process of "recasting" the Reggio Emilia Approach in early childhood education. In this way, all of the universities were reconceptualizing early childhood teacher education. Even prior to the conception of the RITE group in October 2000, many members of this group had traveled together to Italy and to other cities for the past several years for the purpose of studying constructivist and co-constructivist approaches to early childhood education and teacher education.

Each of the university programs had (a) an early childhood teacher education program that led to licensure, and (b) an early childhood laboratory setting (infant through preschool) that involved teacher education experiences prior to internship in the public schools. As members of the RITE group, these universities had expressed their commitment to engage in collaborative research projects together. These projects were based on constructivist and social constructivist theories and served as a connection between and among the programs. These same people also participated with the RITE group through e-mail listservs and in person at professional meeting and seminars. In recasting the Reggio Emilia Approach to early childhood education, the faculty, graduate

students (those who were involved as laboratory school staff), and the full-time laboratory school teachers of these programs participated in reflective dialogue about their teaching practices among one another, and with early childhood education undergraduate and graduate students at their respective institutions, as they adapted and modified their approaches to working with the children in their laboratory schools.

Initially, through a contact person at each university, individuals from fifteen university programs were recruited by e-mail as participants. The contact person at each university was casually known to the researcher through participation at various RITE group functions. After several weeks of correspondence with the contact person, individuals from nine university programs agreed to participate. To comply with human subjects, the dean or department head (not known to the researcher) from each university program was required to submit a letter a letter of participation. From this population of nine university early childhood teacher education programs, seven letters of participation were returned. Deans, faculty, laboratory school staff, and selected graduate students (those with laboratory school assignments) were recruited for the study.

The seven universities had similar characteristics; all were state universities and six of the seven were land-grant schools. The universities were situated in four geographic locations throughout the United States: northeast, southeast, midwest, and west. Four of the universities were four-year teacher licensure models and three were five-year teacher models. All seven universities had laboratory school models that included student participation. The size of the programs varied the smaller programs had three to five faculty and laboratory school staff, and approximately fifteen students. The

other programs were larger with eight to ten faculty and laboratory school staff and between thirty to fifty students.

Each of the schools selected for the study had been involved in the reconceptualization of Reggio Emilia Approach from one to twelve years. Each of the individuals who agreed to participate came with his/her own degree of involvement and knowledge of the innovation. Their level of involvement in the process of change within their university program varied as well. In an effort to gain a clearer picture of the different developmental levels in the process of change at each school, the dean of each college, teaching faculty, and laboratory school staff were recruited as participants for the study. Hall and Hord (2001) stated, "for change to succeed, a major shift in thinking by *all* participants is needed, thus a horizontal perspective in which all actors are viewed as being on the same plane, with none higher or lower than any others" (p. 11). From this perspective when using the SoCQ, all participants were examined as equals in the process of change.

Procedures

Upon approval of the University of Tennessee Human Subjects review board, packages consisting of participant bundles that included a cover letter with informed consent, and the Stages of Concern Questionnaire (SoCQ), and the Description of Program (DP) questionnaire were mailed to the nine university programs with whom the researcher had previously discussed the possibility of participation. After receipt of the participant bundles, each university program was required to return to the researcher a letter of participation from their respective college to complete the human subjects

conditions of participation. Seven university programs returned letters of participation. Two university programs declined to participate. One stated that their program's length of time involved in REA was not sufficient to fairly answer the questions and returned the research packet unopened. The second program felt they were too involved with other activities to participate at this time and simply declined to participate.

One week after receipt of the questionnaires, the contact persons received a follow-up e-mail to encourage participation. Two weeks following the initial mailing, the contact persons were contacted by telephone to ascertain the status of the data collection process. It took approximately four weeks to distribute and collect all data from the university programs.

Response Rate

From the nine university programs recruited, seven returned letters of participation. All seven of those university programs returned completed questionnaires. From this population, a sample of sixty-three individuals returned completed questionnaires. The schools are labeled 1 through 7 for identification purposes in the data analysis and to preserve confidentiality. This resulted in a 100% response rate from the university programs and a 73% response rate from the individuals, which Babbie (1990) considered a very good response rate for mailed questionnaires. The rate of return from each university varied by program size.

Demographics of the Sample

The age of the respondents was between 18 and 69. Fifty-six or 90.2% of the individuals who responded to the questionnaire were female and 6 or 9.8% were males.

One did not respond to age or gender. Table 2 represents a distribution of the participants by university program and age. Of the individuals surveyed, 24 (38.46 %) were faculty, 22 (35.38 %) were laboratory school staff, and 17 (26.16 %) were graduate students. Twenty-seven individuals listed dual positions in the following categories: graduate student and laboratory school staff, faculty and other, and laboratory school staff and instructor.

Experience

The teaching experience of the individuals ranged from less than one year to 40 years. Table 3 indicates the breakdown of teaching experience by years. The number of years individuals had been involved with the Reggio Emilia Approach (REA) was between one and twelve with a mean of 5.45 (SD = 3.03). The number of years the universities had been involved with REA ranged from 1 to 12 with a mean of 5.68 (SD = 2.70). To determine if there was a correlation between REA years, teaching experience, and the number of years university programs has been involved with REA a Pearson correlation was done. There was a significant positive correlation ($r = .36$, $p < .01$) between REA years and teaching experience.

Instrumentation

The CBAM Stages of Concern Questionnaire (SoCQ) was used, slightly modified from its original form (Appendix C), as developed by Hall, George, and Rutherford (1977). The word innovation was replaced by "REA" as per the Stages of Concern instruction manual (1998). The SoCQ was developed to provide a measure of

Table 2: University Program Participants by Age

		Age					
		18-29	30-39	40-49	50-59	60-69	Total
SCHOOL	1	4	2	2			8
	2	2	5	2	4		13
	3		2	4	5		11
	4	7	1		1	1	10
	5		1	2			3
	6	4	1	2	3		10
	7	2	1	2	2		7
Total		19	13	14	15	1	62

Table 3: Teaching Experience by Years

		Frequency
Valid	0-2 years	8
	3-5 years	5
	6-10 years	17
	11-20 years	13
	21-30 years	12
	31-40 years	3
	Total	58
Missing	System	5
Total		63

innovation. In Stages 1 and 2, the individuals have concerns about self, details about the innovation and their ability to meet those demands. In Stage 3-Management, the concern is about the tasks required of the innovation. Finally, in Stages 4,5 and 6 individuals begin the process of focusing energies on the Impact of the innovation. These three areas: SELF, TASK, and IMPACT are the identifiers used to describe where individuals and groups are in the process of change through the adoption of an innovation (Hall & Hord, 1985; 2001). All participants were asked to complete this questionnaire. This questionnaire addressed the first research question. To gain clarity and insight into the interpretation of the data, participants were encouraged to provide individual written responses to two open-ended questions at the end of the questionnaire. The instrument was public domain; and although unnecessary, permission from the author was obtained (G. Hall, personal communication, November 7, 2000). See Appendix B for details on the modification of the SoCQ.

Reliability of the SoCQ was established in the review of the literature. To determine the reliability of this study, a scale reliability analysis was performed (see Table 4). With the exception of Stage 0, which can be explained by the absence of any non-users of the innovation, all coefficients are within range of the established reliability. A second questionnaire, The Description of Program (DP), was developed to address the second research question. This instrument specifically addressed the variables related to educational change that were not addressed by the SoCQ. All of the participants were asked to complete this questionnaire. This instrument aided in the understanding of the challenges that confronted the individuals involved in the process of the seven stages of

Table 4: Coefficients of Internal Reliability

Coefficients of Internal Reliability
for the
Stages of Concern Questionnaire

Stage	0	1	2	3	4	5	6
Alphas[1] N=63	.30	.70	.78	.77	.70	.82	.70
Alphas[2] N=830	.64	.78	.83	.75	.76	.82	.71

[1]Current Study

[2]Hall, George, & Rutherford, 1998

concern. In Stage 0-Awareness, the individual has little concern about the change at the selected university teacher education programs. See Appendix D for details on the DP questionnaire.

The third instrument developed to assess educational change in this study was a focused interview protocol. The complete development of the focused interview protocol was derived from the answers received on the DP questionnaire. When necessary and appropriate to clarify responses from the specific university programs, selected faculty member and/or a laboratory school staff member were asked to be interviewed by telephone. Seven individuals were interviewed for 30 minutes in a conversational style by telephone. This instrument aided in understanding individual responses regarding the specific variables and their university program. See Appendix D for the complete interview protocol.

At The University of Tennessee program, two members of the faculty and the dean of the college served as committee members for this dissertation. They have been involved in the development of the Description of Program Questionnaire and because of their personal involvement with the Reggio Inspired Teacher Education (RITE) group, conversations about this study have transpired. Thus, the potential concern about validity existed. In an effort to abate this concern, it was assumed that the faculty involved with the development of the instrument provided fair and honest assessments.

Data Analysis Overview

The analysis of data for this study was conducted in three steps. First, the interpretation of the SoC questionnaire was detailed from the SoC manual (Hall, George, & Rutherford, 1998). This interpretation included a holistic perspective of the entire sample, individual profiles, and group profiles of the stages of concern. The qualitative data from the two open-ended questions on the SoCQ were analyzed by methods advocated by Stake (1995) called category aggregation and the establishment of patterns that lead to detailed descriptions of various aspects of the data. The open-ended questions did not produce sufficient data to create categories and establish patterns. In addition, the demographic information on the questionnaire was analyzed and interpreted.

Second, the data from the DP questionnaire were analyzed for missing responses. It was determined that all DP questionnaires would be included in the data analysis because individuals could leave items blank if they were not appropriate to their position in the university program. Data were entered and analyzed by appropriate methods using the computer program SPSS.

Finally, the focus interviews were conducted after analysis of the SoCQ and DP Questionnaires. Questions were developed from the data and were used to interpret similarities and differences in the university programs. The information was recorded in writing by the researcher and included in the data analysis.

Researcher's role

There were several ethical issues involved in the study that are addressed here. First, the nature of the change process is an individual experience involving personal

emotions. Some participants, particularly those from the University of Tennessee, may have had a pre-established relationship with the researcher, since the researcher was a graduate student involved in the process of change in our school for the past three years.

For the matter of informed consent, participants were informed in advance by written consent all of the issues pertinent to the study. Moreover, participation in the study was strictly voluntary.

As the researcher, I was interested in gaining insight and an understanding of the process of change; thus, subjectivity became an issue for me. I recognized the possibility that my devotion to the field of teacher education could have colored the lens from which I viewed the data. I continually reflected upon my subjectivity. By using several schools from several different geographic locations, the research established added trustworthiness and validity to the study (Glesne, 1999; Lincoln & Guba, 1985).

Summary

The methodology section described how data were collected, the demographics of the population and sample, and provided an overview of data analysis. The data were collected by mail nationally from seven university early childhood teacher education programs in April and May 2001. Sixty-three individuals from the seven programs responded to the two questionnaires used in the study. The data analysis will be presented and the results discussed in Section III.

SECTION III

ANALYSIS OF THE DATA

Introduction

As stated in Section I, the purpose of this study was to examine and describe the perceptions and concerns of individuals involved in the process of change through the reconceptualization of early childhood teacher education curricula with particular interest in the recasting of the Reggio Emilia Approach (REA). This section is organized in terms of the three specific research questions posed in Section I.

First is the report of the concerns of the individuals as measured by the Stages of Concern Questionnaire (SoCQ) in the Concerns Based Adoption Model (CBAM). The Stages of Concern Questionnaire (SoCQ) was designed to examine the concerns of individuals engaged in the process of change with an innovation. The presentation of the data in this section contained the research questions, tables showing responses of individuals, figures depicting patterns of concerns and the characteristics of the seven university programs. The possible implications of these analyses are discussed in the next section.

Second is the report of the process of change as perceived by the identified program variables from the Description of Program Questionnaire (DP). The Description of the Program Questionnaire (DP) was designed to describe and explain the intensity of efforts towards change by the individuals who participated in this study. Next, the intensity of efforts towards change, professional development efforts, and the contextual variables associated with the change process were analyzed and discussed. The data

collected from the respondents were displayed in tables and by figures, which described the characteristics of the respondents.

Finally, the information derived from the focus interviews is described in this section. Throughout this section, answers to the three research questions are presented along with the statistical analysis used for each question addressing individual and group concerns about the innovation, and the recasting of the Reggio Emilia Approach to early childhood education were discussed.

Analyses by Research Questions

Research Question One

Research question one addressed the concerns, regarding the process of change, that individuals had in the reconceptualization of the early childhood teacher education curricula at the selected university programs. The Stages of Concern and the Description of Program Questionnaires were analyzed. In the analyses, it was found that individual concerns primarily rested in three major areas: Stage 5-Collaboration, Stage 2-Personal, and Stage 3-Management. Overall, the individuals' highest stage of concern was in Stage 5-Collaboration. An in-depth reporting of these findings follows in this section.

Research Question Two

Research question two addressed the identification of patterns of concerns about change among and between the university programs and among and between faculty, laboratory school staff, and graduate students. The Stages of Concern Questionnaire examined these areas. The analyses yielded two major findings. First, there were patterns of concerns among and between the university programs. These patterns were

consistent with length of time involved in the process of change where the longer the years of involvement with the innovation, the more successes described by the individuals. Second, there were patterns of concerns among and between the individuals that were consistent with their primary position as faculty, laboratory school staff, and/or graduate student. An in-depth reporting of these patterns is included in this section.

Research Question Three

Finally, the analyses of data addressed research question three, the distinguishing characteristics of the process of change identified by the individuals and the university programs through four specific program variables. The analyses revealed that the variables of length of time, professional development, curricular changes in laboratory school and teacher education, and contextual variables influenced the interpretation of the process of change as experienced by the individuals from the selected university programs. These findings are included in this section as well.

Overview of Data Analysis

Introduction

The purpose of adopting a new innovation is to bring about a change that provides an improved outcome. The outcomes for the reconceptualization of early childhood teacher education curricula include: (a) increasing the understanding of theory into practice with constructivist and social constructivist perspectives, (b) increasing awareness of teacher accountability, and (c) a renewed interest in early childhood teacher preparation programs nationally (Fu, Stremmel, & Hill, 2002; Creech, 2000; Feiman-Nemser & Remillard, 1996). These outcomes are reported as program variables

individual concerns, and challenges and successes in the understanding and interpretations of the recasting of the Reggio Emilia Approach to early childhood education.

The data from all sixty-three respondents from the seven university programs were included in the data analysis. In some cases the analyses were based on only six programs due to the small number of respondents from university number five. The data analysis was conducted in a three-step process. First, the data from the Stages of Concern Questionnaire (SoCQ) was examined and if more than three items were left unanswered, that questionnaire was removed from the study. One questionnaire was removed based on this process. The SoCQ was hand-scored and the percentile scores derived from the analysis manual were computer analyzed using computer software SPSS.

Second, the Description of Program Questionnaire (DP) was examined for missing items. Although certain items were left unanswered, all questionnaires were included in the study. As per the directions for answering the DP questionnaire, some items could be left unanswered if they did not apply to the respondent or that person's position. The scores and written data from the DP were entered into the statistical computer program SPSS for analysis.

Finally, a focus interview was conducted with seven individuals, one from each program to clarify specific responses on the DP questionnaire. To gain a cross-sectional view, at least one faculty, laboratory school staff, and graduate student from each

program was selected for interview. Appendix D contains the script of the interview protocol.

Response Data and Analysis of the SoCQ – Research Question 1

The first research question examined the concerns, regarding the process of change, that individuals had in the reconceptualization of the early childhood teacher education curricula at the selected university programs.

The Stages of Concern Questionnaires (SoCQ) were processed by hand as specified in the SoC manual and with computer software SPSS. The SoCQ required the summing of responses according to the instructions in the Stages of Concern Manual (Hall, George & Rutherford, 1998), converting the summed raw scores to percentile scores from a table, and plotting the scores on a grid to yield a graphic profile (see Figure 2). Individual responses to the Stages of Concern Questionnaires were marked with values 0-7. Only one questionnaire was removed from the study due to multiple missing response values. All other questionnaires contained no missing response values and were included in the analysis. Using the instructions from the SoC manual, profiles were generated according to the profile configurations. As listed in Figure 1, page 9, the seven stages of concern are: 0-Awareness, 1-Informational, 2-Personal, 3-Management, 4-Consequence, 5-Collaboration, and 6-Refocusing.

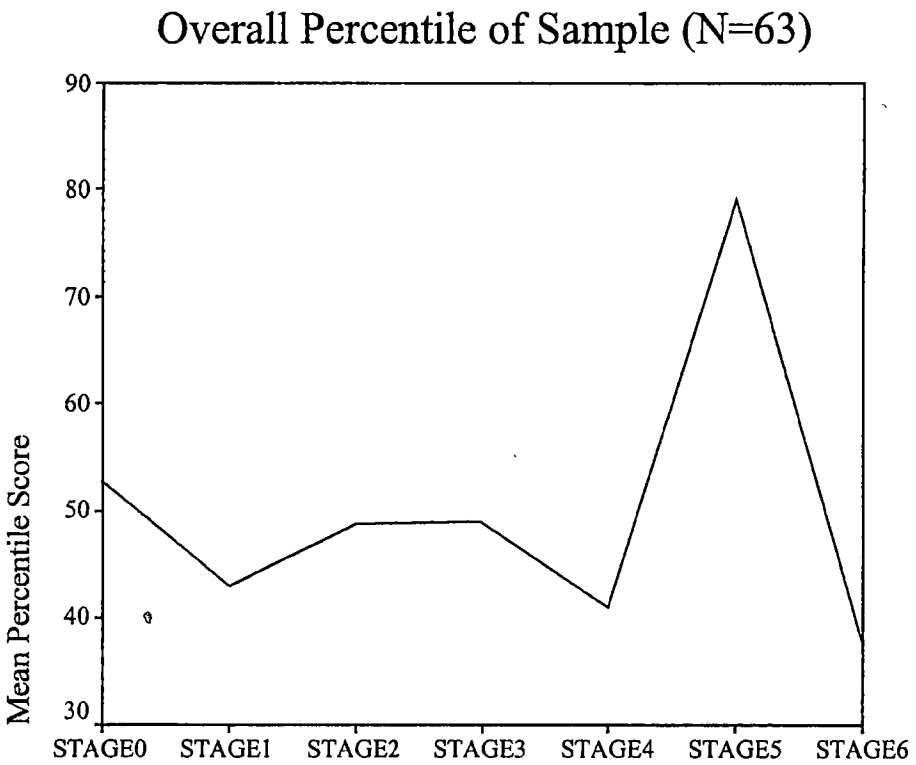

Figure 2: Graphic Profile of the Seven Stages of Concern

To interpret the profiles, the highest and second highest scores by percentile were related directly to the Stages of Concerns Definitions presented in Figure 1 on page 10. The scores represented the relative intensity of concern indicated by the percentile score. The higher the score, the more intense the concern. The lower the score, the less intense the concern with one exception, 0-Awareness. Awareness scores can be interpreted as a non-user or a user with experience who needs no further information about the innovation.

In Stage 0-Awareness, the individual has little concern about the innovation. In Stages 1 and 2, the individuals have concerns about self, details about the innovation and their ability to meet those demands. In Stage 3-Management, the concern is about the tasks required of the innovation. Finally, in Stages 4, 5 and 6 individuals begin the process of focusing energies on the Impact of the innovation. These three areas: SELF, TASK, and IMPACT are the identifiers used to describe where individuals and groups are in the process of change through the adoption of an innovation (Hall & Hord, 1985; 2001). Figure 3 illustrates the mean group scores for the seven university programs across the seven stages of concern. The mean scores and standard deviations of the seven university programs are shown in Table 5.

The highest overall mean score occurred in the Stage of Concern (SoC) 5-Collaboration ($\underline{P} = 79.18$). Interpretation of this mean statistic indicated that, as a group, the individuals had a high Collaboration concern as indicated by the scale values of

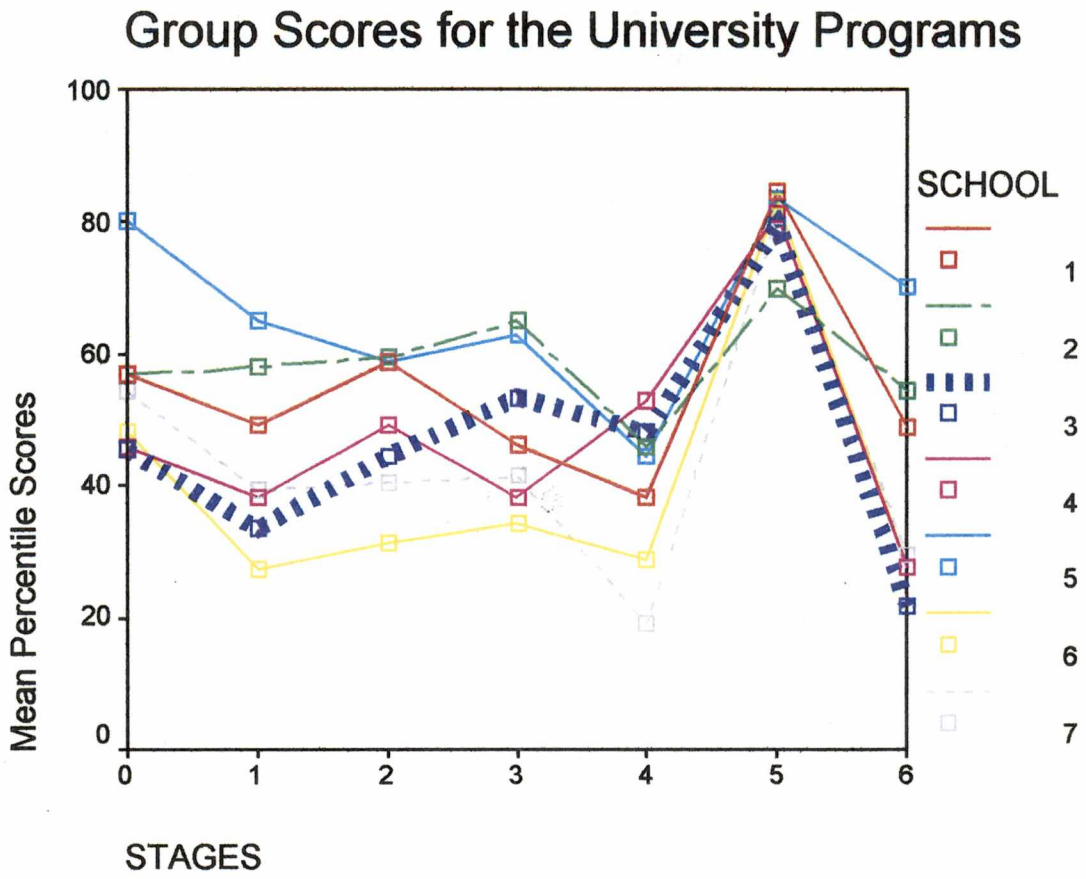

Figure 3: Mean Group Scores for the Seven University Programs by Stages of Concern

Table 5: Mean Percentile Scores and Standard Deviations of Schools by Stages of Concern

SCHOOL		STAGE0	STAGE1	STAGE2	STAGE3	STAGE4	STAGE5	STAGE6
1	Mean	57.14	49.29	58.86	46.14	38.14	84.43	48.86
	N	7	7	7	7	7	7	7
	Std. Deviation	12.29	14.92	23.19	27.45	26.05	17.92	19.85
2	Mean	56.86	58.00	59.50	65.00	46.00	69.93	54.57
	N	14	14	14	14	14	14	14
	Std. Deviation	29.03	27.25	31.06	24.06	24.07	30.58	27.70
3	Mean	45.45	33.36	44.55	53.45	48.09	79.36	21.82
	N	11	11	11	11	11	11	11
	Std. Deviation	26.11	19.62	27.49	21.23	23.24	25.89	14.71
4	Mean	46.10	38.10	49.40	38.20	52.90	81.40	27.60
	N	10	10	10	10	10	10	10
	Std. Deviation	19.67	23.67	27.36	26.02	30.47	17.36	18.96
5	Mean	80.00	65.00	59.00	63.00	44.33	83.33	70.33
	N	3	3	3	3	3	3	3
	Std. Deviation	6.93	9.17	19.05	27.71	28.94	16.86	25.66
6	Mean	48.11	27.22	31.11	34.33	28.67	83.00	27.67
	N	9	9	9	9	9	9	9
	Std. Deviation	26.44	15.89	19.43	21.35	22.43	15.34	21.19
7	Mean	54.43	39.29	40.43	41.43	19.00	81.00	29.57
	N	7	7	7	7	7	7	7
	Std. Deviation	34.21	17.24	17.50	20.03	21.24	18.70	14.67
Total	Mean	52.64	42.95	48.67	49.03	40.87	79.03	37.52
	N	61	61	61	61	61	61	61
	Std. Deviation	25.40	23.21	26.39	25.23	26.12	22.25	24.88

seven. The value of 7 means "very true of me now." The general impression generated by this group data is that the individuals had enough experience with the recasting of the Reggio Emilia Approach to be at the adoption level. Further interpretation indicated that this statistic may have been an artifact of the innovation (G. Hall, personal communication, June 6, 2001). One of the core tenets in the recasting of the Reggio Emilia Approach is the consistent emphasis on collaborative efforts. All seven university programs scored high in collaboration concerns. Concerns-Based Adoption Model indicated that these individuals are interesting in focusing their efforts towards change through collaboration by the coordination of and cooperation with others regarding the use of the innovation. This finding is reported at length in the next section.

In the interpretation of a concerns-based implementation effort, the first and second highest concerns are visually examined on the individual hand-scored device. After visual inspection, data was examined and it was determined that patterns existed for the sample of university programs.

Response Data and Analysis of the SoCQ and the DP – Research Question 2

Research question two examined the identifiable patterns of concerns about change among and between the university programs and among and between faculty, laboratory school staff, and graduate students.

In an effort to determine if there were significant differences among the university programs, and to address research question 2, the percentile scores were entered into the computer program SPSS. A series of repeated measures using the General Linear Model (GLM) were conducted. Repeated measures were used to compare concerns profiles

within and between demographics (experience and time involved with REA). There were no statistically significant differences between the demographics when tested separately.

To test for differences among the university programs, a repeated measures was run. There was a significant interaction between the seven stages of concern and the seven university programs [$F(30, 190) - 1.822$, $p=.009$]. This significant interaction indicated that the university program profiles differed.

In a further attempt to clarify and interpret trends in the individual stages of concerns, individuals were grouped by their primary position: faculty, laboratory school staff and graduate student. Their concerns profile was graphed (see Figure 4) to examine the Stages of Concern by position. Again, the highest stage of concern was Stage 5-Collaboration. Faculty had their second highest stage of concern in Stage 0-Awareness, Graduate Students second highest was Stage 2-Personal, and Lab Staff second highest was Stage 3-Management.

The overall impression of the concerns patterns among the university programs was that, schools 1, 2, 3, 4, and 7 (school 5 appeared similar, but with a very small number of respondents) appeared to have similarities in concerns stages 2-Personal and 4-Management consistent with being in the Self and Task stages of concern. School 6 appeared to be approaching the Impact stage as indicated by length of time involved with the innovation and the visual pattern was suggestive of that trend.

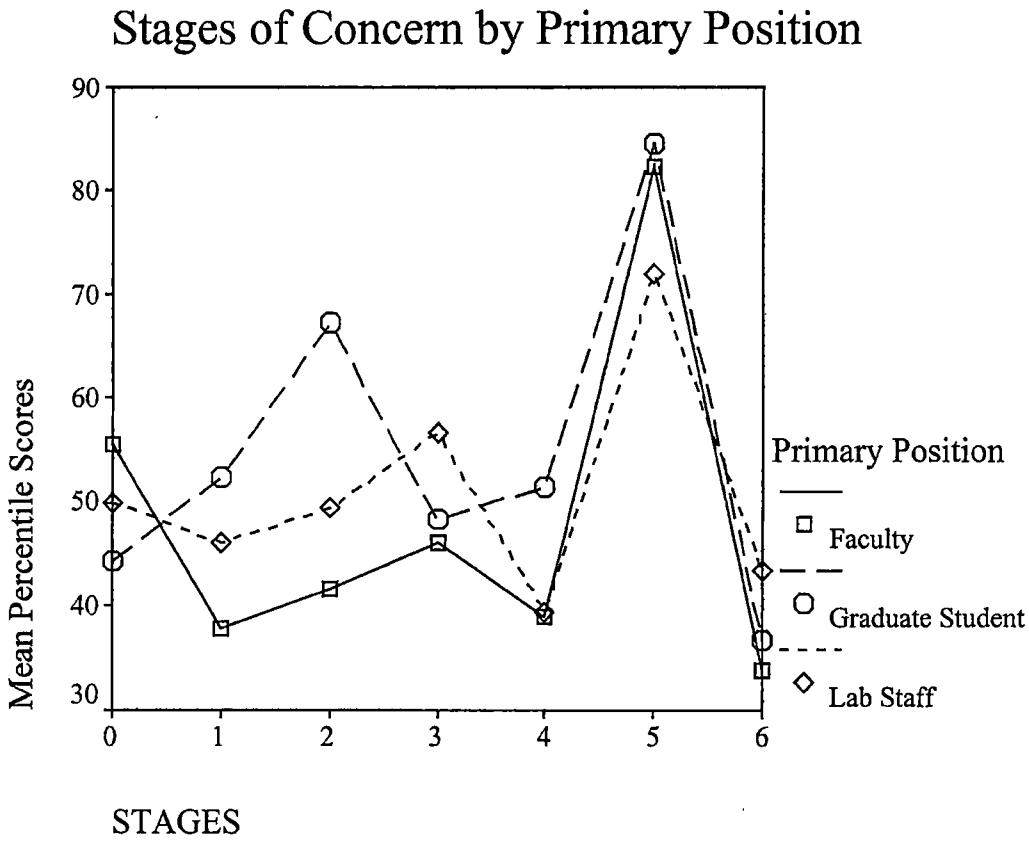

Figure 4: Stages of Concern by Primary Position

Response Data and Analysis of the SoCQ and the DP – Research Question 3

Research question three examined the distinguishing characteristics of the process of change identified by the individuals and the selected university programs through specific program variables: length of time, professional development, changes in laboratory school and teacher education curricula, and contextual variables that either hindered or enhanced the reconceptualization of the Reggio Emilia Approach to early childhood education.

To further investigate the visual differences and to test overall demographics to determine if trends or relationships existed among and between the stages of concerns and the distinguishing program characteristics from the Description of Program (DP) questionnaire, correlations were run. The correlation matrix included the seven stages of concern and seven areas from the DP: lab curricula, teacher education curricula, students, laboratory school staff, faculty, and formal and informal group interactions.

There were several significant correlations. There was a significant relationship between Stage 5-Collaboration and five areas: lab curricula (r=.40); teacher education curricula (r=.29); students (r=.40); lab staff (r=.46); and faculty (r=.37). These significant positive correlations indicated that as the university program involvement increased in the first five areas (lab curricula, teacher education curricula, students, lab staff, and faculty, the Stage 5-Collaboration tended to increase. Similarly, there were several significant negative correlations in Stages 0, 1, 2, and 4 with the same five areas. These negative correlations indicated that as the involvement increased stage 1-Information tended to decrease. Stage 2-Personal and Stage 3-Management were consistent, as

involvement increased the stages tended to decrease. In Stage 0-Awareness, as the involvement increased, the stage decreased. There were no significant correlations with Stage 4-Consequence. Table 6 displays the correlation matrix between the seven stages of concern by program variables.

Formal and informal group interactions were correlated separately. There were no significant correlations with formal group interactions because 95% of the individuals listed themselves as involved. Individuals from the university programs not involved in formal group interactions provided little information.

In the correlation of informal group interactions, as university programs increased their involvement, Stages 4, 5 and 6 tended to decrease. This indicated that as individuals went from informal to formal collaborative activities they tended to decrease involvement with informal activities.

Response Data and Analysis of the DP – Research Question 3(cont)

The Description of Program (DP) Questionnaire (Appendix D) was designed for the individual descriptions and ratings of the respondents' overall perceptions and intensity of efforts towards change within their university program during the time they had been involved with the Reggio Emilia Approach. The DP questionnaires were scored by the Likert type scale values of 0-7 and analyzed with computer software SPSS. The DP required the summing of raw scores and computation of range, means, and standard deviations. When necessary, appropriate more in-depth statistical analyses were preformed.

Table 6: Correlation Matrix of Stages of Concern by Program Variables

		Lab Curricula	Teacher Ed Curricula	Students	Lab Staff	Faculty	Families
STAGE0	Pearson Correlatio	-.28*	--	-.32*	-.30*	--	--
	N=54						54
STAGE1	Pearson Correlatio	-.42**	-.48**	-.30*	-.31*	-.44**	-.21
	N=54						54
STAGE2	Pearson Correlatio	-.24	**	--	--	-.38**	--
	N=54						54
STAGE3	Pearson Correlatio	-.29*	-.43**	--	--	-.30*	--
	N=54						54
STAGE4	Pearson Correlatio	--	--	--	--	--	--
	N=54						54
STAGE5	Pearson Correlatio	.40**	.29*	.40**	.46**	.37**	--
	N=54						54
STAGE6	Pearson Correlatio	--	--	--	--	--	--
	N=54						54

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The DP Questionnaire included four opened-ended questions. The responses to those questions were entered into the computer program SPSS with descriptive words for each category, e.g., money, funding, resources for materials, monies for attending conferences were all labeled money. A computer printout of the descriptors was hand counted and tallied, and then the total number of responses was divided by the total number of respondents to determine the percentage rate of responses. Appendix F provides a detailed listing of the responses and percentage rate of responses.

Research question three addressed three specific program variables: professional development efforts, curricular changes in teacher education and laboratory school, and the contextual variables that had either helped or hindered individual efforts towards the change process. The following section summarizes the results of those questions from the DP questionnaire.

Length of Involvement

The first area addressed by the DP questionnaire was personal and university length of involvement with the Reggio Emilia Approach (REA). The length of involvement for individuals was from one to 12 years with a mean of 5.51 (SD=3.02), and the university program was from one to 12 years with a mean of 5.74 (SD=2.67). There was a significant relationship between personal and university program length of involvement with a positive correlation ($r = .57$, $p < .01$).

Professional Development

Professional Development efforts were classified in two categories: (a) formal efforts and (b) informal efforts. Individuals were asked to list the number of professional

activities they had been involved with and list the number of years they had been involved with REA. Respondents were also asked to rate and identify informal professional development activities.

Sixty-one of the respondents (93.8 %) indicated they had received formal training in the REA, while only three respondents (6.2 %) indicated no formal training. In response to informal training, 95% of the respondents had received informal training while only 5% reported no informal training.

The number of professional development activities had a wide range from zero to 100. These activities included participation in local seminars, workshops or courses. The estimated number of state, national, and international conferences attended ranged from zero to 30. Conference presentations ranged from zero to 42. Table 7 denotes the reported number of formal professional development activities by minimum to maximum, means, and standard deviation. To determine if there was a relationship between the three types of professional development activities, a Pearson correlation was performed. There was a significant positive correlation between participation in local courses, seminars, and workshops and the number of state, national, and international conferences attended ($r = .75$, $p < .01$).

Informal professional development activities were rated on a Likert type scale from 0 to 7, with 0 meaning low effort, awareness, exposure, integration and understanding and 7 meaning high effort, awareness, exposure, integration, and understanding. The overall mean score rating for informal professional development

Table 7: Professional Development Activities

	Respondents	Minimum	Maximum	Mean	Std. Deviation
Participation in local activities	59	0	100	7	15
Attendance at Conferences	59	0	100	5	13
Presentations at Conferences	59	0	42	2	6

activities were 5.37 (SD=1.98). Informal activities consisted of activities that included reading, study groups, workshops, courses, etc.

Intensity of Efforts Towards Change

Individuals were asked to describe and rate the intensity of their efforts towards change in the following categories: the teaching of children in the laboratory school setting; integration of REA into university teacher education curriculum; across the university with students, staff of the laboratory school; faculty and colleagues; across university departments, with outside universities; with parents/families; public schools; larger community; and any other areas specified by the respondent. In addition, faculty with research responsibilities were asked to list the number of publications (peer reviewed and non-peer reviewed), involvement in dissertations and theses, funded projects associated with REA, books and book chapters related to REA, action research projects associated with REA and any other research-oriented projects. Table 8 lists a summary of those activities. Faculty were also asked how many core teacher education courses they taught per academic year. The minimum was zero; the maximum was six with a mean of 1.5 (SD= 1.90).

Ratings of Intensity of Efforts Towards Change

All areas of intensity of efforts towards change were scored on a 0 to7 Likert type scale. The overall mean score for the intensity of efforts toward change was 5.47 (SD= 1.78). The overall intensity of efforts towards change was divided into three categories: laboratory school, university teacher education curriculum, and specific variables.

Table 8: Faculty Research-Oriented Activities

	N	Minimum	Maximum	Mean	Std. Deviation
Peer Reviewed Articles Written	33	0	30	1.73	5.25
Non-Peer Reviewed Articles Written	33	0	25	1.21	4.36
Dissertations/ Thesis	33	0	7	.73	1.57
Funded Research	31	0	3	.65	1.02
Book Chapters Written	34	0	50	2.06	8.60
Books Written	33	0	15	1.09	3.05
Action Research Projects	32	0	15	2.75	4.68
Unspecified on-going activities	32	0	7	1.72	2.58

The overall mean score for intensity of efforts towards change in the laboratory school was 5.67 (SD = 1.60). The mean score for the intensity of efforts towards change in the university teacher education curriculum was 5.10 (SD = 2.25). Table 9 displays the range, mean scores, and standard deviations of intensity of efforts in all categories.

To determine if there were any significant relationships among the means scores for intensity of efforts in the three categories, a Pearson correlation matrix was created. There were several categories with significant positive correlations (see Table 10).

To determine if intensity of efforts toward change were influenced by time of involvement, the number of years involved with REA and the Stages of Concern, were regrouped. REA experience by years was regrouped by 1= 0-3 years; 2= 4-5 years; 3= 6-7 years; and 4= 8-12 years.

When the number of years involved with REA increased, the intensity of efforts towards change in the laboratory school curriculum and teacher education curriculum mean scores increased (see Table 11).

The next nine categories, lab curricula, students, teacher education curricula, laboratory school staff, families, faculty, with outside universities, communities, public schools, within department, and outside community were described and rated using the same 0-7 Likert type scale. The highest mean intensity of efforts was in the student category (5.38, SD= 1.88) and the lowest was other community activities (1.68, SD= 2.85). The second highest mean intensity of efforts was in laboratory school staff (4.93, SD= 2.44). The lowest mean score for the intensity of efforts was in the category outside community (1.86, SD = 2.85).

Table 9: Intensity of Efforts Towards Change by Category with Range, Means, and Standard Deviations

	N	Minimum	Maximum	Mean	Std. Deviation
Lab Curricula	54	0	7	5.65	1.61
Students	54	0	7	5.34	1.89
Teacher Ed Curricula	53	0	7	5.10	2.25
Lab Staff	52	0	7	4.89	2.44
Families	53	0	7	4.82	2.04
Faculty	54	0	7	4.48	2.16
With Outside Universities	53	0	7	3.12	2.30
Community	52	0	7	2.55	2.27
Public Schools	52	0	7	1.95	2.12
Within Department	54	0	6	1.94	1.96
Outside Community	22	0	7	1.68	2.85

Table 10: Correlation Matrix of Specific Categories

		Lab Curricula	Teacher Ed Curricula	Students	Lab Staff	Faculty	Families
Lab Curricula	Pearson Correlation	--	.59**	.61**	.62**	.48**	.49**
	N=54						54
Teacher Ed Curricula	Pearson Correlation	**	--	.67**	.63**	.61**	.47**
	N=54						54
Students	Pearson Correlation	**	**	--	.70**	.48**	.51**
	N=54						54
Lab Staff	Pearson Correlation	**	**	**	--	.41**	.36**
	N=54						54
Faculty	Pearson Correlation	**	**	**	**	--	.34*
	N=54						54
Families	Pearson Correlation	**	**	**	**	*	--
	N=54						54

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 11: Intensity of Efforts in Lab Curricular Changes and Teacher Education Curricular Changes by REA Years

REA Years		Lab Curricula	Teacher Ed Curricula
0-3	Mean	4.33	3.12
	N	12	13
	Std. Deviation	1.67	2.60
4-5	Mean	5.95	5.05
	N	11	11
	Std. Deviation	1.06	2.17
6-7	Mean	5.82	6.00
	N	17	16
	Std. Deviation	1.81	1.75
8-12	Mean	6.42	6.04
	N	13	13
	Std. Deviation	1.00	1.09
Total	Mean	5.66	5.10
	N	53	53
	Std. Deviation	1.62	2.25

Collaboration

In an attempt to examine collaborative efforts towards change, participants were asked to rate their participation level on the REA Listserv and mark their participation in formal and/or informal collaborative group interactions.

Fifty-seven of the sixty-three respondents choose to answer the REA Listserv question; of those 36.8% said they were "occasionally active." When asked how often they read the REA Listserv, only 53.8% of the participants responded how often they read. Of these, 25.7% read daily, 28.6% read weekly, and 45.7% read monthly.

Collaborative group interactions were divided into two categories: formal and informal. Participants marked yes or no. Forty-seven individuals, or 77% responded yes to formal collaborative interactions, and 95% responded yes to informal group collaborative interactions. Examples of those interactions included regular study groups, "hallways and highways," conversations, brown bag lunches, and telephone conversations

Contextual Variables

For this study, the contextual variables were identified as those areas of successes and challenges to the institutional process of change. Individuals were asked to list the successes enjoyed by their university program with REA and the challenges faced by their university program concerning REA. Six lines were given for responses. The responses were sorted, categorized, and summed for raw scores. The categories were entered into the computer program SPSS by words. Raw scores were converted to percentages in the top categories. A summary of the responses is included in section IV.

Appendix F contains a comprehensive list of the respondents' answers and the percentages.

Successes

The top four successes listed by the respondents were: changes in the environment (91%), documentation (74%), attendance, participation, and/or presentation at a local, state, national, international conference (66%), collaboration with colleagues, families/parents, other schools and/or the public (65%).

Challenges

The top five challenges were: time (94%), funding or money issues (92%), staff development issues (82%), issues relating to documentation (68%), and issues relating to families/parents (63%). It is interesting to note that two of the issues listed as successes were also listed as challenges.

Turnover Rates

In an effort to examine the turnover rate, deans, department heads, and laboratory school directors were asked to estimate the turnover rate of their faculty and laboratory school staff since their involvement with REA and the process of change. Few individuals completed this section. Several made only written comments, such as "very few," "many," "N/A," or "unable to determine." Two wrote, "do not understand the question." One-answered 100% in 100 years and one answered two every two years. With the inconsistencies in the data, no statistical analysis was conducted with this question.

Focus Interviews

A focus interview was used to explain selected answers on the SoCQ and the DP questionnaire. The 30-minute interview was done by telephone. The interviews were conversational in nature and the answers were recorded in writing by the researcher. The interviewees were asked three broad questions concerning their individual university program and the process of change. Seven individuals, who consented, were selected to be interviewed. One participant from each of the university program that participated in the study was interviewed. The sample was generally representative of the questionnaire respondents because the interviewee consisted of faculty, laboratory school staff, and graduate students. Two were faculty, three - laboratory school staff and two - graduate students. The individuals interviewed also listed themselves in a dual position; another method of gaining multiple perspectives on the process of change. Appendix D contains a script of the interview protocol.

Three general questions were asked of each interviewee. The questions were developed after the questionnaires had been analyzed. The interviews helped to provide confirmation of the visual patterns of concerns from the SoCQ for each individual university program and to provide perspective to the concordant use of collaboration as a success and as a challenge from the DP questionnaire.

In the interviews, several individuals discussed the engaging nature of the REA and social constructivist perspective. One individual said that by "embracing the philosophy of social constructivism, we willingly embrace the process of change." In response to descriptions of formal and informal professional development activities,

individuals listed dialogue sessions with colleagues; this suggests a continuum in the learning process. Several mentioned in-depth discussions with students and families. One laboratory school teacher indicated that ***this*** change process has "no end point...creates a forever discussion." Finally, another interviewee referred to the recasting of REA as "The process is so engaging that we come to see challenges as what is so meaningful and so we don't shy away from the process, instead they (challenges) intellectually engage us." While there is no conclusive evidence that educative activities are required or not, these thoughts and activities may mean that this innovation naturally engages individuals into intrinsically motivated professional development.

All seven individuals confirmed the visual pattern of concern for their university program and agreed that the areas of concern were what the graphic profile built. People explained why they thought that area was of concern to their program. A discussion of the results of the completed interviews is contained in section IV.

Summary

The purpose of this study was to examine individuals concerns and perceptions as they engaged in the process of change through the recasting of the Reggio Emilia Approach to early childhood education. The findings of this study clearly indicated that the individuals were actively involved in the process of change and had experienced individual concerns regarding the process. The individuals were able to identify through self-report their intensity of efforts towards change, their successes and challenges, and some aspects of curricular changes made in the laboratory schools and teacher education programs. A summary and discussion of these findings is included in the next section.

SECTION IV

SUMMARY AND DISCUSSION

Introduction

The results of the data analysis were presented in Section III. In the final section of this dissertation the research problem is restated, the results are summarized and their implications discussed.

As explained in Section II, the study reported that change is often brought about through the implementation of an innovation. The innovation in this study, the Reggio Emilia Approach (REA) presented challenges and concerns to faculty, laboratory school staff, and graduate students. The recasting of the REA was explored using descriptive and cross-sectional methods.

This study examined three research questions: (a) what are the concerns, regarding the process of change, that individuals have in the reconceptualization of the early childhood teacher education curricula at the selected university programs; (b) are there identifiable patterns of concerns about change among and between the selected university programs; and among and between the faculty/laboratory school staff/graduate students; and, (c) what are the distinguishing characteristics of the process of change identified by the individuals and the selected university programs through the specific program variables (a) length of time, (b) professional development, (c) changes in laboratory and teacher education curricula, and (d) the contextual variables that have either hindered or enhanced the reconceptualization of the Reggio Emilia Approach to early childhood teacher education.

Major Findings

The initial statistical analyses of the data indicated that there were no significant differences in the stages of concerns among the individuals in the seven university programs. After visual inspection of the graphed concerns profiles, individual and university program similarities and differences were evident. The researcher consulted with Dr. Gene Hall, the primary author of the Concerns-Based Adoption Model (personal communication, June 4, 2001) during the process of analysis to develop a more in-depth perspective about how the analyses might move from a visual inspection to more of a conceptual understanding of the meanings of the data. This conceptual meaning formed the basis of the subsequent analyses. The similarities of the individual university programs were readily apparent. The differences that are discussed in this section were not readily apparent but were carefully extracted from the data.

The results are discussed with regard to (a) collaboration (research questions one and two); (b) concerns by years of involvement with REA and by primary positions of faculty, laboratory school staff, and graduate students (research questions one and two); and the distinguishing characteristics of length of involvement, professional development, curricula, and successes and challenges (research question three).

This study examined individual and university program concerns and distinguishing characteristics regarding the process of change through the adoption and implementation of the recasting of the Reggio Emilia Approach to early childhood education. An overarching tenet of this approach is the development of relationships

through collaborative efforts. The most prominent result that was evident throughout this data analyses was collaboration.

Collaboration

Perhaps the most interesting finding of this study was that the highest overall means score in the Stages of Concern occurred in Stage 5-Collaboration. In the Description of Program Questionnaire, collaboration was one of the areas examined and described, where it became apparent as program success and challenge. The DP and SoCQ were correlated for relationships and again, there were significant positive correlations among the university programs with Stage 5-Collaboration and five separate program variables. The final area in which collaboration became apparent was the focus interview discussions. Interviewees centered their answers on the idea of collaboration.

Collaboration was evident as the highest stage of concern in the Stages of Concerns Questionnaire. This indicated that there was an overall influence for the collaborative aspect of the innovation. Constructivist and social constructivist perspectives naturally encourage collaborative ideas and activities. Yet we cannot ignore the fact that Hord and Hall (2001) indicated that a high Stage 5-Collaboration concern is considered "the ideal goal of a concerns-based implementation effort" (p.71). Furthermore, Hord and Hall (2001) consider high Stage 5-Collaborations as "very rare" and suggested that the individuals associated with the change process are doing something special. Thus, what all of the university programs shared was a high degree of collaborative effort. This in turn begs the question of whether this is a true finding or an artifact of REA. To understand this better, the following discussion will explore aspects

of collaboration that are an integral part of Reggio-inspired programs, including a discussion of the successes and challenges that are part of the collaborative process.

One of the hallmarks of the Reggio Emilia Approach (REA) is collaborative activity. From the theoretical frameworks to the pragmatics of REA, collaboration influences the what, the how, and the why of the approach (New, 1998). So, in the recasting of REA for the United States, the efforts of the university programs in this study clearly emphasized collaboration.

Elements of collaborative efforts were prevalent throughout the study, not only in the Stages of Concerns Questionnaire (SoCQ) responses, but also in the Description of Program Questionnaire (DP) responses. Collaboration was listed with the highest frequency in the area of program successes. Conversely, it was also named as one of the areas of challenges. To clarify how collaboration was viewed as both a success and challenge, the individuals interviewed were asked what they thought accounted for this. Every interviewee said that while collaboration was one of the tenets of the Reggio Emilia Approach, finding time for collaborative activities was a struggle, that when achieved, was rewarding; thus, the conundrum of a challenge and a success. The conversation with Dr. Gene Hall regarding this study validated this perception. Hall suggested that, in the process of change, individuals identify challenges and work to make them successes. This appears to be what is happening with these university programs as they engaged in the process of change.

New (1998) indicated that by demonstrating a theoretical understanding of the REA pedagogical practices there is an inextricable relationship with the beliefs and

values in the sociocultural context. In this process, some disequilibrium occurs. First, the ambiguity in the application of theory requires that individuals face issues involving negotiating roles and relationships. This is an area where REA encourages discussion about how to create relationships (Edwards, Gandini, & Forman, 1998). Second, the nature of collaborative experiences often brings about intellectual vitality; a sense of passion for teaching that is experienced by Reggio-inspired teachers (Tegano, 2002). The combination of the ambiguity of taking theory into practice and the nature of collaboration may cause individuals to experience disequilibria and thus these university programs viewed collaboration as being a success as well as a challenge.

Building relationships with children, parents, and teachers is viewed by REA as the natural way of doing things. REA views relationship building as cooperative and collaborative and the backbone of who they are as a system (Gandini, 2002). From the peer interactions of children, to teachers, to interactions with parents, to teachers with children, or to children with other children, and with interactions in the environment, some sense of cooperation or collaboration is occurring. Usually these types of interactions are developed through discourse and documentation of the negotiated process of learning (Edwards, Forman, & Gandini, 1998).

In the book, *Bringing Reggio Emilia Home,* Cadwell (1997) indicated that as a starting point in adopting the REA for early childhood education in their St. Louis, Missouri school, working together as collaborative colleagues was one of the most important aspects of adapting REA for the United States culture. Individuals had to reexamine and ask themselves hard questions about the everyday choices they were

making. In this process, teachers had to organize themselves in order to work collaboratively. They discovered that working collaboratively was a challenge, but they experienced the success of "transforming relationships with parents" as a result (Cadwell, 1997, p. 105). Taken together, the data presented in this study concur with the premises of collaboration as a starting point for change and also as a hallmark of REA.

Another important aspect of REA that consistently includes collaborative activities and is supported by social constructivist perspective is the notion of deep sustained dialogue sessions. Teachers dialogue with other teachers. These sustained dialogue sessions are collaborative and are reflective in nature. The sessions are used to construct meaning and co-construct ideas among and between teachers, children, and parents (Bersani & Jarjoura, 2002). One of the university programs indicated that in their efforts to adapt the Reggio Emilia Approach included sharing knowledge and developing a deep collaborative working relationship with parents and families.

Concurrently, professional development in teacher education research supports the influence of revisiting and reflecting on pedagogical activities to enhance teaching and learning (Lucas, 1988; Jones & Vesilind, 1996). Teachers reflect on their teaching and the children in their classroom with the notion towards modification, correction, adjustment, and supplementing future teaching and learning situations (Lucas, 1988). University teacher education programs support this practice as well by encouraging reflective practice (Schön, 1983). Dewey (1938) suggested that greater experience in the art and practice of teaching occurs through collaborative and reflective activities. In the educational setting, collaboration is defined as interactive planning and problem solving

by teams of two or more teachers (Welch, 1998). Dewey (1938) implied that novice teachers become members of the teaching community by serving as assistants and develop collegial relationships with children and other teachers as a means for growth and development; a form of collaboration. This may be evidence of why, in this national study of teacher education programs, collaboration was so easily embraced and collaborative practices were so readily adopted.

In this study, collaboration was a clear artifact of the innovation. Almost every individual concerns profile indicated the highest stage of concerns was a stage 5-Collaboration concern. In the Concerns-Based Adoption Model (CBAM) collaboration as an influence of the innovation is considered an advanced stage of change.

According to the CBAM model, the individuals involved in the change process go through seven steps that are categorized by three stages of concern: SELF, TASK, and IMPACT. The SELF-stage describes the demands placed upon the individual once the innovation is implemented and individuals require additional details regarding the innovation. In stage two, TASK, the attention focuses on the processes and tasks that must be employed to organize and manage the innovation. The IMPACT-stage focuses on how the innovation will influence student and faculty outcomes, performances, competencies, and evaluation. Collaboration, reflection, and dialogue with others become a major concern in implementing the innovation at the latter stages of IMPACT. In this study, the finding of a high stage-5 Collaboration concern for almost every individual was unique because collaboration is considered an indicator of the IMPACT stage of concerns in the change process. The implication of this finding is that this

particular innovation, the Reggio Emilia Approach to early childhood education, may be thought of as one where the IMPACT stage may be felt sooner than in other kinds of educational innovations. Again, this makes sense because collaboration is an integral part of the innovation.

Finally, to further explore the major finding of collaboration, the seven stages of concerns were correlated with seven specific program variables: laboratory school curricula, teacher education curricula, students, laboratory school staff, faculty, and formal and informal group interactions. This was an effort to determine if there were any relationships among the variables in each questionnaire and to further explore the true finding of the artifact collaboration. Again, there were significant positive correlations between Stage 5-Collaboration and the first five program variables. This would further indicate the clear finding of the artifact.

The next step in assessing the stages of concerns was to look at the second highest stages of concerns in the individual and group profiles. The individual profiles were less homogeneous and scattered among the SELF and TASK stages on the analysis of the second highest stages of concerns.

Concerns

The second research question focused on an examination of the patterns of concerns among and between the university programs. In the interpretation of a concerns-based implementation effort, the first and second highest stages of concern are visually examined on the graph of the individually hand-scored devices (Hall, George, & Rutherford, 1998). Once again, after visual inspection of the graphed data, the data were

analyzed by repeated measures to determine if the profile patterns differed among the university programs. There was a significant interaction between the seven university programs and the seven stages of concerns. This indicated that the university programs were statistically different in there areas of concerns. Hall and Hord (2001) indicated that implementation of an educational innovation usually takes three to five years. The university programs had been involved with the recasting of REA between one and twelve years.

As stated above, the analytical strategy for examining the second highest stage of concerns is to visually examine the second highest peak on the graphed data (Hall, Rutherford, & George, 1998). As per the Stages of Concerns manual, the second highest stage of concerns was graphed by university program and was visually examined again. The most interesting findings among the second highest stages of concerns profiles were discovered in the regrouping of the individuals by primary position: faculty, laboratory school staff, and graduate students. Although no statistically significant differences existed between the groups, visual differences were apparent (see Figure 3).

Faculty had their second highest stage of concern in Stage 0-Awareness, laboratory school staffs' second highest stage of concern was in Stage 3-Management, and graduate students second highest score was in Stage 2-Personal. These differences may seem logical as faculty's natural tendency is toward the theoretical impact of the innovation. The more experienced individuals (faculty) who are comfortable with the innovation tend to shift their concerns to other areas of the innovation and are found to have high Awareness scores. Laboratory school staff's natural focus may be on the

pragmatics of the innovation. Stage 3-Management concerns usually indicate that the individuals are concerned about the management of the innovation. These issues are typically about how to manage the innovation, time and efficacy problems. On the other hand, the very nature of graduate school challenges personal issues. Personal concerns issues include demands on time, analysis of one's role, conflicts of personal commitment and personal finances. The one exception to this may be in the case where graduate students are in dual roles as laboratory school staff and are challenged by personal and management issues. In some cases, graduate students have a two-year tenure in the laboratory school. The result is a constant turnover and some of the graduate students are always at the beginning phase of understanding the innovation.

Hall and Hord (2001) indicated that for change to be successful, individual concerns must be addressed. This presents a case for university programs to become aware of the concerns of not only their laboratory school staff, but also the concerns of graduate students. One interviewee implied that graduate students were the "bread and butter" of universities; thus, their concerns become paramount, as universities tend to rely on graduate students in critical and essential ways. Fuller's (1969) Concerns Theory indicated the need to principally address personal concerns.

Fu, Stremmel, and Hill (2002) indicated that awareness of self in the process of change in early childhood education becomes a challenge to individuals. This definition of self is somewhat different than the stage of concerns SELF; however there is a parallel. In the concerns profile, SELF refers to personal issues that either interfere with the process of adopting an innovation or general personality characteristics. For change to

move forward, issues involving self must be addressed. In the conceptual framework of the Reggio Emilia Approach, promotion of *self* has a different connotation. Self in this context refers to developing a deeper understanding and awareness of the meanings and significance of one's thoughts, feelings and actions in the teaching process (Stremmel, 2002). Within this study, the need for transformation of self may have become part of the learning process in change.

In the co-construction of knowledge, individuals are in a continual process of developing a greater understanding of themselves and others through reflection and reconstruction of experiences. Malaguzzi (1994) referred to the co-construction process as bi-directional. In this study, concerns appeared to have a bi-directional slant, as Reggio educators viewed "theory into practice" as a bi-directional collaborative process of interactive exploration and creative problem solving (Hendrick, 1997). Individuals are constantly challenged to promote inquiry and relationship learning (New, 1998; Fu, 2002). This can only be achieved when individual concerns about the process of change have been satisfied and individuals may move from the SELF and TASK stages to the IMPACT stage (Hall & Hord, 1985; 2001). As stated earlier, this creates an even bigger challenge to university programs that are in constant change as graduate students usually rotate through programs every two or three years. This finding has been interpreted as a function of the transient nature of the graduate student, with one noted exception, where the graduate students were in dual positions and had both personal and management concerns.

For long-term institutional change to be successful, deans and faculty play a critical role. Change can be painful, but if facilitated well, change can be fun (Hall & Hord, 2001). Organizational change efforts affect all individuals and when the community of learners values change, the ultimate efforts are sustained (Hord, 1997).

From this study of the stages of concerns of individuals in university teacher education programs recasting the Reggio Emilia Approach, the participants seem to have similar concerns. The profiles look amazingly similar across faculty to laboratory school staff to graduate student. So, the overall similarity between and among programs begs the question, does this approach promote similar patterns of concerns? The answer may lie in the theoretical frameworks of social constructivism.

Social constructivist perspective regards discourse and sustained interactions as ways of promoting integration (Edwards, Forman, & Gandini, 1998). Given the personal demands on people's lives today, faculty, laboratory school staff, and graduate students in this study stated they were engaged in formal (77%) and informal (95%) collaborative group interactions. While it is hard work, the individuals who became involved in the recasting of the REA in this study, seemed to wholeheartedly choose to learn about and to embrace this perspective. To the extent that the profiles from the seven universities are remarkably similar, it may be that some degree of integration around social constructivist perspective does exist.

Change

It became apparent to the researcher in this study that the process of change was on-going and ever-changing; everybody was doing something to promote his or her own

professional development. Hall and Hord (2001) indicated that in the interpretivist perspective of change, individuals strive to "construct" their own interpretation of the process of change if change is to move forward. The interpretivist view emphasizes describing the interpretations and meanings that people attach to events, concepts, and actions. Research question three addressed the distinguishing characteristics of the process of change in the seven university programs through the Description of Program Questionnaire (DP). Almost every aspect of the DP was related to the interpretations and meanings that people attached to the recasting of REA. With this in mind, collaborative activities and the concerns of the individuals continued to be intertwined.

The last research question examined the distinguishing characteristics of the process of change identified as program variables by the individuals from the seven university programs and asked for individual descriptions and perceptions. The program variables – length of time, professional development, efforts towards change, and the contextual variables – were described and examined for relationships with each other.

The process of change continued to be evidenced by the same variables throughout the study. Length of time involved with the Reggio Emilia Approach did influence individual responses to intensity of efforts toward change. As reported in Table 11, as the years of involvement increased, the self-reported means scores of intensity of efforts towards change in lab curricula and teacher education curricula increased. There was also evidence for the relationship of individuals' length of involvement and university program involvement ($r = .59$). This relationship was also evident in the

regrouping of concerns by REA years of involvement, whereas the number of years increased the stages of concerns changed.

The most popular professional development activity was conference attendance with fifty-nine of the sixty-three respondents reporting participation in conferences. The mean number of conferences per participant was 4.75. Faculty were engaged in research-oriented professional development activities (see Table 8). However, professional development was not limited to faculty. Laboratory school staff, graduate students, and faculty were involved in activities that were formal and informal in nature, i.e., reading, brown bag lunches, local workshops and in-services. This evidence may be interpreted as an overarching indicator that learning matters to this group of individuals. Again, a question arises: Does learning really matter to these individuals, or is continued education specifically required of the faculty and laboratory school staff? We know that graduate students are engaged in the learning process by the fact that they are students. Faculty may be required to continue their education to meet institutional expectations. Are laboratory school staffs required to continue learning or does their learning have an intrinsic source? To answer this question, the researcher referred to responses from the interviews and questionnaires.

One individual said that by "embracing the philosophy of social constructivism, we willingly embrace the process of change." In response to descriptions of formal and informal professional development activities, individuals listed dialogue sessions with colleagues; this suggests a continuum in the learning process.

Curricular Changes

The Description of Program questionnaire asked questions about curricular changes but elicited few answers. In this study, documentation presented another conundrum. Similar to the findings on collaboration, the respondents viewed documentation as a success as well as a challenge. The analysis of this may be in the conundrum and in the fact that assessment and accountability issues are at the forefront in early childhood education. Perhaps the participants were not able to accurately articulate the connection between documentation, assessment, and accountability and their relationship to one another.

In the interviews, one faculty shared thoughts about documentation. Documentation was one of their greatest successes, but also stated that students viewed it as the most difficult task to accomplish. She continued to explain that when done well, "it was very satisfying and rewarding for the children whom they taught, in other words worthwhile." From this view, the university programs in this study may be in the initial stages of developing strategies for curricular changes and therefore may have been less tangible and less easily identified by the participants of the study.

The respondents were asked to describe the curricular changes in laboratory school and teacher education curricula. Few individuals listed actual changes, even though they self-reported their efforts towards curricular changes as high. The themes were similar in individual responses. The terms integration of ideas, focus on collaboration, learning through theory and practice, and having a better focus of intent were a few concepts that consistently described the participants' responses about changes

in curricula. In describing the process of adapting American curricula with the Reggio Emilia Approach, Katz (1997) called the challenges as "learning loaded with uncertainty" (p. 107). She suggested that the adoption task is daunting and may take years to develop. This may be why the responses were sparse and ambiguous.

Adapting early childhood curricula to the Reggio Emilia Approach brings teacher education to the forefront of our attention. The rationale for this study included the current trends in teacher education that call for greater attention on assessment and accountability on the part of early childhood educators. As Horm-Wingerd (2002) indicated, until recently early childhood teachers were only volunteers in the assessment process. The data from this project indicate that teachers viewed documentation of children's work as curricular changes. Documentation can become a curricular change that addresses the national focus. In the Reggio Emilia Approach, assessment and accountability lies in the documentation of children's learning. Documentation is an ongoing analysis of children's work that could become a framework for national standards in early childhood education. Goldhaber, Smith, and Sortino (1997) referred to documentation as the observing, recording, and understanding of children's efforts toward understanding the world around them. However, the connection must be made in the national arena that documentation can be translated into an accountability tool. Universities and teachers must develop partnerships in the accountability process (Bransford, Brown, & Cocking, 2000). This partnership could include documentation as an underlying framework for re-creating outcome-based curricular changes in early childhood programs.

Successes and Challenges

Throughout this study, the successes and the challenges that engaged the participants have been described and discussed. Four areas of success and five areas of challenge were noted and, in some instances, described by the participants. Collaboration, documentation, and conferences have been previously discussed. The other area of success was changes in the environment; challenges included time, funding, staff development, and working with families/parents. Appendix E contains a complete listing of the ranked responses by percentage.

First, the area reported most often was change in the environment. The Reggio Emilia Approach offers the environment as the second teacher (Edwards, Forman, & Gandini, 1998). In part, this may explain the participants' emphasis on the environment, but another alternate explanation may be that changing the environment is a tangible action that can cause positive feelings for individuals. This is evidence of change that is highly visible and easily celebrated. Hall (1975) indicated that for teachers to experience positive change, some aspects should be visible changes. Gandini (1998) stated that changing the environment also implies cooperation and collaboration.

The greatest challenge to the individual involved in the process of change in this study was time. Time was a constant challenge to almost everyone. Time is repeated by individuals as a salient theme as they struggle to work with REA ideas (Tegano, 2002). Moreover, the process of change is developmental in nature and requires time (Hall & Hord, 2001). Time is an age-old dilemma. The Holmes Group (1986) and Goodlad's (1990; 1994) Educational Renewal advocated for increased planning time for teachers.

Another challenge that usually accompanies time was money. Funding issues were prevalent on many of the respondents' questionnaires. Money continually plagues all levels of education.

Two final areas of challenge were: addressing staff development issues and working with families/parents. Many of the staff development issues overlapped with issues involving time and money, e.g., time to have staff development, money to bring in experts, or go visit other programs.

Working with families can involve collaborative activities, such as sharing documentation and changes in the environment. These activities may be intermingled with staff development. One university program explained that their efforts with families involved that very idea. They arranged an end of school celebration to display documentation and how they had changed their environment and shared their successes with the families of the children in their program. This illustrates two other tenets of the Reggio Emilia Approach: parents as partners, and documentation as a means for learning through communication (Edwards, Forman, & Gandini, 1998).

For the seven university programs involved in the recasting of the Reggio Emilia Approach through constructivist and social constructivist perspectives, the process of change was a highly personal experience. For example, one respondent was adamant in response to the question about formal training. She indicated that attending workshops, seminars and visiting the schools of Reggio Emilia, Italy were *not* formal training! The researcher viewed this as evoking a passionate response from the individual. The interpretation of the process of change evoked other personal feelings from individuals.

For instance, many wrote comments on the Stages of Concern Questionnaire when only numerical responses were requested. Philosophical interpretations and personal understandings presented everyday successes and challenges to the individuals.

Conclusions

The research findings in this study indicated that these university programs have similar stages of concern about the Reggio Emilia Approach. The research would suggest that although the programs may have different issues regarding REA, globally their focus of concern is the same. The most prominent result was the consistent finding of collaboration. This study underscores the role of collaboration in effecting change.

Collaboration was the constant thread throughout the data, from high concerns in the Stages of Concerns Questionnaire to being a challenge and a success in the Description of Program Questionnaire to the focus interviews. Clearly, the emphasis on collaborative activities and actions were an integral part of the change process of the seven university programs involved in the recasting of the Reggio Emilia Approach. In this study, collaboration was determined to be a true finding and also an artifact of the process of change.

Based on this study alone, it is difficult to be certain about the all of the concerns of the individuals at each university program. Research by Hall, George, and Rutherford (1998) indicated that aggregated group profiles are a legitimate method of assessing stages of concerns, with the understanding that each individual has unique concerns about the change process and the innovation. Organizational development literature suggested that the nature of group change stems from the dynamics of the organization, not the

skills of the individual members (Schmuck & Runkle, 1994). Organizational development views institutions as systems of people working at interdependent tasks and moving into collaborative efforts with other sets of individuals as they move from task to task, with an ultimate goal of improvement and successful change.

Previous research on the reconceptualization of early childhood education has concluded that collaboration is an essential tenet in organizational growth (Fu, Stremmel, & Hill, 2002). Collaboration and the development of relationships were an overarching philosophy of the Reggio Emilia Approach. The present study yielded a similar portrait in that every university program scored high on collaborative concerns and maintained that collaborative efforts were their number one success.

The findings of this study are in congruence with Fuller's Concern's Theory. According to Fuller's (1969) Concern's Theory, some of the individuals associated with the reconceptualization of early childhood education through constructivist and social constructivist perspectives may have been expected to have concerns stages 2 and 3, personal and management concerns. However, none of the individuals in the study would have been considered in concerns stages 0 or 1, a non-user or in the informational concern stages. This indicated that all individuals had sufficient knowledge about the innovation to be considered users.

What seemed surprising about the study was that there were no statistically significant differences among the university programs, although there were significant differences between the stages of concerns and the seven university programs. The discussions with the seven individuals associated with each university program provided

some insight into the visual profile differences. Each program seemed to be in about the same place in their process of change, with one exception, the program with the longest length of involvement. Their number of years of involvement was almost twice the time of any other program. The individuals interviewed were able to recognize the specific areas of concern about their university program when brought to their attention.

Implications for the field of early childhood education include recommendations from the National Research Council on Teaching and Learning (2000). The recommendations include: (a) developing pedagogical models for teachers based on their own professional development as life-long learners, rather than updating models of learning from frameworks that guide their career paths, (b) conducting research in teams combining the expertise of researchers with the wisdom of practitioners, (c) extending the boundaries of learning research by expanding the study of classroom practices, (d) review the structure and practices of teacher education by alignment with the principles of learning, (e) review professional development programs by alignment with principles for learning and for their efficacy in changing teacher practices, and (f) by developing model laboratories of pedagogy (Bransford, Brown, & Cocking, 2000). The Reggio Emilia Approach to early childhood education already addresses many of the issues discussed by the National Research Council.

The implications of this study have shown that the REA pedagogical model stimulated learning and professional development interests in the individuals who were engaged in the approach. In addition, one of the tenets of REA is the role of teacher as researcher. Teachers were encouraged to work cooperatively to develop strong

relationships with other teachers and staff in preparing documentation of their work with children. The role of collaboration and documentation in this study supported the notion of combining researchers (faculty) with practitioners (laboratory school staff).

In this study of the recasting of early childhood education, the university programs were in the process of changing practices to align teacher education curricula with the principles of learning. Along these same lines, professional development activities associated the REA continue to emphasize the importance of learning and the alignment with teacher education practices.

The laboratory schools in the university teacher education programs that participated in this study were laboratories of pedagogy. Their practices were grounded in social constructivist theory. Their principles were embedded with the bi-directional view of theory into practice shared in the Reggio Emilia Approach (Hendrick, 1997).

In all, the National Research Council on Teaching and Learning (2000) recommendations coincided with the principles of the Reggio Emilia Approach to early childhood education as investigated by this researcher. From the model pedagogical laboratory schools to teachers as researchers, the boundaries of learning for children appear to be challenged by aligned principles of learning in an ever-changing teacher education practice.

The final implication of this study may lie in the development of intervention strategies that address the concerns of the individuals and groups associated with the recasting of REA. Hall and Hord (2001) indicated that facilitating change and achieving

successful implementation requires thoughtful personal attention to the individuals involved in the change process.

For future research, Bransford, Brown, & Cocking (2000) called for conducting case study research on new curricula. This study concurred with that call. Respondents to this study felt the need to write comments about this quantitative study. Many of the respondents were frustrated by the limiting nature of the Likert-type scale ratings to questions or statements that were not described with enough "quality" and this did not match the way they have become accustomed to interacting. Some of the participants said that the questionnaires made them "mad" because it attempted to put their thinking in a "box" and restricted their expression. This intensity of response begs for additional qualitative case study research.

Additional research is also needed to explain the discrepancy in the intensity of efforts towards change in teacher education curricula, the emphasis on students, and the lack of emphasis on the public schools. Since few studies of this nature have been conducted with the Reggio Emilia Approach, future research on the change process using a qualitative model would seem appropriate.

Although this was a national cross-sectional study, this study cannot provide sufficient information to suggest that the program variables identified for this study are the only areas of assessment of the process of change. These variables appeared to provide evidence that the reconceptualization of early childhood education was taking place through constructivist and social constructivist perspectives in the selected university programs.

The CBAM is based on the theory that individuals progress through stages of concern over time and their concerns change. A longitudinal study should be conducted to determine if individuals' concerns differ over time. The present study found no significant differences between the university programs; perhaps a larger sample would provide a broader representation of differences.

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APPENDICES

APPENDIX A

REVIEW OF THE LITERATURE

Introduction

The purpose of this appendix was to review the relevant bodies of literature associated with educational change and teacher education. The literature included: (a) the process of change in education and the models of change that have influenced educational reform, (b) philosophical and theoretical perspectives on educational change, (c) teacher education in the 21st century, and (d) the Concerns-Based Adoption Model used to facilitate innovative change in education.

The literature on change included associated studies of the models of change in organizational psychology, organizational development, behavioral psychology, and research and development in education. Each of these models of change was frequently cited for their relevance in facilitation of the change process and implications for change agents.

This body of literature examined philosophical and theoretical perspectives that have influenced the profession of early childhood and the process of educational change. Early and contemporary perspectives were reviewed for their relevance to this study.

The next body of literature explored teacher education program issues in the 21st century. Since this was a study of the process of change in teacher education, a discussion of the issues that face teacher education was warranted. Specifically, literature relating to higher education issues were reviewed.

Finally, the Concerns-Based Adoption Model was the underlying approach used in this study. Examination of the development of the concept and the questionnaire was

reviewed, along with a discussion of the reliability and validity of the instrument (see Appendix B).

Also, not included in this Appendix are two additional bodies of literature that were germane to this study and were presented in the body of the study. First, a historical perspective on child development and early childhood education was reviewed to provide a conceptualization of the use of the Reggio Emilia Approach today. Second, theoretical literature supporting Concerns Theory, the basis for the Concerns Based Adoption Model was reviewed. This literature provided a framework for the introduction to the study.

The Process of Change in Education

Introduction

Change is not new; rather the understanding of the process of change is relatively new. Oppenheimer (1955) further pointed out that what is new is the focus on change. This continues to be true. Literature on change in educational reform has been the subject of exploration since the middle 1950s. In the 1960s, the focus began a shift towards the implementation of innovations and individual behavior towards change (Hall & Hord, 2001).

Models of Change Influencing Educational Change

Historically, six models have strongly influenced educational change and dominate the literature. The models are: (a) Research, Development, Diffusion, Adoption Model proposed in the 1960s (Brickell, 1964; Clark & Guba, 1967) (b) the Social Interaction Model (Rogers, 1962), (c) the Problem-Solving Model (Havelock, 1973), (d) the Linkage Model (Bhola, 1965; Havelock, 1969; Paul, 1977), (e) the

Organizational Development Model (Lewin, 1947) and, (f) the model of the Local Process of Change (Berman & McLaughlin, 1978).

The Research Development, Diffusion, Adoption model emphasized a sequential nature of change guided by the rational of research, development, and dissemination for an evolving innovation and application of a new practice in educational settings (Brickell, 1967; Clark & Guba, 1967). In this model, further planning and division of labor was thought to be related to the sequenced planning. As the passive consumer adopts the innovation or new practice, adoption was because of the innovation's efficiency, quality and suitability for efficacy.

In Rogers (1962) Social Interaction model, it was assumed that the adoption of innovation emphasized the decision-making process of the individual in relationship with a social system. The change agent involved with an innovation in this model sought information about the process. Once the innovation was adopted, the change agent's role was no longer required. In this model, individuals relied on a social network to learn about the innovation, rather than seeking outside information.

In the tradition of human relations, the Problem-Solving model was presented (Havelock, 1973). In this model, the position of the user of the innovation was emphasized and change agents were not experts. The target of the problem-solver model was the adopter of the process of change. In this process, individuals worked as collaborative consultants in the adoption process. Another important aspect of this model was the use of outsiders to provide training in the process of analyzing problems and generating solutions to those problems.

In the Linkage Model the change agent was concerned with the function of helping people acquire and use new products, sources, and ideas (Paul, 1977; Havelock, 1969; Bhola, 1965). The educational approach of this model linked research with resources for organizations, which were using innovations. The key for the change agent, known as the linking agent, was to bring about collaboration among the people, the resources, and the organizations (Paul, 1977).

Stemming from a business background, the most widely recognized strategy for change is the Organizational Development (OD) Model (Lewin, 1947). Schmuck, Runkel, Arends, and Arends (1977) provided the seminal work using OD in educational settings. In OD, the process of change was viewed as a group process, where individuals and schools worked "interdependently and collaboratively" moving from one task to another (Hall & Hord, 1987).

The final model of change that has influenced educational reform is the Local Process of Change model (Berman & McLaughlin, 1978). This model stemmed from the results of the Rand Change Agent Study; a study that longitudinally examined four federally funded educational programs in the 1970s. The study focused on the adoption, implementation, and institutionalization of 293 innovative projects in eighteen states. In this model, the constant and adaptive planning by local individuals to meet the needs of local schools was emphasized. Providing support for one another was critical to success of these innovations. Successful implementation is dependent on organizational development, motivation, local change agents, and the scope of the change.

Studies Illustrating the Models

To illustrate the application of each model of change, six studies of implementation are reviewed in this section. These studies were selected to demonstrate the kinds of factors considered important in the study of change, the use of an innovation, the strategies used to facilitate implementation, and the processes, influences, and effects of change in the implementation of an innovation.

Examination of the six models indicated areas of similarities, differences, and advantages and disadvantages. Findings from each set of data suggested the processes and characteristics of the change agents' influence the nature of the innovation. Additionally, successful adoption and implementation was dependent upon the design of the innovation, the associated behaviors of those adopting the innovation, and the support and assistance given to those involved in the implementation and adoption of an innovation.

A study by Hall and Loucks (1977) demonstrated the Research, Development, Diffusion, Adoption (RDDA) model. They studied the process of change by collecting data on the users of an innovation and measured the level of use of individual instruction in reading and mathematics. The RDDA model was chosen for its ability to emphasize the activities and communication dimensions; providing technical assistance and communicating from researcher to practitioner. The findings from the level of use based on experimental and comparison groups indicated no significant differences in student achievement. However, analysis of the users of the innovative process indicated that the level of use of the innovation influenced student achievement.

Columbia University conducted research applying the Social Interaction model in an effort to encourage practitioner use of information resources (Sieber, 1972). This study suggested that educational change was rooted in the particular image of the practitioner; each process of change was viewed differently, and different strategies require different techniques for implementation. The specific dimension of this model selected for this study included its ability to provide technical assistance from those in the know to intelligent socially interactive users (Roberts, 1978).

The third study reviewed described the implementation of packaged information, known as PIPs, developed for local school districts. Emrick and Peterson (1978) conducted a two-year study of the packaged curriculum designed toward improving compensatory education in reading and mathematics. Stanford Research Institute selected the Problem-Solving model for its ability to implement the process of change without the input from a personal change agent; packaged curriculum was the mode of dissemination for change. The results of the studied showed that while the PIPs were useful and easily understood by teachers, they were less effective because they required significant organizational and/or behavioral change on the part of the users. One note of interest to the researchers was the conclusion reached by evaluators that classroom management did not influence student achievement. Many other researchers have challenged this conclusion.

To examine the Linkage model, six case studies of technical assistance groups (TAGs) working in the schools were reviewed (Moore, 1977). TAGs provided help to teachers, parents, and/or students involved in local educational change. This study

deviated from the intent of the actual model, but closely illustrates collaboration between the TAGs and working members of the school/community levels. The findings of these case studies provided a generalized view of the goals, philosophy, organizational structure, and operational methods of each case were similar; successful adoption and implementation of change included local modification and development of the innovation, support and on-going training and technical assistance.

Organizational development models of educational change have produced several significant bodies of research. The most notable, The Rand Study, a longitudinal study of the implementation and process of change through the adoption of four federally funded programs. Berman and McLaughlin (1973) reported that the process of change followed three stages: support, adaptation, and incorporation. Organizational Development (Lewin, 1947) model emphasized that change occurred at two levels: (a) among internal groups, and (b) within the internal agency. In the Rand Study (1973), change was examined at both the federal level and at the local level. This study continues to be reviewed and analyzed today for its application in educational change. Osborne (1994) in reviewing The Rand Study for change suggested that the key elements in successful organizational change are: (a) meaningful involvement of all members, (b) a focus on the system undergoing change and, (c) using continuous improvement processes.

From The Rand Study of change in the organization, the sixth model of change, Local Process of Change (Berman & McLaughlin, 1978) was developed and incorporated into the analysis of the data. The initial Rand Change Agent Study (1974) is the most widely cited because of its implications for change in educational settings. The study

took place from 1973 to 1977 and examined four federal government "change agent" programs designed to implement innovative educational programs. The two-phase study focused on initiation, implementation, and incorporation of each program activities. This national policy study included 18 states and 293 individual projects. The Rand study investigated the implementation and institutionalization of the different phases of the process of change.

The results of the Rand Change Agent Study (1978) suggested that schools change new practices, gain support, adapt to local practices, and then become integrated into the regular operation of the institution (institutionalization). The report emphasized change as a three-stage process (a) initiation or gaining support, (b) implementation and change of the innovation, and (c) institutionalization, when change becomes part of the system.

The Rand study emphasized that successful projects were characterized by their ability to adapt to local situations through adaptive planning, staff development, and curricular modification. The most critical issue for successful implementation of innovations was providing support for individuals and for the innovation (Rand Change Agent Study, 1978).

Synthesis of the Studies and Models

To understand change, each of the models presented was developed with a different purpose and in response to different needs. The differences existed in the variety of variables that each model examined. No two studies used the same variables.

However, the processes, influences, and effects of the variables focused on individuals and activities.

In all six models, knowledge of the process of an innovation was the emphasis of the study. The RDDA model chose to pay particular attention to the knowledge base for change agents. A provision for providing technical assistance and/or training was included in each model. A final common process variable was communication about the innovation—either one-way (those who know about the innovation)—or two-way (multidirectional communication among individuals involved with the innovation) (Roberts, 1978).

The roles and responsibilities of the change agents influenced the process of change by the nature of the innovation. Four of the six models suggested the role of the change agent was cooperative or collaborative in nature. The other two models viewed the role as passive. As for the responsibility of the change agent in the adoption of the innovation, five of the six models portrayed the individual change agent as an expert in relating the ideas of the innovation to others.

The results of the effects of the innovation on individuals or change agents were vague. The studies attempted to examine student achievement, satisfaction, and level of use of the innovation (Hall & Loucks, 1978; Berman & Laughlin, 1978; Sieber, 1972; Moore, 1977). The general view of each study showed that when the role of the change agent was cooperative or collaborative, rather than passive, an innovation was perceived as useful and likely to make a difference if implemented effectively (Roberts, 1978).

Several assumptions and generalizations were made by Paul's (1977) analysis of the empirical data presented by these six models and associated studies.

- Change agents must be legitimized to improve awareness of the innovation.
- Individuals rely on and work best in collaborative efforts towards change.
- Individuals must participate as a group in decision-making efforts in change.
- Relative advantage, compatibility, and complexity of innovations influence adoption and implementation.

Havelock and Havelock (1973) indicated that in the RDDA model, long-term, short-term, and formal planning enhances the success of innovation implementation. They further indicated that formal evaluation needed to be conducted at each step of development and implementation of an innovation. Finally, their study showed that users of innovations should develop collaborative relationships with diverse groups and become active listeners of resource persons and other users of a similar innovation.

Philosophical and Theoretical Perspectives on Educational Change

Introduction

In as much as history has influenced the profession of early childhood, similar philosophical perspectives have affected the process of educational change. Changes in education and teacher education have been shaped by three specific philosophical perspectives, behavioral, cognitive, and social responsible or constructivist (Hall & Hord, 2001). The hallmark of teacher education in the 1960s and through the 1970s was the behavioral perspective. Teachers were taught B.F. Skinner's principles of identifying specific target behaviors and strategies for shaping, modifying, and extinction.

As the 1980s approached, teachers began to focus on student outcomes and the application of knowledge by process. This particular emphasis centered on students' constructing knowledge and meaning for themselves. This approach, while cognitive in orientation, was known as the constructivist approach (Hall & Hord, 2001).

The 1990s brought about a greater awareness of the sociological and the physical environment for teacher education. Cooperative learning and multicultural education became the forefront of changes facing teacher education. Community building and shared learning was emphasized for *all* children (Hall & Hord, 2001).

Early Theoretical Perspectives on Early Childhood Education

Maturationism

Pauline Shaw, an early maturationist, believed that children's development was the result of a master plan and occurred through evolution of the species (Bjorklund & Bjorklund, 1992). G. Stanley Hall's (1921) research and beliefs regarding maturation influenced teachers' and researchers' expectations that development emerged from a pattern of predictable sequences. As these beliefs dominated the field of early childhood education, John Dewey (1938; 1943) and his progressive movement began to challenge these ideas.

In spite of challenges, maturationists' ideas continued during the early 1900s. In the 1930s, Arnold Gesell (1940) began to study genetic processes of children's development as a student of G. Stanley Hall. Gesell (1940) believed that biological mechanisms guided development and developed the theory of maturationism. This theory was articulated further to include implications for teacher education. For example,

the theory suggested that teaching materials be age appropriate and that teacher practices included individual developmental milestones by observing and recording development. These materials and application process have become known as, "the ages and stages" of normal development for young children (Gordon & Williams-Brown, 1995).

Although ultimately regarded as simplistic, maturation theory continued to influence early childhood education practices with respect to the concept of children's readiness to learn (Graue, 1993). The early 1980s saw a resurgence in maturation theory by the increased emphasis on academics in early childhood education (Silvern, 1988). Critics of maturation theory suggested that it failed to include the influence of the environment on a young child's development. By contrast, a major premise of behaviorism, constructivism, and social constructivism is the notion that the environment significantly affects children's development. However, each of these theories has decided differences.

Behaviorism

The most widely recognized work in behavioral theory for early childhood education is the work of B.F. Skinner and John Watson. They viewed development as continuous rather than in stages (Slavin, 1991). Unlike maturationism, behaviorism viewed learning as a change in an individual caused by experiences; changes in development-such as growth-are not instances of learning. The principles of conditioned learning govern development rather than age-bound behaviors (Morrison, 1991). Behavioral learning theories tended to explain learning through observable changes in behaviors. However, learning and development are inseparably linked (Slavin, 1990).

Behaviorist believed that children were passive learners whose behaviors were shaped through conditioned responses. In contrast, maturationists believed that children develop and learn through the stages of development. Skinner's (1938) research focused on the consequences of behaviors and changes in development through operant conditioning and Watson's research focus was classical conditioning rather than innate biological processes (Vasta, Haith, & Miller, 1995; Bloch, 1991; Slavin, 1991; Skinner, 1938).

This theory had a major influence on the field of early childhood education and education in general. Teachers began to teach from the orientation that learning situations are designed through the implementation of a system of rewards and reinforcement contingencies; suggesting that some behaviors were strengthened and others extinguished. This system established the role of the teacher as shaping children's behavior and learning by reinforcing the desired final behavior (Slavin, 1991).

Behaviorism influenced educational practices from its beginning in the 1910s until the 1960s and in many cases still influences some educational practices today. The theory was revised over the years, and in 1957, Skinner expanded his theory to include the notion that the emergence of children's language could be reinforced (Hetherington & Parke, 1993; Sears, 1975). From this view, behaviorist teachers determined specific conditions, objectives, and activities in which to reinforce children's behavior. In that context, behavioral teaching and learning was based upon adults' determination of the direction for children's learning and development through a prescribed set of tasks and rewards (Slavin, 1991). However, the behaviorist teacher can actively engage children by monitoring reinforcement contingencies, but not in the exchange of ideas. This role of

the teacher sharply contrasts the constructivist and social constructivist theoretical perspective of children's development and learning. These perspectives embrace teachers and children actively engaged in the learning environment and encourage multiple exchanges of ideas (DeVries & Kohlberg, 1989). From this view, the Head Start program of the 1960s emerged with an emphasis on how young children develop as individuals and how family units socialize as units in the environment rather than by maturation or innate abilities (Bloch, 1991).

Contemporary Perspectives on Early Childhood Education

Educational reform research continued in the 1980s and 90s by examining policies and practices. As educators enter the 21st century, nationwide demands for standards and accountability becomes the focus for educational research. The constructivist and social constructivist approaches to teaching and learning have become the areas of emphases in reform efforts in early childhood education (Fu, 1999; New, 1999; Darling-Hammond, 1990).

According to these theories, everyone constructs knowledge in his or her own unique way. Social constructivism suggests that when given opportunities to observe, practice, and work with more capable peers, individuals will incorporate new learning into their own cognitive structures. Vygotsky (1978) refers to this process as internalization -- an inherent process between external social and internal cognitive activity that is a developmental relationship, not a mirrored one.

In the field of early childhood education, the traditional interpretation of constructivism is focused on the processes of children's learning as emphasized by the

Piagetian framework of assimilation and accommodation (Forman, 1992; DeVries & Zan, 1994; Kamii, 1985). DeVries and Kohlberg (1989) define constructivism as knowledge evolving from an internal psychological core through an interaction with the physical and social environment, rather than by direct biological maturation or direct learning from external givens in the environment. Whereas, social constructivism relies on the Vygotskian theory of dynamic interaction between the individual and the sociocultural context and their usefulness in the educational setting (New, 1998). Teachers can create opportunities that foster firsthand experience using discovery learning to help children grasp the concepts of relationship and social knowledge in all subject matter. These opportunities include hands-on experiences and problem-solving techniques that provide children with experience in constructing and co-constructing their own knowledge by interpreting and formulating ideas for future learning.

While child development theory continued to guide early childhood pedagogy, there was less reliance on developmental perspectives in curricula (Bloch, 1991). The child development community and early childhood education that included laboratory schools and institutes began to foster relationships with psychology, home economics, and child and family studies departments within universities rather than with schools of education (Spodek, 1980; Bloch, 1991).

Teacher Education in the 21st Century

Introduction

As teacher education programs face the challenges and changing perspectives in the 21st century, the implementation of innovative practices and reforms continues to be

the focus of the changing scale and scope of the process of educational change. The 1996 report "What Matters Most: Teaching for America's Future," called for the "complete overhaul of the teacher preparation system...to reflect and act upon the most current available knowledge and practice...and to create a continuum of recruitment and retention of teachers" (p. 11). This redesign of teacher education has been among the many issues of educational reform discussions since the 1980s.

Education change efforts began with the Holmes Group (1986) report, "Tomorrow's Teachers," which outlined a proposal for the strengthening of teacher education programs. The report suggested that the changes focus on teachers' acquisition of skills and knowledge, and called for university professors to lead the efforts for change (Holmes Group, 1986). In addition, the report indicated that college classroom experiences be linked with child classroom experiences. The next major challenge of the Holmes Group (1995) was to devise coherent programs that include advanced pedagogical practices, assessment of professional performance, and evaluation of instruction. Finally, the report called for the integration of departments and disciplines within universities to include humanities, sciences, social sciences, and education. This cooperative attitude would aid in the reorientation of teacher education coursework toward a more sophisticated study of pedagogy (Holmes Group, 1995).

Following in a similar vein, Goodlad (1990) spoke of educational reform and change in teacher education in his project, "Educational Renewal." Goodlad referred to the education of elementary teachers by calling for a change in teacher education curriculum. Goodlad (1994) specifically addressed active, reflective learning in the

professional sequence of teacher education, calling for "hands-on experiences, reflection and critical conversations" (p. 178).

The three major reports on educational reform and change, The Holmes Group (1986), Educational Renewal (1990; 1994) and What Matters Most: Teaching for America's Future (1996), have raised national voices of dissatisfaction with teacher education programs. The reports have urged the redesign of teacher education to strengthen teachers' knowledge bases and connect practice and theory to support the professional development of future teachers (Darling-Hammond, 2000). These reports and reforms suggested a two-fold approach to the redesign in teacher education: advanced pedagogy and renewed content. These calls for systematic reform have brought about a perceived disconnect between teacher education programs and the needs of public schools (Switzer, 2001).

Disconnects in Teacher Education

In his view, Switzer (2001) indicated that the perceived disconnect exists between deans of colleges recommending change on campuses and faculty members unwilling to change. Switzer (2001) indicates that faculty members must face the reality of change by engaging in the willingness to implement innovative programs locally that addresses national concerns. Lanier (1986) and Darling-Hammond (1990) expressed the view that "teachers of teachers" are typically overlooked in teacher education research; teacher educators are reluctant to self-examine. Yarger & Smith (1990) indicated that the lack of research in teacher education programs is because the process of teacher education is guided by "historical tradition and intuition" (p.25).

From the few studies conducted on teacher education programs, Fuller (1969), Lortie (1975), and Lacey (1977) suggested that in teacher preparation, there is a social process involving complex interactions between and among perspectives and teachers in their social situations. Lawson (1992) deduced that teacher education no longer viewed the education process as "a linear one-way process of socialization." These ideas of socialization and interactions were the subject of the research on beginning teachers. Darling-Hammond and Cobb (1996) argued that teachers need to be prepared with deeper understandings of their discipline, have interdisciplinary connections, and inquiry-based learning.

Before the discussion of the issues facing teacher education programs began, the concerns of beginning teachers were addressed in the research. Much like Fuller's (1969) Concerns Theory, Cruickshank (1986) described the three stages of new teacher development: survival stage, teacher task concerns, and student concerns. New teachers progress from survival mode to development of concerns for teacher tasks and then move to focusing on the needs of the student. Vonk (1995) describe a similar developmental progression: (a) personal concerns, (b) knowledge of academics and pedagogical concerns, and (c) ecological concerns—socialization within the school context.

These concerns for the professional development of novice teachers continues to hamper teacher education programs, and form the basis of the disconnect in the analysis of theory in teacher education. Murray (1999) implied that the disconnect requires attention from and participation of academic leaders and the professional education community. Much like the Holmes Group (1995) and the National Commission on

Teaching and America's Future (1996) reports indicated that the improvements in teacher education lie in the reform of university teacher education programs – the curriculum, the faculty, the students, and pedagogy and school partnerships (Murray, 1999).

Imig & Switzer (1996) confirmed a widely held view that teacher education programs are not responding to the needs of school reform. The Holmes Group (1986) brought national attention to teacher education in the 1980s by calling for reform and research. Darling-Hammond (1990) indicated that research and reform begin with analysis of the theory of teacher education. By addressing how teachers' learn, and addressing how knowledge about teaching serves to interpret teaching dilemmas, research studies of teacher education theory using constructivist approach highlights analysis of knowledge in action (Schön, 1983).

Miller (1999) suggested that the major concerns of higher education teacher education programs in the 21st century continue to be the same concerns identified by the major reports of the 1980s and 1990s. Furthermore, the catalyst for change in higher education teacher education programs should be the teacher educator. Miller (1999) proposed that reforming professors and higher education administrators could better prepare teachers prepared for the real world of operating a public school classroom.

Reform Efforts in Early Childhood Teacher Education

New (1999) specifically addressed reform efforts in the field of early childhood teacher education, by calling for a new version of integrated curriculum that recognized the responsibilities of educators in a "pluralistic democratic society for the field of early childhood education." The innovative integrated curriculum draws from the principals of

the Reggio Emilia Approach along with Developmentally Appropriate Practices (New, 1992; Bredekamp, 1997). The basic principles of the curriculum are:

- Children derive multiple benefits from opportunities to learn from one another.
- Motivation is higher when learning is personally meaningful and maximally challenged.
- Diverse populations of learners can contribute to the learning opportunities for both the more and the less capable among them.
- Children's play, problem-solving activities, and short and long-term projects are effective means by which children can explore and represent their understandings of the larger social and physical environment.
- Children's learning can be promoted through a variety of instructional strategies, assuming shared learning goals and reciprocal relationships (New, 1999).

The challenge for teacher educators using this new and innovative curriculum is the development of a knowledge base that supports this educational philosophy for young children. New (1999) suggested that only when teachers have a current understanding of children's learning and development can they facilitate a curriculum that centers on these new avenues of inquiry for young children.

Another area of concern in the reconceptualization of early childhood education is accountability and assessment. As Horm-Wingerd (2002) points out that assessment issues in early childhood are in the forefront of national discourse. Policy-makers are demanding improved educational outcomes for all children and are focusing research efforts on accountability and assessment for all teachers (Aubrey, David,

Godfrey, & Thompson, 2000). Until recently, early childhood educators were only volunteers in this process, but recent national attention has spurred teacher education programs into examination of appropriate assessment techniques and evaluation of early childhood outcomes (Horm-Wingerd, 2002).

The Reggio Emilia Approach to early childhood education and teacher education has been recognized as an innovative approach that supports using these changing ideas regarding the education of young children (New, 1999; Fu, 1999). In the REA, children's work is used as an assessment of indication of their development and learning through careful and meticulous documentation (Hendrick, 1997). Teachers promote intellectual development in a variety of ways with children; through facilitation of constructivist curriculum, as a learner and researcher who shares ideas and reflections with children and colleagues on a regular basis, and by challenging children to problem solve with a sense of purpose and belonging (Edwards, 1998).

In sum, the literature on these educational issues, systemic reform of university teacher education programs, examination of teacher educators, research on analysis of constructivist theory, and assessment and accountability of early childhood have indicated that teacher education in the 21st century will continue to be influenced by change. Recognition of the disconnects between deans and faculty, teacher education and national reform, and also, the public – media and faculty, hopefully will increase the willingness of individuals to engage in innovative solutions and research (Switzer, 2001). The challenges for early childhood education exist in the understanding that early

childhood is the foundation for life-long learning and that the education process contributes to young children being "ready to learn" (Dahlberg, Moss, & Pence, 1999).

In an effort to recognize the change efforts that have begun, the process of addressing the concerns and areas of reform previously identified, this study will use the Concern-Based Adoption Model (CBAM) as a vehicle for the examination of change in the selected university teacher education programs. Hord and Hall (2001) offer that the CBAM has been recognized as an appropriate tool for identifying the perceptions and concerns of individuals involved in the process of change. After recognition of the concerns, change agents can then begin the process of developing intervention strategies aligned with concerns to aid in making the innovation work more smoothly (Hall & Hord, 2001). A review of the Concerns-Based Adoption Model is included in Appendix B.

Summary

Early childhood education is a current focus for national reform efforts; correspondingly, educational change and reforms has been the subject of national debate since the 1960s (Hall & Hord, 2001). As we enter the 21st century, many of the same issues continue to be the center of discussion in the literature (New, 1999; Fu, 1999; Switzer, 2001; Hall & Hord, 2001). With this continued focus, teacher education programs are exploring innovative approaches to teaching young children and beginning the process of self-examination.

There is an alarmingly high rate of teacher attrition—between 30 and 50 percent of teachers leave the profession within the first five years (Feiman-Nemser, 1996; Gratch,

1998; Darling-Hammond, 1996). Moreover, new teachers are being required to have improved teaching skills, and an awareness of new practices and innovative approaches in order to become successful in contemporary public schools. The acceptance of the Reggio Emilia Approach to early childhood education through its modified/adapted form for the United States can become a vital component of national educational reform efforts directed towards these new teacher requirements. Furthermore, Fu (1999) suggested that in adapting REA in the U.S., we make it our own by making the necessary changes for acceptance by our culture. The acceptance and awareness of this innovative approach to early childhood education and teacher education may provide the mechanism for the renewal of teacher education and the recruitment and retention of new teachers.

Specifically, this study will seek to examine the process of change in the recasting of the Reggio Emilia Approach to early childhood teacher education curriculum at the post-secondary level, with an emphasis on individual perceptions and concerns regarding change. Change can only be successful when the individuals engaged in the process understand the developmental aspects of the change process; therefore, an investigation of what that process means to the individuals is necessary. Examination of the description of the program, will aid in gaining a deeper insight into how each university program views the change process through professional development activities, integration of teacher education curricula, and the contextual variables associated with the activities and integration of curricula for change. From this investigation, a plan for implementation of the innovation rests in the understanding of the process of change

through the stages of concern as well as through the content of the Reggio Emilia Approach.

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APPENDIX B

The Concerns-Based Adoption Model

Introduction

The CBAM addresses individual concerns through the implementation of educational innovations. Concerns of individuals vary as they perceive and relate concepts to their own personal knowledge, experiences, and relationships. By addressing the concerns of individuals involved in implementation of educational innovations, insight can be gained into the developmental process individuals experience as they move through the change process.

Theoretical Basis

The CBAM originated by Hall and associates in 1973, directly related to the research of Fuller in the 1960s. Fuller's Concerns Theory (1969) examined the concerns of preservice and inservice teachers by collecting data on individual teaching experience. This data became the theoretical basis for the CBAM. Fuller developed and administered the Teacher Concerns Statement (TCS) questionnaire and identified two areas of concern – concerns for self and concerns for students. Her model was refined and modified over time to include three areas of concern: (a) concerns unrelated to teaching, (b) concerns for the role of the teacher and, (c) concerns about teaching and the needs of the student. By determining the concerns of the individuals involved in a change effort, change agents can develop strategies for dealing with the concerns that are the most threatening and help to facilitate transition from status quo to the innovation.

The CBAM evolved from teacher education research at the University of Texas in Austin in the early 1960s. The CBAM conceptual framework outlines the processes

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The CBAM evolved from teacher education research at the University of Texas in Austin in the early 1960s. The CBAM conceptual framework outlines the processes

individuals experience when they are involved in educational change (Hall & Hord, 1987). The CBAM perspective emphasizes that change is a process and each individual experiences the process differently. During the process of change, emphasis should be placed on assisting the individuals involved rather than the evaluation of the outcomes of change. The CBAM was developed (Hall, Wallace, & Rutherford, 1973) as a means to describe and understand adoption and implementation of innovative programs. The original underlying assumptions of the CBAM derived from the research stated that:

1. In educational institutions, change is a process, not an event.
2. The individual must be the primary target of intervention designed to facilitate change in the classroom.
3. Change is a highly personal experience.
4. The change process is not an undifferentiated continuum.
5. Staff development can best be facilitated for the individual by use of a client-centered diagnostic/prescriptive model.
6. Staff developers or other change facilitators need to work in an adaptive, yet systematic way (Hall & Loucks, 1978, pp. 37-39).

Based on these six assumptions, the CBAM was a unique and dynamic approach to evaluation of individual responses to educational reform and change. Hall and Hord (2001) revised the original six assumptions into a list of twelve that more closely related to educational change at all levels. Hord and Loucks (1980) indicated that when individuals are responsible for implementing change, they are better prepared to provide effective and appropriate support for that change.

Three instruments were developed to measure the dimensions of the CBAM (a) the Stages of Concern about the innovation or SoC (Hall & Rutherford, 1976), (b) the Levels of Use or LoU (Hall, Loucks, Rutherford, & Newlove, 1975), and (c) the Measuring Innovative Configurations (Heck, Stiegelbauer, Hall, & Loucks, 1981). This study will use the Stages of Concern dimension only.

The Stages of Concern was derived from a profile developed from the responses to a 35-item, Likert-scale questionnaire. The Level of Use was a rating based on an interview protocol; the Innovative Configuration was a checklist with a rating scale. Hall and his colleagues cautioned that those measures described individuals at a point in time during a developmental process and should be used in that context for assessing individuals in the adoptions of an innovation.

Stages of Concern

To verify the existence of Stages of Concern about an innovation and to test the formulated hypotheses about change, Hall and associates explored several formats and methodology. The measures consisted of open-ended questionnaires, Likert-scales, checklists, and interview protocols . George (1977) and Newlove and Hall (1976) developed two successful measures. The first was the Stages of Concern Questionnaire (SoCQ) and the second was the interview protocol.

Using Fuller's (!969) theoretical framework, and seeing similar patterns when working with professors, principals, and teachers involved in adopting educational innovations, Hall, Wallace, and Dossett (1973) presented their conceptualizations of the stages of concern. Newlove and Hall (1976) developed the manual for the levels of use

and, Hall, George, and Rutherford (1977) developed the SoC questionnaire (SoCQ) and accompanying user's manual. George (1977) discussed the development of the validation studies of the SoCQ.

SoC Questionnaire (SoCQ) Development

The prototype questionnaire was 195-items and given to teachers engaged in team teaching (Hall, George, & Rutherford, 1977). Analysis of the data inferred by the researchers was that the seven scales of the questionnaire and their distinct constructs were identified as the seven Stages of Concern. From this, a shorter 35-item questionnaire was constructed (Newlove & Hall, 1976).

The SoCQ evolved into the 35-item measure with five items assigned to each of the seven scales. Respondents use a Likert-seven point scale for self-assessment of each item. Summing the Likert-scale responses to the five items identified for each scale and referring the totals to a percentile table scores the SoCQ. SoC percentile profiles can be plotted and graphed from the generated scores. Each profile reflects the intensity of each SoC and presents a general picture of the concerns of each individual. A group profile can be plotted as well, describing the average intensity of each stage of concern of the group.

Stages of Concern Questionnaire Reliability and Validity

The CBAM Stages of Concern Questionnaire (SoCQ) will be used, slightly modified from its original form (Appendix B), as developed by Hall, George, and Rutherford (1977), with the word innovation replaced by "REA" as per the Stages of Concern instruction manual (1998). Hall and Hord (2001) stressed the importance of

using the SoCQ in its original form with only the modifications called for in the manual. The SoCQ was developed to provide a measure of individuals stages of concern. The instrument is public domain and although not needed, permission from the author was obtained (G. Hall, personal correspondence, November 7, 2000).

This questionnaire was developed over a ten-year period and validation occurred over the subsequent three years. The initial questionnaire consisted of 195-items sent to a sample of teachers and college faculty stratified by years of experience with an innovation. Two innovations were used – team teaching in elementary school and the use of college instructional modules. Users and non-users were identified for the study. Three hundred fifty-nine questionnaires were returned and the construction of the seven subscales was initiated. Item factor analysis and correlation indicated that seven factors explained over 60% of the common variance among the 195 items. From this measure, a 35-item questionnaire was prepared. This questionnaire was administered to 171 higher education and elementary school faculty. A week later, the same form was given to establish test-retest reliability. This yielded similar numbers to establish reliability.

Subsequent testing of cross-sectional and longitudinal studies of 11 different educational innovations have taken place. Means, standard deviations, and alpha coefficients were determined for the 35-item questionnaire and its seven stages. The alpha coefficients on the seven stages ranged from .61 at the awareness stage to .81 at the refocusing stage. The coefficients indicated the degree of reliability among the items on a scale in terms of overlapping variance. Rutherford (1982) indicated that those statistics imply that the seven stages have adequate internal consistency reliability and

intercorrelations were very low. A general conclusion was reached that the SoCQ accurately measures the stages of concern of an innovation.

Validity for the questionnaire was more difficult to establish. Hall, George, and Rutherford (1979) indicated that there was no other instrument similar to use to compare scores. Validity was established by using comparisons with judgments of concern based on interviews, open-ended responses, and confirmation of expected group differences over time. Hall (1979), and Loucks and Hall (1979) have reported numerous demonstrations of SoCQ validity. Over the years since its inception, George, Hall, Loucks, and Rutherford claimed the SoCQ has demonstrated its validity in measuring the seven Stages of Concern as defined by their manual (1998).

The original research for the Stages of Concern took place in the 1960s. From 1970 to the late 1980s, the group continued their study of the change process in schools and university settings. This research on change continued into the 1990s and 2000s with expansion into an international network of researchers continuing to verify the concepts and extending the research agenda to include front line change agents and how leaders can and do facilitate change (Hall & Hord, 2000).

Summary

The use of the Concerns-Based Adoption Model's Stages of Concern Questionnaire for this study was an appropriate model to assess the reconceptualization of early childhood education through the Reggio Emilia Approach because it had been cited as one of the most widely used models for understanding the educational change process (Anderson, 1997). By understanding the developmental processes that individual

go through in implementation of an innovation, change agents and leaders of change can help to ameliorate individuals' concerns and perceptions about the innovation (Hall & Hord, 2001).

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APPENDIX C

Sample Stages of Concerns Questionnaire

Thank you for agreeing to participate in this research project. The Reggio Emilia Approach (**REA**) to early childhood education continues to receive national attention as an innovative approach for working with young children. As we seek to "recast" the Reggio Emilia Approach, we have all experienced change. Change usually generates a variety of concerns. This questionnaire is designed to assess concerns by asking for your perceptions of and attitudes about change that are associated with your work with **REA** ideas.

Please respond to the items in terms of your present **concerns**, or how **you feel** about your involvement with **REA**. Because the questionnaire attempts to include statements that are appropriate for faculty, lab school staff, and students, there will be items that may have little or no relevance to you. For the completely irrelevant items, please place a "0" in the space provided. Other items will represent those concerns you do have, in varying degrees of strength, and should be marked higher on the scale.

PLEASE USE THIS SCALE TO RATE ITEMS 1 THROUGH 35

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

+++++ Please print the most appropriate number in the blanks provided below +++++

1.____ I am concerned about the attitudes towards REA from the students/children I work with.

2.____ I now know of some other approaches that might work better.

3.____ I do not even know what REA is.

4.____ I am concerned about not having enough time to organize myself each day.

5.____ I would like to help other colleagues in the use of REA.

6.____ I have very limited knowledge of REA.

7.____ I would like to know the effects of "the recasting of ideas" on my professional status.

8.____ I am concerns about conflict between my interests and my responsibilities.

9.____ I am concerned about recasting my use of the REA.

10.____ I would like to develop working relationships with both my colleagues and outside colleagues using REA.

11.____ I am concerned about how REA affects the students/children I teach.

12.____ I am not concerned about REA.

13.____ I would like to know who will make the decisions in the recasting and innovation of REA.

14.____ I would like to discuss the possibility of using REA.

15.____ I would like to know what resources are available with the recasting of REA.

16.____ I am concerned about my inability to manage all that REA requires.

17.____ I would like to know how my teaching or administration is supposed to change.

18.____ I would like to familiarize other departments or persons with the progress of REA.

(Please continue on the back)

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

+++++ Please print the most appropriate number in the blanks provided below +++++

19.____ I am concerned about evaluating my impact on the students/children I teach.

20.____ I would like to modify the approach.

21.____ I am completely occupied with other things.

22.____ I would like to modify our use of REA based on my experiences with the students/children I teach.

23.____ Although I do not know about REA, I am concerned about things in this area.

24.____I would like to excite my students/children about their part in REA.

25.____ I am concerned about time spent working with nonacademic problems related to REA.

26.____ I would like to know what involvement in the REA will be required in the immediate future.

27.____ I would like to coordinate my effort with others to maximize REA's efforts.

28.____ I would like to have more information on time and energy commitments required by REA.

29.____ I would like to know what other students/faculty/colleagues are doing in the area.

30.____ At this time, I am not interested in learning about REA.

31.____ I would like to determine how to supplement, enhance, or replace REA.

32.____ I would like to use feedback from students/children to change the program.

33.____ I would like to know how my role will change when I am engaging in REA ideas.

34.____Coordination of tasks and people is taking too much of my time.

35.____I would like to know how REA is better than what we have now.

Please complete the following:

36. _____ Male _____ Female

37. _____ How many years teaching experience do you have?

38. Age: 18-29_____ 30-39_____ 40-49_____ 50-59_____ 60-69_____

39. _____ What is your current position/title? (faculty, grad student, Lab staff, instructor, other, circle all that apply, if more than one, please explain)

40. _____ How long have you been involved with REA?

41. Have you received formal training in REA (workshop, courses, conferences, etc.)? _____Yes _____No
Please explain type and involvement:

42. Please use the space below to describe any additional concerns you may have about REA.

43. Please share with us any additional information you wish about REA.

Adapted from: CBAM Project, R&D Center for Teacher Education, The University of Texas at Austin, Copyright, 1974

APPENDIX D

Sample Description of Program Questionnaire

In answering this questionnaire, please take into consideration the following: (a) your ***overall*** perception and/or picture of the ideas involved in the process of change at ***your*** **university and in *your* program,** during the entire time you have been involved with the Reggio Emilia Approach, and (b) ***your*** **personal definitions** in *your* efforts towards the change process. Because the questionnaire attempts to include information about various types of involvement with the approach, some statements may be irrelevant to you, please mark those items as **N/A**. For the questions that ask you to rate yourself, please use the scale below. Try to accurately ***rate and describe your efforts towards change*** in the adapting/modifying of the Reggio Emilia Approach to early childhood education.

Thank you for taking the time to participate in this research project. ☺

1. LENGTH of INVOLEMENT: (a) How long have *you* been involved (not necessarily with your current program) in the process of adapting/modifying the Reggio Emilia Approach to early childhood education; (b) how long has your university program been involved?
(a)_____ (b)_____

2. PROFESSIONAL DEVELOPMENT: In considering your professional development, please identify and rate *your* involvement with the adapting/modifying the Reggio Emilia Approach.

A. Formal professional development efforts:

Please estimate your enrollment/participation in courses or structured seminars and local workshops that directly related to your understanding of REA:

_____ X _____ per # of years involved in REA.

Please estimate your attendance at State, National and International Conferences related to REA:

_____ X _____ per # of years involved in REA.

Please estimate the number of presentations you have conducted at State, National and International Conferences related to REA:

_____ X _____ per # of years involved in REA.

B. Informal professional development efforts: Please list and rate (using the scale below) the intensity of your efforts of any other informal avenues for professional development:

0_____1_____7
Low effort/Low awareness exposure/integration — medium — high effort/high awareness exposure/understanding/

1. _____ Rate _____
2. _____ Rate _____

3. _____ Rate _____

3. INTENSITY OF EFFORTS TOWARDS CHANGE:

0_____1_____7

Low effort/Low awareness exposure/integration	medium	high effort/high awareness exposure/understanding/ integration

A. Please describe and rate your efforts towards this change. Integration of REA into teaching of children in the laboratory school setting: _____

_____

_____

_____

_____

Overall rating: _____

B. Please describe and rate your efforts towards this change. Integration of REA into university teacher education curriculum: _____

_____

_____

_____

_____

Overall rating: _____

C. Please describe and rate each of your efforts for adapting/modifying the REA in the categories below across your university: (What have you done with each?)

Students	_____	rate_____
Staff of the laboratory school	_____	rate_____
Faculty/ colleagues	_____	rate_____
Across departments within the university	_____	rate_____
Across universities outside your own	_____	rate_____
Parents/Families	_____	rate_____
Public schools	_____	rate_____
Larger community	_____	rate_____
Other (please name _____)	_____	rate_____

_____

_____

_____

(For the above questions, please use additional paper if necessary)

D. Please list how many of these activities you have/are involved in each category. (As an example of the intensity of your research efforts in REA) * Note – this may apply only to faculty and staff with research responsibilities. If none, mark N/A.

Publications (peer reviewed) #_____
Publications (non-peer reviewed) #_____
Dissertations/Thesis Research #_____
Funded projects associated with REA #_____
Book Chapters #_____
Books #_____
Action Research Projects (not thesis/diss) #_____
Other on-going Research (not thesis/diss) #_____
If other than above, please describe below #_____

_____
_____
_____

4. COLLABORATION:

A. Active on the REA listservs: (please check)

Never active _____ Occasionally read _____ Often read _____

Never participate _____ Occasionally participate _____ Often participate ____

Participate/read: daily/weekly/monthly (circle one)_____

B. Formal collaborative group interactions (for example, regular study group meeting):
Yes _____ No _____

Please describe (who, how often, purpose) _____
_____

C. Informal collaborative group interactions (for example, lunch discussions):
Yes _____ No _____
Please describe: _____

5. SUCCESSES ENJOYED BY YOUR PROGRAM/UNIVERSITY WITH REA:

Examples: (please note: If there are successes that you have previously listed in questions 2-4 please describe here).

a. Sponsored state/local conference with 100 attendees.
b. End of year celebration to display teacher's documentation as learning professionals
c. Remodeled, painted, etc., toddler room in your center.

A. Please list *your* successes:

1. _____
2. _____
3. _____
4. _____
5. _____

6. _____

6. CHALLENGES FACED BY YOUR PROGRAM WITH REGARD TO REA:

A. Please list *your* challenges:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

7. Who are the writers and/or thinkers that currently influence your dominant philosophical orientation?

8. Briefly state your definition of REA and what it has meant to you personally.

9. How many core teacher education courses do you teach per academic year?

10. PLEASE SHARE ANY ADDITIONAL THOUGHTS YOU MAY HAVE:

****** FOR DEANS, DEPARTMENT HEADS, LAB SCHOOL DIRECTORS******
11. TURNOVER RATE: Staff and Faculty Turnover Rates-Since your involvement with REA and the process of change, please estimate the percentage of turnover rate in your:

a. Laboratory school teaching staff _____ (# of turnovers) _____ (how many years)

b. Faculty who are involved with REA_____ (# of turnovers) _____ (how many years)

c. University Administrators who are involved with REA: _____ (# of turnovers) _____ (how many years)

Focus Interview Protocol

Hello, my name is Beth Elliott; I really appreciate you taking the time to talk with me today. Please remember that I am interested in the process of change through your own perceptions and definition of the Reggio Emilia Approach. I would like to ask you a few questions in order to gain greater insight into the two questionnaires you previously answered. Do you have time now? Do you understand this is a research study and subject to university requirements? Do you have any questions before we begin?

If yes, answer questions, if no, proceed.

1. Please describe the cultural and historical setting of your department, for example are you a land grant school, public, private. In what philosophical orientation is your department grounded, e.g. child development, teacher education?

2. Your overall concerns pattern appears as though you and your colleagues have high concerns in this area _____ (name & describe the area of concern and what it means). Can you tell me if you agree with this and perhaps tell me what you think may be happening in terms of the change process in your program?

3. Collaboration was the area of highest rating (this is a good thing) which means that you are very aware of collaboration as part of your process of change and it was listed as one of the highest rate of successes. Conversely it was named as one of the areas of highest challenges, and what do you think accounts for this?

APPENDIX E

Sample Cover Letter

Dear Participant,

I am a doctoral student at the University of Tennessee, and I am interested in the "recasting" of the Reggio Emilia Approach to early childhood teacher education. This a national study with particular focus on those university programs whose faculty and staff attended the RITE conference in Burlington, Vermont last October, as well as other colleagues in the Reggio-inspired teacher education programs from across the United States. Thus, I invite you and your colleagues to participate in this research study.

I propose a descriptive, cross-sectional study of the process of change as perceived by individuals involved in the recasting of the Reggio Emilia Approach to early childhood education in the United States. Change is often brought about through the adapting and modifying of an innovation. The study of the reconceptualization of early childhood curricula according to constructivist and social constructivist theories presents unique challenges and concerns to deans, faculty and laboratory school staff at each of your individual university teacher education programs. These challenges and concerns arise from individuals' interpretations and understandings of the innovation and their practical applications.

For this study, each participant will be asked to describe this process of change. Specifically, each participant will be asked to answer two questionnaires: (a) the Stages of Concern Questionnaire, that assesses individual perceptions and concerns regarding change (about 5 minutes), and (b) a Description of Program Questionnaire (about 15 minutes). These will provide an overall picture of perceptions and intensity of involvement; and descriptions of your university's process of change regarding (1) professional development, (2) curricular changes in teacher education and laboratory schools, and (3) the contextual variables that have either hindered or enhanced the reconceptualizing of early childhood teacher education for yourself and your program. In addition, when necessary and appropriate, some of you will be asked to participate in a focused interview (by telephone) to provide some additional information (about 30 minutes).

The data collection process will be completely confidential and the information will not be identified by program. After data analysis and upon request, your school may be given a report of the results where your program's aggregated data will be available to you, in addition, to a summary of the results of the completed study. This is meant to provide you with helpful information about your program. In no way is it intended to be a source of comparison between programs, as we are cognizant that all programs have unique contexts and thus, unique strengths and challenges. The results of this study will be used for conferences, presentations, and publications. No individual names or schools will be included in any reports, conferences, presentations, or publications. All data will be kept secure in a locked file cabinet for a period of ten years and the destroyed. Informed consent forms will be archived for a period of three years in a secure and locked file cabinet.

Please return the signed informed consent along with the completed questionnaires to the person who gave them to you. That contact person will forward the data to me. In advance, thank you for your interest and participation in this study.

Sincerely,

Elizabeth M. Elliott, Doctoral Candidate

University of Tennessee

INFORMED CONSENT

The Process of Change through the Recasting of the Reggio Emilia Approach to Early Childhood Education

INTRODUCTION

You are invited to participate in a national research study of the process of change through the recasting of the Reggio Emilia Approach to early childhood education. The intent of this study is to examine the process of change in early childhood teacher education, and not to examine "Reggio Emilia." Furthermore, the study will examine individual's perceptions and concerns during the adoption of an educational innovation.

As a participant in this study you will be asked to: (a) complete the Stages of Concern Questionnaire (SoCQ), (2) complete a supplemental survey describing your involvement in the process of change at your university, and (c) a focused interview (by telephone) to selected individuals who have agreed to be interviewed, if appropriate and necessary to clarify information obtained by the questionnaire. The questionnaires will take approximately 45 minutes to complete. The interview will last approximately 30 minutes.

RISKS

There are no anticipated risks associated with your participation in the study.

BENEFITS

There are no direct benefits to you for your participation in the study. I will gain insight into the process of change from your perspective as well as the others involved in the study. When the study is complete, I will inform your university of the findings. In addition, the aggregate data from your program may be made available to your program, if requested.

CONFIDENTIALITY

The information you provide to me in this study will be handed with confidentiality. No names will be used in the study; aliases will be used in descriptive information. For the purposes of data analysis, members of my dissertation committee may review the data collected. The results of this study will be used for a dissertation, conferences, presentations, books, and professional publications. The confidentiality and control of the consent forms, completed questionnaires, and data collected in the focused interview will be through the consistent use of a secure and locked office. All data will be kept secure in a locked file cabinet for a period of ten years and the destroyed. Informed consent forms will be archived for a period of three years in a secure and locked file cabinet separate from the data.

COMPENSATION

You will not be compensated for participation in this study. Your participation in this study is strictly voluntary. You may withdraw from participation at any time throughout the study without penalty.

CONTACT

If you have any questions about this study or the procedures, you may contact the researcher, Elizabeth M. Elliott, at P.O. Box 2326 Knoxville, TN 37901, or (865) 974-5316. If you have any questions about your rights as a participant, contact the Compliance Section at (865) 974-3466.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at anytime without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be returned to you or destroyed.

Consent

I have read the above information. I have received a copy of this form. I agree to participate in this research study.

Participant's signature _____ Date_____

Print participant's name _____

_____ Yes, I agree to be interviewed for this study.

_____ No, I do not agree to be interviewed for this study.

Investigator's signature _____ Date _____

Participant's initials _____

APPENDIX F

RANKING RESPONSES BY PERCENTAGE OF RESPONSES

SUCCESSES

Rank	Response	# of Responses/Sample	Percentage
#1	Environment	59 / 65	91%
#2	Documentation	48 / 65	74%
#3	Conferences	43 / 65	66%
#4	Collaboration	42 /65	65%

CHALLENGES

#1	Time	61 / 65	94%
#2	Money/Funding	60 / 65	92%
#3	Staff Development	53 /65	82%
#4	Documentation	44 / 65	68%
#5	Families/Parents	41 / 65	63%

VITA

Elizabeth M. Elliott was born in Fairfield, California. Shortly after her birth, the family returned to their home in Florida where she attended public schools and graduated from Manatee High School in Bradenton, Florida in 1972. After graduation from high school, she worked in the medical field for 18 years.

After several life events, she returned to college to pursue a degree in education, subsequently graduating from Manatee Community College with an A.A. degree in 1990. In 1994 and 1997, respectively, a B.A. and M.A. degree in Special Education were earned at the University of South Florida, Tampa. Upon completion of the degrees and after teaching in the public schools for six years, she began the doctoral program in Child and Family Studies at the University of Tennessee, Knoxville in 1998 and completed coursework in 2000.

During her doctoral program, Elizabeth served as a Graduate Teaching Assistant and a Graduate Teaching Associate for the department of Child and Family Studies. Her duties included teaching in the department and supervising student teachers and interns in the early childhood teacher education licensure program for three years. In addition, she was actively involved in the Graduate Teaching Assistant Mentoring Program- "Developing Future Faculty as Teacher-Scholars" (GTAMP), a university-wide program with an active agenda aimed at improving undergraduate instruction and preparing future faculty through a variety of higher education courses, workshops, and seminars. The three-year involvement included, active team membership, becoming a Fellow, and an advisory board member.

Elizabeth held active memberships in the National Association for the Education of Young Children (NAEYC) and the Council for Exceptional Children (CEC). She was a member of Kappa Delta Pi, an education honor society, Kappa Omicron Nu, national honor society, and Alpha Xi, national honor society.

In August 2001, she graduated with a Doctor of Philosophy in Human Ecology. That same fall, she began a position as Assistant Professor of Early Childhood Education at the Florida Gulf Coast University in Fort Myers, Florida.