UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

EDUCATIONAL INCONGRUENCE: AN EXPLORATION OF THE

DISCONNECTION BETWEEN FORMAL SCHOOLING

AND THE NATURAL LEARNING OF CHILDREN

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

DOCTOR OF PHILOSOPHY

By

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Norman, Oklahoma
2009

EDUCATIONAL INCONGRUENCE: AN EXPLORATION OF THE
DISCONNECTION BETWEEN FORMAL SCHOOLING
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A DISSERTATION APPROVED FOR THE
DEPARTMENT OF
INSTRUCTIONAL LEADERSHIP AND ACADEMIC CURRICULUM

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Table of Contents

Abstract

Educational incongruence exists in classrooms today. Formal schooling is often incongruent and disconnected with the natural learning of children. This can result in educational experiences that fail to meet personal and societal needs. I believe we need greater congruence between learning and teaching in order to improve current and future social and educational conditions. The purpose of this study was to gain insight to the nature of the problem of incongruence between formal schooling and natural learning and to consider potential solutions and implications for education.

This study examined factors that contributed to educational incongruence in an elementary classroom and school setting. A Freirian theoretical lens and dynamic systems thinking served as the primary theoretical framework and analytical lenses.

This was a qualitative study. Specifically, a participatory action research methodology based on constructivist epistemological assumptions was used to investigate problems and possibilities in my third grade classroom. I examined my own teaching and educational context as a way of better understanding the kinds of factors that contribute to the disconnection that lies at the heart of our educational incongruence and to gain insight from the various ways in which teachers have responded to these factors.

The study concludes that a variety of factors contributed to the educational incongruence within this setting. These contributing factors can be combined into

four major categories, including emphasis on accountability, management and control, curriculum content, and curriculum completion.

Implications for improving the congruence between formal education and the natural learning of children can be considered in light of analysis of the categorical findings of this study. The findings suggest that educational congruence will require, among other things, engagement in true dialogue and the raising of critical consciousness, as well as adopting a more holistic and interconnected perception of education. Recommendations include promoting more open communication and building upon relationships and connections.

CHAPTER ONE

INTRODUCTION

Incongruence between Formal Schooling and Natural Learning

I teach at an elementary school with incredibly caring and dedicated colleagues and administrators. Overall, the parents of children in our school are very loving and hard-working. We work with students who are energetic, playful, and interested in learning. We care deeply about our teaching and our school. Like others, I put a lot of heart, thought, and hard work into each day. We are not all perfect, yet we are devoted to working towards providing the best educational experiences for our students.

Despite the best efforts and intentions of our teachers, administrators, parents, and students at my school, there is a sense that something is not working as well as it should. There seems to be a disconnection between the larger system of formal education and the ways children naturally learn. This educational incongruence is perpetuated through problems in society that are reflected in formal schooling. It seems to be embedded in many of the formal structures, requirements, routines, practices, and traditions commonly utilized in educational institutions.

The literature suggests that our school is not alone. Formal education in general is often incongruent with the natural learning of children. This can result in an education that fails to meet personal and societal needs. Pressures on teachers from district, state, and federal requirements can cause the focus to be placed more

on the memorization and regurgitation of curriculum instead of on the students. Teaching students how to score well on a test does not teach students how to become thoughtful and responsible citizens. Formal education can move the focus towards test scores and away from the needs and interests of the student. Yet, if the purpose of education is the preparation of citizens, what kind of citizens will this type of education produce?

One aspect of the educational incongruence between formal schooling and the natural learning of children can be found in mismatched conceptions for making meaning out of the world. More than a century ago, Dewey (1902) demonstrated disconnection between the natural learning of children and formal education involving mismatched conceptions, forms, and frameworks for how learning occurs. Dewey noted that the child's world is "a world of persons with their personal interests, rather than a realm of facts and laws" (p. 183). The world of the child evolves out of the child's personal experiences and relationships with others. In contrast, formal education often presents events, theories, ideas, and information that reach beyond the child's personal experiences (Greene, 1995; Noddings, 1992). Children are expected to understand, or at least memorize, concepts with which they have had little conscious experience, and these concepts are presented to them artificially abstracted from experiences with which children might make a conscious connection.

Not only does formal education jolt children into an attempt to make meaning from concepts they have not consciously experienced, it also revolves

around a fragmented structure that is incongruent with holistic perspectives used to make sense of new experiences and encounters in the world (Doll, 1993; Fleener, 2002; Lagemann, 1989; Vygotsky, 1978). Dewey (1902) pointed out:

> (T)he child's life is an integral, a total one. He passes quickly and readily from one topic to another, as from one spot to another, but is not conscious of transition or break. There is no conscious isolation, hardly conscious distinction. The things that occupy him are held together by the unity of the personal and social interests which his life carries along. (p. 183)

However, when children enter school they are typically presented with a fragmented curriculum that is reduced to specific subject areas and activities which are to be learned and performed within certain divided time frames and schedules. It has been suggested that this fractionized curriculum is abnormal to the natural holistic world of children and can result in memorization of pieces of information that fail to fit into a personally meaningful context (Fleener, 2002; Greene, 1995; Palmer, 1998).

Dewey further addressed the issue of educational incongruence between a fragmented curriculum and the natural learning of children:

> (I)n school each of these subjects is classified. Facts are torn away from their original place in experience and rearranged with reference to some general principle. Classification is not a matter of child experience; things do not come to the individual pigeonholed. The vital ties of affection, the connecting bonds of activity, hold together the variety of his personal

experiences. The adult mind is so familiar with the notion of logically

ordered facts that it does not recognize—it cannot realize—the amount of

separating and reformulating which the facts of direct experience have to

undergo before they can appear as a "study," or branch of learning. (1902,

p. 184)

In addition to disconnected conceptions and mismatched frameworks for

understanding the world, educational incongruence also exists between modes of

learning and methods of teaching. Exploration, discovery, activity, experience, and

personal observation are modes children naturally use to make sense of their world.

These ways of learning include activities such as storytelling, games, experiments,

and play. In contrast, schools often employ teaching methods of transmission,

presentation, memorization, recall, and repetitive practice through lectures, quizzes,

multiple-choice tests, and skill practice worksheets. In regards to the educational

incongruence between teaching and learning, Dewey (1902) noted that "subject-

matter never can be got into the child from without. Learning is active. It involves

reaching out of the mind. It involves organic assimilation starting from within" (p.

187).

These ideas are consistent with Piaget (1950) and constructivist

perspectives which express the idea that knowledge is actively constructed through

interaction with the environment. Learners are active participants in creating their

understanding as opposed to merely passive objects receiving information. With

this premise in mind, many of the commonly seen modes of teaching in formal

education do not fit the ways in which students learn and make meaning out of the world.

Vivian Paley (1992) also addressed the importance of incorporating children's natural modes of learning into teaching in formal educational settings. She addressed the power of storytelling and play as ways children naturally learn. Paley referred to story as "the children's preferred frame of reference" (p. 4). She utilized storytelling in her kindergarten classroom in order to address social issues taking place among students. Paley also established learning opportunities through encouraging students' own storytelling and play. These modes of learning that allow students to make meaning out of their world through their own discoveries and experiences connect with how children naturally learn.

Despite the fact that discussions of mismatched modes of learning began more than a century ago, formal education today still operates primarily through methods of presentation imposed from the outside rather than through modes of exploration and experience from within the child. These dominant approaches tend to be deductive rather than inductive, explicit rather than implicit, and rational rather than intuitive (Belenky, Clinchy, Goldberger, Tarule, 1986; Palmer, 1998).

In an insightful study, Belenky, Clinchy, Goldberger, and Tarule (1986) found that dominant approaches utilized in formal education are predominantly masculine in their focus on ways of learning and knowing. Through interviews with 135 women, Belenky and her fellow researchers searched for insight into ways that women learn and know, and they found that formal education is often

disconnected from these ways of knowing. This study provides yet another way to look at how formal education is incongruent with natural learning.

Through this study, Belenky, Clinchy, Goldberger, and Tarule (1986) made recommendations for a more connected approach to teaching in order to improve formal education for both females and males. This proposed idea of connected teaching describes a process of collaborative and reciprocal knowing and learning among students and teachers that emphasizes "…connection over separation, understanding and acceptance over assessment, and collaboration over debate" (p. 175). Although the concept of connected teaching is a theory originally developed around adult women, it is an insightful way to consider teaching for all students. Connected teaching seeks to address the disconnection between formal schooling and the natural learning of students.

The problem of educational incongruence can also be considered in connection with the work of the Brazilian educator, Paulo Freire. In *Pedagogy of the Oppressed* (1970), Freire addressed imbalances of power and mechanisms of oppression that exist in society. Freire aimed for transformation of these systems of oppression to where the disempowered would become active *Subjects* of their own reality as opposed to passive objects in a given reality according to which they must live their lives. Freire sought for the transformation of such oppression as it was reflected in systems of education.

Addressing the mismatch of common pedagogy in formal schooling with the natural learning of the child, Freire (1970) utilized a banking metaphor of

education to conceptualize instructional practices often found in schools. In formal schooling, information, or knowledge, is typically "deposited" into the minds of children by the teachers. Thus, the teachers have active roles while the students are passive. Resemblances of a banking approach can be seen in schools today, furthering the disconnection between formal education and the natural learning of children.

Another example of educational incongruence involves curriculum and instruction in accordance with high-stakes national standards and tests like those related to the No Child Left Behind Act of 2001 (Kohn, 2000; McNeil, 2000; Van Luchene, 2004). When increasing pressure is placed on statistically assessing student achievement and faculty accountability, the interests and curiosities of students often get cast aside. Instead of embellishing education with a rich diversity of content and pedagogy, formal education has become increasingly focused on statistical measurements derived from standardized test scores. "We find now that survival for public schools requires single-minded dedication to a limited set of learning objectives, mastery of which is taken to be established only by multiple choices on a standardized test" (Van Luchene, 2004, p. 101).

According to some, perpetuating and maintaining a society of domination and fragmentation is realized through aspects such as pressures to increase scores on standardized tests in order to obtain "accountability" by national, top-down requirements like No Child Left Behind (Apple, 2003; Giroux, 2005). These hierarchical pressures and control mechanisms disconnect formal education from

the natural learning of children by taking away from the depth and integrity of learning experiences. This can be seen through schools cutting back on the arts, music, recess, physical education, social studies, science, democratic class meetings, and learning experiences outside of the school building (Kohn, 2000; McNeil, 2000).

Linda McNeil (1986) presented an interesting study of four high schools where she looked at how schools attempt to reach goals of educating citizens who are prepared for roles of economic production. In this study, McNeil found that there is tension created when trying to reach these goals under the structures of control operating in formal schooling. McNeil (1986) discusses issues of educational pedagogy becoming more focused on control:

> Defensive, controlling teaching does more than make content boring; it transforms the subject content from "real world" knowledge into "school knowledge," an artificial set of facts and generalizations whose credibility lies no longer in its authenticity as a cultural selection but in its instrumental value in meeting the obligations teachers and students have within the institution of schooling. The potential richness of such content as historical events, and their interpretations and the conflicts inherent in economic systems, are flattened into the lists, slogans and mystifications that defensive presentations comprise. (p. 191)

The teaching of what McNeil (1986) calls "school knowledge" can be seen throughout schools today. The content that is taught comes required from sources

outside of the real life experiences of the students and teachers. It then becomes

difficult for students to relate meaningfully to the content being taught. The

curriculum is turned into facts to be memorized simply for the purpose of knowing

them and producing that knowledge back onto classroom tests and standardized

assessments.

Natural learning of children involves social interaction, exploration,

curiosity, passion, and play. Taking away from these aspects of the learning

environment contributes to the disconnection at the heart of educational

incongruence. Emphasis is often placed primarily on mathematics and reading

because these are the core subject areas to be tested, and teachers feel pressure to

cover a multitude of standards often detached from deep meaningful experience.

Prioritized standardized tests and test preparation thus move formal education even

further from curriculum and instruction that connect with the natural learning of

children.

Why does educational incongruence exist? Disconnections between formal

schooling and natural learning, including mismatched conceptions of the world,

structures for learning, and modes of learning, result from a complexity of

problems in society. Fritjof Capra (1996) presents one such problem as a "crisis of

perception," in which reality is viewed as fragmented, like a machine with

individual parts and pieces, rather than as a holistic web of life where all aspects are

interconnected. A fragmented worldview can lead to a fragmented view of

education (Apple, 2003; Capra, 1996). The interconnection between the purposes

of education, the practices of education, and the natural learning of children can be lost when a fragmented view of the world focuses on merely one piece at a time instead of the big picture.

Additional factors contributing to the cause of this incongruence between formal education and the natural learning of children may include imbalances of power and systems of oppression that exist in society (Freire, 1970). Freire addresses the need for the oppressed to become active subjects of their own reality, no longer merely passive objects in a world imposed onto them by others. It was Freire's revolutionary aim for the oppressed to work towards transforming their lives from "being for others" to "being for themselves" (1970, p. 25). Systems of oppression in society include not only the silencing of the poor by the wealthy, ethnic minority groups by the majority, and women by men, but also the silencing of the voices of children by the overpowering viewpoints of adults. This is reiterated through teacher-centered (as opposed to student-centered) styles of curriculum and instruction often seen in formal education today.

Freire (1970) and others suggest that the continuation of unnatural, mechanistic, top-down curriculum standards and teaching approaches have the effect (if not also the intent) of maintaining existing hierarchical systems of social power and privilege (Anyon, 1979; Willis, 1977). If we want to consider alternatives for society, we will have to teach students to question and become critical active participants in the world as opposed to merely reproducing society while serving as passive receptacles for dominant ideas.

Jean Anyon (1979) reiterates the effect of formal education on maintaining existing hierarchical systems of domination and oppression. Through an ethnographic study that looked at curriculum, pedagogy, and assessment in five elementary schools over the course of one school year, Anyon found that a "hidden curriculum" exists in formal education. This hidden curriculum serves to maintain existing social class distinctions through the ways in which the content is taught and how the teachers interact with students. Anyon argues that teachers are often unaware that their teaching, interactions, and attitudes are helping to maintain existing unequal social class distinctions. Thus this form of social reproduction is hidden from the teachers perpetuating it. Anyon explains the possible effects of this hidden curriculum:

> School experience, in the sample of schools discussed here, differed qualitatively by social class. These differences may not only contribute to the development in the children in each social class of certain types of economically significant relationships and not others but would thereby help to reproduce this system of relations in society. In the contribution to the reproduction of unequal social relations lies a theoretical meaning and social consequence of classroom practice. (p. 91)

Anyon discusses how hidden curriculum helps to maintain existing systems of domination and oppression in society and provides another way in which formal schooling is incongruent with natural learning of children. There is a disconnection between what expectations and experiences formal education should provide to

inspire and nurture the natural learning of all children and what formal education generally provides.

Another study by Paul Willis (1977) reinforces the argument that formal education often has the effect (if not also the intent) of maintaining existing hierarchical systems of social power and privilege. In an ethnographic study, Willis looked at twelve young male students and their experiences in formal education. His research focused on how these students' educational experiences perpetuated cultural reproduction into the working class. Willis found that these twelve students developed resistance and opposition to schooling. They saw manual work as superior to academic work and would actively seek to go against the system. Through their experiences during their formal education, they had come to the realization that there really were not equal opportunities for all in a capitalist society. Willis also suggested that these students had come to the conclusion that their individual efforts at school were not very likely to help them have success or achievement in terms of future job prospects. Thus, this group of students did not see a meaningful connection between their real lives and what they were experiencing in their formal schooling.

Why does this incongruence matter? The incongruence between schooling and the child can result in an education that fails to meet personal and societal needs. Children enter the world with basic needs that include care and relationships (Maslow, 1968; Noddings, 1992). They exhibit a natural need to explore things with all of their senses, to observe and discover the world around

them within an environment of safety and love. Therefore, it would make sense for formal education to embrace these basic needs and build upon just such a supportive environment. However, top-down maintenance of a fragmented and oppressive society through factors such as increasing pressures to raise standardized test scores and teacher accountability works against the evolution of a school environment that supports children's basic needs and natural learning styles. Focus is often placed on the perceived needs of the school or district as opposed to the actual needs of the child.

Failure to meet the personal needs of the child, in turn, because of the reciprocal and interconnected relationship of the individual and society, results in failure to meet societal needs. Society needs citizens that openly explore new possibilities for living in the world. Our global community needs citizens that can consider issues through multiple perspectives in order to sustain life. Without citizens who can look critically and create new ways of thinking and being in our world, society may seem destined for failure (Capra, 1996; Freire, 1970; Greene, 1988, 1995). When formal education is disconnected from the natural learning of children, importance is not placed on the needs of children, thus resulting in failure to meet societal needs.

Children come to school naturally with curiosities and a yearning to explore and discover new things. What a disappointment it must be for children to have their desires and interests pushed aside while standards and test scores designed to maintain hierarchical structures of domination and fragmentation take the forefront.

Instead of a formal education that nurtures the natural learning of children and the need for depth and making meaning with others, schools are driven by the hierarchical pressures of standards, tests, and statistics, and teaching often becomes pre-scripted with rigid instructional guidelines (Witte-Townsend & Hill, 2006). The personal needs of the child and the needs of society in connection with the broad purposes of education all become blurred in the background. It begins to seem as if the primary role of education is to maintain structures of domination and fragmentation (perhaps intentionally, as some critical theorists suggest) through emphasizing aspects such as teaching students how to pass standardized tests instead of inspiring them to explore, dialogue, question, create, connect, and learn (Apple, 2003; Freire, 1970; Giroux, 2005).

If we want to inspire students and work towards an education that focuses on teaching students how to become creative, critical, and caring citizens, then we need to reflect on formal educational practices and seek to reach this goal. Thus, the rationale for this study arises from concerns that the problem of educational incongruence between formal schooling and the natural learning of children can result in education that fails to meet individual and societal needs.

Research Questions

In light of these concerns, the purpose of this study was to gain further insight to the nature of the incongruence between formal education and the natural learning of children. I chose to examine my own teaching and educational context as a way of better understanding the factors that contribute to these disconnections

and the various ways in which teachers have responded to the educational

incongruence they experience. Two specific questions guided the inquiry:

1. What are the factors that contribute to the educational incongruence

    between formal schooling and the natural learning of children in my

    own educational context?

2. In what ways have teachers responded to this educational incongruence?

In this chapter, I have presented and explained the problem of educational

incongruence between formal schooling and the natural learning of children. I have

explained the background of this disconnection and discussed various causes. A

rationale for this study has been provided through concerns that this incongruence

can result in education that fails to meet individual and societal needs, and I have

listed the two questions that guided the inquiry. In the following chapter, I will

explore the theoretical lenses that will be used to analyze the findings. In the third

chapter, I will present the research methodology of this study. The fourth chapter

will discuss the findings of the study. Finally, in the fifth chapter, I will analyze

my findings and discuss implications for educational theory and practice.

CHAPTER TWO

THEORETICAL FRAMEWORK

Thus far, I have presented the problem of educational incongruence between formal schooling and the natural learning of children, and I have identified the research questions to be explored. In this chapter, I will present the theoretical lenses through which the findings will be analyzed and interpreted.

In this study, I will use two lenses to interpret my findings. These theoretical lenses will serve as perspectives through which to analyze the findings in order to consider insights and discuss implications and recommendations for education. My theoretical framework will consist of a Freirian theoretical lens and dynamic systems theory.

Freirian Theoretical Lens

In *Pedagogy of the Oppressed*, Paulo Freire (1970) suggests that there is a problem of dehumanization that is a component of mechanisms of oppression in society. Freire argues that humanization is a natural vocation of humans. In order to be more fully human, we seek to become active "Subjects" who help to shape and form our world instead of passive objects living in a world imposed upon us by others. However, this quest is prevented by systems of oppression perpetuated by the minority in power through prevention of what Freire calls true dialogue. Freire suggests that education helps to perpetuate systems of oppression through a "banking" approach in which teachers "deposit" information into the students.

Freire (1970) also proposes possible alternatives as solutions to problems of oppression. He suggests that in order to encourage and assist people in their natural vocation for humanization, we need to engage in true dialogue, or dialogical action, where the often silenced voices of the passive oppressed become heard voices of active subjects. Freire's proposed solutions include raising critical consciousness and working together for cultural action for freedom. Freire argues that the role of education would be to change from a banking approach to a problem-posing approach.

Freire (1970) discusses his theory of antidialogical action that serves to perpetuate oppression. Antidialogical action is the theory that true dialogue with the oppressed majority is prevented. He argues that antidialogics operate through the use of conquest, manipulation, the concept of divide and rule, and cultural invasion. Freire explains the first characteristic of conquest for antidialogical action further:

> Every act of conquest implies a conqueror and someone or something which is conquered. The conqueror imposes his objectives on the vanquished, and makes of them his possession. He imposes his own contours on the vanquished, who internalize this shape and become ambiguous beings 'housing' another. (p. 138)

Manipulation is another dimension of oppressive antidialogical action discussed by Freire (1970). He argues that the oppressed are manipulated through

a series of myths from the oppressors[1]. These myths include ideas of fatalism in which things are the way they are and there is nothing that can be done about them. Thus, as spectators in the world, the oppressed must simply adapt to life as it is because it cannot be changed. This myth furthers the disempowerment and silencing of the majority.

Another myth used to manipulate the oppressed is that of the equality of all individuals. Those in power want the silenced majority to internalize this myth that everyone is equal and has the same human rights and opportunities. Freire (1970) points out that this myth implies that every individual can become whatever they desire as long as they work hard for it. It further implies, by extension, that those who are not happy or successful must be responsible for their own situation.

These myths also encompass a fear of freedom (Freire, 1970) which affects the oppressed. This fear of uncertainty and the unknown may cause the oppressed to desire to continue to live their lives within the internalized myths of the oppressor. The fear of freedom may cause the oppressed to believe that things could be worse, so they should not take any chances on the unknown.

Freire (1970) presents the concept of divide and rule as yet another dimension of antidialogical oppressive action. Through the concept of divide and rule, the oppressor is the minority, and the oppressed is the majority. In order to subordinate and dominate the majority, the oppressors must keep the oppressed

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[1] Critics of Freire (1970) might argue that his theories on the oppressors and the oppressed refer to a dichotomous relationship when in reality the division may be a more blurred relationship. For example, in education, teachers might be considered as being oppressed by administrators or the school district; however, teachers might also be considered as being oppressors of students.

divided. If the oppressed were to unite and organize together, this could result in a detrimental threat to the power of the oppressors. Thus, Freire argues that it is in the interest of the oppressor to keep the oppressed divided and isolated in order to keep them weak and impose their rule upon them.

The last dimension of the theory of antidialogical action as presented by Freire (1970) is that of cultural invasion. Cultural invasion works also as actions of domination and conquest. Through cultural invasion the oppressors, or invaders, impose their own reality and view of the world upon the oppressed. The oppressors inhibit the creativity, expression, and freedom of the oppressed.

> In cultural invasion (as in all the modalities of antidialogical action) the invaders are the authors of, and actors in, the process; those they invade are the objects. The invaders mold; those they invade are molded. The invaders choose; those they invade follow that choice--or are expected to follow it. The invaders act; those they invade have only the illusion of acting, through the action of the invaders. (p. 152)

All of these components and dimensions of antidialogical action serve to perpetuate oppression and create a culture of silence among the oppressed (Freire, 1970). Through the pressures of those in power, the oppressed internalize the myths of the oppressors and their own thoughts and ideas become silenced. They no longer have a voice of their own. The thoughts of the oppressed are devalued, considered unimportant or inferior, and not heard by those in power. The oppressed become dependent upon the culture of the oppressors.

Freire (1970) presents ways in which formal education often serves to perpetuate oppression through what he calls the "banking" method of education. Freire explains this method of education as revolving around narration. He refers to an existence of a "narrating Subject (the teacher) and patient, listening objects (the students)" who are presented with concepts that "tend in the process of being narrated to become lifeless and petrified" (p. 71).

> The teacher talks about reality as if it were motionless, static, compartmentalized, and predictable. Or else he expounds on a topic completely alien to the existential experience of the students. His task is to "fill" the students with the contents of his narration--contents which are detached from reality, disconnected from the totality that engendered them and could give them significance. (p. 71)

Freire (1970) suggests that the banking method of education involves the teacher "depositing" information into students. The students thus become "receptacles" or "containers" to be filled with these deposits. Students are expected to mechanically memorize content. Freire notes that "the more meekly the receptacles permit themselves to be filled, the better students they are" (p. 72). This banking approach to education reiterates components of oppression in society. The teacher is acting as the oppressor, and the students are treated as the oppressed. Banking education operates on the attitude that the teacher who knows everything teaches and the students who know nothing are taught.

So far, I have presented problems of oppression in society and education as suggested through a Freirian theoretical lens. However, Freire also provides possible solutions. Freire (1970) presents ideas of humanization, critical consciousness, dialogics, cultural action for freedom, and problem-posing education as alternatives to oppression.

Paulo Freire (1970) suggests that seeking humanization is the natural vocation of people. In order to become more fully human, people must seek to become active subjects in their world. This would require the oppressed to become critically aware of their oppression and the myths of the oppressors that they have internalized as their reality. However, it is important to note that Freire argues that the oppressed must not in turn become oppressors; rather they must seek to become the "restorers of humanity for both" (p. 44). Thus, the oppressed would be liberating not only themselves, but also their oppressors.

Critical consciousness is a component of the search for humanization. Freire (1970) suggests the idea of critical consciousness as individuals becoming aware of their context and environment, becoming conscious of their perceptions of reality, reflecting critically upon that reality in a dialogical encounter with others, and taking action in order to promote personal dignity and autonomy and to challenge social hierarchies to create a more just and equal society. Upon raising critical consciousness, individuals become active subjects in composing their reality, as opposed to passive objects in a reality constructed by others. Raising

critical consciousness thus acts as a catalyst for exploration of alternative ways of being and active transformation of reality within relationships with others.

Included in the Freirian theory of critical consciousness is the idea of *naming* (Freire, 1970). In naming something, we are classifying it and giving meaning to it. We are considering it, evaluating it, and calling forth action toward it. The name we give something allows us to organize our perceptions of it and thus affects our subsequent behaviors towards it (Sandstrom, Martin, & Fine, 2003). In relation to the Freirian theory of critical consciousness, Maxine Greene (1988) argues that in order to work towards freedom and an opening of spaces and perspectives, we must first name the obstacles inhibiting the consideration of alternatives. Naming our obstacles, we work to understand them in order to move beyond them and name alternative possibilities. Critical consciousness works to name and understand existing realities, to name that it is possible for things to be otherwise, to name obstacles standing in the way, and to name alternative ways of being.

Embedded within the quest for humanization and critical consciousness is the concept of praxis. Freire (1970) argues that in order to become active subjects in their world, people must engage in a continual state of praxis through which individuals act, critically reflect upon their actions, and then make decisions for future action. Engaging in praxis thus involves a cycle of action and critical reflection which can help individuals to achieve critical consciousness and increased humanization.

Freire (1970) presents a theory of dialogical action as an alternative to antidialogical action. Dialogical action requires engaging in true dialogue. True dialogue "is the encounter between men, mediated by the world, in order to name the world" (p. 88). Through engaging in true dialogue, people can name the world and work to transform it. In order to engage in true dialogue, there must also be components of mutual trust, hope, and critical thinking. Freire further argues that dialogical action utilizes dimensions of cooperation, unity, organization, and cultural synthesis.

Cooperation is another essential component in a Freirian theory of dialogical action (1970). Cooperation is utilized in dialogical action as opposed to conquest utilized in antidialogical action. Cooperation occurs only through communication and true dialogue among active subjects. These subjects meet together and work together in order to name the world and thus transform the world.

Unity is also an essential component of dialogical action (Freire, 1970). As opposed to the concept of division and rule as perpetuated in antidialogical action, unity among the oppressed is essential to dialogical action. This dimension of unity must also occur in connection with praxis in order to lend itself to transforming the world through cultural action for liberation

As opposed to manipulation as an essential component in antidialogical action, organization is a vital component in dialogical action (Freire, 1970).

Organization is not only directly linked to unity, but is a natural

development of that unity. Accordingly, the leader's pursuit of unity is

necessarily also an attempt to organize the people, requiring witness to the

fact that the struggle for liberation is a common task. (p. 176)

Freire (1970) further points out that dialogical organization requires

authority, yet it cannot be authoritarian. He notes that freedom is essential to

organization, and leaders and people must join together through true authority and

true freedom in order to transform their reality.

Dialogical action also involves a component of cultural synthesis as

opposed to cultural invasion as seen in antidialogical action (Freire, 1970).

Cultural synthesis requires that "actors who come from 'another world' to the world

of the people do so not as invaders" (p. 180). Through cultural synthesis, people

come together to learn with each other about the world in order to engage in

cultural action together for transformation and freedom.

Through a Freirian theoretical lens, we can also consider the role of

education in the solution to work against oppression. Freire (1970) proposes the

concept of problem-posing education as a possible solution. Problem-posing

education arises out of real life situations and problems that exist in reality.

Teachers and students then engage in dialogue about the problem situation. As an

alternative to banking education where students memorize information, problem-

posing education encourages teachers and students to question and critically reflect

upon situations and influences in their world.

Problem-posing education (Freire, 1970) is in contrast to banking education in that there is no longer the typical relationship of the teacher as the active narrator of knowledge and the students as the passive receptacles to be taught. Instead, problem-posing education requires a more reciprocal learning and teaching relationship with new terms of the "teacher-student" and "student-teachers" (p. 80). Together the teacher-student and student-teachers engage in dialogue and become critical co-investigators who "are jointly responsible for a process in which all grow" (p. 80). Joining together they engage in problem-posing education as the practice of freedom as opposed to banking education as the practice of domination.

Paulo Freire's theories present several perspectives through which to consider the disconnection between formal education and natural learning of children. A Freirian theoretical lens will be utilized in order to analyze the findings of this study as well as to consider implications for education. Freire's theories will be considered in connection with the theoretical lens of dynamic systems theory.

Dynamic Systems Theory

Contemporary literature presents an ontology that is in agreement with dynamic systems theory in which reality is dynamic and relational rather than static or mechanical in nature (Capra, 1996; Doll, 1993). Systems theory is an interdisciplinary theory deriving from various fields of study including biological sciences and mathematics. From a physical and biological standpoint, for example, systems theory suggests that life is holistic and consists of dynamic and

interconnected relationships as opposed to life being mechanistic and consisting of fragmented pieces or parts.

Capra (1996) discusses systems theory in terms of life as an inseparable web of relationships instead of life as a mechanistic collection of separate objects. Systems theory considers life as a unity of relationships that is greater than the sum of parts or individual relationships. The parts themselves can really only be understood within the context or environment of the larger whole. According to Capra:

> A system has come to mean an integrated whole whose essential properties arise from the relationships between its parts, and "systems thinking" the understanding of phenomenon within the context of a larger whole. This is, in fact, the root meaning of the word "system," which derives from the Greek synhistanai ("to place together"). To understand things systematically literally means to put them into a context, to establish the nature of their relationships. (1996, p. 27)

Systems theory suggests the idea that there are indeed no parts at all. However, what we consider as a part is more accurately thought of as a pattern within an inseparable network of relationships. These networks of relationships are embedded within other networks of relationships. Within this theory there are various levels of systems and systems within systems that represent levels of diverse complexity (Capra, 1996).

The dynamic and relational rather than static or mechanical nature of reality also applies to human interactions and educational relationships. Humans are interconnected in a web of relationships that is continually changing and evolving. In human communities there exists a dialectical relationship between the self and society. There is a reciprocity in which the individual operating within a system is acting back on society. In fact, George Herbert Mead (1934) goes so far as to suggest that the actions of individuals create society and vice versa.

There is a consideration of symbolic interactionism embedded within this idea of social transformation. Mead (1934) noted that individuals create and alter social meanings through the process of interaction. The perspective of symbolic interactionism focuses on how individual meanings and actions arise out of the social processes of interpretation, communication, and role taking (Blumer, 1969; Hewitt, 2000; Mead, 1934; Sandstrom, Martin, & Fine, 2003). Through interacting with one another, individuals create meaning and thus contribute to the shaping of social reality. From the viewpoint of symbolic interactionism, the individual self contributes to social transformation processes through a reciprocal relationship with society. Like others, people who are critically conscious can also influence the world in which they live.

Systems theory can be applied to the nature of reality of education. The networks of relationships within educational systems are interconnected and dynamic. There are systems within systems operating in the formal educational realm. The whole of a system of formal education is much more than the sum of its

fragmented parts. A change in one network in education can affect change in multiple other networks.

Change is the essence of dynamic systems (Capra, 1996; Doll, 1993). Without change, dynamic systems would not be able to adapt to maintain their existence. It is essential for open systems to be able to create adaptations and transformations in environments of challenges, confusion, or chaos. This is true for dynamic systems of education. There is a necessity for transforming and adapting to new and challenging situations or experiences.

Dynamic systems are living systems that thrive on growth and change that evolves out of challenges or disruptions (Capra, 1996; Doll, 1993). In a mathematical or scientific field, disruptions that lead to changes in systems are termed perturbations. These disturbances to the system lead to adaptation, feedback, and reorganization. Wheatley (1994) discusses this concept further:

> (A)ny open system has the capacity to respond to change and disorder by reorganizing itself at a higher level of organization. Disorder becomes a critical player, an ally that can provoke a system to self-organize into new forms of being. As we leave behind the machine model of life and look more deeply into the dynamics of living systems, we begin to glimpse an entirely new way of understanding fluctuations, disorder, and change.
> (p. 12)

Perturbations and disturbances thus allow the system to sustain itself through adaptation and growth. Without change, living systems would not be able

to respond to disruptive experiences or situations. These forms of disorder are essential for the system to reorganize in order to maintain its existence.

The concept of perturbations as essential for change in systems can be further understood through consideration of chaos theory (Fleener, 2002; Gleick, 1987; Wheatley, 1994). Studies in this field have provided insight into the importance of the relationship between chaos and order. A system can be in a state of chaos while also functioning within ordered boundaries that are predictable. This partnership between chaos and order is essential to change, new creative ordering, and progress (Wheatley, 1994).

From a social sciences standpoint, challenges to the system are considered in terms of disequilibrium. Piaget (1950) presented the idea that a state of disequilibrium is experienced when new concepts or situations are encountered that do not fit within accumulated knowledge. Struggles then occur in order to adapt existing knowledge to accommodate the new information and lead to a new cognitive stage. When disturbances are encountered, then change must occur in order to adapt and experience growth. Such challenges are at the heart of the transformative process of dynamic systems.

Capra (1996) suggests that society is experiencing a "crisis of perception" through which our worldview is dominated by fragmentation and mechanistic thinking. Capra suggests that our worldview is inadequate and out of balance in that we focus primarily on viewing the world in terms of fragmented pieces and parts as opposed to holistic interconnections. He argues that we cannot continue to

operate under a mechanistic worldview when the nature of reality is interconnected systems. Capra states:

> The more we study the major problems of our time, the more we come to realize that they cannot be understood in isolation. They are systemic problems, which means that they are interconnected and interdependent. (1996, p. 3)

Systems theory suggests that the perception of reality should be more holistic and ecological. This would involve a paradigm shift from the modern mechanistic worldview that dominates our perception of reality today. Adapting to a more interconnected perception of reality would allow for more adequate understanding of problems in society in order to work to reduce them. Capra (1996) further explains the need for a paradigm shift:

> Ultimately these problems must be seen as just different facets of one single crisis, which is largely a crisis of perception. It derives from the fact that most of us, and especially our large social institutions, subscribe to the concepts of an outdated worldview, a perception of reality inadequate for dealing with our overpopulated, globally interconnected world. There *are* solutions to the major problems of our time, some of them even simple. But they require a radical shift in our perceptions, our thinking, our values. (p. 4)

A shift to a perception of reality that operates under assumptions of dynamic systems theory may allow for further understanding of problems in formal

education. These problems in education can also be reduced if we can perceive of them as existing within a holistic and interconnected network. Confronting a crisis of perception (Capra, 1996) in formal education would also require shifting perceptions of society and the world to a view of interconnected relationships in order to understand systems of formal education within outside systems.

A Freirian theoretical lens and dynamic systems theory will provide the basis of the theoretical framework through which the findings of this study will be analyzed. The following chapter will discuss the research methodology through which the findings were obtained.

CHAPTER THREE

RESEARCH METHODOLOGY

In this chapter, I will present the research methodology that was used to examine my teaching and educational context in order to gain insight into the kinds of factors that contributed to disconnection between formal education and natural learning of children in my educational setting. This research methodology was also used to examine ways in which teachers have responded to these factors of incongruence. First, I will discuss the research design of this study including the assumptions and approach. Next, I will discuss methods of data collection and analysis that are generally used in this particular approach. I will then present the participants, context, and setting of the study. Finally, I will discuss the specific research protocol that I used for this study.

Research Approach: Participatory Action Research

This study was a qualitative, participatory action research study. A qualitative research approach seeks understanding and requires exploration within context. The researcher takes on a subjective role with the participants in their environment. In this case, qualitative action research allowed the research question(s) to be explored with the participants/students in their elementary classroom and their school. The research relied heavily on the experiences and perspectives of the student and teacher participants in order to gain insight to the nature of the problem of incongruence between formal education and the natural

learning of children. This study also sought insight to potential solutions to the

disconnections.

Qualitative research tends to revolve around an ontological assumption that

reality is changing, evolving, and context-specific as opposed to quantitative

research which generally revolves around the ontological assumption that reality is

fixed, stable, and objective or universal (Creswell, 2005). A qualitative research

approach fit this study according to ontological assumptions because it involved

dynamic human interaction within the changing and evolving context of an

elementary classroom and school. In direct connection with the underlying purpose

and problems of this study, qualitative research approaches recognize that the

research plays a role in exploring possibilities for addressing the incongruence

between formal education and the natural learning of children. A qualitative

research approach allowed for the views of the participants to be the basis of the

research. It allowed for the often silenced voices of the students/children to be

expressed and heard. This approach also allowed for data to be collected within the

context that was being studied.

The particular design I utilized in this study was participatory action

research. Action research designs are utilized heavily within the social sciences,

including education. Many educators use action research to gain understanding of

the educational setting in order to explore possibilities for changing or improving

teaching and learning in that setting (Cochran-Smith & Lytle, 1993; Greenwood &

Levin, 1998). In what is often called practical action research, the focus is on

improving practice within the setting. In other cases of action research, the focus is on the empowerment of individuals and the positive transformation of existing situations. This design is often called participatory action research (Creswell, 2002).

I used participatory action research in this study to observe factors that contributed to disconnections between formal education and the natural learning of children and to reflect on ways in which teachers responded to those factors of incongruence. Here I engaged in a continual state of praxis (Freire, 1970). This continual cycle of observation, reflection, and action allows for the teacher-researcher to work to move beyond the constraints that the educational system can put on teaching and learning. At the same time, I observed and informally interviewed other teachers and students in my school setting.

Participatory action research also has an intent of helping participants to free themselves from structures and situations that can be limiting and unjust (Creswell, 2002; Greenwood & Levin, 1998). In this study, one intent was to consider possibilities for moving beyond the incongruence of formal education and the natural learning of children in order to meet personal and societal needs. Here again, these aims came into play with regard to myself and my class as well as my colleagues and their students.

Data Collection and Analysis Procedures

Methods of data collection in conjunction with the participatory action research qualitative design could include a variety of strategies. Data could be

collected through participant observation, field notes, personal reflection journals, interviews, video and audio recordings of classroom experiences, photographs of the environment and interactions, student journals, student products, class discussions, and class experiences. In conjunction with theoretical assumptions of qualitative research, it is essential that data are collected among participants within the context that is being explored.

In a participatory action research qualitative design, the researcher looks for "slices of data" (Glaser & Strauss, 1967) including events and conversations that indicate the existence of the selected problem, in this case, the disconnection between the educational structure, curriculum, or instruction and the child's natural approach to learning. Slices of data from these events or dialogues are then interwoven through themes as the data collection and analysis progresses. Theoretical sampling is also often utilized to ensure that triangulation is achieved. Theoretical sampling involves using components of information in order to gain insight into an issue or situation that is only partially understood. The goal is that triangulation created from drawing from multiple data sources will allow for developing theoretical saturation during data analysis.

In accordance with a qualitative participatory action research design, the researcher may also utilize a technique of *disciplined subjectivity* (Wilson, 1977). This technique attempts to address the concern that the data will be distorted through the subjective bias of the researcher as participant-observer. Disciplined subjectivity requires that the researcher interprets the data in connection with the

context in which they were collected. The researcher also should empathize with participants in order to more closely understand their actions and feelings. This may involve the researcher utilizing his or her own reactions and thoughts while experiencing the same situations as the participants. However, the researcher is careful to continually monitor and evaluate personal reactions. As participant-observer utilizing a technique of disciplined subjectivity, the researcher seeks understanding beyond complete subjectivity through alternating between insider and outsider points of view.

One method of data analysis that can be utilized in a participatory action research qualitative design is the constant-comparative method. The constant-comparative method (commonly used in grounded theory designs) requires a continual and repetitive reviewing and coding of data in order to search for commonalities among categories that emerge from the data (Glaser & Strauss, 1967). The data sources are then coded for categories until a point of theoretical saturation is reached in which no new categories are emerging from the data and there is a recurrence of certain categories throughout the data (Creswell, 2002; Glaser & Strauss, 1967). After coding the data for emerging and recurring categories to the point of theoretical saturation, the researcher will then look for the main themes among these categories.

The themes that evolve from the data analyzed using the constant-comparative method are then the basis for informing the action to be taken to further address the identified problem. Through this method, the researcher will

have evolved through the cycle of participatory action research, where data were collected through observation, reflection took place through analyzing and coding, and action was taken through discussion and communication of themes to create positive change addressing the identified research problem.

Participants and Setting

In this study, I was the participant-observer and researcher as the third grade homeroom elementary teacher. The participants also included nineteen third grade students in my homeroom class. In a sense, the school and even the district, including teachers, administrators, and other personnel, could also be considered part of the study. The immediate setting was our third grade elementary classroom and the school which I will refer to as Highland Park Elementary. Pseudonyms will also be used in order to ensure anonymity when referencing the names of students and teachers.

The school population of Highland Park Elementary consisted of approximately 300 students. The socioeconomic status was predominately lower to middle-class with more than half of the student population qualifying for free or reduced lunch. The ethnic background of the student population was approximately seventy-five percent Caucasian, seven percent African-American, seven percent Hispanic, six percent Native American, and five percent Asian.

The setting of the study also included our public school district located in a city with a population of approximately 105,000. The city houses a major

university with a population of approximately 30,000 students and fifteen colleges. The ethnic makeup of the city is predominantly white/Caucasian.

Highland Park Elementary was a relatively small school for our district. Our 300 students were enrolled in one of sixteen homeroom classes. The student population and school size contributed to a close-knit school community where teachers, students, and families looked out for each other and made it feel like a family. The school was established in 1922. There were two classes for each grade level, pre-kindergarten through fifth grade. Our school also consisted of a developmentally delayed class and an autism program.

The school itself was located off of a busy street less than a mile from the local university campus. The playground was located in the back of the main school building with two areas of playground equipment and a field for sports and games. There was a small blacktop area that was cracked and damaged with a dip in the middle. Next to the playground were six pre-fabricated buildings utilized for fourth grade, fifth grade, and special education classrooms. A chain-link fence surrounded the entire playground and pre-fabricated building area. On the north side of the building was one strip of parking places for teachers. There were also six parking spots on the south side of the building. These parking spots were not enough to accommodate the fifty-two faculty members at Highland Park Elementary.

Inside the main building of Highland Park Elementary, there were large bulletin boards in the hallways that were used to showcase student work. There

were six classrooms in the front hallway, along with the school office, counselor's office, conference room, and other offices. Off of the next main hallway, was a pod of primary classrooms, the school library, student restrooms, and a turn to lead to the school gymnasium. The school gymnasium included a stage area, some storage rooms, and an office for the physical education teacher. The back of the school gymnasium was also used for the school cafeteria.

The daily schedule for our school began with a school-wide morning assembly in the gymnasium. The assemblies were scheduled to last fifteen minutes, but this time was often exceeded. Music was played over the intercom system to indicate to students and staff that it was time to meet in the gym for the morning assembly. Students were instructed to wait in their designated area until the next song was played to indicate that it was time to come to the center of the gym to sit in the designated space for their class in a school wide horseshoe shape. The morning assembly would then begin with a recitation of the Pledge of Allegiance, followed by singing a patriotic song and announcements. The morning assembly would end each day with a moment of silence. Music would then be played to indicate that it was time to line up to go to their classroom.

Once back in our third grade classroom, the day would begin with morning routines such as taking roll, collecting lunch money, and turning in homework. Students would then be instructed to begin a morning assignment such as practicing spelling words, writing in journals, or practicing handwriting. Following this morning work, the class would have a morning meeting followed by an hour and a

half of reading group activities. The daily schedule or our school day continued

through the morning with thirty minutes of writing and language arts, thirty

minutes of computer lab time, and forty-five minutes of music or physical

education. Students then went to twenty-five minutes of recess followed by twenty

minutes of lunch. The afternoon schedule consisted of a forty minute time slot for

social studies, science, or art lessons followed by an hour and fifteen minutes

scheduled for math instruction.

The nineteen third grade student participants consisted of eight girls and

eleven boys. These nineteen students exhibited a diverse combination of learning

styles and needs. Eight students were identified for the Gifted and Talented

program. Four students were identified with special needs and were on

Individualized Education Plans. Two students were English Language Learners,

and four students were identified for speech therapy Individualized Education

Plans. Ten students qualified for free or reduced lunch.

The nineteen students in my class were a generally playful and talkative

group. All but five of these third graders attended Highland Park Elementary

during the second grade, and they knew each other quite well. A group of six of

the girls would play together almost daily during recess. Four boys from this class

would often play the organized sport or game together at recess. The other students

would mingle and interact with each other as well as with students from the other

classes. In the regular classroom the students were generally social and

communicative.

Research Protocol

In conjunction with the participatory action research qualitative design, I obtained data through participant observation, field notes, my personal daily reflection journal, informal interviews with students and teachers, video and audio recordings of classroom experiences, photographs of our environment and interactions, student journals, student products, class discussions, and class experiences. Data collection took place before school began, during regular class time, and before and after the regular school day. In conjunction with theoretical assumptions of qualitative research, it is essential that data are collected among participants within the context that is being explored.

I began by looking for "slices of data" (Glaser & Strauss, 1967) including events and conversations that indicate disconnection between the educational structure, curriculum, or instruction and the child's natural approach to learning. These events or dialogues were interwoven through themes as the data collection and analysis progressed. The goal is that triangulation created from drawing from multiple data sources also allowed for developing theoretical saturation during data analysis.

Data collection began the week before students arrived for the 2007-2008 school year. I began field notes and daily personal reflections during the first day teachers were required back at school. I looked for slices of data during our beginning of the year staff meetings and inservices. I also obtained data during

events and conversations with teachers during our first week back at school and throughout the rest of the fall 2007 semester.

Observations, field notes, and reflections with students began during Back to School Night. On the first day of school for students, I began observations in the morning before classes started. During the first month of the school year, I collected data daily in our classroom and school before, during, and after regular class time. Methods of data collection during this first month included occasional video and audio recordings of student and teacher interactions. Student journals and student products were considered data, as well as class discussions, class experiences, school-wide events, and informal interviews with students and teachers. I also kept a daily personal reflection journal throughout the first month of the school year.

After the first month, I collected data for the rest of the semester with occasional reflections and recording of specific relevant events. During this time, I also had an intern who served as an occasional classroom observer recording field notes of her observations. The frequency of my observations and note taking gradually faded as the school year progressed, allowing more time for data analysis and the deriving of themes. Data collection concluded at the end of the 2007-2008 school year, before students began their summer break.

I used the constant-comparative method to analyze the data collected. The constant-comparative method (commonly used in grounded theory designs) requires a continual and repetitive reviewing and coding of data in order to search

for commonalities among categories that emerge from the data (Glaser & Strauss, 1967). The data sources were coded for categories until a point of theoretical saturation was reached in which no new categories were emerging from the data and there was a recurrence of certain categories throughout the data (Creswell, 2002; Glaser & Strauss, 1967). After coding the data for emerging and recurring categories to the point of theoretical saturation, I then searched for the main themes among these categories.

The themes that evolved from the data analyzed using the constant-comparative method were then the basis for informing the action to be taken to further address the disconnection between formal education and the natural learning of children. Through this method, I evolved through the cycle of participatory action research, where data were collected through observation, reflection took place through analyzing and coding, and action was taken through discussion and communication of themes to create positive change of existing constraining and limiting structures and practices in the elementary classroom. These emergent themes were the core of the findings, discussion, and implications of the study.

In this chapter, I have presented the research methodology that guided this study of the incongruence between formal education and natural learning of children. I have explained the qualitative, participatory action research design along with a discussion of the underlying assumptions and the research approach. I have also provided an explanation of the methods of data collection and analysis utilized in a participatory action research qualitative design. I have given a

description of the research setting and participants as well as a description of the

specific research protocol used. In the next chapter, I will discuss the findings of

this participatory action research study.

CHAPTER FOUR

FINDINGS

Factors Contributing to Educational Incongruence

Within the educational setting of my third grade classroom and Highland Park

Elementary, I sought to explore the problem of the incongruence between formal

schooling and natural learning. Specifically, my research questions explored

factors that contributed to this incongruence in my elementary educational setting

and ways in which teachers have responded to these factors. This study was also

intended to consider implications for educational theory and practice.

The findings indicated that a variety of factors contributed to the educational

incongruence in my setting. These contributing factors could be combined into

four major categories: emphasis on accountability, emphasis on management and

control, emphasis on curriculum, and emphasis on completion of the curriculum.

All of these categories and factors were overlapping and interrelated. I will also

argue that these factors were interconnected with larger conditions in society. The

findings further suggest that teachers have responded to these factors in a variety of

ways that can be categorized in two broad areas, including an emphasis on

questioning and critiquing as well as an emphasis on joining together.

In this chapter, I will first discuss each of the four major categories of factors

that contributed to the incongruence between formal education and natural learning

in my particular educational setting. Next, I will discuss how teachers have

responded to these factors.

Emphasis on Accountability

One factor that contributed to educational incongruence at Highland Park Elementary was an emphasis on accountability. Accountability factors included things like intense focus on standardized test scores, test preparation, documentation, and expectations. Teachers at Highland Park Elementary were often pressured to focus on increasing state-mandated standardized test scores. In my particular school setting, we began the 2007-2008 school year by looking at last year's state Core Curriculum Test (CCT) scores. After our first day of staff meetings which consisted of introducing new faculty, building community, and addressing a list of informational items, we spent the entire first half of our second professional day analyzing standardized test scores from the previous school year. Focus was placed on the statistical evaluation of scores and the specific strands or objectives for which we needed to improve student achievement. There was a brief celebration of areas in which we scored very well, but the majority of the time was spent analyzing and breaking down how we could do better in the future.

Throughout this discussion, there was hardly any focus on the individual child's scores. Approximately ten minutes was spent looking at scores that were presented for individual students. During this brief discussion, comments were made about individual students and why they probably scored low. One teacher noted, "Evan scored in the limited knowledge range, but I expected that one." Judgments, explanations, and excuses were given for low individual student scores. There was one positive notification made about how many students scored in the

advanced range in both reading and math, but then conversation quickly turned back to concerns about unsatisfactory scores.

The majority of our time, approximately three and a half hours, was spent analyzing grade level statistical results that did not identify specific student scores. We were given different colored highlighters to identify the lowest and next to lowest scores for specific areas of objectives. I got the strong sense that I was not alone in feeling as if we were rating individual teachers by comparing scores of different classes. An intermediate teacher commented, "Apparently, I don't teach money concepts very well. Look at the scores for my class." The focus remained on improving test scores overall as opposed to focusing on the education of individual children, or the natural learning of children. We did not focus on looking at concepts that individual students needed help to understand and apply.

All of the Core Curriculum Test data was looked at statistically. We did not have access to look back at the original questions or at details in the way questions were asked. Although our standardized test scores for that school year were very high overall, the focus of our half-day meeting was based specifically on looking at what we did not score well on so that we could improve that area for the next round of standardized testing.

Such emphasis was placed on improving test scores throughout the school year. There were several other state and district required tests for our students. In my third grade class, I was required to give two formal reading assessments at the beginning of the year, one formal reading assessment in the middle of the year, and

two formal reading assessments at the end of the year to students who were below

the grade level reading scores according to the district correlation chart. Those

students who were below grade level were also required to complete a word

analysis assessment three times during the school year along with the required

reading assessments.

In my third grade class, we were also required by the district to give three

math benchmark assessments throughout the year. The tests were taken in the

computer lab. The data were supposedly intended to provide information for math

resource teachers and classroom teachers in order to be able to help individual

students and classes in their areas of struggle as indicated by the test scores.

Although this was the intention, there was not much follow-up on these

assessments. The students were not given feedback as to their performance on

these assessments unless the individual teacher decided to do so. My students

asked what these tests were for, and if it was going to affect their grade. I

explained to my students that the purpose of these benchmark assessments was to

indentify their strengths and weaknesses in working with specific math concepts,

and we discussed the results of their tests afterwards in order to set individual math

goals.

It was difficult to have such assessments drive my instruction as intended

when I had already been assigned a specific math curriculum that everyone in the

district was supposed to teach. At Highland Park Elementary, teachers often

commented on experiencing difficulty in including all of the components of the

lessons in the required math curriculum. Not only was it difficult to teach all of the specific lessons within the specified time frame, it was also very difficult to incorporate additional lessons on concepts that were recognized as areas of need according to assessment results. Thus, there were various conditions that contributed to the breakdown of assessments actually being utilized to drive instruction in a meaningful way.

Throughout this school year, as in years past, teachers were expected to incorporate several other forms of assessment, documentation, and curriculum programs based on ensuring that the required curriculum was taught. In addition to the reading and math assessments that third grade teachers were required to administer, there was also a computer-based visual arts assessment, test-preparation programs, and other various expectations placed on teachers in order to ensure that they were held accountable for teaching the state curriculum objectives for their grade level. All of these accountability measurements were designed around raising numerical standardized test scores. It seemed as if our students' natural learning became lost in these requirements of the formal educational system.

The greatest measurement of accountability in my particular school setting was the state CCT, also called the Criterion Referenced Test (CRT). This school year, as in previous years, third grade students were required to take these state-mandated tests in math and reading. There were two sections for each area, and they took us four days to administer. I knew from previous experience that the results of these tests did not come back to the school until the following summer.

Most classroom teachers did not get a chance to look at them until the faculty meetings held before the next new school year started. This year, like each other year, my students were asking me the week after testing when they were going to get their test scores. Students did not find out their scores unless parents chose to share the results with them, thus the assessment was not readily useful for students to set educational goals for themselves.

If the purpose of assessment is to drive instruction, then I have found through this study that our assessments are not always meeting that purpose. When I received the results of the previous year's CRT, I could look at areas where I might have needed to spend more time with instruction last year, but it did not allow me to look at what my next new group of unique students might have needed. It became apparent, as in previous years, that this group of students had group needs and learning styles that were as unique as their individual needs and learning styles. When we focused on assessment scores after the particular group of students had moved to the next grade level, it turned the scores into more of a measurement of teacher accountability than a tool to improve current instruction.

With so much emphasis placed on formal assessments and accountability, it took away from the natural learning of my students. I was aware of certain needs that they had through my relationships with them, but the testing requirements and curriculum requirements caused my instruction to turn its focus to objectives to improve test scores. The pressures of accountability caused my instruction to focus on teaching students what they needed to know in order to score well on the test

instead of focusing on what the individual students needed help understanding or what they were interested in learning.

Another component of accountability that contributed to educational incongruence was the documentation and daily paperwork required of teachers. Forms were required to be filled out for numerous activities and lessons. We were required to fill out charts that documented how and when we were teaching the mandated curriculum objectives. There were multiple forms required for intervention and special services. Teachers were asked to document how actual class time is spent through a Quality Time Analysis form. We were required to fill out a form if we wanted to watch a video, go on a field trip, or participate in a special activity that was considered outside of the regular curriculum. The paperwork seemed endless at times, especially when considering time spent documenting lesson plans and student grades. All of these forms of documentation were intended to ensure that teachers were being held accountable for teaching the required curriculum.

These examples of accountability that included emphasis placed on standardized testing, test preparation, documentation, and daily expectations took away from the purpose and overall goals of education. It became more difficult to meet the needs and interests of students with the consideration of these daily pressures. Therefore, these accountability factors contributed significantly to the disconnection between formal schooling and the natural learning of children in my educational setting.

Emphasis on Management and Control

Another category of factors that contributed to the incongruence between formal education and natural learning in my elementary school setting was an emphasis on management and control. During this school year, as in previous years, there were certain expectations of management and control that seemed to dominate our days in my particular educational setting. Although perhaps these expectations were not as extreme as in other schools, teachers were expected to ensure that students performed certain behaviors that fit into the daily routine of being under "teacher management and control."

The emphasis on management and control in my educational setting began before the school year started. Segments of faculty meetings were reserved to discuss new behavior management guidelines created through a committee of teachers designed specifically to address behavior management issues. This committee established school-wide behavior guidelines for common areas including the hallways, the cafeteria, the playground, and the restrooms. Our staff also worked with this committee to create posters of these guidelines and videos demonstrating the wrong and right ways to behave. Tickets and rewards were given to students at random for exhibiting positive behaviors in these areas. There were some positive results of this committee and structured guidelines; however, there was also perpetuation and enforcement of these guidelines sometimes without clear justifications to the students.

Although the motives of these behavior guidelines were for the benefit of the students' education, the purpose often was lost with so much focus being placed on management and control of student behavior. Students often behaved in ways that did not follow the guidelines either consciously or unconsciously. When students did not follow these behavior guidelines but were not consciously aware of their misbehavior, they were merely behaving as children would in natural learning environments.

One specific example of the emphasis on management and control in my educational setting involves transitions in our school hallways. I was expected to have my students walk down the hall in a quiet line when we were transitioning from one space to another. The school-wide expectation was that there would be no talking in these lines, students would travel one behind the other, they would walk on the right side of the hallway, and they would travel directly to their intended destination. The natural instinct of my students was to want to talk to each other and socialize, thus this routine expectation of walking silently, one directly behind the other, on the right side of each hallway, often became a struggle.

These hallway expectations and routines became even more incongruent and confusing for students when they witnessed teachers walking down the hall in a much different manner. Teachers in my school, including myself, would often walk down the hall side by side conversing with one another openly. We may even have stopped in the middle of the hall to have a conversation. This was natural for

us because we did not have very many opportunities in the day to communicate with each other. Students in my class expressed that they wanted to talk to their friends in the hall because they were not always able to do that during a lesson in class. My students naturally wanted to communicate with one another, just as the teachers did.

To further illustrate how an emphasis on management and control in formal schooling is often disconnected with the natural learning of children, I will give another example. During the first week of September there was a specific incident involving Highland Park Elementary School's hallway expectations and a student verbally expressing a natural concern. This female student, Shannon, was the last one out of our classroom on this particular day, and she had turned off the light and closed the door. The door was locked when she closed it. Classroom doors are supposed to be locked when classes are not in them in order to ensure safety and security. After closing the locked door, Shannon realized that she had accidentally left her homework folder in the room. She yelled this down the hallway. An assistant in the hall immediately redirected her not to talk in the hall, and this redirection prompted a disrespectful response from Shannon. She was expressing a need to take her homework folder home as I had instructed the class to do daily. If she had followed the hallway expectations of no talking, she would not have gotten in trouble at that moment, but she would not have been able to complete her homework. The school rules emphasizing management and control were incongruent with her needs and concerns in that situation.

At the beginning of the school year, as in previous school years, we were also expected to teach students the specific guidelines for lunchroom behavior through modeling and guided discovery. The cafeteria guidelines were very detailed and were practiced multiple times. Students were supposed to line up and enter the cafeteria in a quiet line, one behind the other. They were then instructed to go into the restrooms where they followed more guidelines for restroom procedures. After that, they were supposed to walk to their assigned seat at their assigned table where they were asked to sit silently until their table was called to go through the cafeteria line. Students who were excitedly talking with their classmates or hurrying to get in the lunch line were redirected to follow cafeteria procedures. Once students were through the cafeteria line, they were supposed to eat quickly and quietly. The entire second and third grade lunch period lasted twenty minutes. Students were very involved in social learning situations during lunchtime, and it was difficult to enforce these cafeteria guidelines.

As the year progressed, routines, requirements, and controlled structure continued to dominate our daily educational experiences. Teachers commented throughout the school year about experiencing difficulty with students not following behavior guidelines. Students were often redirected to stop talking to their classmates, stay on task, or walk correctly in the hallways. These are examples of students interacting and playing in connection with their natural modes of learning; however, these behaviors did not fit within the school expectations. At times, it felt as if our purpose as teachers was to ensure that students were

constantly managed and under teacher control as opposed to our purpose being to ensure that each student was learning.

Emphasis on Content

Another major category of factors contributing to the incongruence between natural learning of children and formal education in my particular school setting was that of an emphasis on curriculum and content instead of human needs and relationships. While the focus was placed on addressing specific content objectives and curriculum goals, the human needs that went unmet included those of not only students but also those of teachers. I will begin this section with a discussion of unmet student needs and how they were impacted or placed in the background while an emphasis on curriculum took the forefront.

Even before the first day of the new school year began, I was overcome with an abundant amount of information and perspectives on certain students in my new third grade class. I received information and concerns from these students' previous teachers and from administration. Conceptions of these students were beginning to be formed even before they entered my classroom door, and the conversations focused on how we could get all of our students to learn the curriculum in spite of challenges they might have been facing on a daily basis.

Teachers and administrative staff met together several times before the school year began in order to discuss concerns of students' learning abilities, home lives, academic achievement, and school behaviors. I was notified of students who had Individualized Education Plans and other special services. Students with poor

school behavior in previous years were discussed more than others. Much attention was also given to students who had low academic achievement according to standardized test scores and other formal and informal assessments.

I was conflicted and uneasy about receiving some of this information. I wanted to have the knowledge and understanding of these students' lives and educational needs in order to help them get the most out of our educational year together, but I did not want any information I received to hinder my expectations of them or our experiences together. I wanted the students to be allowed a fresh opportunity to form their own identity and to reach for their highest expectations.

To deal with this internal conflict of wanting to know information about students that would help me provide them with the best educational experiences that I could but not wanting to have detrimental perceptions and low expectations, I tried to take in information that I deemed most important and set aside other perceptions. I tried to start the school year with the most positive attitude for all students. The first few weeks of the school year were exciting, engaging, and energetic for me and the students.

After the initial romance period (Whitehead, 1929), the struggles began to rise to the surface in our new class. One particular female student in my class, Catherine, did not return with her homework for several days in a row. This situation resulted in us working on it together during her other class time, her computer lab time, or her recess time. It was not pleasant or easy for the student or the teacher. It took time away from other students and Catherine's other school

work and learning opportunities. I contacted her parent to express my concerns and ask for support and assistance in getting Catherine to complete her homework assignments. For a couple weeks after I made that contact, Catherine's homework came back partially or incorrectly completed. After several days, I learned that this eight year-old female student had been responsible for taking care of her younger siblings in the evenings while her parent was at work. It was difficult for her to complete her homework when she was expected to play the role of the parent at home. There was an imbalance between her needs, her family needs, and school curriculum requirements.

This individual student (and others with similar home lives) continued to struggle to make it through the required curriculum of the school year. The stress of it all had a detrimental impact on Catherine's attitude and behavior. She was often angry with other students and teachers. She talked out disruptively during class discussions and lessons. She displayed dramatic physical gestures of frustration, anger, or disappointment by throwing her books down, sitting under her desk, or making loud noises during class. These actions took a large quantity of time away from the curriculum and the other students.

One day in April 2008, Catherine was extremely upset as she entered the school building. I approached her, attempting to discover what was wrong, so that I could help her start off the day positively. She was hanging her head down continually and finally told me that she did not get to eat breakfast this morning because she had to get her little sister ready for daycare. She did not get to eat

breakfast at school because her mother was running late, and breakfast was closed

by the time she arrived at school. Meanwhile, I was thinking that it was no wonder

that she was particularly upset on this morning. It must have been difficult for

Catherine to think about finding the volume of cubic diagrams in math when she

had not eaten any breakfast. I quickly found her some crackers in our snack bin,

and asked her to go take a break with the counselor while she calmed down and ate

something.

Events like this happened all year. Catherine was not the only student who

arrived daily without having eaten any breakfast. Everyday, students came into my

classroom without enough sleep, nourishment, support, or positive interaction.

Without these basic needs being met, the required third grade curriculum seemed

meaningless in comparison to their life outside of school.

How difficult must it have been to think about completing a reading or math

assignment when basic needs were not being met at home? Some of my students

were experiencing very significant challenges before they even arrived at school.

For example, one morning a female student told me she could not take a shower or

a bath because her water had been shut off for four days. I can imagine that it must

have been extremely difficult for my students to concentrate on their school work

when they were experiencing such challenging events at home like when Kari told

me she had to walk to a friend's house the previous night to get a bucket of water to

fill up her family's toilet. Through this study, I found that the instances of unmet

needs at home were a common starting point of most struggles and incongruence between the students' learning and their formal education.

My students whose needs were met at home participated more actively in learning at school. The basic human needs and relationships were already in place so that these students were involved in a more natural learning process. Students whose needs were not met at home needed for those basics and those relationships to be built up before they could focus on the school curriculum. However, formal education often placed emphasis on the content and the curriculum rather than on addressing needs and building relationships.

Unmet student needs existed not only at home, but also at school. There was a wide diversity of learning styles, ability levels, academic achievement, and interests in my third grade class. This diversity was part of what made our time together so educational. We learned a lot from the different perspectives, experiences and talents within our classroom. However, the emphasis placed on teaching specified curriculum also contributed to some of the students' diverse educational needs getting pushed to the side.

This particular third grade classroom consisted of a wide range of students identified as gifted and talented, learning disabled, or other health impaired. I have my own personal concerns about these labels, but it is a fact that great diversity existed among their learning styles, ability levels, and academic achievement. It was my job to make sure that they all learned the same third grade standardized state-mandated objectives. With such a diverse group of learners, it was often

difficult to find ways to achieve this, especially when taking into consideration everything else that was going on at their homes and in our school setting.

Unfortunately, the pressures and routines of formal education tended to create unmet educational needs for each type of learner. The students with learning disabilities or those who were struggling behaviorally and academically fell behind quickly, and they never seemed to catch up with the curriculum. They were continually struggling to make sense of it all. Those students with high ability levels and high academic achievement caught on to the curriculum so quickly that they often became bored and frustrated with other students not understanding. The students whose ability and achievement fell in the middle range usually did well with the curriculum, but they often seemed to go unnoticed in the overall setting.

In an informal interview with a very high ability level female student, Elise, we discussed how she felt that she learned the best. She replied that she felt she learned the best from independent work. She commented, "I don't like working with a group because we go slower." Another student in my class with a high ability level and high academic achievement shared a similar opinion. When asked what classroom assignments he thought he learned the most from, Nathan replied, "I learn the most from independent work in math. It helps because I can move faster." Among these students, there were feelings of the curriculum and instruction going too slowly. They felt that they could have been learning more if they were working on their own, but they felt as if the other students in the class

were holding them back. These feelings of resentment and frustration towards other students were not ones that I wished to foster in our classroom community.

The students who had ability and achievement levels that fell in the middle range often just flowed along with the curriculum as best as they could. They also embodied a diverse range of learning styles, talents, and interests. In informal interviews with these students, they displayed a wide variety of activities they enjoyed and ways that they felt they learned the best. Some expressed that they felt they learned best independently while others thought that they learned best with a partner or a small group. Activities they enjoyed the most ranged from math, science, or reading lessons to free choice time, recess, lunch, P.E., or music. Unfortunately, since these students did not require as much individual attention academically, they often just went through the motions somewhat unnoticed at times.

Despite students expressing and experiencing these unmet needs, teacher inservices and faculty meetings still revolved around how to best teach the curriculum as opposed to how to meet students' needs and build meaningful relationships. There were instances when teachers and students in our school specifically focused on addressing student needs and building relationships. However, the emphasis on curriculum dominated our everyday classroom lessons and routines.

Although strategies were attempted to attend to unmet student needs at home and at school, struggles still existed daily. Students seemed to work best

when a variety of types of activities were incorporated. We worked in multiple

settings within our classroom including individual work, partner work, small group

work, whole class discussion, floor work, desk work, etc. I also found that the

variation in activity usually helped the flow of the day. Scheduling a rotation of

quiet working time and more active and interactive working time seemed beneficial

to most. It was still difficult to meet the needs of all of the students.

In connection with unmet student needs contributing to the incongruence

between natural learning and formal schooling in my educational setting, there

were also unmet teacher needs that contributed to the incongruence. The unmet

needs of teachers included lack of resources, lack of support, and lack of time. The

requirements for curriculum put on teachers by the school, the district, and the

state, made it very challenging for teachers' needs to be met in order for them to be

able to focus on the individual and social needs of the students.

Lack of resources for teachers in our particular school setting was often in

regards to technology. There were no televisions, VCRs, or DVD players in our

classrooms. We had to check out a cart from the library/media center and roll it to

our classrooms in order to watch an educational video clip. This took time that was

already very limited in the everyday routine. The result was that these resources

were seldom utilized in the classroom.

There were often resources that were provided to us with the expectation

that we would utilize them in our everyday curriculum, but we were not provided

the classroom technology in order to make that possible. For example, we were

given internet resources such as educational video sites to watch with our class, educational games online, CDs to project graphic organizers and charts on the board for instructional purposes. However, there were not projectors in the classrooms in my particular school setting, and there was only one working student computer in our third grade classroom. In order to use a projector to support lessons in class, I would have had to check out the one projector that was available for teacher checkout, roll it to my classroom, and set it up for use with my students. This was not practical in my already limited time in order to have a brief video or visual to enhance my curriculum and instruction.

Although it was often frustrating to know that a lack of resources did not readily allow for the use of potentially exciting and interesting curricular tools, I found that this was not the strongest unmet teacher need contributing to the incongruence between natural learning and formal education. I was still able to teach required lessons and work well with my students. However, knowing that resources could have enhanced our curriculum (when so much emphasis was placed on curriculum) makes it notable as a contributing component.

In addition to a lack of resources, unmet teacher needs included a lack of support in order to reach curricular goals. Attempts to provide support included assistants for special needs students during certain class times, resource teachers, and math and reading specialists. Student information meetings were scheduled twice during the school year. These meetings were intended to serve the purpose of teachers collaborating with the principal, the counselor, and resource teachers in

order to share information and build support for teachers and students. However, the follow-up to these meetings was minimal and challenging. Specialists and resource teachers had difficulty maintaining their schedules, which made it even more difficult for regular classroom teachers to meet the needs of all of the students.

Lack of support also came in the form of increased requirements on regular classroom teachers' time and curriculum. There were new introductions to the curriculum from the district this year as in previous years. There were new tests and testing programs, new forms, and new curriculum designed to improve test scores. The focus was placed on giving us new tools and requirements instead of giving us the support that we needed to make the most out of our students' educational experiences.

These unmet needs of students and teachers were all interconnected. They had a reciprocal relationship in which they affected each other on a daily basis. In my particular school setting, the emphasis placed on curriculum and content as opposed to needs of students and teachers was a major contributing factor to the disconnection between natural learning and formal education. This factor was also interrelated to other major contributing factors to the problem of educational incongruence.

<div align="center">**Emphasis on Completion**</div>

The first few weeks of school were full of excitement, energy, and passion for learning. My students and I were building relationships and enthusiastically

diving into our curriculum. Observing my classroom during these first weeks of the new school year, I could see the students were happy to be there. They seemed to be having fun getting to know their teacher and building relationships with each other. One student named Rebekah commented on the first day of school, "I really wanted to be in your class!" After the fourth day of school, another student, Matthew, enthusiastically commented, "I had a lot of fun in math today!" This was the romance stage of learning (Whitehead, 1929) for us. Everything seemed interesting and new. Students were actively engaged in classroom activities, and positive and excited attitudes dominated our time together during the first few weeks of the new school year. However, as the school year progressed and the assessments began, that romance began to fade.

My students and I began to feel the pressures of requirements of coverage and completion of the curriculum and the lack of time to reach these goals. The curriculum, instead of the students' interests and educational needs, became the driving force behind our experiences together. There was little time for branching out to discover a topic that a student was curious in exploring. One male student, Jerry, was very interested in architecture, and he asked several times throughout the school year when we might be able to learn about architecture. I attempted to make connections to architecture when I could because I could see the excitement it sparked in Jerry's learning. I tried to incorporate student interests into our required curriculum as much as possible, but it was often very difficult considering the ever-

present reminder that state-mandated tests were coming, and the curriculum needed to be completed in time.

It became increasingly difficult to regain the romance and the excitement of learning within these parameters. There were times when I could spark enthusiasm among my students within the curriculum, but through this study, I found that those instances were far too seldom.

Lack of the romance of learning (Whitehead, 1929) as a result of the emphasis on coverage and completion of the curriculum could also be found among teachers as the school year progressed. There was a certain feeling of excitement and energy that could be felt at the beginning of the school year among teachers, too. However, there was also a feeling of anxiety that could be felt as the winter break approached. One could hear teachers commenting about how many days were left until break. One faculty member drew a picture with a countdown of the days until winter break on the dry-erase board in the teacher's lounge. The excitement among teachers had turned into exhaustion and stress.

Throughout the third quarter of the school year and into the fourth quarter, stress and tension dominated the feelings of our teachers. We felt the pressures of accountability and state-mandated tests looming over us. It was difficult for us to find the time to incorporate those experiences that made our curriculum more exciting and more meaningful for us and our students. The disconnection between what we knew our students needed or wanted to learn and what they were required to perform on assessments grew stronger.

Immediately following spring break, the third, fourth, and fifth grade students began meeting in small groups called "Math Squads" for thirty minutes to an hour at least three times per week. The small groups were taught by classroom teachers and other school personnel. The sole purpose of these groups was to prepare these students for the mathematics portion of the CRT by ensuring coverage of curriculum objectives. Each student was given a folder containing a packet of hundreds of math questions. These questions were created in the exact format of the test item specifications and sample questions provide on the State Department of Education's website. There were four versions of each type of question. There was intense pressure to cover all of these questions before testing began, and some Math Squads had to meet every school day during the last two weeks before testing in order to complete the test preparation packet. Time spent on test preparation and these Math Squads further took away from the classroom time available to address interests, curiosities, and needs of the students.

Emphasis was also placed on covering all of the reading and language arts objectives before standardized testing began. Students also met in small "Reading Squads" for thirty minutes to an hour on at least four days out of the week. These Reading Squads centered around preparing students to score well on the reading portion of the CRT. Students worked in small groups led by a classroom teacher or other school personnel. In these groups, students worked through a reading test preparation booklet that had been purchased by the school. The test preparation booklet introduced specific reading objectives and then provided sample multiple-

choice test questions for students to answer. As the testing window grew closer, the amount of instructional time spent in these Reading Squads increased, and consequently, the amount of time available for addressing student interests and needs decreased.

Emphasis on completing and covering the specified curriculum for each grade level could also be seen through test preparation taking place in addition to Math Squads and Reading Squads. Some classroom teachers utilized transparencies and overhead projectors in order to review more sample test questions. Students and teachers in third through fifth grade also completed a test preparation booklet provided through the State Department of Education. This booklet was then sent home for parents to review with their children.

In addition to pressures of covering the curriculum objectives before state testing, teachers also felt pressures to complete specific units in math and science according to district timelines. An intermediate teacher commented in April, "We never get to our last math unit." On another afternoon in April, my cooperating third grade teacher and I were discussing the little time that we had left in order to complete the current science unit before the critters came for our next unit. The time spent preparing for state-mandated tests had left us behind on our required district curriculum timelines. It seemed as if we were always behind and always trying to catch up to where we were required to be in our coverage of the curriculum. I heard daily comments in the teachers' lounge, in the hallways, and in meetings on teachers' feelings of never having enough time to complete the

curriculum. This meant having even less time for addressing students' interests and needs. The incongruence between the routines, requirements, and structure of formal schooling and the natural learning of children increased with pressures to cover and complete the curriculum.

In sum, it seemed that there were four major categories of factors that contributed to incongruence between natural student learning and formal education in my particular school setting. These four major categories of factors include emphasis on accountability, emphasis on management/control, emphasis on curriculum/content (as opposed to unmet needs of students and teachers), and emphasis on coverage/completion of curriculum (as opposed to romance and opportunities for deep learning). Examples of these factors included an emphasis on standardized testing and numerical scores while some students were struggling to get to school each day because of lack of sleep or everyday basic needs. Other examples included focusing on student obtainment of specific curriculum objectives and skills while excitement, interest, and the romance of learning were lost in the routine.

Accountability factors included focusing on standardized test scores and test preparation. Manifestations of management and control included stressing certain routines, procedures, rules, and limitations. Contributing factors included a placement of priority on the curriculum as opposed to meeting the needs of people. Pressures of coverage/completion of the curriculum prevented romance and opportunity for deep learning through quick, shallow, and structured coverage of

topics in order to touch upon all of the objectives and components of a required curriculum.

All of these factors of incongruence came together to where the vision of our purpose of education became blurred. They all interrelated and overlapped in our everyday school setting creating disconnection and incongruence between formal education and the natural learning of children. These contributing factors were also interconnected with larger problems in society that should be considered and addressed. These factors were part of a larger historical and social situation in which modernity, domination, and oppression resound.

Teachers' Responses to Educational Incongruence

Thus far, the findings suggest that there was incongruence between formal education and natural learning of children at Highland Park Elementary and that there were at least four factors that contributed to the incongruence. These factors included emphasis on accountability, emphasis on management and control, emphasis on curriculum, and emphasis on completion of the curriculum. This prompts another question. How have teachers at Highland Park Elementary responded to these factors of incongruence?

The data suggest that many teachers in my particular educational setting were at least tacitly aware of a disconnection between the requirements, structures, and routines of formal education and the way children naturally learn. These teachers also seemed to be aware of how they unfortunately contributed to this incongruence. One example of this awareness can be seen through comments made

by teachers regarding standardized testing preparations and how so much time was spent on test preparation that there was a conflict with making learning interesting and meaningful for the students. An intermediate teacher casually commented during a faculty meeting in late March that she did not have any time for fun and interesting activities because they were spending so much time getting ready for the CRT (Criterion Referenced Test). Throughout the school year, many intermediate teachers expressed that they knew these test preparation activities were not the most meaningful and exciting learning activities for students or themselves; however they felt required to focus their classroom time on test preparation because of pressures of accountability.

Thus, the findings of this study suggest that many teachers at Highland Park Elementary had at least an implicit awareness of a disconnection and a tension between formal education and the natural learning of children. How did teachers at Highland Park Elementary respond to this disconnection?

Although there were a variety of ways that teachers responded to the educational incongruence in this particular setting, it seemed that there were two common types of responses. These responses involved teachers questioning and critiquing aspects of formal education and teachers working to build community and relationships. In this section, I will discuss some examples of these types of teacher responses in turn.

Many of the ways in which teachers and students at Highland Park Elementary responded to the disconnection between formal education and natural

learning was through questioning and critiquing formal education. Many teachers

questioned the requirements and routines of formal education and how they fit with

the students' educational needs. Teachers and students responded to the

incongruence even if they were not explicitly aware of it. There was a sense of

awareness that there was a problem of incongruence, and many teachers questioned

the source of the incongruence and the results.

An example of how teachers responded to educational incongruence

through questioning was expressed through repeated teacher comments regarding

basic human needs of students not being met. Teachers at Highland Park

Elementary would often make statements such as, "I am surprised that Hannah can

focus on any school work considering her home life." Another teacher commented

in late October, "Johnny was so disruptive this morning during our morning

routines and bell work, but I found out later that he was mad because he woke up

late and didn't get to eat breakfast." Teachers understood the disconnection

between formal schooling and what the students naturally needed in order to have a

meaningful learning experience.

Teachers also responded to the educational incongruence by questioning

curriculum requirements. After school one day in November, a teacher expressed

her frustration of her students not being interested in or understanding the math

lesson. She noted, "My students had horrible behavior during math today. They

were playing with their erasers, and talking, and had no clue what we were doing in

math." Many teachers commented at the end of the school day about student

behavior and how students did not understand certain curriculum concepts that they were required to teach for that grade level according to state-mandated curriculum objectives.

Examples of teacher responses to the disconnection between formal education and natural learning of children include how teachers questioned the addition of new programs/resources, focused on improving what was already in place, questioned what was expected and what was needed, and did what felt most meaningful despite testing and curriculum pressures. There were many instances of teachers questioning what was happening in their classrooms and at Highland Park Elementary in general. Although multiple examples could be given, I will discuss a few illustrative examples of teacher responses from the data collected.

One example of teachers responding to disconnection between formal education and natural learning involved questioning what was most meaningful in our classrooms. An intermediate teacher expressed a critique of a new program that was introduced at Highland Park Elementary at the beginning of the school year. During a faculty meeting where a new element of this program was being introduced, she pointed out, "I see a lot of similarities between this program and what we are already doing through Responsive Classroom. Is there some reason that we are trying to bring in something new?" Immediately following this question, I could feel the tension in the room. The room became silent, and I noticed teachers looking down at their paperwork and tables. This teacher had asked a question that other teachers seemed to have considered as well, but they did

not ask it. The question pointed out a feeling of being overwhelmed with always trying to incorporate new things instead of improving what we are already doing.

Another example of questioning formal education was found among third grade teachers. My co-teacher and I questioned the full-on implementation of new programs for the school year during our time spent planning together. We picked ideas, activities, and strategies out of these new programs that we found useful, but we did not merely replace what we were already doing well with the new program or product. We looked at and discussed our areas of need and searched for ideas that supported these needs.

One example of questioning full-on implementation of new curriculum programs involved the new elementary social studies curriculum that was introduced that school year. Second through fifth grade teachers in the district attended a mandatory half-day inservice training session at the beginning of the school year to review the components of the new social studies textbook curriculum. Each teacher was given an overwhelming amount of teacher's guides and various materials all combined into a cart with wheels. We were also shipped another box of supplementary materials following the training. During the training, we were given sticky notes and instructed to place them on certain pages throughout the teacher's guides in order to find all of the various components of the curriculum. My co-teacher and I took some things from this curriculum that we thought might be useful, but we were not going to replace everything that we were already doing with this new textbook curriculum.

However, we were both veteran teachers, and we were both confident in our practice. One might wonder how first or second year teachers might have responded to this barrage of new information and expectations. One might also wonder what the thinking process is at the district, state, and national levels which continue to add multiple new requirements and programs without reconciling them with prior requirements and programs. What is the rationale for adding rather than refining or reducing?

Another category of ways in which teachers at Highland Park Elementary responded to factors that contributed to the incongruence between formal education and natural learning was through focusing on building community and relationships. Some examples of these responses include community-building activities, class morning meetings, class goals formed around combining individual hopes and dreams, and Responsive Classroom components. Teacher responses also focused on accentuating holistic rather than mechanistic goals and approaches.

One particularly notable example of teachers responding to the disconnection between formal education and natural learning of children through building community and relationships was the existence of daily classroom morning meetings at Highland Park Elementary. Each homeroom classroom started the school day with a class morning meeting. These meetings took place in a circle formation around a blue circle-shaped rug. Students and teachers participated in a greeting, interacted with a chart that connected to the curriculum,

shared personal stories, and had fun together in a community-building activity during these morning meetings.

It is important to note that this idea for morning meetings came from a Responsive Classroom workshop that several teachers had attended in previous years. These morning meetings provided opportunities for teachers to devote a certain amount of time each day on social needs and learning instead of accountability, relationships instead of merely routines and control, community instead of mere content, and enthusiasm mixed with fun instead of mere completion of curriculum.

Another example of how teachers at Highland Park Elementary responded to disconnection between formal education and the way children naturally learn was the way in which teachers joined together with other classroom teachers to discuss what was working and what was not working in their own classroom setting. For example, my fellow third grade teacher and I would often meet together after school to discuss the lessons and activities that we did that day or that we had planned for the week. We shared ideas of activities that worked well with our students and discussed possibilities for reteaching concepts that were difficult for students to understand. We would share ideas for increasing student involvement and interest in our required curriculum.

These conversations among teachers occurred informally on a daily basis in the teachers' lounge, in the hallways, and after school. Teachers would sometimes only discuss their concerns with other teachers of the same grade level, or

sometimes they would discuss their concerns with teachers across multiple grade levels. These discussions were responses that could be heard daily to teachers' awareness of some sort of disconnection between what they were required to teach and do daily in their classrooms and what they thought to be a meaningful education for children.

Teachers also joined together with students in response to a sense of incongruence between formal education and the ways children naturally learn. Examples of building community and relationships could be seen through teachers dialoguing with students about learning experiences and offering choice in academic assignments. In my classroom, I asked students to share their thoughts and feelings on assignments daily during small group activities and class discussions. I also provided choices based on student suggestions for daily assignments. Other teachers at Highland Park Elementary shared similar practices during weekly faculty meetings. These opportunities allowed teachers to focus on what they felt was a more meaningful educational experience according to the way children naturally learn.

Thus, these findings suggest that teachers were at least implicitly aware of a disconnection between formal education and natural learning. Teachers responded to this incongruence in a variety of ways. These responses seemed to focus on questioning and critiquing requirements and aspects of formal education along with joining together while focusing on building community and relationships.

In this chapter, I have presented that the findings of this study suggest that four main categories of factors contributed to the incongruence between formal education and natural learning of children at Highland Park Elementary. These four contributing factors include: emphasis on accountability, emphasis on management and control, emphasis on curriculum, and emphasis on completion of curriculum. This chapter also discussed the findings of how teachers responded to this incongruence. In the next chapter, I will present an analysis of these findings along with implications for education in general.

CHAPTER FIVE

ANALYSIS OF FINDINGS AND IMPLICATIONS

FOR THEORY AND PRACTICE

Analysis of Findings

In this study, the findings suggest that a variety of factors contributed to educational incongruence between formal schooling and the natural learning of children. At Highland Park Elementary, these factors included emphasis on accountability, emphasis on management and control, emphasis on content and curriculum, and emphasis on coverage and completion of curriculum. The study also looked at how teachers responded to educational incongruence in this setting. The findings indicate that several teachers were at least implicitly aware of this disconnection yet sometimes perpetuated it despite their awareness. The study also found that teachers responded to educational incongruence in a variety of ways that focused on questioning aspects of formal schooling while working to build community and relationships. What is the underlying nature of this problem? How can we begin to understand these findings? What would lead caring teachers to practice teaching in a way that was incongruent with natural learning of children?

There are many ways to analyze these findings; however, a Freirian theoretical lens and dynamic systems thinking seem particularly promising. Paulo Freire (1970) might explain educational incongruence between formal schooling and natural learning through theories of oppression in society and in formal education. Among other things, these theories relate to oppression of school

personnel and students. Freire suggests that systems of oppression exist in society that work to dominate and silence the disempowered majority. In this study, both students and school personnel could be viewed as oppressed.

Focusing on the emphasis on accountability, Freire might view the teachers as being silenced and oppressed in the sense that they were being told what to teach, how to teach it, and within what time frame, without real opportunity to respond to these demands. Freire might consider this situation a perpetuation of antidialogical action. In many cases, opportunities for true dialogue did not exist. However, school personnel were still held accountable for teaching the required objectives through standardized test scores. Students were also held accountable through specific testing requirements that fit within a specified realm of what they were supposed to learn at that grade level and age according to state and district objectives again without adequate opportunities to respond. Here again, Freire might consider this relation antidialogical, and thus oppressive, in nature.

Systems theorists might explain the emphasis on accountability in formal education in terms of the fragmented and mechanistic worldview that dominates our society. Capra (1996) presents the idea that society is operating under a crisis of perception. We are viewing a holistic world in terms of parts and pieces as opposed to interconnected relationships. Capra argues that our perceptions of reality are out of balance and dominated by a fragmented and mechanistic worldview. Systems thinkers such as Capra might explain the emphasis on

accountability as an example of the perpetuation of mechanistic thinking operating within formal education.

A Freirian perspective can also shed light on the emphasis on management and control. Freire argues that systems of oppression are perpetuated through antidialogics, which utilizes conquest, manipulation, cultural invasion, and the concept of divide and rule in order to prevent true dialogue. Antidialogics silence the oppressed by preventing them from having a voice and engaging in true dialogue. The oppressors reduce the oppressed to the status of things, not allowed to think and act for themselves. The oppressed are viewed as passive objects who need to be conquered and divided in order for the oppressor to maintain their power.

From a Freirian perspective, the emphasis on management and control at Highland Park Elementary could be viewed as a silencing of school personnel from outside structures and expectations. For example, the behavior management committee that existed at Highland Park Elementary was created as a result of a behavior intervention program introduced to the district and adopted by several schools. The ideas presented by the committee came from this outside program. School personnel were told how to promote positive behavior and the structures that needed to be in place in order to reduce negative behaviors. Freire (1970) might consider this to be a system of oppression in operation. He might say that school personnel were seen as needing help from outside the school and were also managed and controlled through the introduction of this program. From this

perspective, school personnel could be viewed as having been silenced and prevented from engaging in true dialogue about their own ideas for promoting positive student behavior within our school.

Freire (1970) might also consider the emphasis on management and control as a system of oppression for students. For example, having strict and set guidelines for how to walk down the hallways, how to use the restroom facilities, and how to behave in the cafeteria and at recess could be seen as means of control, division, and rule. Students were not encouraged to learn or think for themselves about how to act and interact within these various school settings. In fact, at times they were not allowed to interact, such as when walking down the hallways or during dismissal. These were some of the few times in which students from different classes and grade levels might be able to interact, yet there were rules and guidelines limiting that interaction. Freire might consider these guidelines and limitations as yet another form of keeping the oppressed, in this case the students, divided, conquered, and controlled. Through such emphasis on management and control, students were also, in a sense, discouraged from engaging in true dialogue.

Systems thinking might provide further insight into the problem. Systems theorists might argue that the emphasis on management and control as it existed at Highland Park Elementary and schools in general is yet another manifestation of the crisis of perception (Capra, 1996). The mechanistic worldview under which society operates is being perpetuated in schools through significant emphasis on managing and controlling student behavior. The problem here is that students were

seldom encouraged to think for themselves about appropriate and responsible ways to act. Instead, teachers and administrators broke down acceptable behaviors into precise pieces and parts. Students at Highland Park Elementary were expected to follow lists of behavior expectations for multiple locations throughout the school.

Systems theorists like Capra (1996) might argue that when it comes to managing and controlling student behavior in formal education, students are not allowed to experience learning opportunities that come from disequilibrium or perturbation. Activities, discussions, or lessons that require students to think about things differently than they have before might create the need for adaptation of their previously existing knowledge or experiences. These experiences that disturb or create a sense of disequilibrium are essential to growth and change. Dynamic change is also essential to life. If students were always told what to do, how to do it, and what not to do, there would be little opportunity for adapting, growing, and changing. Having strict fragmented guidelines for behavior coming from someone else entirely also does not encourage growth and understanding through a holistic perception and understanding.

Analyzing the emphasis on content and curriculum through Freire's (1970) theories of oppression might lead to further understanding. Teachers at Highland Park Elementary, as teachers in general, were required to teach certain curriculum content and objectives in specified subject areas and grade levels as required by the school district curriculum and state curriculum objectives. Freire might argue that

these curriculum requirements may actually help oppress the school personnel and teachers in particular.

Teachers are frequently told by outside sources what to teach and when to teach it. They are also given specific curriculum programs that designate how they are supposed to teach the curriculum. These curriculum programs often include multiple teacher's guides, resources, and often scripts for teachers to use in their lessons. These specific curriculum requirements serve to oppress teachers into the role of passive objects. Teachers are left with a feeling of disempowerment and domination. Freire might argue that these teachers are being kept from their natural vocation in life towards becoming active subjects and thus more fully human.

Freire's (1970) banking metaphor for education can provide further insight into the emphasis on content and curriculum when we consider the how it perpetuates the incongruence between formal education and natural learning. Freire argues that education perpetuates systems of oppression through what he calls a banking metaphor for education in which curriculum content is deposited into the students. Students become the "receptacles" or "containers" that are filled by the content deposited from the teacher. At Highland Park Elementary, students were often presented with curriculum in abstract "deposits" outside of personal connections to their experiences. Freire would argue that the more students work to store the curriculum deposits, the less likely they are to engage in critical consciousness and an active role in their reality. Thus, students at Highland Park Elementary and schools in general continue to operate as passive objects in the

reality that is imposed on them through the banking approach to education. Interestingly, teachers in my setting also often received this form of banking education in workshops, staff meeting, and program training sessions.

Dynamic systems thinking can lead to further insight of the problem of incongruence between formal education and natural learning as it is perpetuated through fragmentation of curriculum objectives among subject areas and grade levels. Systems theorists might explain such emphasis on curriculum and content as another example of the crisis of perception as it is perpetuated in formal education. A mechanistic worldview is at work when concepts and ideas are broken down into small pieces and parts to be taught separated out from one another. Teachers are presented with booklets and documents of curriculum objectives broken down and listed. There is a lack of a holistic view of the essence and purpose behind the curriculum. Systems thinkers might argue that the purpose of education is lost in the mechanistic view of the curriculum when considering that the whole of education is much more than the sum of its parts.

Considering the fourth factor of emphasis on coverage and completion of curriculum through the theoretical lens of Freire's (1970) ideas of oppression can lead us to further insight into the problem of incongruence between formal education and natural learning. Freire might argue that the emphasis placed on coverage of the curriculum within a specified amount of time further perpetuates the domination of the oppressors. At Highland Park Elementary, teachers and school personnel felt overwhelmed by the amount of curriculum concepts and

programs that they were supposed to teach within a specified amount of time.

Teachers were often commenting on how they felt that there was never enough

time to cover the curriculum in the classroom. Freire might argue that these

feelings are the results of school personnel being oppressed into passive objects

attempting to meet the curriculum and time requirements forced upon them.

Freire (1970) might suggest a similar argument for the oppression of

students through emphasis on coverage and completion of the curriculum. What

effects do pressures to cover significant amounts of curriculum objectives in

limited time periods have on students? Freire might argue that these pressures are

another factor of reducing students to passive objects or "receptacles" of

information through the banking approach to education. At Highland Park

Elementary, students began to lose their sense of excitement, enthusiasm, and

romance (Whitehead, 1929) for learning as the school year progressed and

pressures increased to cover the curriculum before state-mandated testing took

place. Freire might see this as students lacking freedom to be active subjects in

their own learning. There was little opportunity for students to explore their own

interests and curiosities.

Systems theorists might explain the emphasis on coverage and completion

of curriculum as another aspect of the dominant mechanistic worldview. The focus

on covering all of the pieces and parts of the curriculum within a specified amount

of time is another manifestation of the perception of fragmentation. If the

curriculum covered within a school grade level was looked at more holistically,

perhaps it would allow for more depth of learning overarching concepts as opposed to memorizing specific parts at the surface level.

Teachers as well as students are affected by what systems theorists might consider a mechanistic perception of covering the curriculum. Teachers at Highland Park Elementary were counting down the days until winter break and spring break. The stress and tension among teachers could be felt as early April and state testing grew closer. School days revolved around attempts at ensuring that all curriculum topics that might be tested were covered and reviewed. Systems theorists might argue that this pressure and tension was a result of a mechanistic worldview that focused on fragmented parts as opposed to holistic interconnections.

Systems theorists might argue that a mechanistic worldview leads to students becoming lost and disinterested in the curriculum. Pressures to cover the curriculum at Highland Park Elementary meant that the curriculum was fast-paced and lacked opportunities for "tangents" into curiosities of students. There was little time left for exploring questions and taking part in activities that might have brought a deeper understanding and a spark of enthusiasm into student learning.

How can we further understand how teachers have responded to the incongruence? Perhaps a Freirian theoretical lens of oppression operating in society and being perpetuated through education can provide insight into teachers' responses. Although many teachers at Highland Park Elementary seemed at least implicitly aware of disconnection between formal education and natural learning,

these teachers were not applying their awareness into critically reflecting and acting for change. Freire (1970) might suggest that these teachers were passive objects in the accountability realm being imposed upon them from the outside, as opposed to active subjects engaging in true dialogue and taking cultural action for freedom and more meaningful education.

Teachers were questioning and critiquing the pressures of state-mandated and district-mandated tests within their own classrooms and among other teachers; however, there was little action taken to make any changes to these testing requirements. Teachers were acting as if they did not have a voice in making changes in regard to testing requirements. Frustration towards testing and accountability pressures can be seen through the tension and comments made among teachers throughout the third quarter and into the fourth quarter of the school year. Teachers were expressing their frustration and stress, yet they continued to operate as passive objects within the accountability requirements of formal education.

In light of this analysis of the findings of this study, we can conclude that incongruence existed between formal education and natural learning of children at Highland Park Elementary, and it is likely that this incongruence exists at other schools as well. This incongruence can be further understood through a Freirian theoretical lens and dynamic systems theory.

Where does all of this leave us? What insight can we gain into implications for education in general through looking into the analysis of the factors that

contribute to incongruence between formal education and natural learning of children? What insight can we gain through considering how aware Highland Park Elementary teachers were and how they responded to this problem?

The literature suggests that there is incongruence between formal education and natural learning of children. My own findings indicate that this is true not only in a general sense but in specific classrooms like mine. The analysis further suggests that there are at least two overarching theories through which to consider this incongruence including a Freirian theoretical lens and dynamic systems theory. Freirian concepts of oppression and a banking approach to education along with a lack of dynamic systems thinking play a part in the manifestation and continuation of this incongruence. If this is the case, then one way to approach this problem of incongruence would be to engage in Freirian theories of humanization, dialogical action, critical consciousness raising, and problem-posing education. Another possibility for addressing this problem might be more holistic thinking. This final section will address these two lenses of implications for education.

Implications for Education

The findings of this study show that there is at least some awareness of a disconnection between formal schooling and natural learning of children. However, there is a need for teachers, administrators, and students to take their understanding further into critical consciousness. Freire (1970) argues that people should become aware of their context and environment, become conscious of their perceptions of reality, and reflect critically upon that reality through dialogue with

90

others. Individuals should then take action together to challenge social hierarchies in order to begin to create a more equal and just society. This form of critical consciousness allows individuals and groups to become active subjects in composing their reality.

Through more critical consciousness, school districts, administrators, teachers, and students would be involved in deep questioning and true dialogue with one another in order to work towards a more connected and congruent education. Obviously, this would not be an easy task that would create immediate changes. However, it would be a slow process of transformation that would take place over time. How might we begin to approach the process for raising more critical consciousness?

This study implies that educational incongruence exists not only in the classroom and school setting, but also within the school district. This can be seen through the district curriculum and testing requirements placed upon my school and other schools. Thus, implications for the school district level should also be considered. Promoting critical consciousness at a school district level would require encouraging an environment of questioning and critiquing.   Individuals working at district administrative offices would need to adopt a mindset that accepted and recognized the necessity of hearing the voices and opinions of principals, teachers, and students. Without understanding the importance of true dialogue and challenges and questions that could lead to change, it would be

difficult for school districts to move beyond a hierarchical structure and dominant

mindset that leads to educational incongruence.

What might the promotion of critical consciousness and a move towards

more educational congruence involve at the district level? Raising critical

consciousness at the school district level might involve meetings and opportunities

for teachers and administrators to dialogue with each other regarding curriculum,

testing, and other formal education structures and requirements. Through these

meetings, teachers and administrators would be able to question deeply, reflect, and

act together to work towards creating more congruence and connection between

formal education and natural learning of children.

However, it is important to note that in order for true dialogue to take place

during these meeting opportunities, there will need to be a change in mindset.

People involved throughout the school district, including administrators, teachers,

assistants, parents, and students, will need to adopt a way of thinking that considers

education for social justice. It will be necessary for individuals to have an

awareness of how the system of formal schooling often operates under mechanisms

of fragmentation, domination, and oppression in order to work towards a more

emancipatory form of education. Often silenced voices will need to be heard along

with questions and critiques of the system. These challenges spark the change that

is essential to the move towards creating educational congruence.

Through this study, we can also see that it is important to promote critical

consciousness school wide. At the school level, teachers, principals, and

administrators could set aside meeting time together to discuss concerns, challenges, and successes. These meeting opportunities for dialogue would need to support a culture and attitude of questioning and specifically questioning issues of empowerment of everyone and issues of humanization. Administrators would need to welcome questions from teachers regarding curriculum, testing, and management requirements. Teachers would also need to welcome questions from administrators and other teachers. These meetings would encourage critical reflection and action for positive change.

Obviously, these meeting opportunities that encourage true dialogue among teachers and administrators might be easier said than done. It is important to consider various difficulties that might come with incorporating such meeting times. In a system where teachers are used to keeping relatively oppositional questions and critiques to themselves and their fellow teachers, it will likely take some time for teachers to trust that their concerns are welcomed and wanted to be heard. Thus, relationships of mutual trust and respect will need to be built upon over time.

Due to the requirements and pressures that already dominate the daily work of teachers and administrators, it will also be important to not increase the number of required meetings. As an alternative, teachers and administrators may find it less stressful and more beneficial to utilize time already reserved for meeting in order to question and dialogue about concerns and requirements of formal education. Perhaps meeting time could be more beneficially organized to address

issues of importance within the mindset of promoting critical consciousness among all involved.

If we apply a Freirian theoretical lens to the classroom level and teachers who unfortunately and unintentionally perpetuate educational incongruence, we can see a need for critical consciousness. Teachers and students need to deeply question and reflect upon the incongruence through dialogue. Teachers and students need to become active subjects working together to create a more congruent education. As active subjects, teachers and students can question the factors of emphasis on accountability, management and control, curriculum, and completion of curriculum. Once engaged in critical consciousness, dialogue, and reflection, teachers and students can work together to create educational experiences that more meaningfully fit with the ways children naturally learn.

Raising critical consciousness with students may not be the easiest task considering traditional teacher and student interaction. Teachers will need to adopt a mindset of encouraging questions and critiques from students while openly listening to and considering their concerns. Students may also not be used to engaging in true dialogue with their teachers through years of schooling where they have likely learned that proper student behavior is to listen to the teacher without questioning him or her. Having open discussions and critically reflecting together may need to be prefaced ahead of time, discussing what that might look like and what these conversations might entail. However, it will be important for the teacher to remind students that they would be encouraged to question and critique

things openly. This true dialogue will only be able to take place if relationships of

mutual respect, trust, honesty, care, and cooperation have been built upon over

time.

Throughout this study, the ways in which our particular class responded to

the factors that contribute to educational incongruence included a continual

recognition of the importance of our relationships and openness of dialogue and

interaction. One of the ways that we built our classroom community and

relationships was through our daily morning meetings. Morning meetings are an

excellent opportunity for us to get to know one another, become more comfortable

as a group, and have a positive start to our day.

Opportunities for students and teachers to build relationships that focus on

cooperation instead of domination are essential to true dialogue, critical

consciousness, and thus more congruent educational experiences. Our morning

meetings are just one example of how our particular elementary class attempted to

build these relationships. These meetings allow us to greet each other to start every

day. After our greeting, we work through our class chart that is related to our

curriculum. The chart is interactive, and we discuss it all together as a class. We

have a time for students and teachers to share special stories and events in their

lives during our morning meeting. Our chart also includes news and

announcements for the school day. We end our morning meetings with some type

of community building activity or game. Although theses meetings are a specific

example of how our particular classroom worked for more educational congruence,

we can consider an implication for all classes to create spaces and opportunities for building relationships and community.

After relationships are built and open dialogue is set up as a standard, teachers can work to encourage students to challenge conformity through uncertainty and ambiguity. Incorporating elements of choice and democratic decision making into the curriculum is one way to do this. The findings of this study show that students respond with more interest to assignments and activities when there is an element of choice involved. Sometimes the choice may be within an individual's assignment, for example, at the elementary level the choice may involve how they will practice their spelling words for that week, or what center activities they will do during our reading block. Other times the choice may involve a class vote on a book to read, a unit to focus on next, a class activity to do that day. Students have more ownership in their learning when they have some say in what they are doing, which in turn fits more closely to how people naturally learn.

In my particular classroom setting and in classrooms in general, it is important to promote critical consciousness and self-determination among students. They need to be aware of and questioning the world around them as much as possible. Students need to think critically about what we are doing and why we are doing it. There needs to be encouragement for students to think of multiple possibilities and diverse perspectives. It is important for them to develop self-

determination, where they are expressing the right to participate actively in developing their own education and their own future.

The need to promote critical consciousness and self-determination comes from the findings that students have unmet needs and a lack of romance for their educational experiences due to the various factors of incongruence. Through critical consciousness and self-determination, students can work to question and understand the significance of educational experiences as opportunities for being active subjects in composing their lives. They may also be more aware of and open to discussing personal feelings and ideas for meeting their needs and the needs of others.

Promoting critical consciousness in the classroom will also encourage students to express their curiosities and questions about life which will likely reignite interest in their learning opportunities. Students should play a part in designing the curriculum. Understandably, one curriculum may not please all students, but giving students a say in what curriculum is interesting to them could bring the romance of learning back to life and, in turn, create more congruence between formal education and natural learning.

This study also implies that there is a need to promote more holistic thinking as opposed to mechanistic and fragmented thinking. More holistic thinking, or dynamic systems thinking, should be considered for not only the classroom and school level, but also for the district level. In order for this to occur, there will need to be a shift in perception and mindset. Such a transformation will

be a process that takes place over time; however, we can begin the process through encouraging a more connected perception of education.

One recommendation for working towards a more connected systemic perception of formal education is to open up opportunities and spaces for a new vision to be considered at the district level. Teachers, administrators, and curriculum directors could meet together periodically to discuss a more holistic approach to curriculum requirements. Instead of fragmentation of specific curriculum objectives and specific times that they are required to be taught, perhaps a more holistic perspective of the curriculum could be considered. Teachers and administrators could work together to consider overarching concepts that could be taught, thus allowing for more depth and meaningful learning to occur. This more connected approach to curriculum would allow for more congruence with natural learning.

Promoting more dynamic systems thinking should also be considered for implications at the school level. Again, this will not be an easy task, and it will require a new vision of education that seeks for connections and ways to build upon networks of relationships among individuals and throughout the curriculum. One way to approach more systemic thinking at the school level might be for teachers and principals to devote time during faculty meetings to discuss a more holistic picture of curriculum, testing, and behavior management strategies. This would need to occur within the previously discussed mindset of true dialogue, trust, cooperation, and critical consciousness. It would be beneficial for teachers and

administrators to continually consider big picture questions concerning issues such as the purpose of education and overall goals for students.

Moving beyond the fragmented and mechanistic worldview that traditionally operates within schools and formal schooling in general would allow for educational experiences that are more congruent with the ways in which children naturally learn. Teachers and administrators need to continually reflect on whether the adopted teaching practices and school structures are congruent with the ways in which students naturally learn. Are they meeting the educational needs of the students? Is the curriculum connected to what the students are interested in learning? Does the current pedagogy connect with the learning modes and styles of the students? Questions such as these would allow for teachers and administrators to look more holistically at formal education and how they can create more congruence for the benefit of all students.

A more systemic and holistic approach to education holds implications for the classroom level. Incorporating systems thinking into the classroom would also require teachers and students to adopt a more interconnected perspective of classroom curriculum and experiences. One way this might be sought is through connecting concepts across curriculum areas. This would need to be a more natural form of making connections than a commonly seen integrated theme unit. It would include continual searches for how topics and content interrelate with one another. It would also include meaningful connections to the students' life experiences and events in society.

Freire's (1970) problem-posing education might be a way to approach both the implication for more holistic thinking and critical consciousness in the classroom. This approach would involve identifying real life problems while exploring and dialoguing about them together in order to begin to work towards transforming them. Students would be encouraged to seek connections through discussions, and they would be contributing to a deeper and more holistic understanding among their classmates and their teacher. A problem-posing approach would also contribute to a more systemic perspective of education through helping to break down dichotomies of teachers and students or right and wrong. Through encouraging critical consciousness and systems thinking in the classroom, a problem-posing approach would thus help to create more educational congruence with natural learning.

There is a final question that still needs to be addressed concerning educational incongruence. If significant change is going to take place within the system of formal education, then how will that significant change occur? We have discussed some of the changes in mindset and approaches to work towards connecting formal schooling more with the natural learning of children, and these recommendations would be a wonderful place to start. However, Freire (1970) is really talking about revolution. What would it take to create a "revolution" of our established formal education system? Is there potential for teachers to begin a revolution towards more educational congruence?

Answering these questions depends on what kind of revolution we have in mind. There are several different types of revolution. One definition is a sudden revolution that seeks transformation occurring almost overnight. Actions taken to initiate such a transformation are sometimes violent and sometimes nonviolent. Another possible definition of revolution is a slightly slower process that allows for change to occur widespread but not immediately. Some would say that revolution occurs through a combination of individual acts. However, for our purposes in discussing significant change of our system of formal education, the possibility of concerned people joining together seems the most promising.

Caring and concerned educators will need to come together to raise critical consciousness about educational incongruence within formal schooling if revolution of the system is going to occur. Teachers, administrators, and students will need to engage in new ways of thinking about education. There is a need for collective action to work towards formal education that is more congruent with natural learning. This type of collaborative action within a new mindset of encouraging questioning, connection, and reflective decisions for change may be the only type of viable revolution for creating more educational congruence.

In conclusion, this study has shown that a disconnection exists between formal schooling and the natural learning of children. This educational incongruence is manifested through contributing factors of emphasis on accountability, management and control, content, and completion of curriculum. Teachers have responded to these factors of incongruence in a variety of ways. The

theoretical framework of a Freirian theoretical lens and dynamic systems theory provides insight into implications for education in regards to these contributing factors of incongruence. Educators in general need to consider efforts to move beyond oppression as it is perpetuated in education. There is a need for Freire's ideas of engaging in true dialogue, raising critical consciousness, and incorporating a problem-posing method of education. Systems theory also suggests that a more holistic perception of education would help to connect formal education more with natural learning of children.

The findings of this study imply that it is important as teachers and students that we are not always just coping with or reacting to the situations that we encounter, but it is important that we recognize the situations and work to change them. It is vital that we seek to connect education with the natural learning of children while reinvigorating the excitement and interest in teaching and learning. If we are aware that educational incongruence and disconnection exists, then it is our responsibility as educators to spread the word, raise critical consciousness, seek holistic connections, and work towards transforming education to reach its purpose of creating caring, concerned, and connected citizens.

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