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# PRESCHOOL TEACHERS' EARLY PERCEPTIONS OF EDUCATION FOR SUSTAINABLE DEVELOPMENT IN EARLY CHILDHOOD EDUCATION

Shannon Susan Green
*Southern Illinois University Carbondale*, shannonsgreen@siu.edu

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PRESCHOOL TEACHERS' EARLY PERCEPTIONS

OF EDUCATION FOR SUSTAINABLE DEVELOPMENT

IN EARLY CHILDHOOD EDUCATION


By

Shannon S. Green


B.S., Southern Illinois University, 2001


A Thesis

Submitted in Partial Fulfillment of the Requirements for the

Master of Science in Early Childhood Education


Department of Curriculum and Instruction

Southern Illinois University Carbondale

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**THESIS APPROVAL**


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Approved by:

Dr. Cathy Mogharreban, Chair

Dr. Grant Miller

Dr. Christie McIntyre


Graduate School

Southern Illinois University Carbondale

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AN ABSTRACT OF THE THESIS OF

Shannon S. Green, for the Master of Science degree in Early Childhood Education, presented on June 28, 2013, at Southern Illinois University Carbondale.

TITLE:  PRESCHOOL TEACHERS' EARLY PERCEPTIONS
OF EDUCATION FOR SUSTAINABLE DEVELOPMENT
IN EARLY CHILDHOOD EDUCATION

MAJOR PROFESSOR:  Dr. Cathy Mogaharreban

This study explored five preschool teachers' perceptions about Education for Sustainable Development (ESD) in Early Childhood Education (ECE).  Participating teachers provided a wide range of responses about ESD and its related subthemes.  The findings of this study show that the participating teachers indicated a willingness to reflect on the principles of sustainable development, a commitment to developmentally appropriate practice, a value for participatory and problem-based curriculum, and appreciation for the benefits of community engagement. Teachers also expressed values of fairness and equality, and being open, honest, and matter-of-fact with children.  Teachers were new to the ideas of interdependence, social justice, human rights, and economics education in ECE. The teachers expressed concerns about the inclusion of issues that they considered too complex for children, too personal, or potentially offensive. These findings can inform ideas for beginning professional development and further study for ESD in ECE.

Keywords: Education for Sustainable Development; Sustainability; Early Childhood Education; Interdependence; Diversity; Community; Economic Concerns; Equality; Social Justice; Human Rights; Human Rights Education; Environmental Issues

# DEDICATION

This thesis is dedicated to Carrie Brown.

You inspire.

# ACKNOWLEDGMENTS

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**CHAPTER ONE: THE RESEARCH PROBLEM**

It is not necessarily a new idea to think of the world as a constantly changing place, nor is it new to philosophize about how education should respond to these changes. Education has long been recognized as a powerful force for shaping culture, transmitting cultural values to the next generation of learners and of influencing social change (Reunamo, 2007; Abraham, 2012). Understanding the complexity of today's changing world, recognizing inequality as a persistent and growing problem and accepting the consequences of actions taken by generations past–while seeking better, more sustainable choices for the future–are only a few of the challenges facing educators today. Educators have the opportunity to candidly accept these challenges and take an active stance in addressing them (Boutte, 2008).

One vehicle for impacting change is through the practice of Education for Sustainable Development (ESD). Sustainable development describes an approach to development (change, or decision-making) that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland, 1987). Education for sustainable development then refers to any act of education or educational approach that encourages the development of attitudes, values, skills, and beliefs (Mckeown, 2013) which empower learners to contribute to a sustainable world for everyone, current and future generations. This thesis will address ESD from the perspective of early childhood education (ECE) and will explore the early forming perceptions about ESD from the perspective of five early childhood educators. In this chapter I have described a brief history of ESD and how scholarly research has informed my own efforts at understanding teachers' early perceptions of ESD in ECE.

**Background and Need for Research**

Much of the scholarly literature about ESD refers to *The Gothenburg Recommendations on Education for Sustainable Development* as a guiding framework for understanding ESD. These recommendations provide a framework for all levels of education (including ECE) and were created as a result of a world summit on sustainable development, which was held by the United Nations (UN) in 2002 and from which the United Nations Decade for Education for Sustainable Development (UNDESD) was born. A brief discussion of the UNDESD and *The Gothenburg Recommendations on Education for Sustainable Development* introduces the foundation of current conceptual frameworks for the integration of ESD in ECE.

**United Nations Decade of Education for Sustainable Development**

The 2002 UN World Summit on Sustainable Development was held as a venue to discuss world problems such as poverty, conflict between nations and people, social injustice, water quality, inequitable access to resources, and the depletion of these natural resources. One tangible result of this summit was the declaration of the years 2005-2014 as the Decade of Education for Sustainable Development. Through this initiative the UN aimed to support any act of education or educational approach that encourages the development of ideas and contributions to a better, more sustainable future for everyone, both current and future generations.

**The Gothenburg Recommendations on Education for Sustainable Development**

After the 2002 UN World Summit, Sweden hosted an International conference in May of 2004, which was entitled "Learning to Change Our World – the Gothenburg Consultation for Sustainable Development." Through the efforts of this conference, a framework for approaching ESD began to take form. In 2008, the Center for Environment and Sustainability at the University of Gothenburg, Sweden, produced a document entitled *The Gothenburg*

*Recommendations on Education for Sustainable Development.* These recommendations call for education to (a) increase access to education for all people, (b) place an emphasis on understanding and supporting gender equity, (c) promote learning for change, (d) develop networks and partnerships in areas of sustainable development, (e) implement professional development for ESD, (f) integrate ESD into established curriculum and practice, and (g) continue conducting scholarly research about and evaluation of ESD. In addition to these, recommendations were created for specific areas of education, including ECE, Professional Development for Teachers, Higher Education, and informal or non-formal educational settings. (Center for Environment and Sustainability, 2008).

**Scholarly Response & Need for Research.**

*The Gothenburg Recommendations* have had a definite influence on scholarly research about ESD. This is particularly true for ESD in ECE, as exemplified by the response of organizations such as l'Organisation Mondiale pour l'Education Prescolaire, (the World Organization for Early Childhood Education), or OMEP. OMEP has been an active force in supporting academic discourse about ESD; a topic explored in more depth in the following review of literature found in chapter two of this thesis.

**ESD in ECE.** One major concern for researchers in this area has been to establish some consensus about the role and value of ESD in ECE. If the goals of ESD are to reorient education toward a sustainable future, can ECE function as a logical beginning place for its integration? To note, ECE generally refers to the educational experiences of young children, typically covering the ages of birth to age eight (NAEYC, 2013). Often, the foci of discussion about ECE concern the preschool years–educational experiences of children from ages three to five. These early years are a special time of growth and development and careful consideration of how we interact

with, support teach young children is of paramount importance for educators. These

considerations are often described as Developmentally Appropriate Practice (DAP), the

principles of which are designed to support the fullest development of the whole child (Copple &

Bredekamp, 2009). DAP is a framework for understanding how to best support children.

Copple & Bredekamp (2009) describe this framework as a means to contributing to the

betterment of society through ECE. The goals of DAP inherently support the goals of ESD,

emphasizing excellence in education and equity for all learners through teacher intentionality and

effectiveness. DAP recognizes the realities of continuity and change for both human

development and society and accepts the challenge of remediating inequities among children

such that all children have access to quality educational experiences. To quote Copple &

Bredekamp, "We simply cannot be content with the inequities in early experience that contribute

to school failure and lifelong negative consequences for so many of our nation's children (p.

ix)."

     **ESD as a Values System.** Pramling Samuelsson (2011), an advocate for ESD in ECE,

supports the notion that early childhood is a critical time for the introduction of ESD, noting that

young children are susceptible to values transmission and are ready to internalize the messages

of ESD. The formation of values systems regarding our interaction with the earth and its living

creatures, including humans, are developing regardless of whether we are intentionally

implementing ESD or not (Bently & Reppucci, 2013; Boutte, 2008). These fundamental values

are being formed in early childhood contexts today and serve as the foundation in which the

accepted social values of tomorrow are built. No doubt, many of the issues that children are

encountering in today's rapidly changing world are complex and difficult for anyone to

understand. Nonetheless, Boutte (2008) and others implore educators to see children as experts

about their social worlds and to continually challenge young children to explore the complexities

and moral dimensions of that world.  Many advocates for ESD in ECE support the principle that

young children are complex thinkers and are able to process complex subjects when presented in

developmentally appropriate ways (Bently, & Reppucci, 2013; Boutte, 2008; Kahriman-Ozturk,

Olgan, & Guler, 2012; Davis, 2008; Didonet, 2008; Davies, et al., 2009; Pramling Samuelsson,

2011; Reunamo, 2007; Simonstein Fuentes, 2008; Spearman, & Eckhoff, 2012; Wensing, &

Torre, 2009).

      **Children as stakeholders in ESD.** Additionally, it is imperative we consider children's

participation in ESD not only as the preparation of children for tomorrow, but as important

stakeholders in these matters today.  Children are impacted by matters of sustainable

development every day. As stakeholders in these issues, children have a right to participate in the

understanding of and search for solutions to the problems of their world.  It is imperative that

ECE professionals safeguard this right to participation and find the best way possible to fulfill

the hopes of ESD in ECE.  As Boutte (2008) describes, educators do not have to accept the

responsibility "for all that is good, bad, or indifferent in schools and society," but they "certainly

can take a more active stance to fight for good" (p.166).

      The following review of literature addresses some of the approaches for ESD that are

advocated as best practices for ECE, practices that include support for DAP.  Within the review,

I have introduced notable trends found within the academic literature about ESD, internationally

and from a U.S. perspective  current accepted pedagogy for ESD in ECE, which includes the

importance of viewing ESD as a contextualized practice that considers the relativity of

educational needs to the location in which ESD is being implemented.  I have illustrated not only

these ideas about ESD in ECE, but also discuss the need for additional research regarding teacher

perspectives and ideas about ESD in ECE (particularly from a U.S. perspective) and how these perspectives might inform the creation of evaluative tools for ESD in ECE.

## The Current Study

### Purpose of the Study

The purpose of this study was to develop a greater understanding of Education for Sustainable Development (ESD) in Early Childhood by engaging in an in-depth exploration of some of the key terms and phrases associated with the practice and pedagogy of ESD. The objective of my study was to interview teachers about terms and phrases that I selected from the draft version of an evaluation tool called the Environmental Rating Scale for Sustainable Development in Early Childhood (ERS-SDEC) (OMEP, 2013). The terms I selected from the ERS-SDEC included Interdependence, Diversity, Community, Economic Concerns, Equality, Social Justice, Human Rights, Environmental Issues, and Sustainable Development.

Specifically, I wanted to know how a small population of teachers in a rural, Midwestern region of the United States interpreted these terms. I also wanted to know how these teachers perceived them as appropriate or inappropriate topics for their classrooms. I chose these specific terms because of the priority they were given within the ERS-SDEC, and/or because I myself perceived them as vague or open to interpretation.

### The Research Questions

The overarching goal of this study was to establish a better understanding of ESD in ECE and to support its practice in the U.S. and internationally. I sought to achieve this goal by first observing five teachers in their classrooms, followed by informal questions about my observations, and finally formally interviewing five preschool teachers about terms from the

ERS-SDEC. The formal interview process forms the basis of this study and my data collection. Specifically, the purpose of this study was to answer the following two questions:

1)      How do five classroom teachers define, perceive and/or process key terms found within the ERS-SDEC (Interdependence, Diversity, Community, Economic Concerns, Equality, Social Justice, Human Rights, Environmental Issues, Sustainable Development)?

2)      What patterns, themes, or ideas emerged about ESD and its related subthemes as a result of the data collected from these interviews that might contribute to an increased understanding of ESD?

**Conceptual Framework**

Seeking answers to these questions through the use of interviews will help to improve understanding of the ERS-SDEC and its related themes, and thus current understanding of ESD. The conceptual framework I have used to guide my understanding of this study originated with the UN interpretation of ESD and *The Gothenburg Recommendations on Education for Sustainable Development* as discussed above. Much of the literature discussed in chapter two is derived from the consideration of these recommendations and describes what is becoming accepted pedagogy for ESD. These accepted pedagogical practices and underlying values have helped to establish a conceptual framework for interpreting the findings of this study.

<div align="center">

**Significance of the Study**

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**To the Literature**

This study has the potential to contribute to scholarly literature of ESD in ECE by providing insight into a small group of U.S. teachers' perspectives of some of the underlying topics associated with ESD. While several studies discuss children's perspectives on matters

relative to ESD, few studies seem to explore teacher perspectives and understanding of the subject. Additionally, because ESD is a relatively new area of concern, and part of a larger, international effort, beginning to explore how various populations of teachers understand the language of ESD could contribute to a greater, global understanding of ESD.

**To the Participants**

One of the endeavors of ESD is simply to spread awareness about sustainable development and its approach to education. By participating in this study, teachers were challenged to think about complex issues that are impacting the children in their classrooms. Perhaps thinking about ESD will have an impact on teachers willingness to address issues such as equality and equity, social justice, and concern for the environment in their teaching, or at least to consider the implications that these issues might have for the young children in their care. This study had a direct impact on five teachers (and their assistant teachers), who in turn have a collective impact on over one hundred children on any given day. If the purposes of this study were achieved, and support for and/or awareness of ESD was spread, the significance of this study is worthwhile.

**To the Researcher**

From the very beginning of this research, I anticipated the importance of and potential impact that this study would have upon me as an educator and a researcher. I have worked with young children since 1995 and have always sought to instill principles of social justice and concern for the earth into my teaching. Much of my experience in these endeavors was intuitive and built upon a values system grounded in beliefs about equality, equity, and environmentalism. As an undergraduate student, I was introduced to teaching philosophies about diversity and ant-bias curriculum and created lesson plans about recycling and the excitement of scientific

exploration.  Just prior to graduation, I was introduced to ideas about human rights and the *Universal Declaration of Human Rights,* all ideas that informed my work with young children for the next ten years.

My original prospectus for a thesis topic was to explore the practice of Human Rights Education (HRE) in ECE.  During the course of this early exploration, I was introduced to the work of OMEP and its endeavors regarding ESD in ECE, which led to the development of this thesis. As I discuss in chapter two, I found that the worlds of HRE and ESD are very much the same. However, this research has given me an entirely new perspective and focus for my research, both currently and for the future.  The study of ESD has provided a vehicle in which I can continue striving to achieve the ultimate ambition of my career: to make the world a better place for children.

## Conclusion

In the remaining pages of this thesis, I have provided a review of the current literature as it pertains to ESD in ECE.  I have presented a detailed description of my research study: a qualitative case study that explores five teachers' early perceptions of ESD in ECE.  In addition to this description, I will discuss concerns about the methodology used to complete the study and introduce the findings of my interviews.  These findings will contribute to a discussion about ESD in ECE and the implications of teachers' perceptions for future endeavors to support ESD in ECE.  These findings and implications serve as the basis for recommendations for future scholarly research and professional development for early childhood educators.

**CHAPTER TWO: THE LITERATURE REVIEW**

Education for Sustainable Development (ESD) is a growing field of globally based research and is showing an increasing presence within academic literature in teacher education. Once restricted to journals dedicated to issues of environmental sustainability, such as *Environmental Education Research* or the *Journal of Teacher Education for Sustainability*, ESD has recently begun showing up in general education journals as a topic of interest among educators in the United States. Literature about ESD has been growing on an international level for quite sometime and since 2008 has captured the attention of international early childhood education (ECE) organizations. The following review of literature begins with a discussion of the growth of ESD in teacher education journals. I then described how ESD is currently being defined in terms of the three interdependent pillars of sustainable development: Social and Cultural, Economic, and Environmental; and how these interdependent pillars are supported by a common pedagogy of ESD that is (1) built upon a practice of reflection about the interdependent pillars, (2) developmentally appropriate, (3) participatory and problem based, (4) meaningful and relevant to children's lives, (5) promotes community engagement, and (6) meets the needs of the specific context in which it is taught.  After these basic elements of ESD have been defined, I will discuss how the literature has informed my understanding of teachers' perspectives relative to ESD in ECE environments and potential evaluative measures regarding the practice of ESD, both of which are connected to the purpose of my study.

**The Growth of ESD in Teacher Education Journals**

The widely disseminated *Childhood Education: Infancy through Adolescence, Journal of the Association for Childhood International* (ACEI) published an article in its final issue of 2012 called "Teaching about Sustainability." Spearman & Echoff (2012) present ESD as a "core 21$^{st}$

century movement" that stresses interdependence among environment, culture, and economic systems for the present and in the future; *Childhood Education* followed with an article about discussing complex issues with young children in its first issue of 2013. Bently & Reppucci (2013) present a frank discussion of children's need to and readiness for discussing complex social issues that children encounter in their lives. Children are bringing an awareness of complex social issues into ECE classrooms and need assistance in processing them in developmentally appropriate ways. Children are processing complex issues with or without our assistance, and forming values, beliefs and attitudes about them as they grow (Boutte, 2008). As an example, Boutte shared anecdotal evidence of a four-year-old child's construction of ideas about race and homelessness; Boutte's conversation with the four-year-old showed how the child had come to the mistaken conclusion that people of varying races could not live together in the same home.

Locating research about the practice of ESD that is based on the three pillars of sustainability in ECE from a U.S. perspective is challenging. In 2008, the United Nations Educational, Social, and Cultural Organization (UNESCO) published *The Contribution of Early Childhood Education to a Sustainable Society (*Pramling Samuelsson I. & Kaga, Y, Eds., 2008), a volume of 20 articles written by authors from 14 different nations. The articles serve as descriptions of practice in some contexts and build upon a theoretical approach in others. It is notable that authors from every continent except for North America were represented within this volume. In fact, Mckeown (2013) who writes from a primary and secondary education perspective, comments that ESD is gaining momentum in many countries of the world, but is rarely mentioned in the U.S. context.

Interestingly, there has been a global movement to bring ESD into ECE. The *International Journal of Early Childhood,* the journal associated with the L'Organisation Mondiale pour l'Education Prescolaire, or, the World Organization for Early Childhood Education, (OMEP) has been instrumental in publishing literature for ESD in Early Childhood. The journal has dedicated at least two full issues to the topic of ESD, in 2009 and in 2011. The 2009 issue introduces us to the three pillars of sustainability: cultural and social, economic, and environmental. Siraj Blatchford (2009) and Mbebob (2009) explore the importance of economics to ESD in ECE, both conceptually as a way to promote equity in education and as a means to support the development of productive life skills and entrepreneurial thinking at the early childhood level. Also discussed in the 2009 issue are topics of citizenship (local and global), the harmonious development of societies, and the resistance of early childhood educators to adapt ESD into their curriculum. Many of the recommendations for developing ESD in ECE found in these articles are based on the 2008 Gothenburg Recommendations mentioned in Chapter One. (Elliot & Davis, 2009; Degotardi & Pearson, 2009; Johansson, 2009; Davis et al., 2009).

By 2011, the selection of *International Journal of Early Childhood* articles had shifted to include a strong support for the inclusion of ESD in ECE (Siraj-Blatchford, 2011; Pramling Samuelsson, 2011), perhaps as an antidote to the resistance to ESD explored in 2008 (Elliot & Davis, 2009). An article concerning the importance of skillfully listening to children's ideas and concerns was highlighted in the 2011 edition (Davies, 2011), and was followed by the Engdahl (2011) article, "Children's Voices about the State of the Earth." Engdahl, in collaboration with OMEP, interviewed over 9,000 preschool-aged children from 28 countries and documented their thoughts, comments, and understanding about the earth and its needs. These interviews were

conducted by showing preschool-aged children a painting of the earth. In this picture, children holding watering cans, sponges, and buckets surrounded the earth.  Interviewers then initiated conversations with children about what might be happening in the picture and why children might be doing these things.  What Engdahl found was that children shared a wide range of thoughts and ideas about caring for the earth with the interviewers.  Children's responses could be categorized into six types of responses that described children's abilities to (a) see and comment on the actions of the children in the picture (e.g. children cleaning), (b) causes and consequences of a bad environment (e.g., making dirty water kills fish), (c) identifying actions that protect the earth (e.g., save water), (d) recognize caring for the earth as common task for everyone (e.g. we all clean so that we can all live in this earth), (e) demonstrate an aesthetic sense of and human values about the earth (e.g., people clean to make the earth beautiful and shiny), and (f) to recognize the complexity of sustainable development (e.g., without plants we will be ill). What Engdahl's study tells us is that young children are quite capable of engaging in discussions about environmental issues and can generate many ideas about why we should care for the earth. Skillfully listening to children's ideas about the state of the earth provides a foundation for meaningfully integrating ESD into ECE.  Understanding children's perspectives can lead early childhood educators to introduce ESD in a way that responds to children's needs and ideas about sustainable development in a developmentally appropriate way.

While several of the authors represented in the *International Journal of Early Childhood* 2008 and 2011 issues were also authors represented in UNESCO's *The Contribution of Early Childhood Education to a Sustainable World,* none of the authors were from the United States. International research has given us a comprehensive background and introduction to the field of ESD. This growing compendium of research provides an opportunity for U.S. educators to join

the conversation and perhaps offers some valuable insights from the perspectives of its own efforts toward changing education paradigms.

Mckeown (2013) is a U.S. based researcher who is heading the call to bring ESD to the forefront of U.S. educational discussion. Mckeown contends that children in the United States are coming to school with a partial understanding of serious problems that exist within their environments (e.g., resource reduction, fiscal inequity, homelessness, and increased violence), and they need to develop attitudes, values, skills, and beliefs that will help to empower change in their lifetime. While children's understanding of the nature of these problems is sometimes vague, the knowledge that problems do exist and that solutions are needed is well established among children.  By asking students to analyze current issues and problems at the local and global levels, students are engaging in important and relevant critical thinking and analysis.

Having established the growth of research about ESD on an international, and now, domestic level, it is important to understand ESD in its depth and complexity.  In the next section of this chapter, I have discussed how this growing field of research has come to understand and define ESD in ECE. I have introduced what I have come to understand as six currently accepted pedagogical underpinnings of ESD in ECE, including an exploration of how these concerns are supported in diverse contexts. Next, I have introduced two tools for evaluating and understanding the practice of ESD in ECE that are available to educators now, and one evaluation tool currently being developed (the ERS-SDEC, introduced in chapter one). To conclude, I have described the shortage of research about teacher views of ESD, particularly from a U.S. perspective and how understanding teacher views is important in the establishment of effective means of evaluating the practice of ESD.

**ESD Defined**

**The Interdependent Pillars**

ESD is perhaps most understood in terms of its three interdependent pillars of

sustainability: Social & Cultural, Economic, and Environmental. Although the three pillars of

sustainable development are presented as separate items, they are all interrelated and

interdependent. You cannot impact one area of development without impacting the others.

Understanding the interdependent pillars and placing special emphasis on equity and equality

among all people is an integral part of developing a strong pedagogy for ESD (Siraj-Blatchford,

2009). A short overview of each pillar of sustainable development, followed by further

explanation of the abovementioned pedagogical underpinnings will help to illustrate current

understanding of ESD in ECE environments. While many of the principles associated with ESD

are appropriate for all levels of learning, my focus remains on ESD in ECE.

**Education for Social and Cultural Sustainable Development (SC-ESD).** SC-ESD

most clearly represents the humanistic aspect of ESD. It encompasses a developing

understanding of people, culture, diversity, and social groups, their "ways of being, relating,

behaving, believing, and acting differently according to context and history," (Pressoir, 2008, pp.

60). For example, it is within the realm of SC-ESD we consider children's experiences and

understanding of their own culture and the cultures of others (Acer, 2012). Equality among all

people should be emphasized and communicated clearly through classroom practices and school

policies. Through the intentional practice of ESD children gain increased experience in

developing global perspectives and functioning as an interdependent community (Siraj-

Blatchford, 2009). Social and emotional learning is emphasized in ESD. Meeting children's

basic needs (such as having clean water for drinking and hand washing) consistently and

predictably supports social and emotional development (Abraham, 2012; Kaga, 2008).  Practices that meet the needs of all children help to illustrate for them that these needs should be met and support the principle that having basic needs met is basic right for all children. SC-ESD also serves as important lens for seeing the value of teaching children about peace, non-violence, social justice, and human rights.  (Simonstein-Fuentes, 2008).  Creating a caring community of young learners is the foundation for achieving the potential of all humans living together, peacefully, as one people.

**Education for Economic Sustainable Development (ECON-ESD).** ECON-ESD is another clear example of the human elements of sustainable development.  ECON-ESD pertains to people and their relationship with money and resources, conservation, equality, and fiscal equity (Siraj-Blatchford, 2009).  How individuals understand and relate to economic concerns is one aspect of ECON-ESD, but understanding economic growth/decline and its impact on society and the environment is an important part of ECON-ESD as well (Pressoir, 2008).  ECON-ESD asks educators to consider implications about the benefits and costs of various economic systems (capitalist, post-capitalist, socialist or other) on people's lives. Teachers and children should be be challenged and empowered to ask questions about the role of consumerism in their lives and the impact that consumerism has on development (Siraj-Blatchford, 2009).

Promoting equitable policy is an important aspect of ECON-ESD as well; ensuring access to quality early childhood programs for all children could have an important impact toward cultivating a more sustainable society.  Equitable policies include teaching for gender equality, promoting equal access for boys and girls to ECE programs, providing equal employment opportunities for men and women in ECE, and providing universal access to ECE programs for all children in spite of family income level (Abraham, 2012; Center for Environment and

Sustainability, 2008; Kaga, 2008; Siraj-Blatchford, 2009). Heckman (2011), a Nobel prize winning economist, advocates for ensuring adequate funding and support for ECE as a sustainable economic practice. Heckman's research regarding the economic effects of inequality shows that supporting social programs that build upon human capital has the potential to remediate negative social and economic effects. Economic policies that are fair for everyone, promote equity, and are economically efficient benefit national economies. In 2008, Heckman conducted a comprehensive review of research on the economic impact of inequality. Citing a variety of studies, including longitudinal studies like The Perry Preschool Program (which studied 58 disadvantaged children who were enrolled in a preschool program from the time they were in the program to the age of 40) and the Abecedarian Program (which studied 111 disadvantaged children who were followed from preschool to age 21), Heckman argues that remediating educational inequity by the creation of quality early childhood educational programs has been shown to yield a 7 to 10 cent per year return per child for every dollar invested (Heckman, 2008).

While equitable policy is important, the integration of economics into the early childhood curriculum is integral in achieving the goals of ESD. Part of developing empowered economic mindsets is attending to children's understanding of economizing and conserving. Children should be encouraged in the development of entrepreneurial thinking and equitable practice, economizing, frugality, and the conservation of resources (Siraj-Blatchford, 2009). Mbebeb (2009) discusses the role schools might play in encouraging the development of entrepreneurship among children and families in the ECE setting; entrepreneurship is described as the process of identifying opportunities for innovation, followed by the act of transforming these opportunities into action. Developing entrepreneurial thinking in young children has the potential to

strengthen individual and family connections to economic systems and could encourage the development of dispositions of risk taking, innovation, and change. Children who practice entrepreneurialism may also find empowerment against experiences that have contributed to disheartening or bleak economic visions of the future. For instance, it is possible that a child who participates in the creation of products for a fundraiser to buy school supplies will feel a sense of possibility when the supplies are collected. In contrast, a child who is simply told there is no money for supplies might feel powerless over the situation, accepting it as the way things are.

**Education for Environmental Sustainable Development (ENV-ESD).** Environmental Education may be the area of sustainable development in which we are most informed, at least from the U.S. perspective (Spearman, & Eckhoff, 2012; Mckeown, 2013). In nearly all of the literature about ESD, nature and ecology present themselves in some manner. ENV-ESD educates children about natural resources, understanding the fragility of the physical environment (Pressoir, 2008), and promotes harmony between humans and nature. If children are introduced to explicit ideas about this harmonious and interdependent relationship, they may be more inclined to care about it (Chan, Grace, & Angie, 2009; Fengfeng & Yan, 2008). As an example, imagine a child's experience with his or her playground. If they come to understand that the comfort of the school playground is directly connected to the shade giving nature of the trees on the playground, they may be more concerned about the health and well being of the trees. This awareness might be extended by the exploration of trees as natural resource, and as a prime example of the interdependence of humans and plants.

**Pedagogical Concerns for ESD in ECE**

Understanding the interdependent nature of the three pillars of ESD is important, but thinking not only about what we are teaching young children, how we are teaching it, and what pedagogical values we use to employ ESD are what make our efforts truly worthwhile.  A sound pedagogy for ESD is best supported by six key practices that are reflective of the principle goals of ESD (to support sustainable development through education): ESD in ECE (1) includes reflection on the interdependent pillars of sustainable development, (2) is developmentally appropriate, (3) uses a participatory and problem-based curriculum, (4) is meaningful and relevant to children's lives, (5) promotes consistent engagement with the community, and (6) strives to meet the needs of the context in which it is being practiced.

**A Practice of Reflection: The Interdependent Pillars.**  Ingrid Pramling-Samuelsson (2011) suggests that teachers can develop a pedagogy of ESD based on the three pillars by developing a practice of reflecting on the 7Rs of Sustainability as we make decisions about what to teach and how to teach it. Pramling-Samuelsson's 7Rs are respect, reflect, reduce, reuse, repair, recycle, and responsibility.  An alternative view on the 7Rs presents the ideas of rethink and redistribute, and overlooks repair and responsibility (Kahriman-Ozturk, Olgan, & Guler, 2012).  Spearman and Eckhoff (2012) interpret the goals of ESD through the lens of what they refer to as the 6Es of Sustainability:  Ecology & Environment, Economy & Employment, and Equity & Equality. Each of these keywords presents a different way in which teachers and students can think about how we live and interact with our world, and how we can begin to frame curricular decisions about ESD, especially in regard to content selection. While the 7Rs (or 9Rs as the case may be) or the 6Es can help us decide what to include in an ESD curriculum, some consensus is forming about best practices for teaching for ESD.

**Developmentally Appropriate: First do no harm.** First and foremost, ESD in ECE, as with all practice in ECE, should be developmentally appropriate, and acknowledge the need to understand how children develop and come to understand the world as individuals. Using this knowledge to develop teaching practices and learning environments that promote optimal learning and development in children is the basis of developmentally appropriate practice (Copple & Bredekamp, 2009). Pramling Samuelsson (2011) addresses the question of children's level of maturity and readiness for ESD, and advocates that children are competent, intellectual beings with an ability to communicate their ideas to those who listen. Similar to the Engdahl (2011) study mentioned earlier, Pramling Samuelsson shares anecdotal evidence of children's thinking about their wishes for the world (as shared with her by a preschool teacher in Melbourne, Australia) to illustrate children's' thinking processes: "I wish the people didn't cut down trees because that makes koalas and monkeys die…I wish there would be no more battles and people would be happy," (p. 105). She discusses the question of ESD in ECE from a variety of developmental view points, including maturity theories and developmental stage theories, but ultimately concludes that, "the answer to the question of whether children are mature enough to be introduced to ESD in ECE is that they live in our world, experience and recognize what is going on around them, and create their own meaning" (p.107). ESD in ECE should be aware of and responsive to children's meaning-making, and educators can be active agents in that process.

Children's developing awareness of what is going on around them gives us reason to be cautious and careful in our approach as well. ESD should be careful not to see children as "redemptive agents" for solving problems (Siraj-Blatchford, 2009; 2008), but as individuals who need to learn knowledge, skills, attitudes, and beliefs about developing a sustainable world (Mckeown, 2013). Our use of language and our approach to complex problems needs to remain

developmentally appropriate for the children we are working with.  We should be cautious of provoking worry, anxiety, or guilt about world problems and focus instead on the task of generating solutions that are fair to everyone (Bently, & Reppucci, 2013; Pramling-Samuelsson, 2011, Siraj-Blatchford, 2009).  One of the purposes of ESD is to promote equality and eliminate prejudice and oppression of one people by another. However, teachers must be diligent and mindful in educating themselves on these matters.  Without the development of appropriate knowledge and skillful approaches, educators may lack confidence to fully explore such ideas with children at the very least and at the very worst inadvertently contribute to oppression and inequality (Boutte, 2008).

**Participatory and Problem-Based.**  Effective ESD is supported by pedagogies that are participatory and problem-based. Children are encouraged to explore phenomena related to problems, and discuss their knowledge and ideas about solving those problems with each other and with those outside of the classroom (Mckeown, 2013). Children use dialogue and play to work through these ideas, and express their learning, questions, and understanding in a variety of ways (Davis, 2008; Fengfeng & Yan, 2008; Pramling-Samuelsson, 2011).  When children interpret and analyze information in their own manner, they are better able to generate unique solutions to problems (Reunamo, 2007).  When we encourage children to explore complex issues that are relative to their own lives, such as the need for shade on the playground, they may be better equipped to understand the lives of others around the world; others with needs similar and different to their own. Helping children confront the complexity of local and global concerns may seem challenging, but challenging young children to move beyond their current levels of thinking, so long as we are moving them towards achievable goals, is an established developmentally appropriate practice (Copple & Bredekamp, 2009).

**Meaningful and Relevant.** When we consider what types of problems are appropriate for young children to explore, it is a good idea to start with children's perspectives on life's daily experiences. Consider children's age and developmental level, but also consider the experiences of individual children and what is known about the child's social and cultural context (Copple & Bredekamp, 2009). Educators can learn about children's perspectives of the world and daily experiences by engaging in conversation, asking questions, and listening carefully to children's thoughts and ideas (Davies, 2011). Children need opportunities to share their ideas about ESD, but also to listen to and respond to the thoughts of others. Engaging in dialogue with children about ESD will aid them in their construction of ideas about how people interact with the world (Pramling Samuelsson, 2011), and will provide ideas for the educator to make new learning content meaningful and relevant.

**Promote Community Engagement**. ESD emphasizes the importance of interaction with outside communities in such a way that values interdependence among all. Children who experience ESD should come away with the notion that people need each other, and everyone works together to solve the problems of our communities. Siraj-Blatchford (2009) refers to this as "radical engagement with community," and states that it has the purpose of promoting sustainable development and social justice both locally and globally. Wensing and Torre (2009) provide a practical reason for connecting with resources outside of the classroom as well: the world's problems change so rapidly, we need the assistance of those who are more familiar with specific problems as we navigate the problem solving process with our students. These organizations, called boundary organizations, can serve educators with necessary and helpful expertise and knowledge about sustainable development. Working with boundary organizations increases our capacity for developing strong knowledge systems of sustainable development.

**The Importance of Context.** Despite the common aspects of ESD pedagogies, what ESD looks like will be different depending on where it is practiced and who is leading the effort (Degotardi & Pearson, 2009). Due to the emphasis of addressing the three pillars of sustainability in ways that are participatory and problem-based, meaningful and relevant to children, and promote engagement with the community, the objectives for ESD will vary from place to place. One approach to understanding the need for a context driven practice of ESD is to consider examples of ESD in three different settings:  China, Nigeria, and its recent emergence within the United States.

*China.* Fengfeng and Yan (2008) discuss ESD in Early Childhood from an urban, Chinese perspective. China has witnessed a rapidly growing economy over the last decades due primarily to the development of a strong manufacturing industry.  This economic growth has brought many changes to the people and climate of China, changes that have benefited some and harmed others.  These changes have had a direct impact on the lives of children, whether the children themselves understand this impact or not.  While industrial growth has helped the economy, it has had a negative effect on the environment.  The availability of natural resources has been reduced, thus exacerbating the need for sustainable development and ESD. Fengfeng and Yan conceptualize children as valuable stakeholders in ESD; and maintain that adults have a responsibility to introduce children to ideas and knowledge about the world.  Teachers in these Beijing classrooms integrate ESD into the curriculum by giving children freedom to play and explore ideas about ESD in their daily lives. For example, children in a kindergarten in Beijing explore the issue of sandstorms, an annual weather-related occurrence in this part of China. Children are supported in developing questions about the sandstorms, and are guided toward the answers to some of their questions. Children are introduced to the understanding that problems

associated with sandstorms increase when trees are cut down. Through the exploration of sandstorms, children engage in discussion about the problem, generate potential solutions, and express these ideas through dialogue, play, and artistic expression.

Another example of how children in Beijing are encountering real-life problems with ESD is through the exploration of the industrialization of China's economic infrastructure. Many toys and teaching materials are manufactured in China, although many of these materials are shipped out of the country. A lack of fiscal resources results in a shortage of materials in Early Childhood classrooms. Additionally, manufacturing has caused an increase in pollution, a phenomena with which all children live and suffer. Teachers introduce the effects of pollution into the curriculum, and confront this growing awareness by the simple act of creating their own home-made materials with and for children. These efforts reflect the need to economize by saving money on material expenses, reduce environmental impact by lessoning the demand for commercially-produced toys, and facilitate the practice of cooperation and problem solving between children as they generate ideas and follow through with their own toy production (Fengfeng & Yan, 2008).

*Nigeria.* From a Nigerian perspective, the objectives of ESD look a little different. "First and foremost," writes Abimbola Are (2008, p.108), "survival is the central element of sustainable development in Nigeria." Are cites the increasing need for high quality ECE experiences for young children and their families as one of the more pressing objectives of ESD in Nigeria. Economic conditions and increasing urbanization are placing more parents and grandparents in the role of working away from home for economic gain, a cultural practice not shared by previous generations, leaving children in need of quality care. The increase of HIV/Aids and other public health problems contributes to this problem (Are, 2008). The goals

of ESD in Nigeria might be more situated towards helping to establish sustainable national development through the creation of programs for families and ECE for all, (Abraham, 2012), echoing Heckmann's sentiments regarding the contribution of ECE to equitable economic growth. School buildings and other infrastructure should be built to last; broken and run down infrastructure is not sustainable, nor does it promote a commitment to life-long learning. Students and teachers need the necessary and appropriate materials to learn (Abraham, 2012). Currently, ECE in Nigeria is most often privatized or run by non-government organizations (NGOs), and as of Are's 2008 publication, serves only 15-25% of the population.

ESD still plays an important role from a curricular perspective in Nigeria, particularly in regard to the sustenance of intergenerational and intercultural knowledge and experience. Traditional Nigerian cultural values and beliefs are based upon the shared experiences of families as they raise children together. Grandmothers were often responsible for the day-to-day care of young children. Throughout those daily interactions, children were taught valuable lessons about their culture. They learned songs and poems. They were provided toys made from local resources, and learned social mores through interaction with the community. ESD in the Nigerian context involves not only addressing issues of access to ECE, the confronting of problems associated with gender issues, the spread of HIV/Aids, and public health, it also demands the protection of cultural values and traditions. Intergenerational knowledge is an important aspect of sustainable development. If children lose access to traditional knowledge of the place they live, they may lack incentive to promote sustainable development (Are, 2008).

*The United States.* Spearman and Eckhoff (2012) provide some insight into the emerging practice of ESD within the U.S. context. From their perspective, ESD appears to remain heavily rooted in environmentalism: "As the field of environmental education transitions into

environmental education for sustainability, the task at hand for educators of young children is to

begin infusing sustainability concepts into existing curricula…the inclusion of social and

economic concerns marks a departure from most environmental education models" (p. 354).

Spearman and Eckhoff promote a methodology, or the inclusion of sustainability concepts, that

involves posing questions to children based on literature depicting children and adults from

around the world who encounter economic and/or environmental dilemmas connected to the

land.  The recommended books are all set outside of the United States (depicted locations include

Ghana, Kenya, Uganda, Costa Rica, and Mexico), suggesting a desire to think more globally

than locally.  *Beatrice's Goat*, a story about a family who receives a goat through a microfinance

program, by Paige McBrierD (2001) serves as the article's literary focus, and was used in

research conducted by 100 elementary and ECE pre-service teachers. The pre-service teachers

read this book to nearly 2,000 children, and collected a list of children's questions and comments

about the story. The children's ideas and questions showed preschool and elementary aged

children did not automatically make connections between the story and the three pillars of

sustainable development, or that of environmental stewardship, leading the authors to suggest

that teachers need to be intentional in developing questions based on selected literature that will

engage children's thinking about matters of sustainable development (Spearman, & Eckhoff,

2012). While the examples provided in this article do encourage children to ask questions and

share ideas, there appeared to be less connection to some of the other underlying principles of

ESD pedagogy: learning that is developmentally appropriate, participatory and problem-based,

and encourages the exploration of ideas that are meaningful and relevant to the lives of young

children.  Children's experiences in this U.S. context were more focused on understanding the

lives of others, and lacked clear connection to the immediate lives of the children at hand.

However, it is clear that more research is needed to truly understand the practice of ESD from a U.S. perspective.

## Teachers Perspectives and Comprehension of ESD

During the course of this research, I was able to locate only one article explicitly discussing teacher perspectives of ESD. Arlemalm-Hagser and Sandberg (2011) reported on the views of 32 practicing childcare professionals, called day care attendants, who were enrolled in an in-service education course in Sweden. The teachers were asked to provide definitions of sustainable development as a concept, and to collect documentation about sustainable development from their current workplaces. Documentation could include items such as children's work, photos of classroom projects, drawings, or written observations of classroom events. The authors analyzed teachers' definitions and documentation samples to get a better idea of what teachers understood be examples of ESD in their classrooms.

The authors found that the teachers' comprehension of sustainable development reflected four major themes: (1) fundamental values about children, relationships, equality, and diversity; (2) Nature, including outdoor play, natural cycles, animals and plants, and cultivation and gardening; (3) learning, including pedagogy, play, documentation, and children as researchers; and (4) the physical needs of children, such as health, nutrition, and food. The day care attendants saw ESD as an "ethical project" concerning "building a culture and children's individual sustainability." One finding that Arlemalm-Hagser and Sandberg reported was that the economic pillar of sustainable development was not reflected in teachers' understanding (Arlemalm-Hagser & Sandberg, 2011). It is clear that additional research is needed to establish teacher's perspectives and comprehension of ESD.

**Evaluation of ESD: An Emerging Process**

Aside from the extensive literature suggesting best practices and pedagogies for ESD, there are very few resources available to those who seek tools for evaluating the practice of ESD for early childhood learning environments. The *ACEI Global Guidelines Assessment (2011),* and the *Go Green Rating Scale for Early Childhood Settings* (Boise, 2010) are comprehensive evaluation and assessment guides that speak to principles of ESD. The *ACEI Global Guidelines Assessment* is designed as a comprehensive scale for early childhood programs from global perspectives and might be very useful, though studies on this tool did not present themselves in initial searches about ESD during this this research. This was also true for the *Go Green Rating Scale*, a scale that seems to lean more heavily toward the environmental pillar of sustainable development. They are both somewhat lengthy documents, the *ACEI Global Guidelines Assessment* being 26 pages and the *Go Green Rating Scale* 110 pages, making them potentially cumbersome or overwhelming evaluation methods for educators.

An evaluation tool called the Environmental Rating Scale for Sustainable Development in Early Childhood (2013) (ERS-SDEC) is currently being developed by OMEP under the direction of John Siraj-Blatchford, whose work has been cited consistently throughout this chapter.   The ERS-SDEC consists of three pages of evaluative criteria, with each page devoted to one of the three pillars of sustainability. In general, the ERS-SDEC evaluates early childhood classroom practices for ESD from a most basic level of integration to that of a fully inclusive ESD based early childhood classroom.  The potential of this tool as an effective way of evaluating classrooms for ESD, and perhaps to help spread awareness about ESD in early childhood classrooms was intriguing to me.  The scale seems both broadly inclusive of the myriad issues associated with ESD and of the pedagogical values outlined throughout this

chapter.  At the time of this writing, the ERS-SDEC is currently undergoing trials in classrooms

across 11 countries, including the United States.  When in its final form, the ERS-SDEC is

intended for use by teachers on an international level. As the purpose of my study is to explore

how teachers are constructing or interpreting meanings of some of the terms and phrases from

the ERS-SDEC, I have included a more detailed description of the ERS-SDEC in Chapter Three.

The draft version of the ERS-SDEC is available as Appendix A, and the draft version of the

usage guidelines for he ERS-SDEC are available as Appendix B.

### A Note about the Human Rights Education Connection to ESD

Before concluding this chapter, I want to make an explicit connection between the fields

of Human Rights Education (HRE) and ESD.  My interest in HRE is what led me to the

discovery of ESD.  In chapter one, I described how the importance of ESD was linked to the high

priority given to the subject by the United Nations.  As we are nearing the end of the Decade of

Education for Sustainability, we are also nearing the end of the second phase (2010-2014) of the

UN World Programme for Human Rights Education (HRE).  In studying the practices and goals

of ESD and HRE it is apparent that these two approaches to education are inextricably united.

Sustainable development is a human rights issue; the creation of a sustainable world would

ensure that the basic rights of all humans could be fulfilled for generations to come.  The Human

Rights Education Associates (HREA) articulates this well when they state that, "it is impossible

to separate the well-being of the human person from the well-being of the earth." HREA also

cites international documents declaring human entitlement to a healthy and productive life

(Hathaway, 2003), a goal of ESD.

One UN document that outlines the connection between sustainable development and

human rights clearly is the Draft Plan of Action for the second phase (2010-2014) of the World

Programme for Human Rights Education (WPHRE). Objectives of WPHRE include (among others) the promotion of a culture of human rights, the valuation of interdependence, cooperation, and partnerships among people, with equality taking precedence over all other rights.  While equality and equity are the primary principles of ESD and HRE, the two educational approaches share a common pedagogy as well. The WPHRE recommends guiding principles of HRE that mirror those mentioned in this review of ESD literature.   Some of these commonalities are the promotion of interdependence and the universality of human rights, respect for differences among people, and opposition to discrimination.  The careful analysis of emerging societal problems and inequality is encouraged, with the goal of empowerment in problem solving at its center.  HRE develops the capacity for problem solving among rights holders, and the development of duty-bearers: people who see themselves as responsible for the well being of our planet and its people.  Participatory pedagogies that foster knowledge, critical thinking, and action-based skill sets are seen as essential to HRE, while learning environments should dissuade feelings of fear and promote the full development of the human personality.  The WPHRE principles end with a note envisioning the practice of HRE "to be relevant to the daily life of learners, engaging them in a dialogue about the ways and means of transforming human rights from the expression of the abstract norms to the reality of their social, economic, cultural, and political conditions" (United Nations, 2012, p.5-6). Most, if not all of these ideas are presented in some form within the literature pertaining to ESD as well.

In the article *Perspectives of Research on Human Rights Education*, Felisa Tibbits and Peter Kirchschlaeger (2010) discuss eight accepted pedagogical principles for HRE that support or mirror accepted pedagogy for ESD as well: Experiential and activity-centered, problem-posing, participative, dialectical, analytical, healing, strategic thinking-oriented, and goal and

action-oriented. HRE supports transformative, empowering education and the development of a world in which humans learn to live together in peace and mutual prosperity.  Finally, a concluding similarity between the fields of HRE and ESD is the small but growing compendium of research in each of these areas of education, particularly from the U.S. perspective (Tibbits, & Kirchshlaeger, 2010).  While the human rights connection to ESD is implied throughout the research, establishing an explicit connection between the two may benefit both growing fields.

## Summary of Literature Review

This literature review has described a basic understanding of ESD in ECE and how it has been informed by recent literature.  I have established a need for additional research that will contribute to the evaluation of ESD and teacher views concerning ESD in ECE.  ESD in ECE is a growing field of globally based research and is only beginning to emerge in general education research journals within the United States.  Current literature advocates that ESD promotes equality and equity among all persons, for both current and future generations. The practice of ESD in ECE should be developmentally appropriate, participatory and problem-based encourage the exploration of ideas that are meaningful to the lives of young children.  ESD in ECE promotes consistent and purposeful engagement with communities, both local and global.  The integration of the interdependent pillars of sustainable development into our thinking is essential to the understanding of ESD. ESD is highly contextualized to its environment and locale, meaning that what it looks like will be different depending on where it is being practiced.  Tools for the evaluation of ESD practices are few, but growing. Additional studies concerning the validity, reliability and usefulness of these tools need to be conducted. Additionally, research is needed to develop a clearer picture of teacher views of ESD, particularly from a U.S.

perspective.  Finally, I concluded the literature review by discussing the similarities I have discovered between the educational approaches of ESD and HRE.

In the following chapters, I have described how my study might contribute to this growing field of research; particularly in the three areas I earlier identified as needing additional study: teacher perspectives, evaluation of ESD, and the HRE-ESD connection.  The overarching goal of my study is to gain a better understanding of ESD by interviewing teachers regarding their interpretations and perceptions of some of the key terms used in the ERS-SDEC, which is an evaluative tool currently being developed by an international organization devoted to ECE. Exploring teacher perspectives on ESD in ECE will hopefully contribute to a growing international and domestic discussion about making the world a better, more sustainable place.

## CHAPTER THREE: RESEARCH METHODOLOGY

### Restatement of Purpose

As stated in Chapter One, the purpose of this study was to develop a greater understanding of Education for Sustainable Development (ESD) in Early Childhood by engaging in an in-depth exploration of some of the key terms and phrases associated with the practice and pedagogy of ESD.  Specifically, the objective of my study was to interview teachers about terms and phrases that I selected from the draft version of an evaluation tool called the Environmental Rating Scale for Sustainable Development in Early Childhood (ERS-SDEC), which was introduced in Chapter Two and described in detail later in this chapter. The terms I selected from the ERS-SDEC to explore included Interdependence, Diversity, Community, Economic Concerns, Equality, Social Justice, Human Rights, Environmental Issues, and Sustainable Development.  I wanted to know how a small population of teachers in a rural, Midwestern region of the United States interpreted these terms as a possible window to teacher's perceptions of ESD in the United States. I also wanted to know how these teachers perceived them as appropriate or inappropriate topics for their classrooms. I chose these specific terms because of the priority they were given within the ERS-SDEC, and/or because I perceived them as vague or open to interpretation.  By exploring teachers' ideas, I was able to broaden my understanding about ESD, its current state of practice, and to consider implications for the improvement of ESD knowledge systems and practices as well as raise questions that might add to the international conversation about ESD.

**The Research Questions**

The overarching goal of this study was to establish a better understanding of ESD in early childhood contexts and to support its practice in the U.S. and internationally.  I sought to achieve this goal by formally interviewing five preschool teachers about terms from the ERS-SDEC.  The formal interview process forms the basis of this study and my data collection.  Specifically, the purpose of this study was to answer the following two questions:

3)	How do five classroom teachers define, perceive and/or process key terms found within the ERS-SDEC  (Interdependence, Diversity, Community, Economic Concerns, Equality, Social Justice, Human Rights, Environmental Issues, Sustainable Development)?

4)	What patterns, themes, or ideas emerged about ESD and its related subthemes as a result of the data collected from these interviews that might contribute to an increased understanding of ESD?

**Research Design**

A qualitative research design was selected as the best approach for exploring the research questions.  Using a case study involving a small group of preschool teachers was ideal for developing a deeper, focused collection of detailed responses that were specific to a certain context (Creswell, 2009).   The research questions used in this study were open-ended, and thus required a research design that was flexible, and had the potential to evolve as the research proceeded. In my efforts to explore teachers' ideas about ESD through the use of interviews, it was inevitable that my own ideas, assumptions, and conclusions about ESD would change through each step of the process.  It was for these reasons that I sought to complete a qualitative case study design (Weirsma & Jurs, 2009).

## The Program, the Teachers, and the Setting

**The Program**

All of the participants are currently teaching in publically funded preschool classrooms

that are administered through a local university. The classrooms are funded through the Illinois

State Board of Education's Preschool for All (PFA) and prevention initiatives.  The PFA

program is a state (Illinois) supported initiative designed to provide educational programs and

services for young children and their families. The preschool programs give preference for

enrollment to children who have been identified as at risk for school failure, with children's

family income identified (income up to 4x the state's identified poverty guidelines) as a potential

risk factor for school failure. PFA offers half-day preschool programing designed to support

young children (ages 3-5).

**Sample Selection and the Protection of Human Subjects**

Prior to beginning this study, I, along with my research advisor, met with administration

members of the abovementioned early childhood education program to discuss possibilities and

parameters of study.  After this initial meeting, the program administration met independently to

establish interest among teachers regarding participation in the study.  Ultimately, the

administration selected the observation and interview participants (teachers) and sought verbal

consent from the teachers.  When the teachers indicated their interest in participation, they were

sent all appropriate letters of introduction and consent forms through the mail.  I collected each

of the signed consent forms before beginning the observations or conducting any interviews.  All

human subjects application materials, letters of introduction, and blank consent forms are

available as Appendix D. My thesis committee oversaw this research through every step of the

study and was available for questions about the participant interview process.  Participants were

assured that their given names would not be used in any discussion of results or subsequent publications.   Participants were given the opportunity to withdraw at any time.  Connections made between classroom observations and interview responses are not given in discussion of the results of this thesis; only interview responses themselves were included in the findings.

**The Teachers**

The interviewees for this study included five certified preschool teachers (all female) who live and work in a rural, Midwestern region of the United States.  All five teachers had valid teaching credentials (04 Early Childhood Education teaching certificate issued by the state of Illinois).  All five teachers earned their bachelor's degrees in Early Childhood Education from a local university more than a decade ago.  One of the teachers initially earned an elementary education teaching certificate, but returned to school at a later time to complete the requirements to earn her O4 Early Childhood Education teaching certificate.  Total years of teaching experience among the five participants ranged from 13 years to 37 years.  The range of years of teaching within this particular program was 10 years to 18 years.

All of the teachers who participated in my study requested that their identities be kept as confidential as possible.  In an effort to honor the requests of the teachers who volunteered to participate in this study, I have chosen to not connect teacher information to information about the classes in which they were teaching (Lincoln & Guba, 1985). Instead of using the teacher's real names, I have given each of the five teachers a pseudonym: Emily, Andrea, Rachel, Teresa, and Hope.  The first letter of each of these names represents the word EARTH. Women who have contributed to the development of a more peaceful, sustainable world inspired the selection of names.

**The Classrooms**

Prior to completing the interviews for this study, I observed each of the teachers in her classroom setting using the ERS-SDEC evaluation tool. I completed these observations with my research advisor as a part of another study associated with the ERS-SDEC. Conducting these observations prior to completing the interviews allowed me to collect information about what was happening within the classrooms and helped to establish greater validity for the interviews (Creswell, 2009). Taking extensive field notes, using the ERS-SDEC as a guide, along with collecting other pertinent data about the classroom dynamics, was helpful in interpreting the teachers' responses to my interview questions. After observing the classrooms, I asked informal questions about what I was seeing. The feedback I received, and the observation process as a whole, influenced the remaining interviews, and allowed for slight changes in the research process when needed. For example, after completing two formal interviews, I made the decision to ask the remaining three teachers their thoughts on equality. Between each of the interviews, I continued to study the ERS-SDEC. I was increasingly interested with the question of how teachers perceived the concept of equality and its role in the preschool classroom. I assumed that teachers did value equality, but I was not able to clearly define equality in terms of something I could observe in the classroom. I presumed that adding this to the interview protocol would assist me in this endeavor.

As I mentioned earlier, these observations were also being conducted as a part of another study related to the ERS-SDEC. I, along with my research advisor, Dr. Cathy Mogharreban, collected the following demographic information about each of the classrooms we observed during that study. I have identified each of the classrooms by using the name that corresponds with the interview responses discussed in chapters four and five. I have included this

information in an effort to provide contextual information that will give deeper meaning to the interview data shared in Chapter Four.

**Emily's Classroom.** 15 children, seven girls and eight boys, were present in Emily's classroom during the time of our observations. All 15 children were identified as "at risk," with two children possessing Individualized Education Plans (IEP), eight children living at an income level that qualifies them for free or reduced school lunch prices, and ten meeting PFA income guidelines. 11 children in the class were identified as White/non Hispanic, two as being of two or more races, one as African-American, and one as Asian. One child was identified as an English Language Learner (ELL), although the home language is unknown.

**Andrea's Classroom.** 14 children, seven girls and seven boys, were present in Andrea's classroom during the time of our observations. All 14 children were identified as "at risk," with one child possessing an IEP. A majority of the children live at an income level that qualifies them for free or reduced lunch prices, and meet PFA income guidelines. 12 children were identified as White/non-Hispanic, one as Hispanic, and one as being of two or more races. One child was identified as an English Language Learner, with Spanish as the primary language.

**Rachel's Classroom.** 14 children, nine girls and five boys, were present in Rachel's classroom during our observations. All 14 of the children were identified as "at risk," with six students possessing IEPs. A majority of the children live at an income level that qualifies them for free or reduced lunch prices, and meet the PFA income requirements. 13 of the students were identified as White/non-Hispanic, and one child was identified as being of two or more races.

**Teresa's Classroom.** 12 children, four girls and eight boys, were present in Teresa's classroom during the time of our observation. All 12 of the children were identified as "at risk," with five children possessing IEPs. All of the children live at an income level that qualifies them

for free or reduced lunch prices, and meet the income guidelines for PFA.  Half of the children were identified as White/non-Hispanic, and half as Hispanic.  Half of the children were identified as English Language Learners with Spanish as their home language.

      **Hope's Classroom**.  16 children, nine girls and seven boys, were present in Hope's classroom during the time of our observation.  A majority of children were identified as "at risk," with five children possessing IEPs.  Approximately half of the children live at an income level that qualifies them for free or reduced lunch prices, and the majority meets the income guidelines for PFA.  15 of the children were identified as White/non-Hispanic, and one was identified as Asian.  One child was identified as an English Language Learner with Nepalese as the home language.

<center>**The Research Tools: The ERS-SDEC and The Interview Protocol**</center>

**The ERS-SDEC**

      As introduced earlier, the ERS-SDEC is a rating scale designed to evaluate early childhood classrooms for Sustainable Development (see Appendix AS). The ERS-SDEC is being developed under the direction of John Siraj-Blatchford with consultation with OMEP members. The ERS-SDEC is currently in draft form and has been undergoing trial use in 11 countries. When these trials have been completed, the current draft will be revised for international research purposes and as a self-assessment tool for teachers, caregivers and administrators in early childhood program settings.

      The ERS-SDEC is modeled after another well-known, highly established scale, the Early Childhood Environmental Rating Scale referred to as ECERS, and is used in the same way (Harms, Clifford, and Cryer, 1998).  The ERS-SDEC consists of three pages of evaluative criteria.  Each page is devoted to one of the three pillars of sustainable development: Social and

Cultural Sustainability, Economic Sustainability, and Environmental Sustainability. The ERS-SDEC applies a rating system in which the classroom is measured on a continuum of practice from one to seven, with one as inadequate, three as minimal, five as good, and seven as excellent. During the observation process, my advisor/co-researcher and I studied the ERS-SDEC tool and identified some thematic strands found in each section of the ERS-SDEC (Mogharreban & Green, ERS-SDEC Trial Report, 2013).

**Social and Cultural Sustainability.** The ERS-SDEC evaluates Social and Cultural Sustainability in terms of four basic strands: interdependence, inclusion, cultural and social diversity, and equality. The strands each exist on a continuum from basic levels of awareness to more complex, action-based and explicit levels of understanding and experience for both teachers and children.

**Economic Sustainability.** The ERS-SCDEC evaluates Economic Sustainability in terms of three strands: resources conservation/consumption, economy/use of money both real and pretend, and economic fairness/justice. The strands exist on a continuum that evaluates children's experiences with and understanding of money and conservation from a basic, introductory level, to the value and use of money on a personal level, and finally to the practice of economic justice and equity.

**Environmental Sustainability.** The ERS-SDEC for Environmental Sustainability describes four themes or strands of Environmental Sustainability. These themes include references to sustainability in the classroom setting and curriculum, environmental understanding and problem solving, appreciation of and experience with nature's resources, and the provision of basic care for individuals and communities, from the classroom community and beyond.

**The Interview Protocol**

After each observation completed for the trial study, I scheduled a time for in-depth

interviews with each of the five teachers. The interviews each took place approximately one

week after the initial observations were completed. The interview questions and protocol were

written before the study began, and before I had any direct experience with using the ERS-SDEC

in a classroom setting. My initial step in identifying the words or phrases I would ask teachers

about was to create a word cloud with text from the ERS-SDEC. I printed several versions of the

word cloud and used these to guide subsequent readings of the ERS-SDEC. After several

readings of the scale, coupled with study of the word clouds, I identified the terms that I wanted

to ask preschool teachers about based on frequency of use and clarity of meaning. The selected

terms were each introduced multiple times within the scale, or simply seemed vague and open to

interpretation by individual observers, which could impact its content validity. The selected

terms were: Interdependence, Diversity, Community, Economic Concerns, Social Justice,

Human Rights, Environmental Issues, Sustainable Development.

The interview protocol (Appendix C) asked teachers first to share with me their

definitions or understanding of the selected terms. I then asked teachers to share their ideas

about if and/or how they saw these concepts being applied in their classroom. I also asked

teachers to discuss their views about whether certain topics were appropriate or inappropriate for

the preschool level. An example of one set of questions from the interview is as follows:

- o "One of the items states that the inherent and universal rights of all humans are
  discussed openly and regularly in the classroom. What do you think is implied
  by 'inherent and universal rights of all humans'?"
- o "Can you think of some examples of what these 'rights' might be?"
- o "What kind of human rights discussions might be appropriate in the preschool
  setting?"
- o "Can you think of any topics concerning human rights that might be inappropriate
  at the preschool level?"

Questions such as these were asked about each of the selected terms.  I also asked

teachers about their interest in learning more about ESD, if they felt this was an important

concept for early childhood educators to be thinking about, and what kinds of training related to

ESD they might be interested in receiving.

To clarify, none of the five teachers had seen a copy of the ERS-SDEC prior to or during

the interview.  Only one of the teachers, Andrea, asked to see a copy of the interview questions

before the interview, which she received approximately 24 hours before we were scheduled to

meet.  Any knowledge of the ERS-SDEC had come from their experiences during our

observations only, which did consist of some post-observation questioning by us, the researchers.

For example, while the teachers were not aware of the details of the ERS-SDEC, they did know

that it was a rating scale for sustainable development.   They were all asked several questions

about their classroom teaching practices and materials.  It is unknown how the teachers

synthesized these experiences and how or if the experience impacted their interview responses.

## Data Collection

While the observations conducted for the other study were helpful in establishing a

connection with each of the teachers by observing them in a natural setting, data collection for

this study was limited to the formal interviews I conducted with the five teachers. The interviews

each took approximately one hour to complete.  Each of the teachers was offered a copy of the

interview questions to hold while I conducted the interviews, although some of the teachers

declined the offer.  I took notes from the teacher's interview responses during and after the

interview process. Audio of each interview was digitally recorded, and transcription of the

interviews was completed from the audio files by a private organization prior to data analysis. In

order to ensure the accuracy of the transcription process, I listened to each of the interviews

several times before having them transcribed.  I waited for the completion of the first interview

transcription before I entrusted the organization with the audio files of the remaining four

interviews.  Having listened to the interviews several times, I feel confident that the

transcriptions were completed to a high level of accuracy.

**Data Analysis and Research Timeline**

The observations and interviews took place in early 2013.  The last of five interviews was

completed on March 18, 2013.  From March 18 to May of 2013, I listened to the audio

recordings of the interviews, read, and re-read the interview transcripts. Throughout the month of

May, as I worked towards completing earlier chapters of the thesis, I continued to study and

synthesize the ERS-SDEC in collaboration with my research advisor.  I began a formal process

of synthesizing the interview data and looking for important themes and patterns associated with

each of the interview terms and/or topics.  My first step towards analyzing the interview data was

to organize teacher responses to each of the selected terms. I achieved this through the process of

cutting text from each of the interviews transcriptions and pasting the text into one document

under headings associated with each term. After organizing the data in this way, I began to

consider how or if specific interview responses might contribute to an increased understanding of

ESD and/or the selected terms from the interview:  Interdependence, Diversity, Community,

Economic Concerns, Equality (sites 4 and 5 only), Social Justice, Human Rights, Environmental

Issues, and Sustainable Development.  Analyzing the research responses in this way provided a

direct response to the first research question: How do five classroom teachers define, perceive

and/or process key terms found within the ERS-SDEC  (Interdependence, Diversity, Community,

Economic Concerns, Equality, Social Justice, Human Rights, Environmental Issues, Sustainable

Development)?

It was through the study of my answer to question one that I was able to begin answering the second question: What patterns, themes, or ideas emerged about ESD and its related subthemes as a result of the data collected from these interviews that might contribute to an increased understanding of ESD? To answer this question, I spent time reviewing my findings for the first research question. I tried to understand the teacher's responses to questions about particular terms and teaching practices relative to those terms. I wanted to know what the teachers were telling me about their practices, attitudes, values and beliefs about teaching and young children in general. I initially started noticing that certain trends appeared throughout the interviews. For example, I noticed the use of the phrase "matter-of-fact" appeared several times, mostly spoken by one teacher, Emily. Emily spoke of addressing children in a matter-of-fact way, while Teresa made a comment about keeping things on a child's level. Hope made a comment about being honest with children. I noted these similarities and started to look for others. This process allowed me to interpret the data in a different way than I had for question one, I was able to construct an understanding of not only what teachers did or did not understand about ESD, but what these teachers might have to contribute to a discussion about ESD.

I was ultimately able to organize teachers' ideas and thoughts about terms related to ESD into four major ideas or themes. I have organized these themes as four questions to be answered in chapter four: (1) What did teachers share about their values, beliefs, and practices relative to the pedagogical concerns of ESD, particularly those stated in chapter two? (2) What were new terms or ideas for teachers during the interview? (3) What did teachers seem resistant to or unsure of how to address? (4) What did teachers tell me about the children in their classrooms that might contribute to an increased understanding of ESD?

**A Note Regarding Trustworthiness**

Because of the small, personal nature of the qualitative case study, efforts to achieve trustworthiness are of special concern to this research. Although all five of the teachers were working within a rural setting, each of the five classrooms had its own distinct classroom environment, needs, and cultural influences. The classrooms are spread out geographically, with the northernmost site being approximately 40 miles from the southernmost site. Because of these factors, I employed many efforts to achieve a sense of trustworthiness to my study.  I paid careful attention to record keeping, which was helpful in keeping data collection efforts organized and accessible for auditing if needed (Lincoln & Guba, 1985).  This level of organization also helped to ensure accuracy in my reporting.  The field notes that were taken as part of another study (previously described) helped me to interpret the teachers' statements made during the interviews.  While field notes and data collection from the observations were not included in the data collection of this study, the experience helped me to better interpret the teachers' responses due to my familiarity with their unique classroom contexts.  For instance, during the interviews, Emily made a reference to her class's study of hibernation.  Because I had observed her classroom and taken notes about children's work on hibernation, I was able to interpret and synthesize her reference to the hibernation unit more accurately. Conducting the observations prior to conducting the interviews was also important in establishing reliability regarding the interview responses. While it is never possible to ensure that interview participants are being completely forthright in their given responses, having observed the classrooms prior to the interviews might have alerted me to any obvious discrepancies between teacher responses and classroom observations.

Throughout the interview process, I reflected on the direction and effectiveness of the study, particularly my role in this, and constantly questioned and tried to improve upon my interviewing skills. I wanted to ensure that I was promoting honest and open dialogue between the teachers and myself.  Regular consultation with my research advisor and other thesis committee members was extremely helpful in ensuring that appropriate research protocol was followed throughout the study. All of these measures have contributed to the trustworthiness of the research design, and thus to the findings of this study reported in the final chapters of this thesis.

**CHAPTER FOUR: RESEARCH FINDINGS**

In this chapter I have introduced my findings from the interviews to highlight each of the terms as it was expressed from the teachers' perspectives. The interviews took a decidedly conversational tone, and I have tried to depict this in my descriptions of findings. Emily, Andrea, Rachel, Teresa, and Hope brought myriad ideas and perspectives to our discussions about ESD. Some of their ideas, experiences, and perspectives differed greatly from each other, yet often they expressed a similarity in their thinking and experiences. In this chapter, I have reported my findings regarding my two research questions: (1) How do five classroom teachers define, perceive and/or process key terms found within the ERS-SDEC (Interdependence, Diversity, Community, Economic Concerns, Equality, Social Justice, Human Rights, Environmental Issues, Sustainable Development)? And (2) what patterns, themes, or ideas emerged about ESD and its related subthemes as a result of the data collected from these interviews that might contribute to an increased understanding of ESD?

With regard to the first question, I have introduced each of the selected terms in the order that it was presented to the teachers during the interview. I have retained the teachers' own words as much as possible, because I believe this best captures their evolving understanding of the terms. Indeed, I have tried to show how the teachers expressed their understanding of these terms relative to teaching young children, and how this understanding was sometimes emerging and/or evolving throughout the interview.

To answer my second research question, I have organized the teachers' responses to reflect what I saw as four major organizing questions, the answers to which might contribute to an increased understanding of ESD in this context: (1) What did teachers share about their values, beliefs, and practices relative to the pedagogical concerns of ESD, particularly those

stated in chapter two? (2) What were new terms or ideas for teachers during the interview? (3) What did teachers seem resistant to or unsure of how to address? (4) And finally, what did teachers tell me about the children in their classrooms that might contribute to an increased understanding of ESD?

As I described in Chapter Three, my interview questioning generally followed the format of asking teachers to define a term. I then asked the teachers to share their experiences with children concerning the various terms and phrases. I often asked, "What would that look like, or sound like in your classroom?" I also prompted teachers to share their ideas and concerns about each of these terms or topics of discussion with young children.

## Research Question One

How do five classroom teachers define, perceive and/or process key terms found within the ERS-SDEC (Interdependence, Diversity, Community, Economic Concerns, Equality, Social Justice, Human Rights, Environmental Issues, Sustainable Development)?

**Interdependence**

Interdependence was the first term I presented to the teachers during the interview. I found that the teachers were not familiar with this term, or at least had not consciously integrated this term into their everyday vernacular. The teachers did provide their interpretations of the word, but seemed to be constructing their definitions as the interview took place. As Hope commented, "I'm getting stuck on independent. Interdependence. I really don't know. I have never heard that word." Like Hope, all of the teachers seemed to share a perspective of the term based on the concept of independence. Rachel's response was almost the same, "Interdependence. I mean I still go back to the word dependence so I guess just being self-sufficient."

Emily and Rachel both described their understanding of interdependence in terms of how one might recognize the presence of interdependence within the classroom. Emily noted that interdependence was, "having the children enter the classroom and be independent to function as well as they can on their own." This was similar to Rachel's response, "I would think that that means the child to be able to use thoughts and ideas within his or her head and be able to carry those throughout the classroom." While, Emily, Rachel, Teresa, and Hope seemed satisfied with their constructed definitions of interdependence as relative to independence, Andrea continued to reflect on the term, and showed her expanding understanding of interdependence as something more, something that connects the children to one another:

> Well, when I first looked at it, I really kind of thought it had independence - kind of just having the kids do skills that would make them more independent and as far as placement of things in the classroom. Then, when I started kind of reading it some more, I kind of got the idea it was more the kids being interrelated with each other and working together to either fulfill like a common goal maybe or to get a certain task done like a child helping another child turn the water off and on in the sink, or a child comforting a smaller child who was maybe injured or hurt or something like that.

Perhaps Andrea, being the only teacher to have seen the interview questions and protocol ahead of time (about 24 hours), simply had more time to reflect on the word interdependence. It is not possible to know whether other teachers would have expanded their thinking as well.

Regardless of this, none of the teachers used language to describe interdependence as meaning anything beyond children's interactions with one another. None of the teachers made reference to interdependence with other groups of people or communities, or interdependence with nature.

**Diversity**

Diversity was a term that the teachers seemed significantly more comfortable discussing. I first asked to them to tell me what they thought was implied by the word diversity. Combining

their responses, I was able to compile a list of categories or ideas that the teachers associated with diversity: race, ethnicity, skin color, physical differences, family structure, home life and/or style, different cultures, individualism, housing environments, countries, food, general similarities and differences between people, language differences, different abilities, and sexual orientation.

Emily's comments about diversity were most focused on racial and/or skin color differences between children. Emily commented that she was glad children did not bring up issues of diversity, and that open discussion about racial diversity rarely comes up among children, "That question has never been brought up this year, which I think is wonderful. Really, we haven't discussed it, and I probably won't bring it up unless someone asks me." When I asked Emily about how she might respond if the topic was brought up by children, her response indicated that she would simplify differences and focus on the similarities of all people:

> I probably would just say, "Yes, his skin is black," and be very matter-of-fact about it, and then we probably would go ahead and talk about, "But he has two arms, two legs, just like you, only, yes, his skin is a different color and that's okay." I would probably try and make it as matter-of-fact and as simple as I can and then go with what they say back to me.

Emily's response indicates that she would not be likely to initiate conversation about diversity, specifically racial or ethnic diversity and/or skin color, but that she would encourage conversation about it with individual children if they brought it up.

During my discussions with Teresa and Andrea, ideas about children's interest in diversity indicated a link between children's awareness of ethnic diversity or nationality and children's awareness of physical differences. Teresa commented,

> If it's preschool children just freely talking, they might talk about the color of their skin or their hair. Or I know with the Hispanic children a lot of times, Mexico will randomly come into the picture even though they were born here. They have an awareness of that.

Mainly with children, it seems like it's more physical.  They just notice the physical differences or somebody's clothing was different. Hair or whatever.

Andrea's responses described an awareness of diversity as general differences and similarities between children's lives and circumstances, but indicated that children have a heightened awareness of physical differences between them.  In her initial definition of diversity, Andrea replied, "Well, I think it's the difference of the children in our classroom, and I think it is the child's makeup at their home, not just physical appearance, but some are raised by grandparents, some are raised by single parents.  I think also on the children's level, it is just their difference in their appearance, hair color, eye color."  Andrea seemed confident about discussing diversity openly with children in the classroom, stating:

> We talk a lot about that in class as far as who has blonde hair, who has black hair...We did a project on homes and talking about your home, how many bedrooms your house has, and one of the things was, well, who all lives in your home?

Andrea's response also illustrates how she sees types of diversity as connected to one another, "That kind of brought up, well, I live with my grandma.  I live with my mom.  I live with my mom and dad, so that kind of brought up a discussion on who actually is in your home.  Is it Mommy and Dad, Mom, Grandma, Aunt?  We did that, talked about that in class."

Rachel also expressed a comfort with talking about diversity openly in the classroom, commenting, "I'd think you'd want to encourage that."  Rachel said that she often uses children's literature to initiate discussion with children.  Rachel gave an example of how she might introduce topics about diversity:

> We discuss after the story is over—we'll discuss the environment that she lives in.  Does she live in the same environment that we do?  Does she live in the country?  Does she live maybe in a town, in the city?  We'll say, "Well, by looking at the pictures in the book, what tells you that she lives in an area like that?  Is that area similar to where we live?"  I know the little girl—I believe in the story I'm thinking about—is an apartment dweller.  It talks about actually going down the hall in the apartment building, and things where most children in our environment would not be familiar with that at all.

My conversation with Hope also centered around types of diversity related to race, ethnicity, and skin color, but also led to the discussion of ideas about sexual orientation and family structure.  Hope reflected on her experiences with changing paradigms about diversity:

> Well, when I reflect back on all the years—years ago we didn't have many differences in our classrooms, so to speak, pretty much mostly the same color.  Then a few years back, we had lesbian mothers.  That was a topic of conversation in our classroom, that that little boy had two mothers.  How come he had two mothers?  Which mother was the mother that had gave birth to him?

When I asked her about how children were discussing this aspect of diversity, she replied that the discussions:

> just happened naturally in the room.  I mean, children began playing in the dramatic play area, where there were two mothers taking care of a baby.  We just talked about it, that yes, the little boy had two mothers.  He lived with two mothers.  Some people have a mommy and a daddy.  Some people live with a grandma, that's what I mainly think about.

She linked these naturally occurring discussions about family structure to a more recent classroom experience, a discussion of differences among children's nationality and language:

> Then here recently, [our school] has had a lot of different colors and different nationalities move in to our district recently.  For instance, this year is the first year that I've had somebody who doesn't speak English.  Just talking about it with the kids, when those children first started at the beginning of the year, they were speaking their own language, which was Nepali.

Hope later commented that children discussed this aspect of diversity much like they did the family with two mothers.  The children explored these ideas naturally, through play:

> The other kids—again, it seems to happen in the dramatic play area, they would pretend to be speaking Nepali, which is just, "Blah, blah, blah, blah," while they're playing in the dramatic play area.  They would be like, "Oh, I'm not speaking English, I speak this" and then they would pretend to speak it.

I wanted to know if the teachers felt that any topics about diversity were inappropriate for the classroom. Noted above, Rachel felt that all topics about diversity were appropriate and should be encouraged.  Emily's response indicated that uncomfortable topics and potentially

offensive situations that might arise between children would be discouraged.  For example, she

thought that she would discourage a conversation "if [the children] say it in a way that might be

offending to the other children, or possibly not be willing to sit by somebody because this person

is black or this person is this or whatever."  Hope shared her dilemmas about this with an honest

and frank response:

> I wonder that all the time.  Even with the lesbian mothers, it—even though I, in college,
> experienced some people around me that were lesbians, I wasn't sure how I was supposed
> to deal with it, to be quite honest.  I just thought honesty was the way to do it, that some
> people do have a mommy.  Some people have a daddy.  Some people have two
> mommies.  Some people have a mommy and a step-daddy.

Andrea's response reflected a personal concern about what might be an inappropriate

conversation about diversity in the classroom. One of the children in her classroom has an

incarcerated parent, and sometimes speaks about it at school:

> I have a little boy in my afternoon class that his mom is in jail, and so he'll talk about that
> a lot.  When he talks about it aloud in class, I just try to go over and sit next to him, and
> we'll talk about it kind of quietly, but I think that is something I wouldn't want him
> talking about openly in class because he knows why his Mom's in jail, and he knows you
> know and that he doesn't get to see her.  Dad's kind of very open about it, too.  That's
> just something I kind of like to, kind of keep-kind of-maybe between us, or the child and
> us, instead of like having an open discussion.  That's something that I'll try to steer him
> away from if he starts talking about it, that I'll try to get it to where it's just a one-on-one
> instead of an open discussion.

Andrea's response indicates that she is willing to talk about a complex, difficult situation

with an individual child, but is hesitant to bring into open classroom discussion.  In retrospect, I

wish we had elaborated on this topic further.

**Community**

When teachers were asked about community, they were asked to identify the different

communities they saw the children in their classes as being a part of.  All of the teachers strongly

identified the preschool classroom as being an important community in the lives of children.

Other communities that the teachers identified were school, neighborhood, town, family, church,

language/nationality based, and regionally-based communities.  The teachers' view of the

classroom as an important community for children is illustrated by Emily's response:

> We stress very strongly that we all belong to the pre-K classroom.  Everyone belongs, and everybody comes in, and we're nice to everybody.  Everybody should feel secure about that.  We say many times, "everyone's a friend at pre-K."  We are one family in other words, is another word for my community, I guess.

Andrea's and Hope's responses, like Emily's, illustrated the high value of a strong community

identity, and the importance of each person in that community.  Andrea explained:

> This is the pre-k classroom.  We are all friends in school.  We all are part of the classroom.  We all have to help clean up.  We all have to help keep our bathroom clean. We don't throw our paper towels on the floor.  We only get one pump of soap and three pumps of paper towels kind of thing because this is our classroom, and we don't want our soap to run out or our paper towels to run out.

Hope's response indicated agreement:

> Well, our classroom is a community.  I think of our classroom as a family. That this is— kind of our classroom is our home, and we take care of our home, and our environment, and our school.  We take care of each other.

Rachel described how this strong sense of classroom community included not just members of

the class, but the parents and family members of children as well. Rachel explained:

> At the end of the year we have a potluck picnic at the park, and by then it's well-established -us being the Pre-K community group.  It's just really enjoyable to see how by the end of an entire school year, they're comfortable with one another.  Parents have become more familiar with each other.  They're discussing topics—things that are happening with their children at school; maybe the upcoming school year with kindergarten—all sorts of things.

> Teresa's ideas about her children's communities extended beyond the classroom to

children's local interactions in the community with their families.  She explained her children

lived in communities that are:

> Very small town, rural…I think [in our town] they kind of live in a little bubble.  It's very limited what they're exposed to, and then even with the English language learners, they

tend to live in the same area in the same town, and their families actually work with other people who don't speak English at a factory. In a way, they kind of live in their own bubble. It's almost like we have two communities going, and then they come together here in this classroom really.

Establishing interaction between the preschool community and the larger school community was important to Andrea and Hope. Andrea noted that interactions with the larger school were one way she helped to facilitate interaction with community, specifically mentioning school activities and sporting events as ways that her students interact within the larger community. Hope was very focused on the benefits of interacting with the larger school community:

> We interact in the building. We try to do as much as we can in the building, visiting different classrooms, using other teachers as resources. Right now we're doing the music project and the music teacher is helping us. That way the children are meeting the music teacher that they're gonna [sic] have music with when they go to Kindergarten. Doing things with the Kindergarten teacher for Kindergarten transition activities so they're familiar with the Kindergarten teacher when it's time to go to Kindergarten. We take a bus ride with the school bus driver so they know the school bus driver, again when it's time to transition into Kindergarten.

Hope continued to discuss how she not only helped to facilitate interactions between her children and the local community, but how the children do the same for her:

> As far as linking—gosh, they almost help me link with the community. I mean, when we take a field trip to the post office, they know the lady who works at the post office. I don't live here in [this town]. We have a dad that's a volunteer fireman at the Fire Department. Well, of course he's helped set up a field trip and all the kids know that particular fireman at the Fire Station.

Hope also indicated how these trips into the community helped children internalize connections between their lives at school and the communities in which they live:

> Well, I mean like when we did our little Pre-K t-shirts this year, and we did our little faces, well then we took a field trip to the t-shirt company that helped the kids actually screen t-shirts. We've taken field trips to the gymnastics place and then a lot of the kids end up taking gymnastics from our field trip.

Emily and Andrea also described how field trips facilitate interaction between children and communities. Emily noted, "We show the children when we go to different places—when we go through our city, that there are different places we can go, and that's a part of being a part of the community, too, as a whole." Andrea used this as an opportunity to describe not only what she had done with children, but also new ideas she was developing that would foster a stronger connection to the local community:

> Well, we've not done this, but we have talked about maybe going through uptown—well, we did take a field trip last year and we went up around the [town] square, and there's like a—the garden club does a have like a box, a flower box. We went around there, and the president of the garden club kind of talked about what they did to beautify the city. We have talked about furthering that and possibly planting a garden or doing something like that, but we haven't done that, so maybe something like that. Or maybe to help clean up the playground or the school, kind of do that. I know the kids at the elementary school do that. They have a recycle day or a trash pickup day where they go around and they kind of clean up the school. We have not participated in that, but we have talked about doing something like that.

Rachel's response indicated that interaction with communities was something that primarily happened outside of school:

> Well, on their own I guess outside of the school, obviously, they're just immersed in it. Everybody knows everyone, and they go to church together. They go to social functions together. They all go to the same sporting events. I mean they are very immersed in their community.

Rachel did mention the role, albeit somewhat limited, that field trips play in fostering this interaction: "It's probably more limited because we don't really—we can't leave the classroom except for field trips, which those usually are largely community-based: the fire stations and the restaurants and such that we visit."

**Economic Concerns**

Teachers were asked about "local economic issues of concern" and how or if any of these were discussed with children in the classroom. All five teachers made statements that

communicated that this was not something that they had thought about very much, and had not

been a priority for them with regard to curriculum planning.  Emily's response was straight to the

point about this: "I can't honestly say that we talk about economic issues here, not with the

children."  Andrea and Rachel were reaching to connect ideas about economics to something

else.  For example, Andrea made a tacit connection between weather-related events and Rachel

considered her classroom's experiences with wasting, but conceded that she hadn't really

connected that topic to economics: "I mean other than the not wasting, as far as economics I

don't know that we get into that much."  Hope's response was a frank admission to not really

knowing how to broach the subject of economics with the children in her class: "I'm sitting here

thinking, how do we even start a basic conversation about economics with a preschooler?"

I wondered why the teachers were not discussing economic issues of concern with

children.  In general, it seemed that teachers viewed economics as an issue that was too complex

or personal for children.  If it was introduced, it had been done, or should be done in ways that

are simple or matter-of-fact.  Emily explained, "We did, in a way, talk about that but in a very

matter-of-fact, very—we don't go into who has what as far as economic levels I guess is what

I'm getting into."  Rachel's response echoed concerns about discussing economic levels, "I

would have to think about it because you're kind of talking personal, you know?"  She added

that if she were to discuss economic concerns with children it would need to be, "something

that's very relatable for them—pretty simplistic."

Teresa elaborated on whether or not discussing economic issues of concern was

developmentally appropriate for young children. She explained:

> Wow.  I just think it—in the pre-k level, aren't they fairly limited as far as their
> scope…they're very egocentric in pre-k so really unless we introduce topics, I would
> think for many of them, they aren't going to be aware of that locally.  They may, but I
> don't know. I mean we wouldn't want to go into anything too sad.  Like I said, hardships

too much…I would keep it very surface.  I mean not to say that you can't say some children at our places may not have food like this.  I mean I think that's probably okay to say, but I just don't think you want to go too deep into it as a teacher.

Hope offered a slightly different take on how economic issues of concern are not often dealt with on a deeper level in the classroom, specifically within the context of economic hardships.  Hope acknowledged that children do bring economic issues into classroom discussion.  When I asked her about how she responded to children who were expressing thoughts about their parent's economic hardships, Hope answered, "I hate to say it, it's probably just kind of a brief statement and then we move on to something else, to be quite honest.  It's probably uncomfortableness on the part of the teachers, quite frankly."

While the teachers had indicated that they did not regularly discuss economic issues with children, they all were aware of how economic issues were affecting children's lives.  Emily, Andrea, Rachel, and Hope each spoke directly to these concerns, and how they were encountering economic issues of concern in the classroom.  Emily's response describes how economic concerns are currently affecting all of the teachers:

> There was a point with our field trips that we are no longer going on field trips if it costs money, things like that…with our field trips, I think that's where our program was coming from with that, that we should all be able to go and that we shouldn't go because someone can't afford to go, so all of our field trips don't cost money.

Rachel and Hope commented about the high unemployment rate in their communities. Rachel explained, "Well, a real concern in this area is unemployed families—families losing jobs.  You know, those sorts of things—basic needs being met."  Hope mentioned unemployment but also commented on parent incarceration, "I mean we have many people whose moms and dads don't work and—Oh, my daddy's in jail right now.  He's not working.'"  This was the second time a teacher mentioned parent incarceration in the interview.  As noted above, Andrea discussed her

views about discussing, or not discussing, parent incarceration with children during our

conversation about diversity.

I mentioned earlier that Andrea had made a tacit connection between weather-related

events and economic issues of concern.  She elaborated on how this comes up as a topic among

children:

> I can say I don't really know if this is so much economic, but I would say weather-related
> incidences would be one thing.  I could see the children talking about community things
> like when the storm came through and several trees were down.  So-and-so's house was
> part of the—siding was down on So-and-so's house or a window busted on So-and-so's
> house.

While Andrea was only just beginning to consider the connection between weather and

economics, it seemed clear to me how these weather-related occurrences might have a direct

impact on the economic lives of the children and their families.

Rachel's connection between "wasting" and economics came up here as well.  Rachel felt

it was very important for children to learn about the conservation of resources, or simply, not

wasting:

> We're like really big about not being wasteful in our classroom with food and things like
> paper or like the easel.  Is it okay to just go like this and be finished with your painting or
> with your drawing? And I mean as far as the economical part of it— waste is like a real
> big—I mean we even do that with food.  Like if you dish your own food out, you need to
> try it.  I mean we're very much into that and then the recycling and that sort of thing.

While I recognized that the teachers were expressing that they did not really discuss economics

with children, I encouraged them to share ideas about how they have, or how they could integrate

economics into the curriculum.  Emily reflected on what she had done with children in the past,

again commenting about the practice of being simple, and matter-of-fact with children:

> I guess when we did do this somewhat, when we opened up our grocery store, we talked
> about money that we needed in order to buy the groceries.  We made our own money.
> See, we do do that.  We talked about dollar bills and how much that was compared to a
> $20.00 bill.  In our Presidents project, we also talked about whose face was on different

bills and how much that you could buy, and that we do need money to live. We did, in a way, talk about that, but in a very matter-of-fact, very—we don't go into who has what as far as economic levels I guess is what I'm getting into.

Teresa and Rachel had ideas for bringing economic discussions into the classroom. In addition to her focus on waste and conservation, Rachel discussed an idea about how economics might be explored through the topic of transportation or housing:

> Just off the cuff I'm thinking transportation—how we get places. There again I would throw in diversity of, "Okay, well, let's look at this country." Bring the map out. How do they get around in their communities—you know like horse or donkey versus cars, van, buses—maybe something like that. Maybe tie in transportation with it…I'm sure there's ways of even just doing comparing and contrasting…There again I think it'd be more like physical things like you live in an apartment; you live in a house; you live in a trailer. You know everybody lives differently—those sorts of things.

Teresa's ideas were more explicitly connected to exploring ideas about the value and use of money, "to get something for the classroom, we have this much money, and it takes so much more or we have enough or we don't have enough to get something. "

Hope seemed particularly thoughtful about what children were and/or were not learning about economics in her classroom. She wondered if she might change the ways she had been approaching certain matters:

> I'm reflecting on what we've done. It's kind of hard, because you know we'll take a field trip to the grocery store and then we may set up a grocery store in our dramatic play area. Then when I really think about it, their idea of what something costs—or they'll play ice cream out in the little house outside on the playground and you'll—they'll pretend that they're selling you an ice cream cone. You'll be like, "Well, how much do I owe you?" They'll be like, "$500.00." Their concept of money—I'm wondering, are we teaching them any—not anything, but...You know, now I'm starting to think, "Well, maybe we've missed the mark a little bit."

Hope gave an example of how she might have missed an opportunity to explore the value of money with the children in her class during a field trip to a bakery:

> Just for instance, we do a little gingerbread man cookie experience and we read the different versions of the gingerbread man, and then we took a field trip to [a local bakery]. Well, they got to tour the bakery, but then they got a free cupcake.

Hope wondered if the children getting the free cupcake had reinforced what seemed to her to be

children's misconceptions about the cost and accessibility of products. She asked:

> Okay, so did they really learn through that experience that you go to a bakery and you're
> purchasing a product, and you give them money for something?  Like I'm kind of
> reflecting now, it's like, "Okay, well what did we really teach-- yeah, a bakery's a great
> place to go and get baked goods, but they didn't have to pay for their cupcake."  I'm kind
> of wondering if we've gone about it in the wrong way.

One of the items in the ERS-SDEC asks if children are supported in questioning the

hidden costs and benefits of a range of products.  All of the teachers struggled to provide ideas

about what they thought the phrase "hidden costs and benefits of a range of products" meant.

All of the teachers asked for me to provide some clarifying statements.  I made several attempts

to prompt responses from the teachers without "giving away" my own assumptions about this

term.  Even with my prompting, the conversation seemed to stagnate at this point with all of the

teachers.  Emily, Andrea, and Rachel were unable to really address the subject, while Teresa and

Hope were able to discuss this to a small extent.  Teresa shared her interpretation of the phrase:

> I mean I immediately think "Made in America."  Because this is where we live, and then
> it obviously provides jobs and helps everyone in our community.  Therefore, it's just—in
> America, you assume made in America is better.  Obviously, very little is made in
> America so I guess there is a benefit for people in other countries who may not have
> much for us to be buying their products.

I asked Teresa if she could think of a way that she could begin to explore hidden costs

and benefits of products with children. She shared an idea for introducing the idea of taxes to

children as a hidden cost:

> You could go into taxes like you purchase—if you're pretending restaurant, you're
> purchasing a hamburger for $2.00 and there's the additional—the taxes, the hidden cost I
> guess. I guess you could have a menu or whatever up with the actual dollar amount, and
> then at the bottom, maybe have the tax, the hidden cost.  Then, they would have to add it.
> I mean you'd have to keep it $2.00 plus $1.00 or whatever.  Then, that way they could
> figure it out, and it would give them—that would give them an awareness of that hidden
> cost definitely.

Hope took time to consider the meaning of the phrase "hidden costs and benefits of a range of products," but still seemed unsure about her response: "I don't think children—I don't think they do that, and I'm not sure how you get them to think that way." Hope paused, and then continued to reflect on how children express their ideas about money:

> It seems like whenever, let's just say we run out of something in the classroom. They'll just be like, "Well, go to Wal-Mart and get it." I'll be like, "I don't have the money." I don't know if they think about— I don't think they think about it, to be quite honest.

I asked Hope if she thought children could, or should, or would benefit from being encouraged and supported in starting to think more about products in general? Hope replied simply, "I think they would."

## Equality

As I explained in Chapter Three, only Rachel, Teresa, and Hope were asked to share their ideas about equality during the interviews. As I described in Chapter Three, I continued to study the ERS-SDEC during the time period in which I was conducting the interviews. The use of the word equality seemed unclear to me in the ERS-SDEC. I found that I wasn't able to articulate my own thoughts about equality, especially equality as something observable in the classroom, so I thought I would ask the teachers what they thought about it. All three of these teachers used the concept of fairness to describe equality in their initial responses to questions of equality. Rachel said that equality was, "everyone being treated the same. Fairness. You know, no matter what the diversity is we should all be treated as such." Hope's thoughts echoed this understanding: "Sameness. Equal, fair…" Teresa defined equality in terms she deemed appropriate for her class:

> It's pre-k level so you try to keep it very basic, but equality is as simple as you're at the [block table]—you have blocks and he has blocks. You both deserve the same amount. Obviously, in blocks, you can't come in and take all his. That's not fair.

I let the teachers know that I assumed that they valued equality in their classrooms, but I wondered how they thought this value was communicated to the children and families in their classrooms. How did families "know" that the teachers valued equality? Rachel felt that she expressed this value to the children by addressing issues that arise in the classroom fairly. She gave an example of how she addresses issues of gender equality in children's play:

> If we hear any language in the classroom where—for example in the housekeeping area: "Oh, only the girls can play in here," or, "Only the girls can wear the dress," or those sorts of things. As far as gender we're like, "No, the dress is for everyone no matter who is in there—you know whatever you want to play with. It's available for everyone." I mean in a classroom you'll hear children say things to each other that aren't real kind. We'll remind them that we talk nice to everyone. We're all friends.

Rachel also communicated this value to families during their daily interactions. Regular interaction provides opportunities for teachers to show families what they value through discussion with families and opportunities to model responses to problems. Rachel explained:

> I mean we see them every day at the beginning of the day. On field trips if we're there together and a problem should arise where someone isn't treating someone fairly or equal, you know we'll address this kind of through modeling phrases and things that are appropriate. I mean classroom notes too. I'm not thinking of a particular subject but any time we would put anything out. You know on our newsletters a lot of times we'll post photos. We would want to make sure to, throughout the year, change up the photos and make sure that we're not showing a picture of just our older children that can do a little bit more complex materials. You know what I mean? Just displaying things in the room would be—displays would come from everyone at all different levels of development.

Teresa also uses problems or situations within the classroom to communicate values about equality to children, particularly when children's biases find their way into the classroom. Teresa gave an example concerning bias associated with race and ethnicity:

> Sometimes, it seems like kids have pointed out that a child is Hispanic per se. "It's probably a Hispanic kid, this kid or such." It's like, "No; they're just different. Just because they speak Spanish does not mean that they are aggressive. They're exactly the same as you." You know what I mean? You kind of have to go into that sometimes strangely enough.

I did not mention the term equity during my interview. However, Hope's responses to my question about communicating her values about equality to families expressed some of the nuances regarding the differences between equality and equity:

> I'd love to say that I treat them all the same, but then I don't treat them all the same. Sometimes there are issues that come up where a family might need a little bit of extra support, if that makes sense. I mean, I think I'm very fair. I believe they know where I stand. If I say, "Oh, your paperwork has to be turned in before your child starts school," all the paperwork has to be turned in. Then I don't—gosh, that's hard. I mean, I hope I communicate that openly with families and I hope it's very clear cut on what expectations are and—you're really making me think, and I don't like it.

I also asked the teachers about discussing inequality with children. Teresa alluded to her experiences with children's biases that I described earlier, but Rachel and Hope had some additional thoughts. Rachel explained:

> Unfortunately there's a lot of inequality in the world. I can't think of any specific examples. I mean we may say to the children, "If someone is needing your help and they're like a little friend, what do you think you should you do?" and kinda teach them to treat everyone the same and be helpful of one another and those sorts of things.

Hope's ideas about discussing inequality illustrated the dilemmas teachers sometimes face in discussing inequality or other complicated issues with children:

> Well, 'cause I'm thinking right now of somebody whose—mommy lost her job and the little girl came and was sitting at the table and just was casually talking about you know, "Well, mommy doesn't work anymore and that wasn't fair." It was the boss's fault that mommy didn't have this job anymore. They didn't have money to buy new shoes, but to me that was her perception of it not being fair to mommy. Does that make sense?

The connection between equality and fairness is similar to the thoughts teachers shared about social justice, a term that was also new to the teachers.

**Social Justice.** Teachers' ideas about social justice were consistent with their views about community and equality. Much like the experiences with defining the word interdependence, the teachers seemed to construct their ideas about social justice during the course of the interviews. Despite feeling unsure about the concept, the teachers were able to

express some strong views regarding social justice.  For example, Emily expressed the following,

which was very similar to her response about community:

> Social justice.  I go to the social aspect of that that everybody belongs and everybody
> comes together and everyone is a unified group.  So you're justified into coming into the
> social aspect, and everybody that comes to pre-K should be able to do that without
> feeling like they don't belong.  I'm very big on that, to feel a part of the group and never
> feel that you're not.  I think that's a very awful feeling.  I don't know if that's what I want
> to say, though.

Emily, Andrea, and Rachel all brought up "fairness" as an important factor related to their

understanding of Social Justice.  Emily elaborated on her previous statement:

> Social justice to me also, I guess, comes into play on what is fair in the classroom as far
> as our rules, and that everyone's treated fairly…our kids really know what's expected
> here as far as fairness, and sharing, and taking turns, and lining up, just the whole
> business.  You can hear them talking about that with other children.

Andrea defined social justice as, "I think about it being fair, turn-taking," and Rachel's response

implied that social justice was something more than just fairness between children, but of

kindness between people as well.  "I think of fairness—everyone treating each other in a kind

way whether it's between student-to-student, teacher-to-child, teacher-to-teacher."  Hope's

response was in line with these ideas as well: "That we all take care of each other and that we

have rules for a reason.  We take care of our belongings and people in our room."

When asked about children's efforts at achieving social justice, the teachers described

these efforts in terms of children's experiences solving everyday problems within the classroom

context. Andrea elaborated on her ideas about fairness:

> I think about it being fair, turn-taking, a child getting their turn on something, a child not
> just coming up to somebody else and grabbing something from them, and using their
> words, waiting in line.  Don't cut in front of somebody in line, too.  That's a big thing.

Andrea also commented that children speaking up in class and making decisions about their

actions is part of children making efforts toward social justice.  Andrea gave an example of how

this might sound in the classroom, "Am I [the child] going to be patient enough to wait for my turn at the game, or am I going to speak up and say, 'Nope, I was there first, you'll have to go stand somewhere else?'" Andrea introduced how teachers can use modeling and verbal scaffolding to facilitate interactions between children:

> Sometimes, we give them the word. They're playing in an area and somebody's taken a toy from someone. A lot of times, I'll say--They don't have the words to say it themselves-- I'll say, "Tell them, 'I had it first. You can have it when I get done.'" We kind of model that for some of the children, the younger children I guess who don't already have that vocabulary.

Rachel and Hope also discussed children's efforts at achieving social justice in terms of what is happening in the classroom, particularly in terms of solving social problems between children, and how teachers can help to facilitate and encourage this social problem solving. Rachel described:

> You know if there's a problem that arises in an area, they talk back and forth. I mean we do a lot of that encouraging—tell them how you feel if someone takes something, knocks something down. Let that person know how you feel. We really practice on them conversing back and forth, even as the year progresses, more independently. I mean we'll literally ask them, "Well, is that something that you think is nice and okay for us to do in Pre-K?" Verbalization--- slowly as the year progresses, more and more independent of doing it on their own so that the last portion of the year—I mean you can hear them. They won't even ask for a teacher. They'll solve their problems amongst each other.

Teresa offered a similar experience, but also used language about morality, children's awareness of right and wrong, in her response:

> Well, you seem to see this a lot with the older pre-k children, but they definitely have a strong awareness of right and wrong and the rules, most of them at that age. Obviously, they'll come and tell if somebody is doing something they consider unjust. I've seen them help if they see someone across the room doing someone wrong. I've actually seen children today walk across the room and try to talk to that and say, "Hey. You need to stop doing this," and then actually come and get me when that did not play out as he wanted it to. I mean I don't know that he should have really been involved, but he was trying to be a good friend. I don't know.

Teresa and Hope made references to the role of consequences as a part of their understanding of social justice. Teresa's ideas about consequences focused on the natural consequences of social behavior between children:

> Social justice. We have a really good example of that right now. We have a child who's being very, very aggressive to people, and as a result of that, people are not playing with her. People are—younger children are actually screaming when they come near so I mean there's a little social justice for you. Once again, equality. You should treat everybody with kindness and respect, but if you choose not to, there are consequences to that action...But then also, there's a child who's consistently kind and helpful to everyone in here, and it pays off. He gets to be the line leader, and he has a lot of friends. You know you can depend on him. It's kind of like karma. Sometimes, I mean we can talk, talk, talk to the children and ask them to negotiate and work it out, but sometimes it seems like that's a little more effective. If that's how you're gonna [sic] play, you're gonna [sic] pay.

Hope's response was an extension of her initial statements about not really understanding social justice, but seeing it related to enforced consequences for behavior:

> I only think of that as far as the law…Well, that we all take care of each other and that we have rules for a reason. We take care of our belongings and people in our room. The consequences are the same for everybody. There is a consequence.

While none of the teachers extended their ideas about children's efforts to achieve social justice beyond the classroom context on their own, Teresa offered some ideas about how children could participate in social justice activities within the local community:

> I guess littering came to the top of my head for whatever random reason just 'cause it's a simple something they could do. They could help pick up trash in a park and maybe even create signs reminding people to throw away trash. I mean just something. You have to keep it pre-k appropriate. Yeah. I do think you could do that definitely…Well, I mean we've picked up recycling trash and put it in the recycling bin here. I'm trying to think. We really like—[my co-teacher] and I really like animals and nature. I mean if we see someone being rough on a cocoon or a nest or whatever, we do try to teach them that.

**Human Rights**

When I asked the teachers about human rights, I first asked them to tell me what they

thought was implied by the phrase "inherent and universal rights of all humans." Their

responses varied greatly in some ways, and mimicked each other's responses in other ways. For

example, Emily's responses sounded similar to her thoughts about equality:

> Everyone's treated pretty much the same way and we have the same rules for everyone,
> not that those rules are carried out in the same manner sometimes because I think
> everybody's different with that and you have to do different things with different children
> to make things work sometimes, but the rules for themselves are the same no matter
> whether you're black, white, you know?

Rachel mentioned a connection to justice in her response, "It's just treating people like you want

to be treated. It's kind of like the justice thing—you know everyone is respectful of one another,

" which was similar to Teresa's response, "Just that you should be treated kindly. You should

feel safe. Inherent and universal rights. You should have your basic needs met."

Much like Hope connected social justice to her understanding of the law, Andrea

expressed a similar view regarding her developing understanding of human rights: "I just think

of like I guess your amendments, your constitutional rights, right to speak. I think in our class—

I mean I guess I'm just tailoring it back to my daily classroom life I guess with the kids. It's just

not something I guess I really think about."

Hope's response indicated that she had not really thought about the inherent and

universal rights of all people prior to this interview, but she was able to generate a list of rights

that she thought all people should have:

> That's not easy, that should be easy. Because we're all humans and it all should be—
> 'cause I'm just thinking that all humans should have food to eat. All humans should have
> healthy water. All humans should have medical care. All humans—that's what I think
> about." As she continued with her response, Hope continued to think about this on a
> deeper level, extending her thinking beyond the context of her classroom: "Then I'm

thinking about third world countries, where—you're making me think…That everybody has the right to go to school.  Everybody has a right to be educated.

As Hope continued to think aloud, she started asking me questions. She asked me to name some of the other countries that were participating in studies regarding the development of the ERS-SDEC.  After I named a few of the countries, she used those as examples for her questions and ideas:

> I'm just throwing this out there, if a teacher in Kenya were asked that same question, what their view on human rights is-- from where they've come, in their experiences in their country.  Sometimes I feel like we have blinders on, that, "Okay, I might know a little bit about the world, but I really only know about America and the lifestyles that we have here."  I'm just wondering, you know, what the perception of human rights is for people across the Earth, if that makes sense…Well, 'cause like you said China.  I thought, "Okay, well in China, I mean do 12 year olds go to work?"  Is that something that's kind of really against human rights, that a 12 year old might be working in a—it's just very interesting.

I asked the other teachers to share their ideas about what inherent and universal rights that all people should have as well. Rachel commented that all people should have:

> The right to feel safe and comfortable.  Be in an environment that is enjoyable with fairness.  I guess I always go back to fairness.  I think that's very important.  They have a right to a safe and clean environment as far as the classroom goes—the right to express their feelings.

In addition to her comments about everyone deserving to feel safe and be treated kindly, Teresa added, "Everyone should have the right to have shelter and food," and that, "freedom for one thing would be the right to be yourself and to be safe and to make your own decisions about how you want live your life."  Like Hope, Teresa was provoked to wonder about this subject on an international level: "Which I'm sure internationally that does not always—some people are limited in that."

I wanted to find out what teachers thought about introducing human rights as a topic of discussion with young children.  What would be some appropriate ways to talk about human

rights with preschoolers? What could that "look like" in the classroom? Hope's response was

brief, and similar to her own experiences with understanding human rights, she was hesitant to

imagine how the subject could be integrated into class discussions: "I'm only reflecting on what

I've experienced in my classrooms through the years, it's like they only know what's in their

realm of being it seems."

Emily was quick to respond to the question by making a connection between human

rights and rules. She thought it was important "not too expect overly too much out of our rules to

be able to explain those [rules] and not expect that everybody that walks in the door understands

what those rules are." She continued her discussion about helping children understand rules:

> It takes patience, and a lot of talking, and a lot of discussion. They should also be able to—we occasionally sit down and let them tell us what some of the rules should be for a certain thing. [Children can] come up with their own rules about certain things or, if there is an argument over something, ask them how they can solve it. We do that, too. "What would be a better way of dealing with this?" I think that children have a right, as anyone else, to try and come up with rules and to be able to tell their feelings and thoughts, too.

Emily expanded her thinking about human rights and rules to express her thoughts about

children's right to express their real feelings:

> It's like having a little guy—I don't know about always having to say you're sorry when maybe they're not. I had someone do that one day. I said, "Well, you probably need to tell him you're sorry," and he said, "I'm not sorry." We talked about that, too, that that's okay, and I didn't make him do that because he really was upset about it, and in his eyes that was unfair what the other child had done. We talked about it in a different way because I don't think you should have to push those feelings on somebody else if you truly don't feel like that. It's okay to have your own feelings.

Like Emily, Rachel's ideas connected discussing human rights with children to classroom

rules and problem solving: "Maybe a confrontation comes up in an area where they're playing

with a friend and after discussing the way we do things in the classroom and how everyone has a

right to total fairness, then they're going to be saying back and forth to each other, 'Well, you

can't do that. It's not okay to do that.' You know, you'd kinda hear like mimicking of maybe

what the teacher would've said."

Rachel also added that a classroom that discussed human rights would look like a highly

functioning classroom, "I mean you'd just see a busy, happy, verbal classroom during play time.

You could also see it at group time if the teacher initiates discussion." Similar to Rachel's

description of human rights discussion in the classroom in terms of simply being a "busy, happy,

verbal classroom," Andrea understood human rights discussion in the classroom in terms of how

the classroom functions on a day to day basis. She explained:

> They all will get to do things in the classroom including as far as participate in snack and
> participate during group time. They can all use the bathroom when they need to. There's
> not anything in our room that's off limits just to one child and not the other kids. Now,
> they may have to wait their turn, but as far as opening our areas, it's not closed to some
> and open to others.

Teresa began to consider the possibilities of how to discuss human rights in a way that

appropriate for her learners:

> Well, you just have to pare it down again. Everyone has the right to feel safe within the
> classroom, outside the classroom, wherever, in your home. Golly. That's a tricky one to
> discuss with children. You have to almost pare it down on a very basic level to
> accomplish it.

Much like Hope, the more Teresa discussed the subject of Human Rights, the more she

began to consider the possible implications of introducing children to the subject. As she

elaborated on a concern she had about teaching human rights to children, she seemed to grow

visibly upset, finally asking to move on to a different topic. Her comments seemed to me to be

particularly meaningful and expressed a genuine concern about the state of human rights not only

internationally, but here in the United States:

> It sadly comes to the fact that not all the children even here that you deal with actually
> probably get those basic rights met. I mean at home. Then again, I kind of find that to be
> hard 'cause it's like do I really want to bring that up? Do I really want to bring up

everybody has a right to feel safe in their home when somebody in my room I'd say does not? That's not the reality sometimes here. I mean I don't know 'cause when you're having to call [the Department of Child and Family Services]; when you know somebody's in an unsafe environment and you have to send them home every day to that unsafe—I mean and then to come here and talk about everyone has the right to go home and eat and be safe—you know to feel safe in their bed at night and to eat food, that may not be their reality at all. At what point—I don't know. Do you do that? How far do you take it?

Teresa continued by expressing her concerns about the heaviness of such subject matter with children: "I think you just have to kind of keep it light 'cause they're here, and they need that time 'cause you can't change that. You can't change that, and you make the call, but that usually doesn't—I've never known that to work, unfortunately. Let's talk about something else."

In response to my question about what discussions concerning human rights might be inappropriate for young children, Teresa shared more thoughts about inappropriate human rights topics:

Anything concerning violence and just unsafe scary environments. Clearly, that's—I guess I just immediately go to the television when you say human rights and think of people fighting. That's obviously out, but I don't know. Just you'd want to keep it to caring for one another, and having basic needs met.

Her thinking seemed to bring her back to her worries about the children in her class:

I don't know. I mean I just feel bad 'cause I feel like they're going to be sitting there thinking that's not my reality, and it's not like I can help them to change that reality. I can't ensure that for them. The feelings of what they're thinking. What's going through their mind if that's not their reality, which I guess internationally there may be—depending on what country you're dealing with, that could be a lot of people, a lot of children. I don't know. That's complex as far as where you take that.

Teresa remained reflective about the potential benefits of talking about human rights even when it might be uncomfortable:

Then, again, maybe you have to teach them that if you live in a place like that to empower them like when they grow up. This is what you should strive for. This is how your children should live someday. I don't know…This is pre-k. You're making it heavy.

Emily mentioned violence and prison as potentially inappropriate human rights topics: "Maybe if we got into prison talk and some violent behavior that someone would come in and start talking about." To note, this was the third time during the five interviews that one of the teachers mentioned prison or jail as a subject they were not comfortable talking about with children. Emily clarified that she saw these not as inappropriate topics with individual children, but as group discussions:

> I probably would not want to talk about that with the whole group of children, but maybe be able to get that person aside and listen a little bit more carefully to what he or she is trying to tell me without exposing that to everybody. I don't see myself ever making someone quit talking about something like that. I'd probably want to talk to them by themselves if I could, because maybe they're trying to tell me something. You don't know.

Andrea's response was about the topic of gun-play among children,

> The only thing I could think of was your right to bear arms. We don't talk about guns at all in school. I mean the only thing we do is just say, "Guns are not allowed in school," and it's almost like a daily thing. Kids are just prone to make any guns out of anything or even their fingers, and I never see it really maliciously or anything like that. At this age, it's just playful or they get carried away in play. I really feel it's not malicious or anything like that. It's just kids at the Lego table getting carried away or wanting to build a ship. Well, then they—these are their guns or you know. Then, we see it creative. Then, it went to lasers, and it will go to swords. Sometimes, some of them will pretend it's a not a gun. It's just a fire hose kind of shooting so they're really creative on that, but that's almost a daily no guns at school.

I did not ask Andrea to elaborate on whether she ever participates in discussions with children about why guns are not allowed at school. In retrospect, this would have been an interesting question to elaborate on. I would have also liked to know how Andrea might have related this to the general topic of non-violence.

Much like her response to other questions about inappropriate topics, Rachel seemed to convey that most topics were open for discussion in her classroom, "We are pretty basic and

open.  Inappropriateness makes me think of more like personal things that would happen in their

home or, I guess I don't think of it on a level bigger than that."

**Environmental Issues**

In general, the teachers had a lot to say about environmental issues.  I first asked them to

explain to me how they interpreted the phrase "environmental issues" - what ideas did this term

provoke in their minds?  Emily initially described environmental issues in terms of the physical

and emotional environments of the classroom:

> What I think about is our classroom environment and our outside playground
> environment.  That's the first thing when you say to me "the environment of your room."
> I think about, first of all, the physical things in it, the different stations that are in it, but
> then I also think about the feeling that the children have while they're here.  That's part
> of the environment to me, too.  Is it warm?  Is it friendly?  Do they feel secure?  Are they
> happy?  Do they want to come to school?  That is very important to me.  Environment
> can be physical and emotional for me, I think.

Emily extended on her ideas about what would constitute as environmental issues:

> Right now, the hibernation was a very good unit.  We went out and collected mud, and
> we brought mud back and showed them how turtles climb underneath the mud in the
> wintertime to stay warm.  We're beginning a unit; we're getting eggs, and we're going to
> hatch chickens.  That's an environmental thing to me, and then how we're going to use
> the chicks, and the eggs and that kind of thing.  Gosh, environment is so many things.  It
> can be what's in the air that you're breathing, what we use to wipe the tables, looking at
> the labels of the products we're using.  Outside, our trees that we had planted when our
> program first came because it was so hot out there, we needed shade.  Gosh, I could just
> go on and on and on.

Similar to Emily, Andrea's first response to the question "what is meant by

environmental issues" was a comment about the physical environment of the room, and also

children's awareness of that environment: "Just things that come up in the environment like

we're studying oceans right now.  We've been talking about our fish on our side [of a classroom

mural]."  The children in the class had created fish from paper and taped them to a mural in the

classroom.  Andrea explained how this is an environmental issue for the children:

Well, we've had a problem with them not staying up on the water. The tape keeps falling down. Then, I told them. I said, "Well, we used the thin kind of tape. Why don't you use the big thick tape and more of it?" That was kind of a problem that arose, and we added more tape. It's been okay. We have two kids that kind of monitor that every morning, they kind of go in and say, "Oh, I don't think this one has the big tape. Let's use the big tape on this one, too." We'll kind of fix that. I guess I just think of things like in the classroom that arise on a daily basis or a weekly basis that they are kind of aware of the environment in the classroom. Or there are some kids that will be the first to notice if something's changed or we've moved furniture around or anything like that. Then, there are some kids that just don't ever pay attention to that or realize or notice the changes.

Rachel, Teresa, and Hope answered by discussing the importance of caring for the

environment. Rachel explained:

Caring for the environment. It's your environment; you want it to be pretty and nice, so you have to partake in taking care of it. It could be anything from a community walk picking up trash, planting a tree. Planting flowers out on the playground—you know, those sorts of things. Kind of just letting them be aware of this environment is yours; it belongs to you. We need to take care of it for a long period of time, so you kind of get into the sustainability here.

This was similar to Teresa's response:

When I think of environmental issues, I guess things that we can do to help and protect the environment or things that would be harmful to the environment. We always go back to recycling and littering. That just seems to be the classic school case, but then I really try to teach them to be respectful of living things, plants, and animals, and to not obviously tear up our environment on the playground or just outside our butterfly garden to be respectful of that. Really you could talk about all kinds of things. I mean you can get into transportation and what comes out the back of your car and how does this effect the environment...I mean you really could go on and on about environment if you wanted to. You just would have to be very mindful of to spin it into the conversation.

Hope's response was also similar:

Litter, recycling, 'cause I'm thinking about how we use things in the classroom. Water wasting. Me personally, I don't love it when they waste food, but that's just me. We do recycle in our classroom, either they are using materials in newfound ways to create things themselves, or they know what the blue recycle container is, to put paper in, plastic bottles, those kind of things. I hate to say it, but garbage pickup. We're forever picking up garbage on the playground. They know where the garbage can is. They go over, and they lift the lid, and they put the trash in the garbage can. They know about littering. The other two, I mean we try to get them to shut the water off when they're done washing their hands. Most of them still leave it on. They waste a tremendous amount of food.

Hope elaborated on the problem of wasting food; in the last year, a school policy had been implemented that required the children to eat in the cafeteria. The children are served set portions and are required to throw all uneaten food away. Before this new policy was put into the place, the children ate in their classrooms and were served family style:

> Again, I don't really know how to address that when they're served an enormous amount of food on their tray and they don't want to eat it. We just throw it in the trashcan. When we ate family style, we did that. If it was something they wanted, they were to take one scoop out of the serving bowl and put it on their plate and then after they ate that, if they wanted more, they would ask for that serving bowl to be passed back to them. Hopefully they weren't wasting a bunch of food.

While some of the teachers provided information about children's involvement in solving environmental issues, I asked them if they had any additional thoughts on how children could participate in projects that allowed them to explore, investigate, and understand environmental issues. Emily and Andrea each shared additional experiences and ideas about how they have and/or how they could involve children in such experiences. Emily shared a story about children's experiences working directly with the environment on a drainage issue on the playground, and then about a sand and ice discovery:

> One of our big issues on the playground is that we don't have a good drainage system. We said that [in front of the children] one day, and everyone wanted to know what that meant. We went out and we looked at our playground, and you could see it had poured down rain. You could see where the water had run and washed away our wood chips. It was a beautiful day. We spent the morning getting buckets, and we had little scoopers, and we went around and moved the wood chips back where they should be. We had a couple of rakes. Everyone was helping put our playground back together. To me, that was a very good way of having the children, too, fix the environment because then we could come out the next day, and it was all ready for us to play on it again, but we had to fix it first. We didn't have a custodian come and do that. We didn't have the parents come and do that. The kids did it. I honestly think they respected that more because we did that that day. They talk about that to this day. If somebody would come and they'd go, "Oh, wood chips need to be over here," we will let them go and get our tub, and they move the wood chips around. I think that was a very good learning experience for us.

Emily continued to elaborate on her ideas concerning environmental issues:

There's so many things we do that I just—you know, like the ice and the sand one morning. We uncovered our sandbox, and it had rained, and water was in there. Some of our toys were in there, and it had turned to ice, so we talked about that that morning. How did that ice get there? That kind of thing. Then we went back out later in the afternoon and it had melted. Then we got into a big discussion about that. There are so many spontaneous things with pre-K that you can do if you're open to all of that. You can get a little messy sometimes, but that's okay. I don't know. I hope I'm answering some of this stuff you want.

Andrea talked about some of the things children do to take care of the room, and some ideas for

things they could do to integrate environmental issues into the classroom:

I guess I mean I would say one of the easy ones for them to be able to understand would be recycling. We don't necessarily do in our classroom. However, we do save toilet paper rolls so some of the kids will save those and talk about those. Another thing would be to make sure you take care of your own spot during trash or during snack. They will always pick up their own spot and throw their trash in the trashcan. Paper towels the same thing in the bathroom. They pretty much know let's not do more than three pushes on the paper towels 'cause that's wasting, and your paper towel goes back in the trash can when you're done.

Andrea paused to reflect on how children could contribute to solving environmental issues:
Effort to solve...Well, one thing that would be nice to work on is the erosion at our playground. I guess that would be an environmental issue that's right there that they can see and solve maybe. That could lead to problem-solving and working that out.

**Sustainable Development**

After asking the teachers about terms and phrases from the ERS-SDEC, I asked them to

share a little about what they thought was meant by sustainable development, and the three

pillars of sustainability: social and cultural sustainability, economic sustainability, and

environmental sustainability. All of the teachers shared that these were new ideas to them. Hope

responded to the question quite frankly, "What is sustainability? What does that word mean? I

guess I don't have a clear definition of it." Andrea expressed a similar sentiment:

When [the program administrator] asked if you guys could come, and she was talking

about it, I said, "I don't even know what that means." She kind of explained it a little bit

to me, but I guess it's just not something I've really—I mean I think we do it in our room and it happens, but it's just not anything that I was really aware of.

Emily commented that sustainable development seemed connected to children's development "Is the development ongoing? Is that what that means? I'm guessing…I would think sustainable development would be that there is ongoing development all year long, and it would have to be on different levels depending on your kids and their ages." Rachel's response was initially similar to Emily's, but with expanded ideas about sustainable development. Rachel explained:

> Development that the children will learn, maybe in our classroom, and take with them... Sustaining is something that they can use that's appropriate. Something they can use for themselves for years to come after they leave Pre-K. Sustain, I guess, I think of as long-lasting. . . So you said economics. I mean how to sustain that? I mean the question is how to get children to understand sustainability with economics maybe? . . .[regarding environmental sustainability] Taking care of the world in which we live in. Being aware of what would be good for the environment; maybe following through with some activities. It's just that a lot of the language is totally different of what you've proposed today.

Teresa's response seemed almost to build on Rachel's ideas about sustainability as long-lasting:

> Sustainability, something that lasts over time. Developing something I guess that would just really be good for—I don't know if you're still going with environment or economy, whatever. I mean just something that's going to be sustainable over time. . . For cultural and social sustainability, that would be just protecting the culture, for example, with my ESL students. They probably, to their parents, to an extent want to protect their values and culture that they came from, and obviously, we would want to encourage that in the classroom. . . .[For economic sustainability], I guess you want to buy things that will sustain over time, so it's to save money and actually that helps with the environment to not be wasteful. Basically, just to do things that will keep things in the environment sustainable in good order over time.

In keeping with my pattern about asking teachers about potential inappropriate subjects, I also asked the teachers if sustainable development was an appropriate or important concern for young children. Emily again referred to the need to keep things simple with young children:

My comment would be, once again, then it would be like wanting to—I put it on a lower level with—and I don't mean a lower level, but I mean a level of pre-K—that I'm not sure some of those things they would understand at three and four. Maybe five, I don't know. I guess the most important thing to me about pre-K, in the setting of pre-K, is that the children come in, and they do start at a certain point developmentally, but they continue to do that all the way along through the school year. I think what's throwing me is the economic part of it.

Andrea expressed that it was important, and that she was now thinking about it in way that she had not before:

I think it is [important]. I mean, like I said, I've never really thought about it before, but I think—I mean I think it's a lot—like I said, I think we do that and it happens in our room. I think we don't use a lot of the terms I guess, but yeah. I guess it's kind of in the back of my mind now where it wasn't before.

Hope agreed that it was important, but she did point out some of the concerns she was developing in response to the interview questions:

Yes, it's a lot to think about, and I don't want to say this 'cause it sounds so negative, but it just seems like there are other things that we need to spend our time on and focus on. I don't—maybe—I guess I've been in this just long enough that I've really seen a trend with the disintegration of family. I mean, in the 22 years of doing this, I just see people struggling. The family unit is struggling. Kids are struggling. It just seems like people are just having babies, not parenting. They hardly have the funds to support children. Everything's just so hard anymore. I feel like our job has become more—kids just have so much to deal with. See, I can't even articulate it, like it's just custody things, and family things, and sibling things, and money things, and sitting in front of a video game, but they don't have money for a video game. Nobody's talking to them. Nobody's playing with them. They're not having experiences.

Hope and I did not discuss the connection that some of her concerns may or may not have to the interdependent pillars of sustainable development.

**Future Interest in Education and Training**

After asking the teachers about each of the selected terms, I wanted to know if the teachers were intrigued by the overall content of the interviews. I asked the teachers if they would be interested in receiving training and information about ESD and/or human rights

education, and if so, what form of training would be most appealing to them. All of the teachers

indicated that they would like more training or information. Emily expressed that:

> I would like to read something more about it so that I could talk better about it. I'm
> wondering how come—I've honestly never thought about that in that way unless there's
> another terminology instead of that one that's almost the same.

Andrea shared that training would help to clarify some of these ideas for her:

> I guess maybe I feel like I'm not understanding it, and know all the terms. I guess I
> would like to know, okay, well, what do you see in this classroom as far as sustainability
> or what would you like to see in a classroom…a workshop or a training, something that
> you spent a day at going over.

Rachel seemed particularly interested in learning more:

> I think it would be a whole new learning situation for me in particular, of just bringing it
> down to their level. I think environmental would be maybe the most simple because in
> early childhood, a lot of things need to be tangible. I don't know. Some of those other
> like social things—you can address 'em all. I don't know. I'd have to really think about
> it. It's like a different way of thinking.

I asked her how she would like to receive this training, and she answered:

> Possibly, like through a workshop or conference—those sorts of things with those topics.
> . . .[Concerning HRE] I would be interested to see how it would work with early
> childhood. I mean I think human—I mean we have our own little human rights here
> within the classroom but I mean you're talking like higher level maybe; maybe not.

Teresa expressed how the interview had already impacted her thinking. She expressed an

interest in learning more, but a hesitancy concerning adding anything to new to her current

workload:

> This has definitely brought some things into my head that I have not even really
> approached. Yeah. I think children need to learn about everything so this—anything that
> we can bring to the table like this is great. If [the ERS-SDEC] was available to us and it
> was presented in all staff meeting or whatever, we would definitely look over it and I
> would think about what I was doing and how I could better do it. I think it could be
> interesting, and it could be beneficial to everyone within our program.

While she was interested in learning more, Teresa was not without realistic concerns about

adding this to her workload:

> I think the problem is right now with state. There's a lot of pressure on us right now. I mean with this new ECERS, there's a lot of pressure on us. I don't know. I just don't know how well received it would be by the staff as a whole, because we are very overwhelmed with the paperwork and the pressure from the state and the pressure from the school to meet if they know all their alphabet. I mean there's just a lot of pressure is all I'm saying. We're at an odd time it seems like right now. I don't know how they would receive it at a training because I know when we started our new assessment this year, it seemed very overwhelming.

In regards to the type of training Teresa would prefer, she replied, "Probably some kind of a just daytime conference. The online trainings have been nice too that I've been to so far."

As with many of her responses, Hope's reply was affirmative and straightforward, "Absolutely I would. You've given me a lot to think about. I'm overwhelmed, to be quite honest." She was very clear about the type of training she would like as well: "Hands-on. Not reading."

## Research Question 2

What patterns, themes, or ideas emerged about ESD and its related subthemes as a result of the data collected from these interviews that might contribute to an increased understanding of ESD?

**The Four Questions**

As I analyzed the interview data for this study, four major themes emerged that might contribute to an increased understanding of ESD, within and beyond the context of this study. I first noticed that the teachers were telling me things about themselves and their teaching that support the principles and pedagogical concerns of ESD. I noticed that some of the terms and ideas I presented to teachers were either completely new to them, or were being introduced with language that was new to the teachers. Further, the teachers seemed resistant to, unsure of, or cautious of accepting some of the terms and/or ideas I presented. Finally, I noticed that the teachers were telling me about the children in their classrooms, and that some of what they were telling me might contribute to an increased understanding of ESD. To organize these four

themes, I have presented them as questions to be answered within the remainder of this chapter.

The four questions are: (1) What did teachers share about their values, beliefs, and practices

relative to the pedagogical concerns of ESD, particularly those stated in Chapter Two? (2) What

were new terms or ideas for teachers during the interview? (3) What did teachers seem resistant

to or unsure of how to address? (4) What did teachers tell me about the children in their

classrooms that might contribute to an increased understanding of ESD?

I answered Research Question One by providing detailed responses regarding each relevant term.

I included lengthy quotations to better illustrate the teachers' perceptions and ideas. To answer

Research Question Two, I have limited the number of direct quotes and presented shorter, more

concise answers to the organizing questions. My findings for Research Question Two lend

themselves readily to a discussion of issues related to ESD. I have attempted to keep the answers

to these organizing questions limited to only the findings themselves.

**What did teachers share about their values, beliefs, and practices relative to the**

**pedagogical concerns of ESD, particularly those stated in Chapter Two?** In Chapter Two, I

presented an overview of six of the major pedagogical concerns relative to ESD in ECE. These

concerns included: (1) establishing a practice of reflection on the three interdependent pillars of

sustainable development; (2) a commitment to developmentally appropriate practice which puts

the needs of children first; (3) the use of participatory and problem-based teaching methods that

are (4) meaningful and relevant to children's lives, (5) include consistent engagement with the

communities in which children live, (6) and considers the contextual circumstances and needs of

the current setting. I noticed that all of the teachers made comments that show support for, or a

practice of, each of these pedagogical concerns in varying degrees. In addition to these

pedagogical concerns, I have identified three additional sets of qualities among these teachers

that might contribute to the development of an understanding of ESD in this context: (1) Openness, honesty, and matter-of-factness with children, (2) an emphasis on fairness and equality, and (3) the role of teacher intentionality in the introduction of new ideas. An introduction to these findings follows:

*Reflection on the interdependent pillars.* Prior to this study, the teachers were largely unaware of issues of sustainability or sustainable development. Therefore, they were not explicitly reflective about the interdependent pillars. However, when the teachers were questioned about items that are related to the interdependent pillars, such as diversity, equality, or environmental issues, the teachers were able and willing to reflect on their views and experiences. Teachers sometimes used language such as, "Reflecting on what we've done…" to convey a reflective process while answering interview questions. I found the teachers better able to reflect on experiences related to social and cultural and environmental sustainability than they were economic sustainability. Even so, the teachers were reflective about their experiences with economics and young children. For example, Emily described her experiences working on a grocery store project with children and reflected on what the children had talked about during that time. Hope reflected on a bakery project that she had experienced with children. She wondered how that unit might have been done a little differently, in ways that might have better met children's learning needs in regard to economics.

*Commitment to developmentally appropriate practice.* Many of the teachers' responses showed a commitment to developmentally appropriate practice (DAP) in their teaching. At various points in the interview, teachers illustrated how they keep their children's developmental level in mind at all times. Several comments were made during the interviews about "keeping it simple" and "on their level." Teresa made a comment about children in pre-k being

"egocentric," which shows concern for how children are processing information. Rachel discussed how children in the classroom function at different levels, while Emily also commented on the difference between what the five-year-olds in the class are capable of understanding versus the three-year-olds. The teachers referred to the needs of individual children at varying times during the interviews, which shows an awareness of the diverse developmental needs of their classrooms. DAP was a concern for teaching about introducing some of the aspects of ESD into their teaching. When Teresa indicated that she would like to receive more information and training about ESD, she specifically noted that she would want training on keeping these topics on the level of her children.

*Participatory and problem-based.* The teachers gave a wide range of responses to indicate that they support curriculum that is participatory and problem-based. The teachers gave several examples of classroom projects that encouraged children's hands-on participation and intellectual involvement. Emily shared many examples of children's participation in environmental projects (e.g., hibernation unit, hatching chicken eggs, drainage problems on the playground). Rachel described children solving social problems in the classroom by learning how to talk back and forth about a problem. Andrea told me about the ocean project her students were engaged in, which included the problem-solving process of keeping the class mural in tact with the right kind of tape. Andrea also made a comment that shows she considers the problem-solving process to be a positive quality associated with learning potential: when she was discussing the potential of studying the erosion problem on the playground, she noted, "that could lead to problem solving and working that out." Some of the other project examples given by teachers, such as the bakery project Hope described, did not necessarily include an explicit

problem-solving aspect to the project. Because the matter of problem solving was not addressed by the interview protocol, I did not ask the teachers to elaborate on this.

  ***Meaningful and relevant.*** Facilitating curriculum that is meaningful and relevant to children's lives implies that teachers have a good understanding of what children's everyday lives are like. Throughout the interviews, I noticed that teachers consistently communicated a willingness to listen to children and a showed respect for children's thoughts, feelings, and rights. Teresa discussed how children have "the right to express their feelings." During the discussion about interdependence, Rachel valued a child's ability "to use thoughts and ideas within his or her head and be able to carry those throughout the classroom." Emily commented how sometimes when children were sharing something that might be personal or troubling that she would like to "get that person aside and listen a little bit more carefully to what he or she is trying to tell me." These are some of the examples teachers gave that led me to believe they are committed to listening fully to children's ideas, thoughts and feelings, and therefore have a somewhat solid understanding of what is meaningful and relevant to children's lives.

  How teachers use their knowledge of what is meaningful and relevant to children's lives to facilitate decisions about curriculum is less clear to me from the interview data. The teachers did give examples of children engaging in activities that I suspect are meaningful and relevant to them; how intentional this was on the teachers' part is unknown to me. A prime example of this comes from Emily's story about the children helping to fix a drainage problem on the playground, a place where children spend a lot of their time. Hope shared a story about children visiting a local business that was printing t-shirts for the class; the children had designed the t-shirts. It would be interesting to find out where teachers get the ideas for children's projects;

knowing this would be more indicative of how meaningful and relevant the curriculum is for children.

*Community Engagement.* During the interviews, the teachers expressed that they value engagement with local communities. Hope described how the children "help link me to the community," while Teresa described how children are "very immersed in their community." All of the teachers expressed the benefit to children from taking field trips in the local community. However, current policies greatly restrict field trip possibilities due to the program's inability to pay for them. Emily shared with me that she believes field trips are being restricted as a matter of fairness and equity. Not all children can afford to contribute to costs associated with taking field trips, so field trips are limited to minimal, cost free destinations. While all of the teachers made comments about the benefits of visiting community establishments, they contend with the realities of keeping those trips limited in scope.

When I asked teachers to describe to me what communities they see the children in their classes as being a part of, the teachers emphasized the role of the classroom community first, and then began to expand their ideas outward. The most expansive, or inclusive, perception of community was to see children as a part of this region of the state. The teachers made no references to indicate that they saw children as being members of a global, or even national, community of people.

*Openness, honesty, and matter-of-factness.* The teachers seemed to express an inclination toward openness, honesty, and matter-of-factness with children. I have already described the teachers' willingness to listen to children, and Rachel described how she encouraged children to bring ideas for discussion. Emily mentioned many times her desire to be very "matter-of-fact" with children during these discussions. Hope, even when confronted with

discussing a potentially uncomfortable subject for her (encountering same-sexed parents), said, "I just thought that honesty was the way to do it."

These traits of openness, honesty, and matter-of-factness, might be connected to each teacher's commitment to developmentally appropriate practice. However, I felt that they also expressed something especially relevant to the prospect of introducing ESD in ECE. These traits might indicate that teachers would be open to new ideas about ESD; they might be open to hearing children's ideas about matters related to ESD. Their willingness to be honest and matter-of-fact with children about these ideas, even when confronting something uncomfortable, such as inequality, might contribute positively to ESD discussions and experiences.

***Fairness and Equality.*** The emphasis that the teachers placed on fairness and equality might contribute to an increased understanding of ESD in ECE. The teachers clearly demonstrated that they value fairness and equality, and the idea that everyone belongs: ideas that are all associated with ESD, particularly social and cultural sustainability. "I guess I always go back to fairness," Rachel emphasized. As explained earlier in this chapter, teachers used the word "fair" to define equality and social justice. Rachel said that equality was, "everyone being treated the same. Fairness. You know, no matter what the diversity is we should all be treated as such," thoughts which were echoed by Hope: "Sameness. Equal, Fair." Emily emphasized the role that fairness plays in her classroom: "Our kids really know what's expected here as far as fairness." Describing the pre-k community, Emily expressed, "we stress very strongly that we all belong…everyone belongs, and everybody comes in, and we're nice to everybody," and later, regarding social justice, "I'm very big on that, to feel a part of the group and never feel that you're not. I think that's a very awful feeling." While teachers' ideas about fairness and equality were generally limited to discussions about the classroom, these underlying values will

likely guide their understanding of matters of fairness and equality on a broader level, such as nationally or globally. This would be especially relevant if these teachers opted to begin integrating ESD into their teaching.

*Teacher intentionality.* Throughout the interviews, teachers made several comments regarding the intentional introduction of ideas to children. Teresa commented at one point, "You would just have to be mindful to spin it into the conversation." Teachers commented on their use of modeling and scaffolding to introduce new ideas and language to children, particularly in terms of solving social problems within the classroom. This practice of intentionally introducing new ideas and skills to children could be used to integrate ESD into the curriculum.

**What were new ideas for teachers?** What were the ideas about ESD that I was bringing into my conversations with teachers? As noted above, thinking explicitly about sustainable development was new to teachers. While the teachers did express knowledge of some aspects of sustainable development, such as diversity or environmental issues, many of the terms and ideas I was presenting were new. Interdependence and social justice were new concepts for these teachers, as was the thinking about the potential role of economics and economic concerns in the ECE curriculum. Human rights was another term that seemed new to the teachers, and perhaps difficult for them to grasp on an early childhood level.

*Interdependence and Social Justice.* Some of the terms I introduced to the teachers were terms with which they seemed largely unfamiliar. This was most true about the terms "interdependence" and "social justice." The teachers seemed to grasp the underlying meanings of both of these terms on an intuitive level, if not explicitly. Hope commented that interdependence was a word she had never heard before. When the other teachers described interdependence, they did so in terms of an individual child's level of independence and functioning in the

classroom.  Andrea did expand on her thinking to start seeing children as interrelated with one another.  Interestingly, I found the teachers' comments about community, specifically in the pre-k community, as an indicator that teachers did value interdependence even if they were unfamiliar with the term.  As Hope commented, "We take care of each other."  Much like the teachers' ideas about community, the teachers made no references to indicate that they perceived interdependence on a another level, such as being interdependent with nature, or global interdependence.  Regarding social justice, the teachers expressed an understanding of the term as being relative to fairness and social problem-solving within their classrooms, but not of social justice efforts beyond the scope of the classroom.

***Economics.***  The idea of teaching economics in ECE was new to all of the teachers. When I broached the subject of economics in ECE, they all indicated that this was a new idea for them.  Thinking about economic concerns seemed troubling to some of the teachers and evoked concerns about being too personal, or discussing personal "economic levels."  The teachers were unable to understand what I meant when I asked them if children were encouraged in discussing the "the costs and benefits of a range of products," even when prompted with examples from me. In retrospect, I wonder how teachers might have responded differently if I had asked them about consumer literacy, or consumer awareness related to products.

***Human Rights.***  The teachers indicated that thinking about human rights was something they had not really done before.  They showed interest in the subject, and were able to create a list of ideas about human rights and what rights all humans have or should have.  Andrea made one reference to human rights in terms of constitutional rights.  No one referenced any international documents, such as the *Universal Declaration of Human Rights* or the *Convention on the Rights of the Child*, or made any distinctions between types of rights (i.e. political rights, civil rights,

and/or universal rights).  It is interesting to note that unlike discussions about interdependence, social justice, community, or equality, it was our discussion of human rights that provoked thinking on an international level.

**What were teachers resistant to or unsure of how to address?**  During the course of the interviews, the teachers shared some of their concerns about addressing topics with children. These responses often came up when prompted to identify areas of discussion that might be inappropriate for young children.  A good example of this was in teachers' thoughts about discussing economic issues of concern with children, although the reasons that the teachers gave as to why they have these concerns cropped up in other areas as well.  In general, the teachers expressed a resistance to teaching, or discussing with children as a group, issues that were what they considered to be too deep, potentially offensive, or too personal.  The teachers also described some issues not so much in terms of resistance but more about being unsure of how to address them, such as changing societal demographics.

***Issues that were considered too deep.***  Often throughout the interviews, teachers made comments about something being "too deep" or complex for children to understand.  In regard to human rights, Teresa commented, "This is Pre-k. You're making it heavy."  Relative to teachers' desire to keep things developmentally appropriate, the teachers questioned some of the content that I was suggesting, thinking that it was maybe too complicated for ECE. As Hope described, "I'm only reflecting on what I've experienced in my classrooms through the years, it's like they only know what's in their realm of being it seems."

Teachers' reluctance was particularly evident in terms of teachers' concerns about children's understanding of economics and human rights.  The teachers would not want to discuss anything too sad, such as economic hardships or "violent, scary environments."  The

subject of incarceration, particularly in terms of the incarceration of a child's parents, was brought up to describe something that might be potentially inappropriate for ECE. I think that the teachers saw these as deep, complex issues that were possibly outside of the scope of children's thinking and abilities and possibly outside of the teachers' scope of training. However, these concerns overlapped with another concern, which was the discussion of issues that were too personal.

*Issues that were considered potentially offensive.* Emily expressed concerns about emphasizing diversity with children in the classrooms, noting she "probably won't bring it up unless someone asks me." When she was prompted to discuss what might be inappropriate topics related to diversity, she commented that she would discourage subjects that were potentially offensive. As an example, she described that she would discourage a conversation if children expressed an unwillingness to sit next to another child, "because this person is black or this person is this or whatever."

*Issues that were considered too personal.* Again, it was in the discussion of economics that this was seen most explicitly. Teachers made comments such as, "You're kind of talking personal," or, "we don't go into who has what as far as economic levels." During our discussion about diversity, Andrea told me about a boy in her classroom. The boy's mother is in jail, and she described how the boy and his father were very open about it. Andrea felt that this was best not discussed as a group; she saw this as something best discussed one-on-one with the boy. She noted, "that's something I'll try to steer him away from if he starts talking about it, that I'll try to get where its just one-on-one instead of an open discussion." I did not ask Andrea why she was uncomfortable discussing this, or whether other children asked questions about it.

*A changing world.*  As we have established, ESD was new to these teachers.  I found that aside from the concerns about subject matter being too deep or personal, teachers were simply unsure of how to address certain issues with young children while remaining developmentally appropriate.  I think Hope addressed this succinctly when she noted that she "wonders all the time" about what is an appropriate or inappropriate response to certain subjects.  Hope shared that she might be likely to deter a child from talking about personal economic concerns. When I asked her why, she replied that it was likely, "uncomfortableness" on the part of the teacher. Hope explained that she was encountering things in the classroom that were new for her, such as the introduction of English language learners to her classroom, or having families with parents who are of the same sex within the class.  At one point she said, "Years ago, we didn't have many differences in our classrooms."

**What did teachers tell me about the children in their classrooms that might contribute to an increased understanding of ESD in this context?**  The teachers had a lot to tell me about the children in their classes.  I wondered what they were telling me about the children that might show a child's awareness or experiences with some of the underlying issues of ESD.  I found that teachers shared with me stories of individual children, their needs and families, their experiences. Children were also bringing a developing awareness of those experiences into the classroom.

*Children's diverse experiences.*  The teachers shared numerous examples of how children are bringing diverse experiences into the classroom.  The teachers told me about children's experience outside of school: shopping trips at local stores, changes in family or household structure, experiences with a storm, or the job loss and/or incarceration of a parent, an inability to afford new shows. As Hope commented, children only know what is within "their realm of being," and this realm of being is different for each child. Children bring different abilities and

needs to the classroom, as was commented by the teachers in several ways. Many of children's experiences are relative to issues of ESD, whether children or teachers are aware of it or not.

***Developing Social Awareness.***  Teachers shared how children are bringing an early, developing awareness of a wide range of personal social issues and larger societal problems into the classroom. All of the teachers shared stories of changing family dynamics and family structures, including that of having same-sexed parents in the classrooms.  Andrea and Hope shared stories of children trying to understand the experience of unemployment, having a parent in jail, or both.  Hope made comments about children's awareness of a shortage of money for classroom materials, or their parent's shortage of money for shoes.  Rachel told me about children's discussion of weather-related phenomena, which might be related to an increase in violent storms and climate change, and are definitely connected to the economic problems that storms might cause.  Teresa described children's early experiences with expressing racial or ethnic bias, or reinforcing gender norms and stereotypes.  All of the teachers shared stories about children's developing awareness of social interaction within the classroom, issues of how to share, to be kind, and how to get along with one another.  The children themselves are likely unaware that the things they are discovering about their own lives and experiences are related to something larger, but children are talking about them at school.

## Conclusion

I have described in this chapter how teachers perceived and discussed issues relative to the practice of ESD in ECE.  Teachers had varying understanding of the terms and ideas I was presenting to the teachers. Nevertheless, they were able to share many thoughts and ideas that I believe will contribute to a greater understanding of ESD in ECE. In the concluding chapter to this thesis I have presented what I believe to be the implications of this study. These implications

include recommendations for how teacher's perceptions of the selected terms might be used to better understand ESD in ECE, and how training and education about ESD might benefit teachers in this context. I have also provided suggestions for future scholarly research based on the findings of this study and the continuing need for research about ESD in ECE.

**CHAPTER FIVE: DISCUSSION AND CONCLUSION**

In this chapter, I have introduced a brief discussion of the findings and potential

implications of my study, beginning with a discussion of the benefits and limitations of the

research methodology and how these may have impacted the findings of the study.  First, I

present a discussion of whether I felt I was able to achieve the purpose of the study, and the some

of overall limitations and/or weaknesses of the study as a whole. Next, I have chosen to include a

discussion of the implications of my findings along with recommendations for professional

development about ESD in ECE. I have done this by presenting a brief summary of my findings

about each of the selected terms, followed by a general discussion of further suggestions for

professional development.  Also included in this chapter are recommendations for future

scholarly research and for the researcher's professional development in the area of ESD in ECE.

**Discussion of Methodology**

**Achievement of Purpose**

I believe I was able to achieve the purpose of this study, which was to develop a greater

understanding of ESD in ECE by engaging in an in-depth exploration of some of the key terms

and phrases associated with the practice and pedagogy of ESD.  My interviews with five

preschool teachers about some of the associated terms/topics often used in discussions of ESD,

and within the ERS-SDEC, helped me to not only understand the early perceptions of ESD in

ECE from the teachers' perspectives, but also provided an opportunity for me to explore,

construct, and sometimes reconstruct my own understanding of these terms.  Earlier in this

thesis, I stated as a goal that I hoped the results of my study would contribute to discussions of

ESD not only on a local level, but on an international level as well. Whether or not this goal will

be achieved is yet to be determined. Nonetheless, I believe the findings of this study have the potential to contribute to an ongoing discussion of ESD.

**Limitations and/or Weaknesses**

Before discussing the findings of this study and the recommendations that I have suggested as a result of these findings, a discussion of the limitations and weaknesses of the research design is warranted. The limits of a case study design prevent the ability to generalize any of these results beyond the context of these classrooms. Also, some of the interviewing protocol may not have allowed for genuine, in-depth discussion of topics. I did not employ the use of member checking of the interview data before reporting my findings in this thesis, which may or may not have impacted the validity of the findings. Finally, I have addressed how some of my own bias may have impacted the findings of this study.

**Interview Protocol**. There were several potential problems with the interview protocol used in this study, and with how the interviews were conducted. I spent approximately one hour interviewing each of the five teachers. Within this one hour, I asked the teachers about eight terms. Not only did we discuss how teachers understood the meanings of these terms, but also how they perceived these terms from a curricular and/or pedagogical perspective. In retrospect, I believe that my interviews might have been more meaningful if I had reduced the number of terms addressed within the interviews. However, I am not sure which of these terms I might have eliminated, or perhaps combined with others, as all of the terms I used elicited interesting and important responses. I simply wonder if fewer terms would have elicited deeper thinking, and/or possibly prevent my second concern: interview fatigue. I sensed that the teachers might have shown some interview fatigue by the end of the interview sessions. Fatigue may have impacted each teacher's responses to my questions due to inattention, increased frustration, or a

simple desire to be done with the interview. Also, pushing the teachers beyond their interest level could have the unintended consequence of fostering negative feelings related to ESD, which could impact their willingness and/or interest in integrating ESD into their practice. As I discuss in my recommendations for future research, I think engaging teachers in follow-up studies would be an interesting way to understand how teachers' perceptions of ESD in ECE evolve over time. If the teachers develop negative attitudes about research as a result of lengthy or cumbersome interviews, they may be less likely to volunteer for future research opportunities.

In my original research design, I was hesitant to share information about the ERS-SDEC with teachers prior to the interviews. I did not show the teachers a copy of the ERS-SDEC, nor did I intend to share the interview questions with teachers ahead of time. I did this in an effort to capture each teacher's initial ideas about these topics without the influence of my own ideas, or those of the ERS-SDEC. However, one of the teachers, Andrea, asked for a copy of the interview questions prior to our scheduled interview time. I provided her a copy by email about 24 hours prior to the interview. Having the opportunity to study the interview protocol allowed her to be more reflective about some of the topics. This was evident in her response regarding interdependence: she began her response by stating that when she first read it she thought one thing, but when she read it some more, she started to think about it in a different way. I wonder how the findings of this study would have been impacted by teachers' opportunities to think about and reflect on the questions ahead of time. In a similar vein, I wonder how teachers' responses may have differed had they had the chance to look at the ERS-SDEC prior to or even during the interviews. A more informed participant might have provided a more informed and/or thoughtful response.

**Member checking.** I did not engage in member checking with the participants of this study, but do wonder how the process of member checking would have impacted the findings. By not member checking, I was able to interpret the data as it was presented—teachers' early, initial, and probably intuitive or instinctual understanding of ESD in ECE. However, member checking might have clarified any of the responses I misinterpreted. Also, it would have allowed the teachers to change their responses if they felt the desire to do so. One plausible result of member checking would have been an opportunity to continue my discussions of ESD in ECE with teachers, allowing me to observe and describe teachers' changing constructs about the terms and/or topics of the study.

## Recommendations for Professional Development

My first research question was designed to collect data about how teachers understood various terms relative to ESD; I have suggested potential ways that these interpretations might be used to inform professional development and education opportunities about ESD, especially for those teachers who participated in this study. My second research question was designed to look for patterns and themes relative to ESD in teachers' responses, the answers to which also yielded potential contributions for an increased understanding of ESD. The findings for these questions had definite implications for the development of potential professional development endeavors. I have provided a brief summary of some of the findings relative to each of the interview terms below, and offered some suggestions for professional development needs.

### Interdependence and Community

Interdependence, a term largely unfamiliar to the teachers (one teacher commented she had never heard the word before), was associated with independence, specifically of children's growing level of independence in the classroom. Teachers reported that interdependence might

be observed within the classroom when children show an ability to function well together, and help one another when necessary. Only one teacher further reflected on interdependence to consider how children are "interrelated" in the classroom. Interestingly, while teachers were new to the term interdependence, when asked about community, they had much to say about what I would consider the interdependent nature of their classrooms. Teachers showed a high value for community, and were especially focused on the preschool classrooms as a primary community of importance. However, while the teachers valued interaction with local communities, they did not extend their understanding of community outside of their local schools, towns, and in one case, the lower region of the state.

**Radical Engagement with the Community.** The term interdependence, when used at all, was not used as to describe relationships beyond the classroom context, such as interdependence with local and global communities or interdependence with nature. Teachers might be encouraged in this type of thinking about interdependence. Combining this with an introduction to the interdependent pillars of sustainability might foster a more encompassing understanding of this term. Additionally, professional development might link the term interdependence with community, to build upon an established value of the teachers: the high value of community. Objectives for development might include nourishing community connections, cultivating children's knowledge of their own communities, and encouraging children's participation in their communities on a deeper, more meaningful level. One of the teachers mentioned working with others in a community garden; this could be used as an opportunity for hands on professional development. Siraj-Blatchford (2009) refers to this type of interaction as radical engagement with the community. Through this engagement, teachers and children might develop an awareness of both their interdependence with others in the community

and of their ability to impact change in the world around them.  Lastly, professional development about community might focus on expanding this understanding of community to the global level, and foster concern and care for all people, everywhere.  Through such professional development endeavors, connections between interdependence and community might be made with those of diversity, social justice and human rights.

**Economic Concerns**

The introduction of economics to the ECE curriculum was overwhelmingly new to the teachers in this study.  Though some of the teachers shared that they had introduced some aspects of economics to children (e.g. a pretend grocery store in the dramatic play area, making pretend money, or visiting a local business), discussing economic issues of concern was difficult for teachers to imagine, as the subject matter seemed too personal or perhaps beyond the grasp of the preschool child.  This was similar to the findings made by Arlemalm-Hagser and Sandberg (2011), who reported on the views of 32 practicing childcare professionals in Sweden.  The teachers in that study were asked to provide definitions of sustainable development and to collect documentation about sustainable development from their current workplaces.  When Arlemalm-Hagser and Sandberg analyzed the data collected from teachers, they discovered that the teachers did not freely associate economics with ESD. This similarity between these two sets of teachers, very far apart from one another, suggests the possibility that ECE as a field may need to take a closer look at the role of economics in the ECE curriculum.

**Cultivating Sustainable Economic Mindsets.**  Because of the relative novelty of economics to ECE, much professional development is needed in this area. Primary concerns might be the development of values of frugality and thrift, entrepreneurial thinking, and consumer awareness (Siraj-Blatchford, 2009). As reported in Chapter Four, I had difficulty

engaging in a discussion with teachers about "the costs and benefits of a range of products."  I

wondered how the conversation might have gone differently if I would have engaged the

teachers in a discussion about consumer awareness, or consumer literacy. It is possible that

teachers are simply more familiar with other terms to describe this concept, but it is also possible

that consumer/product awareness is something entirely new to them. In addition to consumer

awareness/literacy, other issues of economics might be introduced during professional

development opportunities as well.  The introduction of entrepreneurship to children, perhaps as

a way to raise money for needed classroom materials or field trips, might encourage the

development of productive, empowered beliefs about money and its value. Mbebeb (2009) writes

about the economic aspect of sustainable development and the development of entrepreneurial

thinking as a socialization process in which we can cultivate early, indigenous knowledge and

values about money and vocation.  Mbebeb asserts that entrepreneurialism, as well as frugality,

thriftiness, and other values relative to money, are behavioral dispositions necessary for the

development of a sustainable society.   Mbebeb advocates for the emphasis of these values early,

such that they become embedded in the child's dispositional development, and cites early

childhood as an essential period for the development of values systems, a notion supported by

others (Pramling Samuelsson, 2011). Mbebeb recommends that professional development

include a study of educational theories that address issues of economic inequity and oppression,

such as Paulo Freire's Critical Theory.  If teachers are encouraged to think deeply about

economics, inequality, and oppression, and are also aware of children's early values

development, they may be more inclined to actively aim to prevent the indoctrination of values

that accept oppression and inequity as an inevitable reality (Mbebeb, 2009).

**Family Involvement.** Early childhood is also an excellent time to encourage the development of positive economic mindsets because of the potential for working closely with families, so that families may also benefit from the introduction of economics to the early childhood curriculum. Mbebeb calls for a revitalization of family vocational education as a part of ECE efforts for ESD. I cannot help but wonder if the teachers in this study would benefit from professional development opportunities that explicitly address not only children's understanding of economics, but family education as well. All of the teachers in this study acknowledged children's personal economic concerns (e.g., unemployment or underemployment of their parents or other family members). Perhaps education regarding thriftiness, frugality, consumer awareness, and/or entrepreneurship would benefit the whole family unit.

## Diversity and Equality

Diversity was understood by teachers to encompass a wide range of similarities and differences among children; teachers commented that children are most cognizant of physical differences. Teachers generally encouraged discussions about diversity with children, unless those discussions were considered too personal, or potentially offensive. One of the teachers expressed concern about children being potentially offensive (perhaps not wanting to sit next to a child who has black skin), another teacher was concerned about discussions about his mother's incarceration, one teacher shared examples of children's bias against children of Hispanic heritage, and another shared her concern about how to talk about same-sexed parents. When I asked teachers about equality, they seemed to express a genuine commitment to the ideals of equality, and fairness, but had perhaps not thought much about how they communicate their beliefs about equality to families in an explicit way.

**Confronting Illusions about Diversity.** Some of the teachers' thoughts about diversity, particularly regarding race, ethnicity, and color, are reminiscent of concerns shared in the seminal work *Anti-Bias Curriculum: Tools for Empowering Young Children*, which was first published in 1989, and then revised and republished as *Anti-Bias Education for Young Children and Ourselves* (Derman-Sparks & Edwards, 2010). Anti-Bias Education claims four core goals:

> ABE Goal 1: Each child will demonstrate self-awareness, confidence, family pride, and positive social identities.
> ABE Goal 2: Each Child will express comfort and joy with human diversity; accurate language for human differences; and deep, caring human connections.
> ABE Goal 3: Each child will increasingly recognize unfairness, have language to describe unfairness, and understand that unfairness hurts.
> ABE Goal 4: Each child will demonstrate empowerment and the skills to act, with others or alone, against prejudice and/or discriminatory actions (p.xiv).

Addressing teacher concerns about diversity with the introduction of Anti-Bias Education (or perhaps revisiting, as I imagine teachers had been exposed to Anti-Bias thinking at some point during their pre-service training), and its four goals, would also support the goals of ESD. Moreover, Anti-Bias Education asks that teachers reflect upon their own bias and prejudice to help empower children against their own developing bias. Part of this reflection is the confrontations of illusions, or false beliefs, that teachers may have about children and diversity. Jones and Derman-Sparks (1992) wrote about teachers false perceptions of themselves as not being prejudiced, and being proud of their "color-blindness." The original *Anti-Bias Curriculum* was ground breaking because of its willingness to address these false beliefs head on, providing teachers with tools and resources for change. However, some of these beliefs may persist today. Boutte (2008) has collected examples of teachers' beliefs about racism and color-blindness, and maintains that teachers are often under the illusion that children, too, are color-blind. Boutte maintains that even if teachers are unaware of children's thoughts and beliefs about color, children are indeed developing them (Siraj-Blatchford, 2008). To counter this, Boutte, like

Mbebeb, recommends that teachers engage in the study of critical theory, and consider how embracing such illusions (color-blindness) contributes to inequality and oppression. Boutte contends that children should be engaged in conversations about issues of race and diversity; teachers need to be aware of children's ideas, and when necessary children need to be challenged regarding those ideas. As the study of diversity is ever changing in its nature, teachers would likely benefit from continuous professional development regarding anti-bias, diversity and equality.

  **Confronting Complexity.** The teachers in this study shared concerns about discussing complex issues with children. Bently & Reppucci (2013) advocate for dealing with complex issues in the classroom by scaffolding children to a higher level of critical awareness through the use of collaborative discourse, discussions in which the children are asked to share ideas about complex topics, and listen to the ideas of others. Children are challenged to a higher level of critical awareness through the practice of taking multiple-perspectives. Bently & Reppucci share an example from a preschool classroom in Massachusetts to illustrate: A child had become aware through a visit to Plymouth Plantation, a tourist destination, of an aspect of American history that was troubling and complex to him–visitors (pilgrims), Indians, and enslavement. Bently & Reppucci systematically explain how they confronted this issue in the classroom by first, acknowledging the importance of children's ideas about this complex topic, and second, inviting the children to fully explore the topic in an honest and open way. Children were asked to consider what they were learning from the visitor's perspective, and then from a Native American perspective. The teachers challenged the children by asking them to consider possible similarities in their own lives (how would you feel if you invited your new neighbor into your house, but then they refused to leave?), and provided concrete experiences relative to the topic

for the children to discuss afterwards.  The teachers were intentional about bringing up issues of fairness throughout the conversations.

Bently & Reppucci's exploration of complex issues was exemplified by discourse regarding a topic that was abstract to preschool children (historical events). However, their system of talking with children may be relevant to some of the complex issues that children are bringing to school with them every day (e.g., changing definition of family, especially in regard to sexual orientation, children with incarcerated parents, and children and families who are English language learners, income inequity and unemployment).  One of the teachers shared a concern about children and gunplay (which is strictly prohibited) during our discussion about human rights. She commented that children nearly every day brought gunplay into the classroom. I did not ask her if the class ever engaged in discussion about why guns are not allowed, or further, discussion about non-violence.  I wonder if Bently & Reppucci's system would work for a discussion about guns, violence, and non-violence.   Through this system, a teacher would first acknowledge that children's thoughts and ideas about gunplay were important.  Then, children would be encouraged in honest and open conversation with each other about their understanding of gunplay. Teachers would challenge children to consider multiple perspectives about the "no gunplay" rule (school rules, parent concerns, children's own ideas). They might be introduced to concerns about gunplay, real guns, hunting for sport and/or gun violence; it is imaginable that children would have ideas of their own to share about such topic. Inviting children's understanding and talk about guns would likely be varied, unpredictable, and uncomfortable for teachers; and allowing experiential learning on the subject might be expected to cause controversy.  Finding or conducting additional research about real, complex issues

would help teachers confront complexity and provide researched support to guide professional development about such topics.

    **Gender and Sexual Identity.** One very specific recommendation regarding equality that I have is that teachers be offered training specific to the needs of families who might include people who are gay, lesbian, bisexual, and or transgender (GLBT). Societal and legal views about the GLBT community are changing every day.  Teachers likely need help adjusting to these changes.  As the world moves toward becoming a more accepting place for people who are GLBT, professional development opportunities can provide them with the tools and resources they need to provide safe, accepting spaces for families.  Teachers will not only need to learn how to embrace the same-sex parents in their rooms, but the children in their rooms who may or may not be GLBT as well.

## Social Justice

    Teachers' ideas about social justice were primarily concerned with children's social experiences within the classroom.  While this is a perfectly valid perception of social justice, professional development in this area might include expanding this notion to include ideas about children's involvement in social justice efforts outside of the classroom. I suspect that the teachers in this study would benefit from case studies and examples about social justice efforts made by preschool children.  Teachers might be encouraged to explore the connections about social justice with other aspects of ESD (e.g. equality, equity, community, economics, human rights, or environmental issues); many of the professional development approaches already described would support learning about social justice.  The value that the teachers in this study placed on fairness and equality would likely predispose them to caring about issues of social justice as they learn; accepting the complexity of these issues and learning to guide children

through the complex processes about social justice need to be addressed in professional development opportunities (Boutte, 2008).

**Human Rights**

The teachers in this study offered many intuitive examples of human rights, but clearly had not considered the integration of Human Rights Education (HRE) into the preschool curriculum. Professional development in this area might include an introduction to the *Universal Declaration of Human Rights* and the *UN Convention on the Rights of the Child*. The Human Rights Resource Center in Minnesota has developed HRE curriculum materials such as *This is My Home* (University of Minnesota Human Rights Center, 2012), a curriculum designed for preschool and early primary aged children. Human rights curriculum tools such as this one should be explored more fully and additional research regarding developmental appropriateness and efficacy should be conducted regarding their use. Nonetheless, teachers need professional development opportunities about discussing human rights with children if they wish to address this topic with young children. Professional development might focus on how children could be introduced to human rights in developmentally appropriate ways---such as building on one of the teacher's ideas about children creating their own rules for the classroom. One of the teachers introduced the question of the potential for children's empowerment during the interview; empowerment is often one of the learning outcomes associated with HRE (Tibbets & Kirchschlaeger, 2010). Discussing the objectives of HRE as a part of ESD might enhance teachers' understanding of the relevance of this topic to children's lives. Additionally, human rights was the topic which most piqued teachers' interest and questioning about ESD on a global level. The introduction of human rights could be a bridge to fostering thinking about a global community of people.

**Environmental Issues**

Teachers shared a wide range of ideas about environmental issues, though most of the teachers' ideas were relatively well-established environmental activities: littering, recycling, and taking care of your space. Some of the teachers did share examples of children's participation in exploring and solving problems in their local environments in ways that were meaningful and relevant (e.g., working on drainage issues on the playground), and of the need to care for and respect the needs of living things. Professional development in this area could focus on these as particular strengths of teachers, and place additional focus on how to address environmental issues that are more complex in nature. Professional development might also introduce the idea of partnering with local networks and experts (also referred to as boundary organizations) to investigate and solve problems together (Wensing & Torre, 2009). Teachers should be guided toward seeing environmental issues as they impact children's lives locally and globally, now and for future generations.

**Sustainable Development**

The language of sustainable development was entirely new to teachers, indicating the need to begin any professional development for ESD with a focus on understanding sustainable development conceptually before considering it from a curricular perspective. Teaching indicated some knowledge about environmental sustainability, so that might be a logical start point for learning. Because ESD encompasses such a wide range of ideas about a constantly changing world, learning everything there is to know about sustainable development would be impossible for any teacher.

**Knowledge Systems for Sustainable Development.** Wensing and Torre (2009) introduce the idea of working with boundary organizations to develop Knowledge Systems for

Sustainable Development (KSSD).  Boundary organizations might include organizations that work directly in areas of development (e.g., wildlife sanctuaries, energy conservation experts, gardeners, or local business entrepreneurs), or organizations that can lead teacher-training programs for ESD, such as university-based teacher education programs or other educational networks.  Additionally, working with boundary organizations to develop a foundation for KSSD can build upon a major pedagogical tenant of ESD—community engagement.

**A Practice of Reflection.**  While the development of KSSD could be fostered by the use of any of the above-mentioned suggestions, beginning professional development for ESD should include explicit reflection on the interdependent pillars of sustainable development and the six major pedagogical approaches discussed in chapters two and four. This reflection on the three pillars could be enhanced by discussion about the 6Es (Spearman & Eckhoff, 2012) and the 7Rs (or 9Rs) of sustainability (Pramling-Samuelsson , 2011; Kahriman-Ozturk, Olgan, & Guler, 2012).  As teachers begin to understand the interdependent pillars, perhaps they will see how all of the topics discussed in the interviews are interrelated, which will help them embrace and integrate this new knowledge into their teaching practice.  As was described in my findings related to the second research question, the teachers in this study have already adopted many of the pedagogical practices associated with ESD in ECE.  Using teachers' commitment to developmentally appropriate practice as a foundation, professional development can work towards fostering an understanding of the pedagogical approaches to ESD in ECE.

**Professional Development Opportunities**

All of the teachers indicated that they believed ESD to be an intriguing and/or an important subject for ECE, although the level of interest varied, and some concerns were raised about the allocation of time to this aspect of education when other more immediate needs were

presenting themselves (e.g., the increased emphasis on "academics" at the preschool level and other state requirements that were currently overwhelming to teachers). One of the teachers raised some concerns about focusing on ESD when there are so many "other" problems with changing family dynamics, struggles and hardships happening with families. Perhaps through the implementation of ESD professional development opportunities, the struggling family, or even the relationship between preschool classrooms and state policy, can come to be understood as aspects of ESD. Based on the responses of the teachers in this study, a wide range of professional development methods should be employed to best meet the needs of individual teachers. Training opportunities might include the distribution of short, informative readings, invitations to hands-on workshops and/or conference presentations, or even online trainings. The creation of "in class" training opportunities, wherein trainers visit teachers' classrooms to introduce topics and model teaching strategies for teachers may be effective as well.

**Addressing teachers' concerns.** As I discussed in Chapter Four, I was able to construct an understanding of not only what teachers did or did not understand about ESD, but also what these teachers might have to contribute to a discussion about ESD. Throughout our interviews teachers raised many valid concerns, which were discussed in Chapter Four (issues that were considered too deep, potentially offensive, and/or too personal). Professional development, especially in this context and for these teachers, might address these concerns from the outset. Validating teachers' concerns and giving them tools for addressing these concerns might help to foster a positive attitude and commitment to ESD in ECE by the teachers as they gain new knowledge and skills for integrating ESD into their teaching. Using teachers' natural inclinations towards fairness, equality, honesty, openness and matter-of-factness as a foundation

for learning might make professional development, and thus their practice of ESD, more effective or meaningful in the classroom.

## Recommendations for Scholarly Research

As knowledge and awareness about ESD, particularly ESD in ECE, continues to spread, so should attention to research about its pedagogy. Determining whether or not ESD can actually help to create a sustainable world is likely out of the grasp of most research, but research can attempt to document efforts toward this goal. Specifically, and in addition to the examples mentioned above, research should focus on teachers' and children's perspectives of ESD, the effectiveness of various approaches to ESD toward the development of attitudes, values, behaviors, and skills that contribute to sustainable development. Continued exploration of evaluation measures for ESD would also be worthwhile. While empirical research into the practice of ESD in ECE does exist, some of which was described in Chapter Two, there is a need for additional study, especially in the United States. Longitudinal studies regarding children's learning about ESD, including about the interdependent pillars of sustainable development, would provide important lessons for those who hope to impact the world through early childhood education.

## Recommendations for the Researcher

The completion of this thesis has inspired me to continue exploring all aspects of ESD in and for ECE. While the research questions for this thesis encompassed a wide range of ideas, these findings have only begun to scratch the surface of all that could be ESD in ECE. I believe that this is a hopeful time for education from a global perspective; opportunities to work together on an international level have never been more accessible. I would like to see studies such as this one revised and re-implemented on a larger scale. As Hope suggested during our discussion

on human rights, continuing internationally-based conversation about such matters might improve our understanding of ESD and all its related topics. Not only would I like to see this study improved upon and replicated, I would also like to see follow-up studies done with these five teachers if they choose to engage in the study and practice of ESD through training and education. So often during our interviews I noted that teachers seemed to be constructing their understanding of these ideas as we spoke about them. I would like to know what they are thinking now, or how they might react to the findings as presented here. What ideas did they find useful, meaningful, and relevant? What successes and challenges do they encounter as they embrace a new approach to ECE? What kinds of problems do they feel ready to investigate and make efforts to solve with children? What discoveries might the teachers make during this process that contribute to a better understanding of ESD in ECE?

As I was finishing my research for the literature review portion of this study, I could not help but notice the increasing use of the language of ESD in educational literature. This increasing presence is hopeful and inspiring. I look forward to expanding my study of ESD in ECE from a variety of perspectives, and broadening my search for studies to develop a greater understanding of specific topics (e.g, economics education, ecology, and social studies---including human rights, diversity, social justice, and community/civics education). I specifically am interested in exploring the connections between ESD and HRE, and of economics education in early childhood education. Through these efforts, I hope to contribute to the growing and evolving global discussions about ESD in early childhood education.

## Conclusion

The study of ESD offers an important opportunity to challenge teachers and young children to actively create a better, more sustainable world. To quote Nicholas Burnett, the Assistant Director General for Education of the United Nations Educational, Scientific, and Cultural Organization: "Education is humanity's best hope and most effective means in the quest to achieve sustainable development," (Pramling Samuelsson & Kaga, 2008). It is my recommendation, based on the findings of this thesis, that ESD continue to be implemented, explored, and researched. In so doing, we just might make the world a better place.

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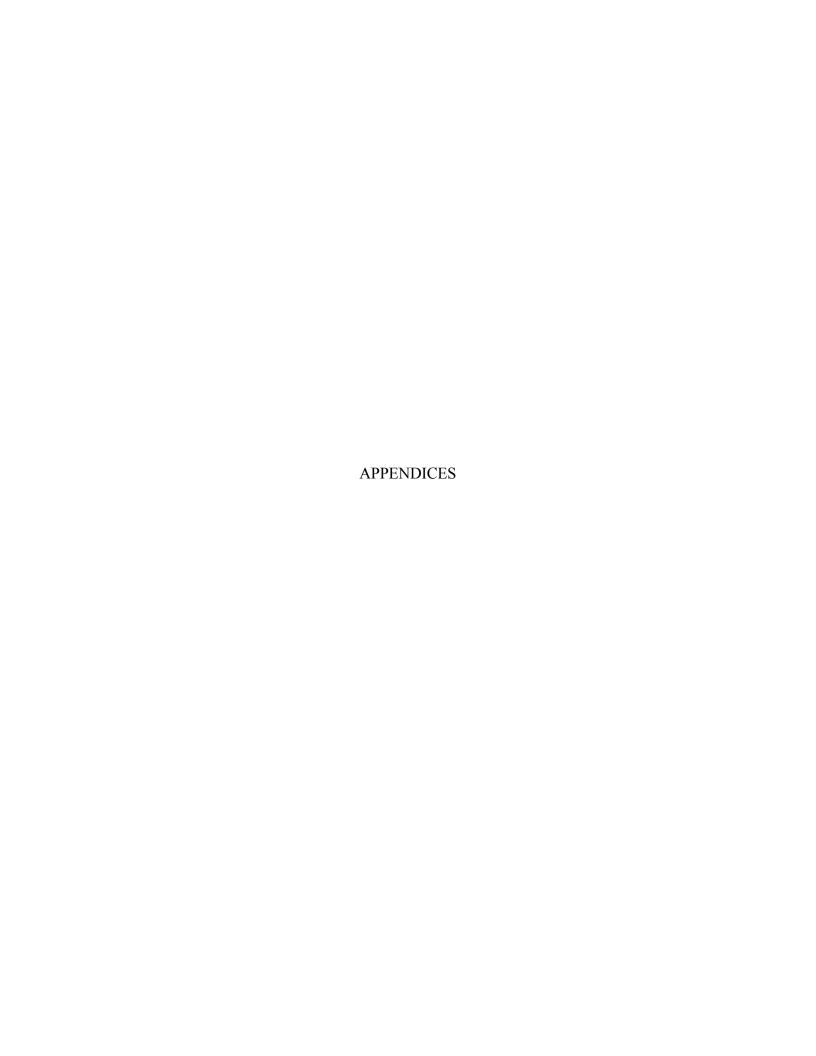Schoorman, D. (2011). Reconceptualizing teacher education as a social justice undertaking: Underscoring the urgency for critical multiculturalism in early childhood education. *Childhood Education. 87*(5). 314-344

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APPENDICES

# APPENDIX A: THE ENVIRONMENTAL RATING SCALE FOR SUSTAINABLE DEVELOPMENT IN EARLY CHILDHOOD (THE ERS-SDEC) (DRAFT) (OMEP, 2013)

Scale for Social and Cultural Diversity (page 1 of 3)

| Item | Inadequate 1 | 2 | Minimal 3 | 4 | Good 5 | 6 | Excellent 7 |
|---|---|---|---|---|---|---|---|
| **Social and Cultural Sustainability** | | | | | | | |
| | 1.1 There is little or no reference made to the importance of social and cultural sustainability or interdependence either in classroom discussion or materials (toys, books, puzzles, etc.) in the preschool setting. | | 3.1 Some books, pictures and displays include images that do not conform to social and cultural stereotypes, (e.g. showing a black teacher or police officer that is wearing a religious head scarf.) | | 5.1 Staff take advantage of the opportunities afforded in story-telling and/or other group activities (e.g. with multimedia, community visits) to encourage the discussion of social and cultural sustainability and interdependence. | | 7.1 The children are encouraged to share their ideas and knowledge of their own and others' cultures in group sharing times and are able to speak openly about diversity. |
| | 1.2 No policy statement exists regarding the importance and value of inclusion and/or the desire for culturally and socially diverse enrolment in the setting. | | 3.2 Children's attention is explicitly drawn to ethnic diversity (including their own ethnicity). Teachers and staff emphasize the commonalities of human experiences including the needs, values and desires of all humans. | | 5.2. Many books, pictures and displays show images of men and women that do not conform to social and cultural stereotypes (gender, ethnic, tribal, or racial, etc.). | | 7.2 Children are encouraged to explore and investigate unfamiliar social and cultural contexts.<br><br>7.3 The inherent and universal rights of all humans are discussed openly and regularly within the classroom. |
| | 1.3 There is little or no reference in classroom discussion/materials that all people are equal regardless of social background, ability, gender, ethnicity, religion or other belief, or sexual orientation in the preschool setting.<br><br>1.4 Some books, pictures, dolls and display portray gender and ethnic or racial stereotypes. | | 3.3 Children are sometimes encouraged to discuss issues associated with inequality and suggest their own ideas for achieving social justice. | | 5.3 Children are encouraged to participate in activities that cross stereotypical gender, racial, ethnic and tribal boundaries (e.g. providing diverse opportunities and materials for dramatic and social play.) | | 7.4 Children regularly use services outside the setting (e.g. library, communal vegetable garden, swimming pool) or have community support and interaction within the setting<br><br>7.5 Where social inequality is identified, children contribute their own efforts to achieve social justice (e.g. through presentations, making posters, contacting appropriate persons, or writing letters.) |

1

# The ERS-SDEC: Scale for Economic Sustainability (page 2 of 3)

| Item | Inadequate 1 | 2 | Minimal 3 | 4 | Good 5 | 6 | Excellent 7 |
|------|--------------|---|-----------|---|--------|---|-------------|

**Economic Sustainability**

| | | | |
|---|---|---|---|
| 1.1 Very little or no reference is made to paper, electricity and water consumption in the setting. | 3.1 The children are sometimes involved in purchase decision making, and recycling activities in the nursery. | 5.1 The children are regularly and routinely involved in purchasing decisions in the setting. | 7.1 The children are encouraged and supported in questioning the hidden costs and benefits of a range of products (e.g. factory farmed foods, high performance vehicles) |
| 1.2 The children are rarely or are never given the opportunity to talk about money, saving and/or the need for economising. | 3.2 The children have the opportunity, and are often seen to play with pretend or real money and point-of-sale technology (tills etc). | 5.2 The children are encouraged to suggest ways in which materials and resources such as paper, water and electricity may be conserved and/or recycled in the setting and at home. | 7.2 The staff invites parents and community groups to participate in projects concerned with conservation of resources and recycling (e.g. related to paper, electricity and water consumption). |
| 1.3 There are no resources recycled in the setting. | 3.3 The use of materials and resources including water, paper and electricity are monitored and conserved in the setting. | 5.3 The children's attention is specifically drawn to economic issues of concern to the local and international community (e.g. discussing a TV report that an individual child has identified)<br><br>5.4 Provisions are made to support low income families to ensure access and participation in all the preschool projects or activities (e.g. outings, music classes) | 7.3 The staff provides support for the children and their families to engage in entrepreneurial and mini-enterprise projects and e.g. the sale of herbs from a herb garden or Eid al-fitr/Christmas/ Diwali cards designed and made by the children.<br><br>7.4 Where the setting is fee paying, provisions are made to support the children of low income families in gaining access to the facilities. |

The ERS-SDEC: Scale for Environmental Sustainability (page 3 of 3)

| Item | Inadequate 1 | 2 | Minimal 3 | 4 | Good 5 | 6 | Excellent 7 |
|---|---|---|---|---|---|---|---|

**Environmental Sustainability**

| | | |
|---|---|---|
| 1.1 No references are made to the environmental sustainability in the setting. | 3.1 Some environmental materials are included in the setting. | 5.1 Many resources are available including animals and plants in the setting | 7.1 Classroom and/or school buildings are constructed using environmentally appropriate technologies. |
| 1.2 The children are never encouraged to discuss the importance of any environmental issue. | 3.2 Children's attention is explicitly drawn to the need to care for the environment of the setting and in the local community | 5.2 The children are encouraged to identify a range of environmental issues and to suggest their own ideas. | 7.2 The children are encouraged to provide a variety of actions, including narrative accounts, to represent their own and others' efforts to solve environmental issues. |
| 1.3 The children are never taken on environmental visits to areas of natural beauty. | 3.3 Children are involved in at least one activity that involves caring for animals and for plants. | 5.3 The children routinely participate in projects and group activities to explore, investigate, and understand environmental issues in their daily lives. | 7.3 The curriculum explicitly includes learning about environmental sustainability. |
| 1.4 The children have inadequate access to clean drinking water. | | | |
| 1.5 Staff or children are often unable, or fail, to wash their hands before eating and/or after toileting. | | | |

## APPENDIX B: GUIDANCE FOR THE ERS-SDEC (DRAFT)

**The Draft "**Environmental Rating Scale for Sustainable Development in Early Childhood"
**(ERS-SDEC)**

**Background**

The ERS-SDEC applies the same rating procedures as the *Early Childhood Environment Rating Scale – Revised* (ECERS-R) (Harms, Clifford and Cryer, 1998) and - *Extension* (ECERS-E) (Sylva, Siraj-Blatchford, & Taggart, 2003)[1] instruments. In many research contexts the ERS-SDEC may therefore be applied conveniently alongside these more elaborate and comprehensive quality rating scales. The ERS-SDEC may also be applied by individual or groups of practitioners to audit their education for sustainable development curriculum, and to help practitioners and preschool centre mangers in setting curriculum development priorities. OMEP is committed to the further development, refinement and revision of this instrument in the future in collaboration with practitioners.

As in other environmental rating scales, the ERS-SDEC, identifies both curriculum and pedagogic provisions and it require the rater/evaluator to make their own observations. Where it is applied by an outside researcher they will be required to ask practitioners for information about their practices, and to seek evidence that confirms these practices.

Instruments of this kind have been used as research instruments or as curriculum self-assessment or auditing tool to be applied in one classroom, across classrooms in a larger institution or even across a whole local authority. Most significantly they provide a means by which practitioners can identify areas of the ECESD curriculum that they wish to develop further, and a means by which these developments may be recorded and reported to show progress. The ECERS scales measures from 1 to 7 with 1 = inadequate, 3 = minimal  5 = good and 7 = excellent.  Following the procedures applied in developing other ECERS style instruments, level 5 is intended to show practice currently considered 'good', and the scale goes on to level 7 to identify particular 'excellence'. Given the relatively new development of the education for sustainable development in early childhood it is unlikely that many of our preschools will currently achieve more than level 3 in many areas. We hope that the publication of these results will help us in mobilising the resources that will be needed to improve things. Some of our preschools (including many in sub-saharan Africa) may score an "Inadequate" level 1 in some areas as they don't currently have even the most basic water and hygiene facilities to adequately sustain the lives of all of the children in their care. These provisions can be seen as a necessary prerequisite to sustainable education in preschools and they identify the highest priority for OMEP's international development efforts.

The ERS-SDEC is suitable for use in settings catering for children aged 2 ½ through to 7 years of age and should be applied in one room, or for the provisions being made for one group of children at a time.

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[1] For details of a similar tool applied in association with the ECERS-E see
http://www.327matters.org/Docs/RR356.pdf

**The Curent Draft** ERS-SDEC

Our intention is to revise the current draft rating scale as a result of the current piloting exercise to ensure a high degree of internal consistency. The scale will then be launched in July 2013 at the OMEP World Assembly. Systematic research efforts will then be made to demonstrate construct and predictive validity and to develop further resources to support inter-rater reliability..

**The Purpose of the Scale**

Our intention is to develop this instrument as a both a research tool, and also as a self-assessment tool for practitioners. Where the scale is used by a single practitioner within their own setting, the scale can be applied to support curriculum development through identifying priorities, setting targets and managing change without difficulties. But wherever any form of comparison is involved between settings,  there will be a need to ensure inter-rater reliability. It is important that users recognise the need for external or collective validation and that their ratings may need to be collaboratively moderated. This should be achieved through:

- training to understanding the use and the role of the scale
- training to ensure common understandings of the quality criteria (definitions and cultural variations) and in.
- in many cases a 'critical friend' should also be involved to provide support and validation (this may be an local authority adviser or an academic who has applied the instrument in other contexts

**How to use the Scale**

In preparation for these initial ratings, be sure to read through the scales and familiarised yourself with all the items and any clarifying notes (below). If there are any that you remain unclear about please contact (email) and ask for further explanation, he will revise the notes below and post them online. If you don't understand something then others will certainly have the same questions and will benefit from the answers.

Observers should normally spend at least 2 hours in the classroom and they should also allow at least 15-30 minutes to speak with staff, children (and ideally with parents as well) at the end of their observations. But not all the items will be constantly visible through direct observation. In many cases rating judgements may me assisted through reference to planning documents, records and displays. Observers should allow sufficient time to access these documents but ensure that their ratings reflect the observed or evidenced practice and not simply future plans. There are a few items that refer to specific adult *behaviours* which should be happening regularly – in these cases they should be observed during your visit, rather than only relying upon what the adult may *say* about what happens. For example, in Item  Social and Cultural 5.1: Staff take advantage of the opportunities afforded in story telling and/or other group activities (e.g. with multimedia and on visits) to encourage the discussion of social and cultural sustainability and interdependence - you should *observe* staff talking to children about these issues.

The items do not have to be rated in the order in which they appear in scales and you should only score an item after you have the information you require to make a reasoned judgement. If you are not sure about something, make detailed notes and a preliminary rating which can be moderated later.


Record the following information on the scale:

National OMEP group:

Name of Setting: (and also a pseudonym – required for the purposes of anonymity)

Date the rating was carried out:

Raters Name:

For publication purposes it would be valuable for you to obtain permission for our use of  photographs of some of the settings engaged in ESD activities. Please label these clearly with the name of the setting and forward them to john@cam.ac.uk with your ratings. He will provide an online form for this purpose, he will also compile the findings and regularly report back to the group on progress.

Please also make notes on suggested changes and/or elaborations of the scale and forward these to aid in the process of revision.

**Scoring:**

A rating of 1 must be given if **any** indicator in section 1 is scored YES.

A rating of 2 is given when **all** indicators under 1 are scored NO and at least half of the indicators under 3 are scored YES.

A rating of 3 is given when **all** indicators under 1 scored NO and **all** indictors under 3 are scored YES.

A rating of 4 is given when **all** indicators under 3 are met and at least half of the indicators under 5 are scored YES.

A rating of 5 is given when **all** indicators under 5 are scored YES.

A rating of 6 is given when **all** indicators under 5 are met and at least half of the indicators under 7 are scored YES.

A rating of 7 is given when **all** indicators under 7 are scored YES

**Item notes for clarification**

## *Social and Cultural Sustainability*

1.4 Boys dress up clothes,  dolls or small world figures include doctors,  firemen, police, while Girls, and girl dolls are dressed as nurses, brides etc.

3.1 To score YES to this item there should be some (2/3+) books, dolls and displays that portray women and ethnic groups in non-stereotyped powerful occupations e.g. Women doctors, Black (or indigenous) Police officers.

3.2 It is recognised that this may be challenging for some practitioners but it is especially important for children who are disadvantaged and for those others who are already developing false senses of cultural superiority.

## *Economic Sustainability*

1.1 To demonstrate quality ESD provisions for **each** of these areas is considered essential regardless of any local surpluses. The indicators for this item may be:

- Printed/ visual stimulus on switch and taps (For example: Please switch off the lights before you leave, Please do not leave water running while brushing your teeth

- Using both sides of paper

- Using junk paper

1.2  Children are already acutely aware of the power and importance of money in their lives and will be engaged in talking about it at home. This discourse should be extended in the preschool and the importance of moderation and thrift should be emphasised.

3.1 Children may decide to what can be bought like toys or books, etc.

5.3 Teacher can refer to inequality between poor and rich with appropriate activities other staff except early childhood educators can make contribution to economic sustainability process for example, we can question whether the cook decide the amounts of food bought or whether the cook have initiative to decide what can be done waste foods.

7.1 What are hidden costs and benefits in ECE settings? For example eating apple rather than drinking packaged apple juice or using natural toys in order to lessen our burden of consumption

7.4 A setting that fully supports sustainable development will not exclude families on the basis of their inability to pay the fees/tuition.

*Environmental Sustainability*

1.1 References may include books, pictures, photos etc.

1.3 Natural beauty may include forests, lake, outdoors of the setting, etc.

1.4 The WHO advises that a 10kg child should consume a total of 1 litre of water from drinks each day and a 5kg infant, 0.75 litres per day under average conditions, but this should be increased depending on the conditions, up to 4.5 litres, for example if the child is very active in high temperatures.

1.5 because of either lack of water or lack of hand-washing habits[2].

3.1 materials may include toys, puzzles, ICT materials, materials for socio-dramatic play, etc.

5.1 plants and animals can be found both indoor & outdoor/ children are encouraged to bring natural materials(for example: a pet from home, gathering leaves in autumn)

5.2 environmental issues are that of concern to the setting, to the local community, and/or to the international community.

7.1 may include solar powered energy system or other energy conservation system.

7.3 the curriculum here means both written and action.

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[2] *Note: Every day, 6,000 children die of water-related diseases. This is a sustainability issue and OMEP is campaigning with many other organisations to include a Human Right to clean water in the Sustainable development Goals that are being drafted to replace the Millennium Development Goals in 2015. More than four billion cases of diarrhoea cause 2.2 million deaths each year - mostly of children under the age of five. This is preventable and early childhood hygiene education has a major role to play in dealing with the problem. In the rich nations where such provisions may often be taken for granted the inclusion of these 'hygiene' features in the scale are intended to draw greater attention to the issues and to stimulate international collaboration in dealing with the problems.*

**APPENDIX C: ERS-SDEC INTERVIEW PROTOCOL**

**ERS-SDEC Follow Up Interview Questions; Purpose & Protocol**

After the implementation of the Environmental Rating Scale for Sustainable Development in Early Childhood (ERS-SDEC), teachers will be asked to schedule a time to participate in a follow up interview regarding the ERS-SDEC tool.  The purpose of this follow up interview is to help answer the following research question:  How do teachers in rural preschools in the U.S. interpret and synthesize items in the ERS-SDEC?

**Interview Purpose and Protocol:**

1. The follow up interview will take place after the ERS-SDEC has been administered.

2. I will remind teachers that the interview will be recorded, and I will ensure that all consent forms have been signed before I begin.

3. Before we begin recording, I will let the teachers know a little bit about what to expect during the interview, and how they can expect the interview questions will be laid out:

    a. I will explain that the ERS-SDEC is a work in progress, and that the intention of this study is to help work out the strengths and challenges of the document in its current form, so that revisions for improvement can be made.

    b. I will begin by asking teachers to provide basic demographic information for study purposes.  I will remind them that their name will not be associated with the collected data, and that confidentiality will be respected and enforced to every extent possible.

    c. Finally, I will ask the teachers if they have any questions or concerns about the study before we begin recording.

4. **Interview questions: Personal Information**

a. "You are a preschool teacher (or assistant teacher). Is this correct?

b. "Can you tell me how long you have served in this role, in this classroom?

c. "How many years of overall early childhood teaching experience do you have?"

d. "Can you tell me about your educational background?"

"Do you have a Bachelor's Degree, 04 Certification, Master's degree, etc…"

5. **Interview questions: General Knowledge Questions**

a. **Intro Statement:** "These questions are based on a draft version of a new self assessment rating scale that is being developed for early childhood teachers. The purpose of this study is to evaluate the usefulness and effectiveness of this scale as a possible self-assessment tool for early childhood classroom teachers. We are trying to identify some of the strengths and challenges to the scale so that improvements to the scale might be made. One aspect of the scale that we seek your help with is how teachers understand some of the terms and phrases found within the scale. I am going to ask you what you think about some of these.

b. **Interdependence:**

"Interdependence is a word used several times within the scale. What do you think is meant by the term Interdependence?"

"One of the items states that students are encouraged to discuss interdependence in the classroom. How do you interpret this as a teacher?"

"Can you think of some ways children might discuss interdependence in the classroom?"

"When do you think these discussions would be most likely to occur?

c. **Diversity:**

"One of the items also states that children are able to speak openly about diversity. What do you think is meant by the term 'diversity'?"

"Can you give an example of what children speaking openly about diversity might sound like in your classroom?"

"Can you think of any examples of how or when it might be inappropriate for children to speak openly about diversity?"

d. **Community.**

"The word community is used multiple times within this scale. What communities do you see your children as being a part of?"

"Can you think of an example of how children in your classroom might interact with these communities?"

"One of the items on the scale states that 'children's attention is drawn to economic issues of concern to the local and international community. How do you interpret this as a preschool teacher?"

**"**Can you think of an example of an appropriate economic issue for young children to explore?"

**"**What might that exploration look like?"

e. **Social Justice:**

"The next term I want to ask about is 'Social justice;' what do you think of when you hear the words, 'Social Justice'?"

"One of the scale items asks that children contribute their own efforts to achieve social justice. Can you think of some examples of what children contributing their own efforts to achieve social justice could be?"

f.  **Human Rights:**

"One of the items states that the inherent and universal rights of all

humans are discussed openly and regularly in the classroom.   What do

you think is implied by 'inherent and universal rights of all humans?'?"

"Can you think of some examples of what these 'rights' might be?"

"What kind of human rights discussions might be appropriate in the

preschool setting?

"Can you think of any topics concerning human rights that might be

inappropriate at the preschool level?"

g.  **Hidden costs and benefits:**

"One of the items says that children are encouraged and supported in

questioning the hidden costs and benefits of a range of products.  What do

you think is meant by 'hidden costs and benefits'?"

"Can you think of an example of a product children use in their daily lives

that they could begin to consider the hidden costs and benefits of?"

h.  **Environmental Issues:**

"The term 'environmental issues' is used four times in the scale. What do

you think of when you consider the term environmental issues?"

"Can you give some examples of environmental issues that children can

explore, investigate, understand, and/or make an effort to solve?"

i.  **Sustainable development:**

"What do you think the creators of this scale mean when they present this

as a 'Rating Scale for Sustainable Development'?

"How familiar are you with the concept of Sustainable development or

Sustainability?**"**

**"**Can you give some examples regarding your understanding of

sustainability?"

j.  **Cultural and Social Sustainability, Economic, and Environmental**

**Sustainability:**

"This rating scale identifies three distinct areas of sustainability; what do

you think is meant by the phrase Cultural and Social Sustainability?"

"What do you think is meant by Economic Sustainability? "

"What do you think is meant by Environmental Sustainability?"

2.  **Interview Questions: Value and Usefulness Statements**

a.  **Intro Statement:** "Now that we have discussed how you interpret some of the

terms used in the ERS-SDEC, I would like to ask you a few questions about the

usefulness of the scale, particularly about how useful this scale would be for you."

"Do you see Sustainability an important issue for early childhood

educators to be thinking about?"

o   If yes → "Why do you believe this to be an important issue?"

o   If no → "Why do you believe this is not an important issue?"

"If a self-assessing rating scale regarding education for sustainable

development in early childhood was currently available to you, would you

find it useful?"

o   If yes → "How would you use a tool such as this?"

      o   If no → "Why not?"

"Would you agree or disagree that Sustainability and Human Rights are related issues?"

      o   If agree →"Can you give an example of why you think they are related?"

      o   If disagree → "Can you explain how you see them as separate issues?"

b. **Statements regarding future interest:**

"Would you like to receive additional information and training about Education for Sustainable Development?"

      o   If yes → "What kind of training would you be interested in?"

"Thinking back to a question I asked earlier concerning human rights, would you like to receive additional information and training about Human Rights or human rights education?"

      o   If yes → "What kind of training would you be interested in?"

c. **Thank you.**

## APPENDIX D:  LETTERS TO PARTICIPANTS/CONSENT FORMS

Dear Southern Region PreK Teacher,

I am a graduate student seeking my Master's degree In Early Childhood Education in the Department of Curriculum and Instruction at Southern Illinois University Carbondale.

I am currently conducting research in the field of Early Childhood Education for Sustainable Development. I am seeking to observe preschool classrooms in Southern Illinois as part of a larger global project with Dr. Cathy Mogharreban.  We would like to observe your classroom using a tool called the Environmental Rating Scale for Sustainable Development in Early Childhood Education (The ERS-SDEC).   The purpose of my observation is not to collect evaluative information about classroom practices, but rather to evaluate the usefulness and effectiveness of the ERS-SDEC as a possible self-assessment tool for early childhood classroom teachers.   After observing your classroom, I would like to schedule a time to ask you some questions regarding your thoughts and opinions of the ERS-SDEC tool, and its potential use and effectiveness for you as a teacher.

A copy of the ERS-SDEC has been provided to the administrators at Southern Region Early Childhood Programs office and a letter of explanation to the Principal of your school. Your participation in this study is voluntary.  You can expect the initial classroom observation to be completed during a morning or afternoon class session (to be scheduled at your convenience) at the end of February or during the month of March. The observation will be approximately 2 hours.  The follow up interview will take less than an hour to conduct, and may or may not be conducted the same day as the observation (determined by your convenience).

The follow up interview will be audio recorded. Consent and confidentiality forms will need to be signed prior to the interview.  All of your responses will be kept confidential within reasonable limits.  Only those directly involved with this project will have access to the data.

Questions about this study can be directed to me or to my supervising professor:

 Dr. Cathy Mogharreban, Coordinator, Early Childhood Programs, Department of Curriculum and Instruction, Southern Illinois University Carbondale
Carbondale, Illinois 62901 Phone:          (618) 536-2441      E-mail: cmogh@siu.edu

To indicate your willingness to participate in this study, please return the included voluntary consent form in the included postage paid return envelope. I will contact you to schedule a convenient time for the observation and follow up interview.

Thank you for taking the time to assist me in this research.

Shannon S. Green           618-316- 1595               ShannonSGreen@siu.edu

This project has been reviewed and approved by the SIUC Human Subjects Committee.  Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Sponsored Projects Administration, SIUC, Carbondale, IL 62901-4709.  Phone (618) 453-4533.  E-mail:  siuhsc@siu.edu

**CONSENT FORM for Participation in the ERS-SDEC Trial Study**

My name is Shannon Green. I am a graduate student at Southern Illinois University-Carbondale.

I am asking you to participate in my research study. The purpose of my study is to evaluate the usefulness and effectiveness of Environmental Rating Scale for Sustainable Development in Early Childhood Education (ERS-SDEC).

Participation in this study is voluntary and has two components.

- The first includes an observation your classroom using the ERS-SDEC.
- The second includes participation in a follow up interview that will take less than one hour to complete.

During the classroom observation, no recording devices will be used. Follow-up Interviews will be audio recorded to ensure the accurate collection of data. All recordings will be kept confidential during the study, and will be destroyed when the study has been completed.

All observations and interview responses will be kept confidential within reasonable limits. Only those directly involved with this project will have access to the data.

If you have any questions about the study, please contact me (or my advisor if applicable).

**Shannon Green**          **618-316-1595**          **ShannonSGreen@siu.edu**

Advisor to the Project: Dr. Cathy Mogharreban, Coordinator, Early Childhood Programs, Department of Curriculum and Instruction, Southern Illinois University Carbondale
        Carbondale, Illinois 62901 Phone:          (618) 536-2441     E-mail: cmogh@siu.edu

Thank you for taking the time to assist me in this research. Your signature below indicates your voluntary consent to participate. Refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled and you may discontinue participation at any time. You will be contacted to schedule a time for observation and interview.

_____

Participant Signature and Date

Telephone: _____

This project has been reviewed and approved by the SIUC Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Sponsored Projects Administration, SIUC, Carbondale, IL 62901-4709.  Phone (618) 453-4533.  E-mail: siuhsc@siu.edu

**Consent to be Audiorecorded During Follow-Up Interview for the ERS-SDEC Trial Study**

Thank you for your willingness to participate in the ERS-SDEC Trial Study Follow-Up Interview.  Participation in this interview requires that you be audio-taped during the interview process.

Audio-Taping will be conducted with a handheld digital audio recorder. You will not be identified by name on the actual recorder. Instead, your interview will be coded by a participant number.  Interview responses will be kept confidential within reasonable limits.  Only those directly involved with this project will have access to the recordings, which will be stored on a SD memory card. Interviews will be backed up on a second memory card. All digital files associated with this interview will be erased when the study has been completed.


"I, _____, agree to participate in the follow-up interview for the ERS-SDEC Trial Study and know that my audio responses will be recorded digitally. I give consent for my quotes to be used in the paper associated with this study, knowing that they will not be attributed to me by name."

[  ] I agree      [  ] I disagree      _____

_____

                                               Participant Signature                    Date

**VITA**

Graduate School

Southern Illinois University

Shannon S. Green

ShannonSGreen@yahoo.com

Southern Illinois University Carbondale
Bachelor of Science, Early Childhood Education, 2001

Thesis Title:
     Preschool Teachers' Early Perceptions of Education for Sustainable Development in Early Chlldhood Education

Major Professor:  Cathy Mogharreban