A PRIMARY TEACHER'S SENSE OF SPACE

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PREFACE

This study was conducted to better understand what it means to be a primary teacher. The research followed Max vanManen's hermeneutic phenomenological research on lived experiences. In order to understand what it means to be a primary teacher, we must study the four lifeworld existentials as proposed by vanManen: lived space (spatiality), lived body (corpeality), lived time (temporality), and lived human relation (relationality or communality). It is through this research that the existential of lived space as pertains to a primary teacher is described in thick, rich text.

I wish to express my sincere appreciation and thanks to my advisor, Dr. Kathryn Castle, whose guidance, mentorship, inspiration and friendship helped me to move beyond what I thought I was capable of doing. I also deeply appreciate the mentorship and guidance of Dr. Margaret Scott and Dr. Mona Lane, whose assistance and encouragement were invaluable.

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Introduction

Soon, I will start my very first teaching assignment as a professional. I can imagine walking into my room, thinking about all the endless room arrangement possibilities I learned in my methods classes the first time. From their initial classroom observations, students, administrators and parents can get a preliminary view of a teacher's curricular goals and education philosophy. A room in which the desks are arranged facing the front of the classroom with the teacher's desk in the front facing the class projects a different view from a room that is arranged with the desks in groups of four with the teacher's desk in an inconspicuous manner.

Definitions

In order to clarify the information presented in this text, it is important understand the definition of early childhood. Early childhood is defined as the span of childhood from birth to eight years of age. The author is identifies the early childhood teacher in this study as a woman.

Teacher's Philosophy and Classroom Arrangement

A teacher's philosophy becomes reflected in how he/she organizes classroom space. For example, in the Montessori approach, the classroom environment is an important part of the philosophy. The primary purpose of the classroom is to provide students with the best possible conditions for optimum development and learning. Montessorian teachers focus on various aspects of the child's development as it pertains to the classroom environment. The child's physical and emotional needs are considered. The classroom is arranged with love for the children that will occupy it. There is also a

great amount of order within the room, with manipulatives arranged so that children can use them as necessary. It would be expected that a teacher with a more "traditional" philosophy would arrange her room differently than a teacher who is using a "developmentally appropriate" approach. A traditional teacher may arrange her room in a way that explicitly shows her control of the students and the activities in the classroom. Hannah (1982) suggests that a teacher take inventory of her curricular goals, classroom management style, and philosophy of teaching before arranging her classroom. Some questions a teacher may ask herself include:

- How do you communicate with your students?
- How do your students communicate with each other?
- Is communication between students constructive?
- How much do you move around the room as you conduct your class?
- How is discipline maintained in the classroom?
- How do you address yourself to the class?
- What uses do you make of special tools and equipment?
- What demands do you make on the classroom arrangement? (pp.9-10)

These questions assist teachers with designing the physical arrangement for their classroom.

Messages Students Receive from Their Classroom

Teachers also need to consider the messages they want to convey to students when they enter the classroom. In a developmentally appropriate classroom, there are many positive messages that teachers convey to students. According to Dodge, Jablon and Bickart (1994) teachers want students to (a) feel that their environment is safe and

comfortable; (b) feel valued; (c) be able to make friends and share; (d) understand expectations; (e) do interesting work; (f) make choices and (g) find what they need and put things back where they belong (pp.92-93). Characteristics of a developmentally appropriate environment include low shelves with organized curriculum materials, large quantities of quality children's literature, plenty of space for children's work, small group areas in the room, and child size furniture appropriate for age level, etc. (Dodge, Jablong, & Bickart, 1994).

The Research Problem

There is not much available in the professional literature about how primary teachers plan classroom space. Schilmoeller and Amundrud (1987) addressed the issue of furniture arrangement in an early childhood classroom (three to five year olds) to see its relationship to the amount of noise, movement and on-task behavior of the students. Three, four, and five year olds were observed in a "structured" vs. "open" arrangement. The researchers predicted that more learning would take place with lower decibels of sound, arranged movement in the classroom, and more on-task behavior of students. On the contrary, the researchers found that none of their predictions regarding sound, movement and on-task behavior were supported by their observations. From their observations they concluded that other factors, such as teacher-student ratio and child's previous school experiences may play a role in classroom environment. Another study by Nash (1981) observed four and five year olds in two types of classrooms: "space-planned" and random. In the space planned room, Nash found that creative productivity and skills, generalization of number concepts, variety of oral language use and utilization of listening and pre-reading materials were significantly better for the children in the

classrooms deliberately arranged to promote learning (p.144). The author concludes that utilization of classroom space to fit the students' learning needs has been a neglected teaching strategy.

The Question

In order to create a better understanding of primary classrooms, and the utilization of classroom space, it is necessary to ask the question: What is the sense a primary teacher makes of classroom space?

Significance of the Study

Through this research, I will be attempting to understand the sense that a primary teacher makes of classroom space. All teachers are confronted with space as a teaching issue in the form of a question: How can classroom space be best organized, arranged and used to promote learning of all children? Who shares that space? Some teachers are assigned to classrooms in which lack of space is a problem. Still others must deal with space that is fragmented or is difficult to use or supervise. While all teachers make decisions about how best to address space issues, little is known about how teachers go about making these decisions. Do they decide based on their own preferences, knowledge of child development, who will be using the space, professional guidelines relative to space based on their memories of classroom space as a student? Can teachers articulate their ideas about classroom space or are they part of teachers' intuition or common sense notions about "what works"? How did they get those ideas regarding physical classroom environment?

The present study attempts to present an interpretation of what space means to one primary teacher. A thick, rich description of one primary teacher's sense of

classroom space may be beneficial to educators who face similar space issues.

Organization of Classroom Space and Materials

The organization of classroom space and materials is important in the primary grades. It can either invite children to participate or withdraw from the activities of the day. Research on classroom space is varied and has not been studied recently.

In order to understand how we come to hold the current beliefs about primary classrooms, we must understand briefly how the science of education came to be. In eighteenth century Europe, Joseph Lancaster shaped considerably the way primary students are taught. The Lancasterian or monitorial system, used the metaphor of the school as a machine and students its parts. This system thrived on order of the classroom and discipline. Also, teachers were taught how to use the method explicitly and were not

Chapter Two

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In eighteenth and nineteenth centuries, the United States educational system underwent a few changes. Although schools were segregated by race, mandated public education has its roots in the Massachusetts Act of 1642. Particularly, all towns of fifty households or more were required by law to appoint someone to teach the children to read and write (Parkay & Stanford, 1998, p.73). In 1837, Horace Mann proposed that teachers should have more than a few years of schooling in order to become a teacher. The normal school, or teacher education program, began in 1839 in Massachusetts. The purpose of this school was to teach educators general curriculum knowledge, pedagogy and to give them practice in an affiliated school (Parkay & Stanford, 1988, p.73).

Early childhood education has its beginnings in the nineteenth century. Freidrich

Froebel established the first kindergarten in Germany in 1837. Froebel used the metaphor of the garden to symbolize education for young children. In other words, just as plants grew naturally according to their own laws, so would children in the same manner. He advocated that early education follow the nature of the child (Spodek, Saracho & Davis, 1991, p.19). Initially, all kindergarten programs that opened in the United States were in the German language. The first public school kindergarten opened in Boston in 1873 under the direction of Elizabeth Peabody. Maria Montessori also developed schools for young children that focused on self-activity, discipline and independence. Montessori's model of early education utilized the children's sensory perception with concrete materials. Montessorian schools were built in the United States until just before World War I (Spodek, Saracho, & Davis, 1991, p.26). John Dewey, a philosopher and educator, was the first American to influence education. Although he supported the premise of education being child-centered, he further refined the idea. Dewey believed the development of the whole child: manual skills, moral well-being, physical prowess and intellectual skill (Osburn, 1991, p.95).

Arnold Gesell and Jean Piaget also influenced early childhood education from their research. Using moving picture photography, Gesell recorded children's behavior at different ages. From his research, he concluded that there were certain types of behavior that were likely to occur at a particular age. Piaget, a biological scientist, was interested in children's thought processes. Using his children as his research subjects, he developed a theory of cognitive development. Piaget believed that cognitive development was a continuous process (Osburn, 1991, p.129).

Kritchevsky (1969) divided play space in the classroom into two categories: play

units and potential units. Potential units is simply an empty space which is surrounded by a visual boundary. Potential units can be used for more than one activity. Play units, however, vary in complexity and variety. A simple play unit is one that has obvious use and does not have any sub-parts or materials that enable a child to manipulate or improvise (p.10). An example of this type would be a jungle gym. The complex unit is a play unit with sub-parts of two different play materials which enable the child to manipulate or improvise during play. A table with books on it is an example of a complex unit. A super unit is a complex unit that has one or more additional play materials (p.10). An example of a super unit is a sand table with play materials and water. Super units invite more prolonged play whereas simple units are often short-lived because of the lack of complexity of play. Kritchevsky also discusses the organization of the play space or classroom for young children. She describes a path as "the empty space on the floor or ground through which people move in getting from one place to another" (p. 15). She emphasizes the need for the paths in the classroom to be clear so children can move freely from one area of the room to the next. Teachers can assess the paths in their room by kneeling down to the children's level and noting the paths in the room.

Wolfgang & Wolfgang (1992) attempt to describe classroom materials by placing them in a continuum from fluid to structured. Fluid classroom materials are those that are very open-ended, sensory oriented that can be easily transformed (p.42). Easel painting or finger-painting would be a fluid material. A fluid-structured material is one that has properties of fluid and structured materials. An example of this would be blocks. They can be moved into any shape from a castle to a dinosaur, but have an unchangeable shape

to them. Structured materials are those materials that have their own internal form and a narrower range of uses (p.42). Puzzles would be a structured material primarily because there is one set use for it.

Classroom Organization Research

Before a teacher organizes her early childhood classroom, Greenman (1988) suggests that she examine the room thoroughly and decide what will occur in her classroom. First, the teacher must get a sense of the fixed spaces in her classroom. Fixed spaces include doors, windows, electric outlets, bathrooms, and sinks - anything that the teacher cannot move. Also, anticipate the flow of the classroom to and from these fixed areas. Next, she needs to write down everything that will happen in the room. The teacher needs to include parent/teacher conferences, student storage areas, any activity areas, etc. Greenman also suggests that the teacher find out if there are any other spaces available to her, such as closets, cabinets or hallways. After considering all of these items, the teacher may start planning the organization of her room. Characteristics of a good learning environment are the following

1. Experiences are developmentally appropriate for all children. All experiences need to meet the collective and individual needs of every child in the classroom and cover all areas of development.
2. The experiences are balanced. There is a rich assortment of materials with various uses and activities. The experiences need to also be a combination of active/quiet, social/solitary, novelty/challenge, open/closed, simple/complex, and realistic/non-realistic.
3. Time and space are appropriate (p. 155). In other words, the students have enough

time and space needed to complete the learning activity.

David Day (1983) suggests that teachers pay attention to acceptable volumes of sound and children's need for individual, small group and private space when arranging the classroom. Sound is an important variable in the classroom. The teacher needs to value, plan and anticipate noisy and quiet areas of the room (p.168). Teachers need to arrange their room to promote students working together in small groups or alone. Also, primary age students sometimes seek private space. Private spaces include areas underneath the water table, other tables or in their personal work space.

The teacher also needs to take care in deciding which learning areas she will plan for in her room and the type of materials she will use in her lessons. Teachers should make sure that their learning centers support their program goals for the year (p.177). Day suggests that teachers display their learning materials on low and open shelves. This facilitates development of self-sufficiency and choice-making skills. To avoid losing pieces, or not using materials to their best potential, teachers need to store materials neatly and as uncluttered as possible. The teacher needs to organize the materials in a clear, purposeful way (p.198). For example, in the computer area, supplies are arranged so that children can have access to them.

There are five basic concepts utilized in the cognitive-developmental classroom. First, a variety of materials are used to accommodate children from different levels of thinking. These materials are organized logically and stored so that children know where the items belong when they are finished. Second, areas in the room are changed periodically to present new problems with children (Feinburg & Mindess, 1994, p.158). For example, a teacher puts a quilt in the math area to encourage children to notice

patterns in everyday occurrences and invite them to make patterns in tangrams. Also, the entire room is reorganized so that children will be encouraged to work in areas they may have been avoiding. Individual reading may take place in a tent. Fourth, the teacher implements activities that will engage children's interest. The classroom has activities and aesthetically pleasing objects that encourage the child to explore. Finally, the classroom environment changes as the year goes by. In the fall semester, the room is rarely changed. As the year progresses, the students learn to adapt to a changing environment.

The Montessorian understanding of the physical environment of the classroom is quite different from more widely accepted early childhood environments. Kahn (1990) writes that the room is arranged to promote control for children's movements (p.32). Movable, wooden child-size furniture and breakable objects should be included in the organization because these help children develop fine motor skills. Each area (practical life, sensorial, math, language, social studies and science) is designated by the arrangement of the furniture (Chattin-McNichols, 1992, p.51). Many Montessorian classrooms also have an elliptical line in an open area so that children can practice balancing and other movement skills (p.51). Tables should be arranged so that two to six children can work together, but the teacher should allow space for children to work individually. The Montessorian method encourages the use of natural lighting in the classroom; fluorescent lighting can cause headaches and fatigue. Finally, the room is arranged with like objects being stored together and neatly placed on shelves. The objects are organized on the shelf so that students can easily pick the object up without disturbing other nearby objects. There is an open space for elementary-age children to sit

together for class meetings or discussions (p.32-33).

David Clegg and Shirley Billington (1994) note that there are three types of classroom designs. In the first type, the classroom is arranged in a workshop environment. Each area of the room has a specific purpose and the appropriate materials and resources to finish the task. The second type of classroom involves storing resource materials and supplies along the perimeters of the classroom, with the children working in the middle. The third type of classroom is the reverse: the children work on the perimeter of the room, with the materials in the middle. Teachers believe that by having the materials in the middle of the classroom, more children will be able to use them (p.117). According to Clegg and Billington (1994) there are three questions a primary teacher should reflect on when assessing the layout of her classroom:

1. Does the furniture layout allow opportunities for class, group and individual work?
2. Are there clear routes and pathways around the classroom?
3. How have the students been involved in making decisions about the layout? (p.129).

In the Reggio Emilia schools, the classroom is organized to encourage choice, communication, relationships, problem solving and discoveries (Hendrick, 1997, p. 18). Attention to detail and the beauty of children's artwork is shown throughout the school. For example, light shines through the windows, plants are in the hallway, and simple objects are stored in shelves (p.18). Finally, Reggio Emilia schools are distinct because children's work is displayed prominently throughout the classroom.

Bobbi Fisher, a nationally known speaker and author on elementary curriculum,

believes that both teachers and students need to have access to learning materials and supplies. She describes her classroom as having large and small areas for children to their work as well as areas for specific subjects such as art, science and writing (Fisher, 1995, p. 47). Also, her room has a display area where students and teachers may display items that interest them. Fisher writes that this enables her to find out her students' interests.

According to Chaille and Britain (1997), constructivist educators, there are seven principles to promoting a constructivist classroom environment (p.37). Principle one states that teachers should allow for good traffic flow and easy, unmonitored movement from area to area (p.38). This encourages the child to make choices and move freely about the room without asking permission from the teacher. Principle two states that teachers should allow for as much flexibility in the use of physical space as possible (p.38). In other words, the environment must be able to change to fit the needs of the children. Principle three states that teachers should allow for flexibility in the use of furniture (p.39). This means that teachers should use smaller, multi-purpose furniture so that the needs of the children can be met as they occur. Principle four states that accessibility of materials encourages self-direction (p.40). When children are encouraged to choose their own activities for the day, materials are organized at their eye level. Principle five states that reciprocity between learning areas can encourage creative problem solving (p.41). Teachers should allow children to use materials from different learning centers (within reason) to further experiment or extend their activities. Principle six contends that objects and materials that can be used in multiple ways encourage children to consider the world of opportunities. Open-ended materials encourage children to think of creative ways of using the materials. Principle seven contends that

practical considerations can determine the case of creating and maintaining a constructivist learning environment (p.53). In other words, teachers should organize their classroom so that related objects are together. For example, water activities should be near a water supply so that children can build on their experiments.

Teachers who plan to have many independent activities in their classroom need to take the following suggestions into account as they are arranging their room.

1. If there are not enough clearly marked paths from one activity center to another, the students will push and pull in their attempts to move to another center. Research indicates that one-third to one-half of the classroom should be devoted to paths (Prescott, Jones, and Kritchevsky, 1967).
2. Play units should not be hidden from students' sight or they will fall into disuse.
3. Large, empty spaces encourage students to roughhouse.
4. At all centers, the number of students should be limited to the amount of material available.
5. Storage space for materials should be easily reached by the students and should be close to the surfaces on which they work.
6. In order to supervise all activities at once, the teacher should be able to see what is going on in the activity centers. Therefore, barriers should be low and centers should not be hidden from sight (Richardson, 1994, p.87 Found in Learning to Teach by Richard I. Arends).

There are many resources a teacher can use to help her decide how to arrange her

classroom. One common characteristic seems to be a part of all of the methods: All classroom materials and furniture must be organized in a way that suits the needs of the teacher. The teacher needs to be well-grounded in her teaching philosophy and her understanding of how children learn. Her philosophy of teaching dictates how she will arrange her classroom.

Chapter Three

This chapter focuses on the methods involved in this research study. The researcher will be a participant-observer. In other words, the researcher was active in the research setting while she was collecting data. The types of data that were collected included: observation, interviews, teacher journal, and teacher portfolio for the National Board for Professional Teaching Standards. In order to discover themes from the data, the researcher used the selective-highlighting approach as described by Max van Manen (1990). This research is part of a collaborative effort among five researchers on the lifeworld of a primary teacher.

Research Setting

The research will be conducted in a primary classroom at an elementary school. Approximately 40,000 people live in the town that is located in a suburban southwestern part of the United States. The elementary school is composed of approximately 90% white mid to upper socioeconomic level families. Approximately 95% of the students in the targeted classroom are white.

Role of the Field Researcher

This study is based on field research. Field research involves observing ordinary events in natural settings. Field notes are extensive and provide very specific details. According to Neuman (1997) the field researcher does the following:

1. Observes ordinary events and everyday activities as they happen in natural settings, in addition to any unusual occurrences.
2. Becomes directly involved with the people being studied and personally experiences the process of daily social life in the field setting.

3. Produces data in the form of extensive written notes, as well as diagrams, maps, or pictures to provide very detailed descriptions.
4. Understands and develops empathy for members in a field setting, and does not just record 'cold' objective facts (p. 349).

Data Sources

The nature of the study is qualitative hermeneutic phenomenology. Data sources include field notes, teacher journal, and interviews with the primary teacher. All three sources of data was triangulated for analysis. All research data was locked in a secured file cabinet and destroyed upon completion of the research project.

Observations and Field Notes

I observed the primary teacher in the classroom and took appropriate field notes on her movement and interaction with space. I created and used a classroom map to show her movement around the room. I observed for a block of time, normally consisting of three hours. Observation is a research tool when it: 1) serves a formulated research purpose, (2) is planned deliberately, (3) is recorded systematically, and (4) is subjected to checks and controls on validity and reliability (Kidder, 1981, p. 264). There are several reasons why observations can be important to research. First, an observer might notice things that are routine to the participants. Second, observations are also used to validate other data sources such as the interview and document analysis. Third, observations make it possible to record events as they occur. Next, observations may provide insight to the context of behaviors or incidents for further interviews. Finally, observations can be a way of gathering information that is uncomfortable for the participant to describe.

Merriam (1998), writes that there are six things that the researcher notices during an observation visit: the physical setting, the participants, activities and interactions, conversation, subtle factors and the researcher's behavior (p.98).

According to Neuman (1997) recommendations for taking field notes include:

1. Record notes as soon as possible after each period in the field, and do not talk with others until observations are recorded.
2. Record events in the order in which they occurred, and note how long they last.
3. Make notes as concrete, complete and comprehensive as possible.
4. Record small talk or routines that do not appear to be significant at the time; they may become important later.
5. Include the researcher's own words and behavior in the notes.
6. Reread notes periodically and record ideas generated by the reading (p. 364).

Teacher Journals

Personal documents such as teacher journals provide a reliable "source of data concerning a person's beliefs, attitudes and view of the world" (Mirriam, 1998, p.116). Teacher journals can be a valuable tool in research. Teacher narratives "provide a window into classroom events" (Jalongo & Isenberg, 1997, p.95). "To interpret such a narrative demands extensive knowledge of personal, professional, institutional, and cultural paradigms for teaching. By careful reconstruction and reading of these...narratives, [we] can thicken our understanding of the quality of particular classroom moments" (McDonald, 1992, p.27). The teacher was asked to write in the journal at least three times per week. Data was also collected from the participant's

National Board for Professional Teaching Standards portfolio. The researcher read and inquired about any questions regarding the journal that are related to the research question.

Teacher Interviews

The interviews were transcribed directly after the interview so that accurate information could be found from the data. The purpose of an interview is to obtain a special kind of information not observable by the interviewer. According to Patton (1990, p.278), interviews are used so that the researcher can find out what's in and on someone else's mind. It allows the researcher to understand another person's perspective. The interview took place between the researcher and the primary teacher. Neuman (1997) gives characteristics of the typical field interview:

1. The beginning and end are not clear. The interview can be picked up later.
2. The interviewer shows interest in responses, encourages elaboration.
3. Open-ended questions are common, and probes are frequent.
4. The interviewer and member jointly control the pace and direction of the interview.
5. The social context of the interview is noted and seen as important for interpreting the meaning of the responses (p.371).

The interview was semi-structured. In other words, the researcher had a set of prepared questions and was open to questions that occurred during the interview. Please see Appendix B for interview questions.

There are three main types of questions used in field interviews: descriptive, structural, and contrast questions (p. 373). Neuman suggests that descriptive questions

are asked primarily in the beginning of the research. Then structural questions are added in the middle of the research with more contrast questions asked toward the completion of a research study. Descriptive questions primarily are concerned with time, space, examples, experiences, or hypothetical questions. An example of a descriptive question is "How did you go about organizing classroom space?" Structural questions clarify information that the field researcher has obtained through analyzing observations. "You mentioned that you use Kamii math techniques. Is Kamii a math method researcher?" is an example of a structural question. Finally, contrast questions build on the analysis from structural questions (p.374). The questions focus on similarities or differences between elements from questions and observations. An example of this type of question is, "What is the difference between open-ended and structured classrooms?" I avoided using questions not conducive to a good interview: multiple questions, leading questions or yes-or-no questions (Merriam, 1998, p.79).

Research Participant

The participant in this study was a white, female primary teacher (second grade) currently teaching in the public schools and who has taught for the past seven years. Permission was obtained from the teacher and the school administration through written informed consent. Please see Appendix A for consent letter and Institutional Review Board approval notice.

Data Analysis

In this research study, I searched for emergent themes related to spatiality from the data collected. In research, an emergent theme is a recurring element in the research data. van Manen (1990) suggests that a theme can be defined by three principles:

(1) Theme is the experience of focus, of meaning, of point.

(2) Theme formulation is at best a simplification. After we describe the theme, we find out that it falls short of describing the notion as we know it.

(3) Themes are not objects one encounters at certain points or moments in a text. A theme is not intransitive.

(4) Theme is the form of capturing the phenomenon one tries to understand. In other words, theme describes an aspect of the structure of lived experience (p.87).

There are three ways of isolating thematic statements: the holistic or sententious approach, the selective or highlighting approach, and the detailed or line-by-line approach (van Manen, 1990). In the holistic approach, the researcher attempts to describe the phenomena in one sentence or phrase based on the meaning of the text. In the selective or highlighting reading approach, the researcher reads the text many times. Then statements or phrases that accurately describe the phenomena within the text are highlighted, circled or otherwise marked. In the detailed reading approach, the researcher reads each sentence of the text, and she asks herself what that sentence reveals or describes about the phenomena being studied. Because the researcher will be reading interview transcripts, observation field notes and teacher journals, the selective-highlighting approach was utilized. Selective highlighting assisted the researcher in the collection of themes.

At the conclusion of the study a written account of the physical classroom environment of a teacher's lifeworld was made. The written account was given to the teacher for validation. There is nothing in the report that identifed the teacher, school, or

community by name. Thus, confidentiality was kept throughout the research.

Limitations of Researcher Interpretations

As with qualitative research, it is important for the researcher to acknowledge personal bias and the limitations of their interpretations. vanManen (1988) discusses several limitations of researcher interpretations in Tales of the Field (p.4-6). First, in what ways does the experiential nature of the research process shape the final story? The experiences of the researcher with the setting and research participants form the basis for the interpretive account. Second, how do political relationships shape the final interpretation. For instance funded research may have agency politics that shape the scope of the research. Third, what is the theoretical position of the researcher? In qualitative research this seems to be a question of utmost importance. However, the researcher needs to state her bias without being narcissistic. Fourth, how do narrative and rhetorical conventions limit the portrayal of the researcher's interpretations? These conventions seem to be governed by the researcher's academic discipline. For instance, some graduate committees may not allow a student to complete research in a non-traditional way. Fifth, in what ways does the lack of historical situating of observations and interviews limit the researcher's work? Sixth, how does the projected audience shape both the form and the substance of the researcher's product? The researcher uses different means of covering information to different groups of people. For example, I would explain my research differently to a group of child care workers than to a group of professors.

I also recognize the bias that underlies this research. As an early childhood educator, I bring understanding of constructivism as exemplified in the research of

Piaget, Kamii, DeVries and Zan. I also embrace the National Association for the Education of Young Children's model of developmentally appropriate practice for the primary grades. Before the beginning of the study, I completed preliminary observations of the teacher at the beginning of the school year. Therefore, I have previous experiences with the participant's style of teaching and beliefs regarding physical classroom environment. We are both a "firm believer of Piaget's theory that children have to construct their own knowledge in order for learning to be meaningful" (participant portfolio, 1999).

Chapter Four

Results

For the duration of this study, data collection was varied. In the beginning of the study, the researcher observed in the teacher's classroom as a student teacher for eight weeks. From the middle to the completion of the project, the researcher observed the primary teacher for a total of eight hours over the course of two scheduled observations. The observations took place in the teacher's primary classroom from the beginning of school to lunch and from lunch recess to the end of school. The type of journals used for data analysis were the teacher's personal classroom journal and excerpts from her portfolio for national board certification. These data from the teacher's journal will be cited as participant correspondence and data from the teacher's portfolio will be cited as participant portfolio. Observations will be recognized as observations and interviews will be cited as first or second interviews. The first interview occurred in the teacher's classroom during her lunch break. The second interview occurred over the telephone. Both interview sessions lasted approximately 30 minutes. The researcher used the selective highlighting analysis approach for analyzing data. For example, the researcher discovered underlying themes as they emerged from reading field notes, journal excerpts, and interview transcripts.

van Manen (1990) suggests that themes are a way of understanding more clearly the notion being studied (p.88).

1. Theme is the means to get at the notion. Discovering themes will help the researcher understand more fully the essence of a teacher's understanding of

space in a classroom. There is a method that a researcher follows when discovering themes.

2. Theme gives shape to the shapeless. A theme describes in a temporary and exemplary form the essence of something.
3. Theme describes the content of the notion. Good theme formulation seems to describe the core of the notion the researcher is trying to understand.
4. Theme is always a reduction of a notion. It is important to note that theme formulation does not completely describe the meaning of a notion. In other words, themes cannot generalize a notion to make it true for all cases.

There were six themes that emerged from the collected data. Some focused on the children and teachers' relationship to space while others focused on the physical environment of the classroom. The themes were:

1. Space is appropriate to children's developmental needs.
2. Space is movable or changeable, not static.
3. Classroom furniture has many non-conventional uses.
4. The primary teacher and children share decisions about classroom space.
5. The teacher's assessment affects the use of classroom space.
6. Space extends outside of the school grounds.

Emergent Themes

Space is appropriate to children's developmental needs. The primary teacher described her classroom arrangement in a way that follows the National Association for the Education of Young Children's (NAEYC) model of developmentally appropriate practice. For example, organizing the room to include comfortable work areas for

student to work alone or together is a characteristic of developmentally appropriate practice (Bredekamp, 1997).

> "My students sit at four large tables, arranged in a rectangle in the center of the room. Each table seats up to five students. Students share supplies (scissors, glue, pencils, crayons, markers) which are stored in trays in the middle of each table. Each table also houses a writing folder file box, which is a place for students to place unfinished drafts of writing, or any other work that is a piece in progress. Each table group works together to keep their supply tray replenished and their table space neat. Sharing table space and supplies helps children to learn to function as a community. One wall of the classroom is lined with student lockers. Children learn to respect each other's personal space as they store belongings...On the opposite wall, low shelves store things such as math manipulatives, math games, writing supplies, including varieties of paper, staplers, tape, scissors, extra crayons, markers and glue...Each area is equipped with the necessary materials for children to function there independently...There is room in both group time areas to seat students in a circle to allow for sharing of ideas, so that each student feels included in the activity" (participant portfolio, 1999).

The students also have their own private, personal space in the classroom. The "cubbies are theirs. I don't bother their space unless it is messy. Some children keep personal things, like pencil boxes in there, since the desks aren't there" (first interview, 1999).

Space is movable or changeable, not static. The primary teacher changes her room to fit the needs of the children or the learning activity. This follows a constructivist

philosophy regarding classroom environment. Chaille and Britain (1997) suggest that the classroom space be arranged so that it can change as needed during the day. For example, the primary teacher moves the classroom tables out to facilitate a class meeting. "For instance, when we have class meetings, students push the tables away from each other to create a large space in the middle so we can place our chairs in a circle..."(participant porfolio, 1999). Also, the teacher changes the room to fit the needs of the current theme. "When an in-depth study of the rainforests of the world leads us to create our own version of a rainforest inside a giant bubble, furniture has to be rearranged to accommodate the construction" (participant portfolio, 1999). Please Appendix D for classroom space with the rainforest bubble. The teacher also arranges her room to promote dialogue and discussion among students and the teacher (participant portfolio, 1999). During an observation, the researcher recorded a time when the students had a class meeting. All of the students helped arrange their chairs in a circle near the middle of the classroom for the meeting (observation, 1998). Please see Appendix E for classroom map during a class meeting.

The only inaccessible areas in the classroom are those areas that are too high for the students to reach without standing on a chair. Those areas include the top of high shelves and cabinets (first interview, 1999).

Classroom furniture has many non-conventional uses. For instance, the primary teacher uses the child-level shelves above the students' lockers to store books for a classroom library. "I use the shelves above the cubbies for the library because it was a way to organize them so the kids can get to them easy. When they are looking for a certain book, they know right where to go" (second interview, 1999). During an

observation, some students were seen reading books underneath a water table (observation, 1999). Also, the tops of shelves and tables are used as places for student artwork to dry. The teacher also uses the large group area by the chalkboard to finish planning for the next learning activity (observation, 1999).

The primary teacher and children share decisions about classroom space. During an interview, the primary teacher explained how students often retrieve objects from her desk or peruse materials on the counter by the door. The primary teacher believes that allowing the children to make these choices "helps them to become responsible decision-makers" (participant portfolio, 1999). During an observation and during the researcher's student teaching practicum the children were observed retrieving needed items from the primary teacher's desk (observation, 1999). "We (the children) learn to respect others and value their opinions when working with different groups"(participant journal, 1999). During an observation, I noticed that the children were allowed to work outside of their classroom with a parent volunteer on a literature circle activity (observation, 1998). The children choose their workspaces. "...Children are able to select or create their own working space much of the time" (first interview/participant portfolio, 1999).

The teacher's assessment affects the use of classroom space. The teacher writes in her journal that the "use of materials changes as I make daily observations regarding student use..."(participant portfolio, 1999). The primary teacher uses the shelves above the counter space to hold centers not being used at that time (second interview, 1999). For instance, the researcher observed that when the children were misusing the rainforest bubble and the learning activities were finished, the teacher

removed the bubble from the classroom (observation, 1998). See Appendix D for classroom map with rainforest bubble. Also, the teacher's assessments of children affect the use of space and materials in the classroom. "When I observe that Jennifer is easily distracted by the others at her table group, I allow her to choose another working space" (participant portfolio, 1999). The researcher observed the teacher encouraging the children to choose their own working space as they were working on a small group math game (observation, 1999). "I encourage the children to move around easy and create their own space. I want them to be independent (second interview, 1999).

Space extends outside of the school grounds. The participant plans a family "get-together" every summer. At this event, the students, their families and the participant spend time together getting to know one another and doing a common activity. For instance, last summer the teacher organized a sleepover in her front yard. "More parents stayed than I thought would....there was at least one parent in each tent. (participant portfolio, 1999). Furthermore, during the school year, the teacher arranges a time with each child's family to conduct a home visit for thirty minutes to an hour. At these home visits, the teacher is able to connect with the child in a different setting. Also, she is able to visit with families in a less formal setting. This primary teacher also uses community resources as a classroom. For example, she organized a field trip to the zoo when the children were learning about the rainforest. Also, learning does not take place only within the school building. "Today we helped Mr. Stanton's class spread mulch on the outdoor classroom trail" (participant journal, 1999).

From these themes, it seems that the primary teacher follows a constructivist, developmentally appropriate method of teaching young children. She arranges her room

so that most classroom materials used by the children are at their eye level and within their grasp. The classroom furniture meets the needs of the children in terms of height and size (Bredekamp & Copple, 1997). She has arranged spaces in her room for small group, individual and large group activities (Day, 1983). Like items, such as math manipulatives are arranged into one area of the room and organized by material. The children are allowed to move easily from one part of the room to the other without being monitored by the teacher (Chaille & Britain, 1997). The primary teacher also allows flexible use of the furniture and classroom space (Chaille & Britain, 1997). These is exemplified through her observations of her classroom arrangement and viewpoints expressed from her journals, interviews and portfolio.

Chapter Five

Discussion

The six themes in this research study reiterate what early childhood professionals (from beginning teachers to teacher educators) already know about quality classroom environments. The first theme discussed the importance of space being appropriate to children's developmental needs. Much research has been completed on the appropriateness of space to the very young child's needs. This study showed the importance for developmentally appropriate classroom environments in the early primary grades. It has been observed by the researcher that in many primary grades, the classroom's physical space does not change very much during the course of the school year. In other words, student desks are rarely rearranged or centers moved from one area of the room to another. From the data in this study, the contrary was found. The primary teacher allowed furniture and other movable items to be moved during the course of the study, according to the current learning activity or theme.

The third theme discussed the non-conventional uses of classroom furniture. The participating teacher allows the students to choose their own workspace much of the time, whether it was at their table or under the water table. The fourth theme focused on the primary teacher and children sharing decisions regarding classroom space. It is through this theme that the researcher notices a sense of mutual respect and cooperation between the teacher and the students. In the fifth theme, classroom space is affected by the teacher's assessment of the children and learning activities. From the researcher's perspective, this does not seem to be a new concept in the art of teaching young children. The sixth theme, the issue of space extending outside of the school ground, seems to be a

regular occurrence in the classrooms of early childhood teachers. However, it is very interesting and seemingly out of the ordinary for an early childhood teacher to plan events during the summer in order to facilitate school-family relationships. Although some of these themes are understood to be occurring in most quality early childhood classrooms, some may be exceptional and may help facilitate more research questions.

From this research one can conclude that the primary teacher's understanding of classroom space is reflected in her classroom's physical environment. In this instance, the physical classroom arrangement helps describe this primary teacher's philosophy regarding the education of young children. This teacher's philosophy seemed to follow the developmentally appropriate and constructivist understanding of early childhood education. A teacher who follows a more traditional approach may arrange her classroom in a different manner. Factors such as teacher personality, education philosophy and district guidelines also contribute to the arrangement of the classroom. The teacher must also understand her students and their capabilities in order to provide a classroom that encourages learning.

Implications

This research study has many implications for the early childhood field from classroom teachers to teacher educators. In the early childhood field, this research brings to life the idea of a constructivist classroom. It provides a context in which children's learn and interact with each other. Also, this study provides another example of a primary teacher who utilizes early childhood theory in her classroom. This further links early childhood to early primary grades. That issue is challenging for some educators to accept.

Classroom teachers may read this study and see parts of themselves within the excerpts of data. They may also view this research as one way to implement developmentally appropriate practice and constructivist philosophy in a primary classroom. Teacher educators may use this research to show beginning teachers a 'real world' example of developmentally appropriate practice in action at a public school. It may encourage new teachers to implement some of the "education theories" into "real world" schools. This research may help teachers from all backgrounds to take a look at their current classroom arrangement and assess whether it fits their needs and the needs of the children.

According to the researcher, there are not any qualitative research studies concerning the primary teacher's sense of space in the classroom. The research reviewed in chapter two reflects studies that were relevant in their time, but may not be relevant in current classroom situations. Also, the reviewed research primarily used quantitative research methods. This encourages the reader and public to view education research as a method of solving some sort of problem. This research may not solve any problems, but does explain further what it means for one primary teacher's use of space in her classroom. In a broader sense, the researcher hopes that more research will be conducted on describing the lifeworld of teachers. It is through this research that teachers can more fully understand what it means to teach. Finally, this type of research encourages teachers to see the similarities among themselves.

Limitations

It is important to note that the results from this study are not conclusive to all second grade classrooms. The purpose of the research study was to describe in rich, thick

text one primary teacher's understanding and arrangement of the physical classroom environment in the hopes that other classroom teachers may read the study and find similarities between their understanding and the understanding of the research participant. Also, the researcher's perspective may be different from the reader and therefore, the reader may have found contrasting results.

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Appendix A

Institutional Review Board Review Form and Participant Consent Form

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

DATE: 10-01-98 **IRB #: ED-99-025**

Proposal Title: THE LIFEWORLD OF A PRIMARY TEACHER

Principal Investigator(s): Kathryn Castle, Pam Brown, Karen Rogers, Caren Bryant, Sarah Turner

Reviewed and Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

Signature: Carol Olson Date: October 9, 1998

Carol Olson, Director of University Research Compliance
cc: Pam Brown
Karen Rogers
Caren Bryant
Sarah Turner

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

***The signed participant consent form is on file in the research director's office and will be maintained until completion of the collaborative research project.**

CONSENT FORM

Title of Study: The Lifeworld of a Primary Teacher

"I,_____, hereby authorize or direct _____, or associates or assistants of her choosing, to perform the following procedure."

1. Observations: The 5 researchers, Dr. Kathryn Castle, Dr. Pam Brown, Karen Rogers, Caren Bryant, and Sarah Turner, will observe the teacher at different times (not as a group) mutually agreed upon by the teacher and the researchers. Researchers will observe individually in such a way that observations do not interrupt classroom routine. Initial observations may be about 3 hours in duration. The teacher and researchers will agree upon whether additional observations are necessary and when they should occur if needed.

2. Interviews: The researchers will schedule conversational interviews with the teacher at mutually agreed upon times and locations. Interview conversations will continue throughout the school year from October through May until no new information about the teacher's everyday experiences is gained. Examples of interview questions include:

1. lived space: "How did you go about organizing classroom space?"

2. lived body: "What decisions do you make regarding your physical self as a teacher?"

3. lived time: "What is your favorite part of a typical day? Why?"

4. lived human relation: "How do you come to know others during and through your teaching?"

3. Teacher Narrative: You will be asked to keep a journal recording your teaching experiences. You will be asked to share journal entries of your choosing with researchers that relate to what it means to teach in terms of space, body, time, and relationships.

Appendix B

Interview Questions

Date: March 10, 1999 from 11:45 to 12:25p.m. in the teacher's classroom

1. Do you have any journal entries on classroom space or environment?
2. How did you go about organizing classroom space?
    a. What decisions do you make?
    b. What influences these decisions?
    c. Does the district or school make any decisions?
    d. Is there anything you would like to change and why?
3. How has your classroom changed from when you were a beginning teacher to now?
4. Do you change your classroom from the first to the second grade?
    a. How often, why, and in what ways do your change your room?
5. Are there any spaces inaccessible to children?
6. Do children have a personal or private space?

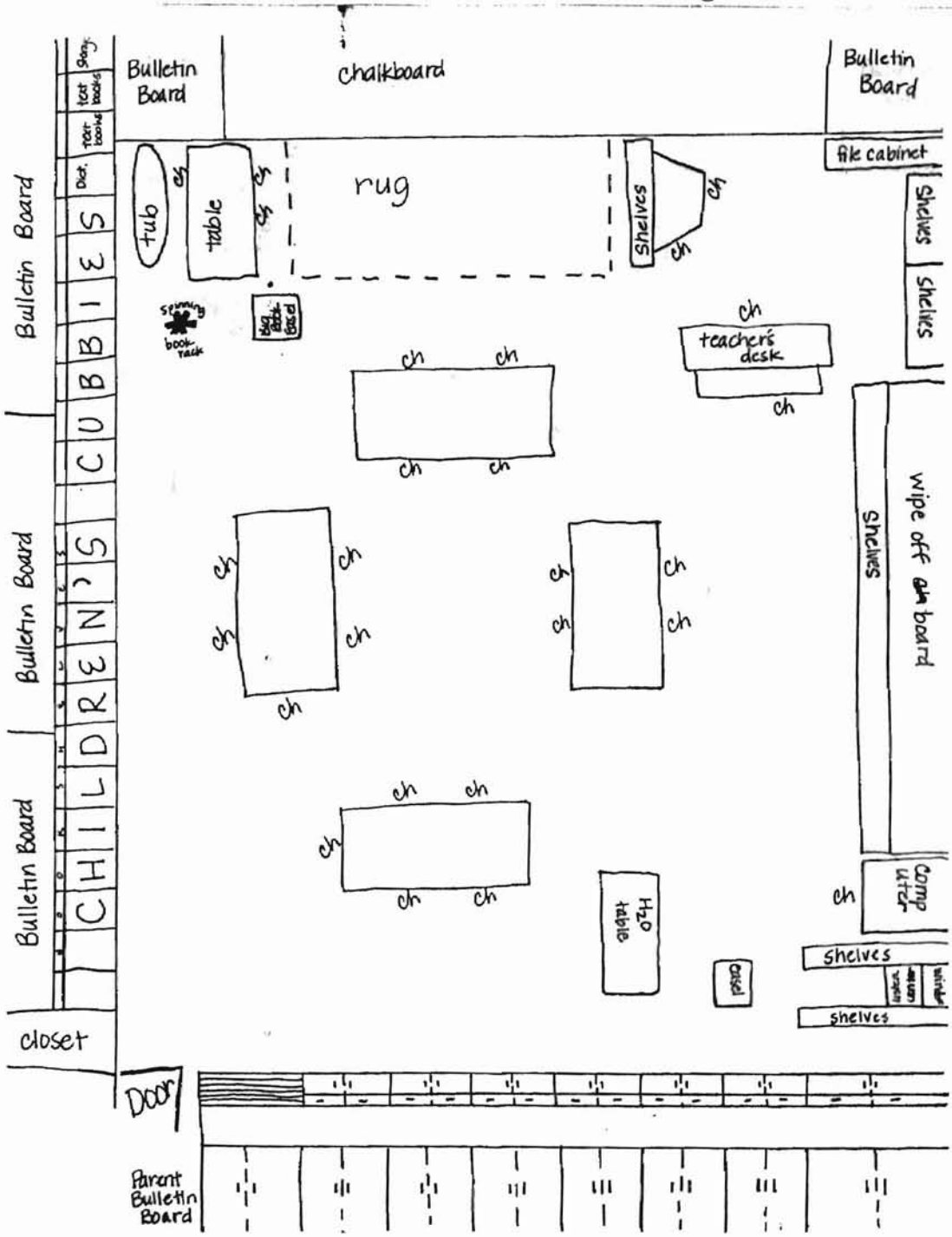
Date: April 30, 1999 from 8:15-8:45 p.m. by telephone

1. Tell me about the use of counter-top space in your classroom.
2. How do you arrange bulletin board space with teachers?
3. What other teacher-only spaces are there beside the spaces in the teacher's lounge and workroom?
4. What is the library area on top of the children's cubbies on the shelves?
5. What is your favorite space in the room?

6. Is there anything you intentionally or unintentionally teach through space? (in terms of creativity or options)
7. Is there anything that doesn't change?
8. Is classroom space limited only to the school grounds?

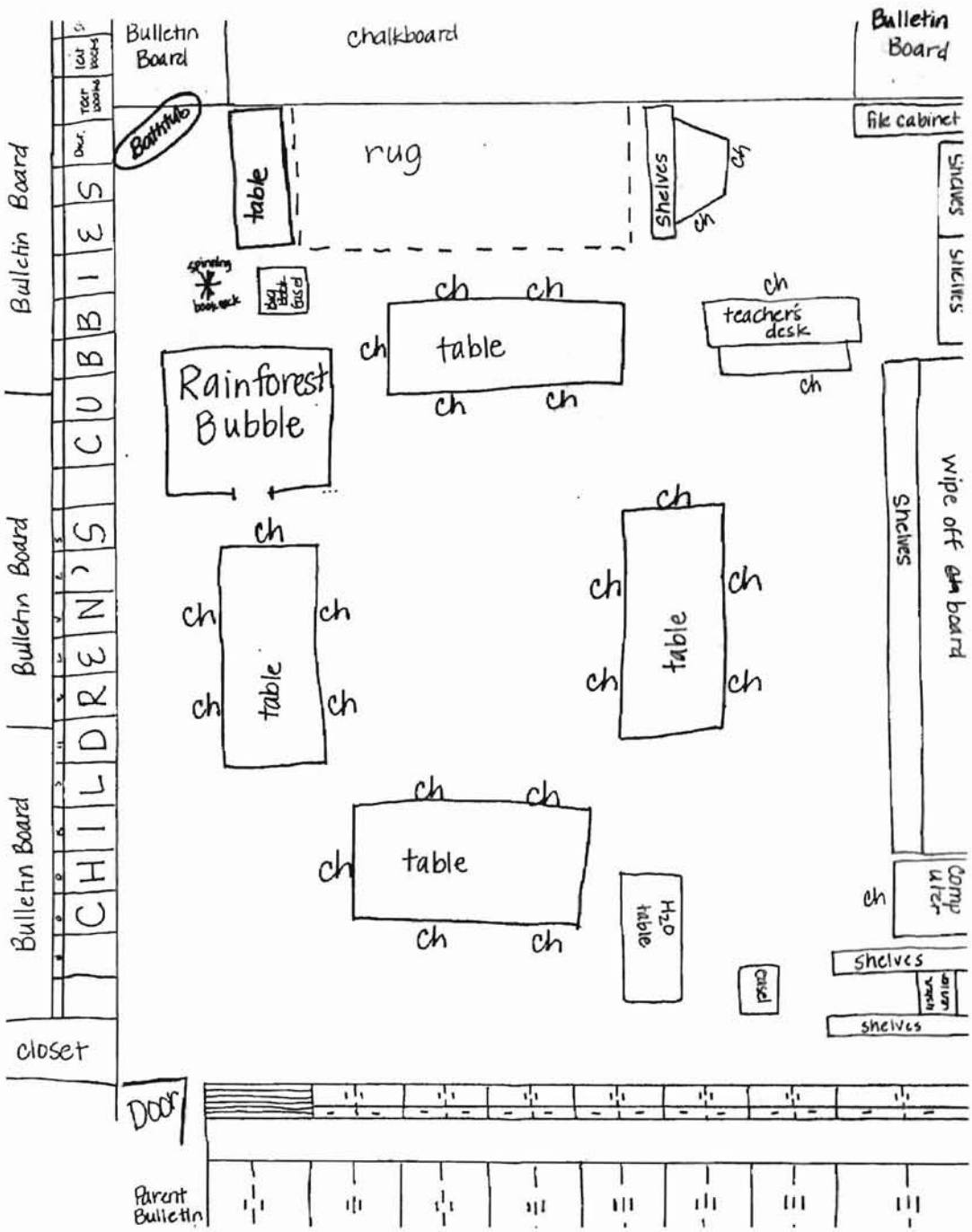
Appendix C

Map of Classroom Without Special Arrangements



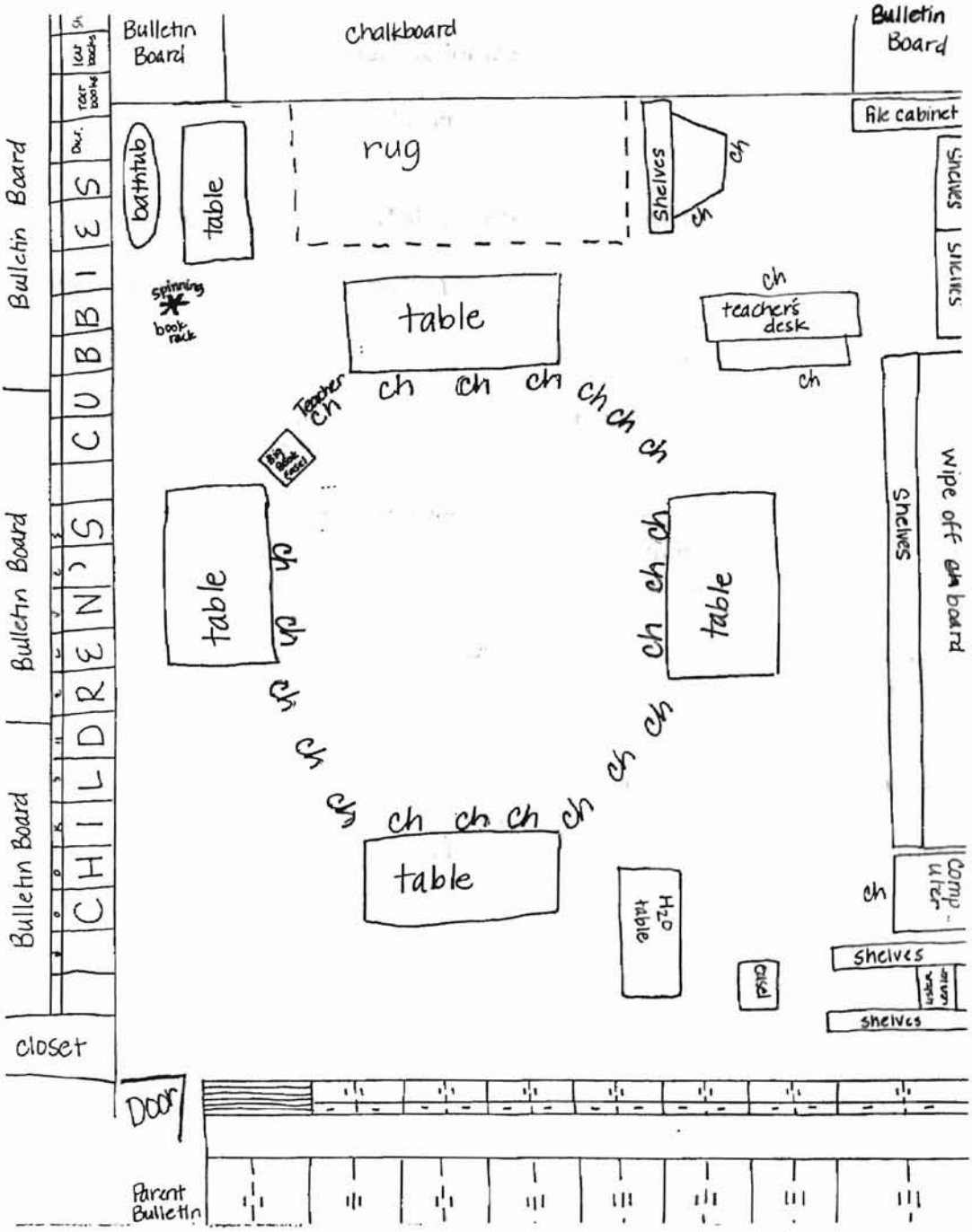
Appendix D

Map of Classroom with Rainforest Bubble



Appendix E

Map of Classroom During Class Meeting



VITA

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Master of Science

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