# EXPLORATION OF AGENCY IN PRESCHOOL CHILDREN WITH DISABILITIES

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To the Associate Vice President for Research and Dean of the Graduate School:

I am submitting herewith a dissertation, written by Teresa Pfeifer, M.O.T., O.T.R., entitled "Exploration of Agency in Preschool Children with Disabilities." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy with a major in Occupational Therapy.

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EXPLORATION OF AGENCY IN PRESCHOOL

CHILDREN WITH DISABILITIES

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MAY, 1999

## ABSTRACT

The purpose of this line of research was to describe how agency is manifested in preschool children with disabilities, and to analyze how manifestations of agency are influenced by natural environmental contexts of home, therapy settings, and peer settings. An additional purpose was to describe an eleven week parent-oriented intervention based on the construct of agency and document changes in parents and children that occurred during the course of this intervention.

Three related studies addressed these issues. Three studies were conducted using naturalistic methods of field observation and ethnography. The first study included six children with disabilities and their families. The participants were observed a minimum of five times and no more than nine times in home, therapy settings, and peer settings. The data from Study One

were used to analyze children with disabilities in terms of occupational roles and as active participants in different environments. Study Two was a secondary analysis of the data gathered in Study One. The data were examined with a focus on the environmental settings. The researcher analyzed themes of agency or active participation across settings. Additionally, the data were used to examine aspects or qualities of different settings that enhance agency. These qualities may be in the social, cultural, and physical environment that each setting offers. Study Three examined an ongoing parent-oriented treatment setting that utilized the construct of agency and the environment as treatment modalities for children with disabilities. The data analysis revealed aspects of treatment, such as parent education, complexity of play objects, and environmental elements such as peer interaction and classroom routines, that help produce change and lasting adaptation in children with disabilities.

The potential significance of these studies is twofold. The first is the addition of basic knowledge to the field of occupational therapy about agency, a theoretical construct. The information gathered from this research will add to the knowledge base of the profession by moving the construct of agency from the philosophical to the practical. The practical knowledge is expected to include ways of observ ing agency as it is manifested in different roles, activities, and environments of children with disabilities. The second area of potential

significance is learning to view therapy with children differently and children with disabilities as action agents. It is hoped that the results of these studies will help practitioners view children with disabilities in ecologically valid domains. The results indicate that children with disabilities have a variety of behaviors that indicate their active involvement with the environment that is not reflected in standard assessments. These may be related to functional activities required in the roles and in the environments in which they participate.

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# CHAPTER ONE

## Problems and Aims

In 1917 a diverse group of professionals gathered to found the National Society for the Promotion of Occupational Therapy (NSPOT). Before the formal organization of occupational therapy as a discipline, its founders recognized the benefit of occupations to the health and well being of the people under their care. In 1910 Susan Tracy, a nurse, had written "Studies in Invalid Occupation, A Manual for Nurses and Attendants." Though primarily a craft book, it did give Tracy's view on occupation as a balance between the intellectual and practical phases of experience (Hopkins, 1983). Herbert Hall often prescribed occupation as medicine for his patients, also calling it a work cure. Eleanor Clark Slagle, a social worker, noticed the effect of idleness on patients at Kankakee State Hospital. She enrolled in a course of curative occupations and diversions in 1911 (Hopkins, 1983). It was sometimes called work as in Hall's case, and its diversional aspects were recognized as in the coursework Slagle studied. The central core of belief for the founders of NSPOT was occupation.

Presently, the profession of occupational therapy has grown in number of practitioners as well as in diversity of practice. The special interest sections of the American Occupational Therapy Association are conceptualized many

different ways. There are sections organized around age, geriatrics and pediatrics; there is a section focused on the subject of technology; and there are sections for treatment applications such as sensory integration (Breines, 1986). This diversity of sections reflects the need for an organizing idea as the idea of occupation was in 1917. An organizing idea is that of agency. Agency is a term used to unify the core belief of the founders in the curative aspects of occupation through a person's individual actions, or agency. Agency is meant to cross diverse practice areas and special interests by studying occupation and its relationship to facilitating adaptation and lasting change in people.

Very little is known about agency beyond its philosophical underpinnings. Mary Reilly (1962) stated this hypothesis: "That man, through the use of his hands as they are energized by mind and will, can influence the state of his own health." (p. 2). This powerful statement has the underlying belief that man through his actions and occupations is the agent of his own change. Agency can be inferred in adults because of past occupational performance, functional activities, and occupational roles. One can compare an adult's occupation before injury to his or her occupation after a disabling condition. Adults have 'used their hands' in a variety of activities. Children with physical disabilities do not have multiple roles that adults have developed. They may not know what it is to be energized by their mind and will, or what it is to influence the state of their own health. The purpose of this line of research is to explore

the philosophical underpinning of agency and its relation to occupation. It is to understand the power of occupation in the lives of children with disabilities as agents influencing their health and well being.

- The aim of the first study was to examine and describe agency in terms of occupation. The study described how agency is manifested in preschool children with disabilities; it examined and explored agency that may differ with occupational roles of young children, and between differing occupational performances or activities of young children.
- The aim of the second study was to investigate how manifestations of agency are affected by natural environmental contexts of home, treatment settings, and peer settings. The study examined and described how different environmental factors may affect the manifestation of agency in young children.
- The aim of the third study was to describe an eleven week intervention based on the construct of agency and document the changes in parents and children that occurred during the course of this intervention. The study questioned what environmental factors appear to support or negatively affect agency.

As a whole these three studies examined the range of possibilities that agency may encompass by questioning the person aspects of agency, the

environmental aspects of agency, and the clinical implications of the use of agency.

# CHAPTER TWO

## Background and Significance

### *Definition*

Agency's core belief is that curative aspects of occupation are within a person's individual actions. Agency is the link between doing and being. It involves the subjective experience of occupation for the individual doing the occupation. It is an assumption that a focus on agency fosters lasting adaptation and takes place when occupation with all its intricacies is combined with control and choice. King (1978) points out that control and choice are part of the adaptive process of occupational therapy. A focus on agency is an attempt to clarify the complex nature and interactions of people as action agents. Because of the complex nature of agency, a systems approach is needed to investigate and understand the many components and complexities acting and reacting with one another.

There are several themes and assumptions about agency in relation to occupation that will be discussed in the review of the literature that will refine the components and complexities. This will not be an exhaustive review but one that will help frame the problem. The first theme is agency's roots in the history of occupational therapy. It is a term that has been used to characterize the

person's role in occupation. The second theme is how occupational therapy theorists included the construct of agency in a frame of reference or theory. Time or temporal factors are also a factor when considering agency and its implications. The importance of environmental factors is an underlying assumption pertaining to agency and man as an action agent. The person-environment interaction construct takes into account the multiple factors and levels of interaction that affect a person's performance. The person-environment interaction will be examined from an occupational therapy viewpoint, a social science viewpoint, and a cultural viewpoint. In addition to this, person-environment interaction and agency will be examined in regard to children.

*History of Agency*

Agency is a core concept in the philosophical writings of occupational therapy. It is mentioned in early writings by Meyer (1922) as man being active in life and active in use. The construct can be followed thought the history of occupational therapy. Kielhofner uses the term (1977) *agenthood* in reference to man's ability to adapt. Shannon (1977) describes the loss of agency as man becoming an object of technology. Fidler and Fidler (1978) describe doing as an organizing agent for personal growth. Gilfoyle (1984) uses the term *action agent*. Wood (1996) defines the process of adaptation as actively created by the person and notes the crucial role of personal action. Agency appears to be a core construct in the history of occupational therapy.

*Agency and Occupation*

The link between occupation, meaning, personal action, and purpose was presented by Trombly (1995) in the construct of occupation as means and occupation as ends. Trombly noted that occupation seems to serve two roles. The first is purposeful activity that has an end product (occupation as ends). The second, occupation as means, is defined as the therapy used to bring about changes in impaired performance. In both definitions personal action and choice are significant. Trombly noted the duality of occupation and the importance of this difference.

Schkade and Schultz (1992) recognized the dual concepts of adaptation and occupation as interrelated concepts that are integrated into a single construct called occupational adaptation. Occupational adaptation (OA) is defined in terms of a process through which change in occupational functioning occurs; and a state of competency in occupational functioning in response to occupational challenges. The concept of agency, or personal action, is a natural consequence of the adaptation process in the OA frame of reference. Nelson (1996, 1988) also defines occupation in terms of dual concepts of occupational form and performance. Occupational form addresses environmental components and occupational performance addresses the person system. Nelson (1996) began this work by defining meaning, purpose, developmental structure, impact, and adaptation. He noted the need for useful definitions in

knowledge development. This study's aim is to move from definitions to exploring and understanding the links between these constructs.

*Temporal Aspects of Agency*

Time affects the nature of agency and occupation. Kielhofner (1977) addressed temporal adaptation as part of the knowledge needed to understand and utilize occupation. Persons as action agents are affected by the temporal aspects of occupation. Occupations start with birth and end with death. As children grow to adulthood, the nature of occupation changes. As the nature of occupation changes, so does agency, and the person as an action agent. These changes happen so automatically the person does not realize that it has occurred until something interrupts the process. The nature of these changes and their relationship to other factors is often assumed. Change in occupational role and occupational environment has many implications. There is a change in responsibility from student to breadwinner; from schoolroom to work place. There is the change in physical setting, in social settings, in leisure activities, in work activities. What is not clear is how these multiple variables interact with one another. The nature of occupation changes with daily and weekly schedules. What one does on Tuesday at 3 p.m. may not be the same occupational demand as Saturday at 3 p.m. Occupation flows at different rates with seasonal changes. This can be best understood in how one acts during holiday times and how one acts on lazy summer days.

*The Environmental Conceptualization in Occupational Therapy*

There are different models, theories and frames of reference that address person-environment interaction. Reed and Sanderson (1992) view occupation as adaptation to the environment. Assessment in this frame of reference is of architectural and other environmental barriers. The model of human occupation (Kielhofner, 1985) acknowledges the significance of the external environment as the place where performance occurs. The assumption is that to understand the person, the occupational therapist must understand the environment in which the person exists. The assessment process suggests that data be collected on role history, habits, skills, values, personal causation, and the environment (Kielhofner, 1992). No specific suggestions are made for intervention. Although the model of human occupation acknowledges environmental influence, it relies more heavily on concepts and ideas from ego psychology.

Occupational adaptation (Schkade & Schultz, 1992) posits a person-environment interaction as a basic part of the frame of reference. "Occupational adaptation characterizes the interactive nature of occupation and adaptation that is present in the internal process by which persons respond to the demand for change (Schkade & Schultz, 1994; p. 87). Individuals are viewed in the person system. This system is composed of sensorimotor, cognitive, and psychosocial components. The environmental context is viewed as the

occupational environment consisting of work, play/leisure, and self maintenance. The occupational environment is uniquely configured in terms of the physical, social, and cultural subsystems of that environment. Functional outcomes are evaluated by efficient, effective and satisfying performance in the occupational environment. The goal of treatment is to change the person's internal occupational adaptation process rather than functional outcomes. Although the environmental subsystems are well defined, the links between the environmental subsystems and the person system seem to be unidirectional, person to environment. However, the environment may have a direct effect on the occupational adaptation process of the person.

The ecology of human performance (EHP) posits that the environment not only frames an understanding of human performance but is a treatment modality (Dunn, Brown & McGuigan, 1994). The EHP framework conceptualizes person, context, task, and performance components as interacting with each other. The person includes experiences, sensorimotor, cognitive and psychosocial abilities. Context includes physical, social, temporal, and cultural features of the person. This conceptualization follows AOTA's Uniform Terminology (Third edition, 1994). Tasks are the skills and abilities needed to accomplish a goal, while performance components refer to the "process and the results of the person interacting with context to engage in tasks" (Dunn, Brown & McGuigan, 1994; p. 606). The EHP framework allows for intervention to occur in

any of the different components. This could mean establishing or restoring a component of the person such as eye/hand coordination. It also means altering the context, adapting the context, preventing maladaptive performance in a context, or creating circumstances that foster functional performance. Intervention can be targeted to any of the EHP components

*The Environment and Agency in the Social Sciences*

Setting, the meaning of place (Rowles, 1981), is integral to agency. Although occupation can be studied and analyzed in laboratory situations, when it is combined with agency, the nature of understanding changes. The comparison between agency and the field of ethology, the scientific study of animals, may help clarify this idea. Willems (1976) points out that zoologists cannot understand the behavior of animals in the laboratory unless they have studied them in their natural habitat. This is true for the study of the occupations of people as change agents. Rowles (1991) uses the term "being in place" and "lifeworld" to describe the habitat of people. Being in place or lifeworld is more than the physical and social environment. It is "culturally defined spaciotemporal setting or horizon of everyday life (p. 266, 1991)." It embraces the environment of lived experiences. Rowles views spaces as a crucial link between the person and a sense of participation in events (Rowles, 1981). Setting determines the boundaries of occupation and agency in the person and how a person uses the environmental factors, skills, and abilities. Willems

(1972) observes that geologists know more about how to find water by observing the land's topography than we do about behavior. Agency is a construct designed to understand the topography of occupations.

Arthur Kleinman (1992) used the term "local worlds" to differentiate varying environments of the chronically ill. When defining the concept of local worlds of the chronically ill, he emphasizes that local world is unique to the person. Local worlds help the practitioner focus away from the pathology in the person to the social context of the pathology. This can be people, places, or meaningful things and is somewhat similar to Schkade and Schultz' (1992) conceptualization of the occupational environment subsystems. Local world may seem disjointed to the practitioner, but there is a contextual flow for the patient. Local world has a narrow band of focus, and the patient may participate in a variety of local worlds. The term 'local world' gives the practitioner a sense of different cultures such as those of home, neighborhood, or work setting. By giving a sense of different cultures, the health-care professional can begin to interpret the illness experience.

*Culture and Agency*

If setting is important to comprehending agency and occupation, the study of culture is a tool important to understanding the impact of settings. Cultural studies in anthropology clarify how different systems can have an effect on one another. Kroeber (1968) defined culture, in broad terms, as a complex

whole that includes the knowledge, beliefs, values, laws, morals, and customs acquired by an individual in society. Cohen (1968) said that culture "includes technology and institutions appropriate to that technology (p. 42)." Cohen (1968) wrote of culture as a nonbiological way of passing on traits of the complex whole. He posited "culture as man's most important instrument of adaptation (p.41)." It is the total range of customary behaviors with the ideologies, institutions and artifacts that equip societies for adaptation (Cohen, 1968). This could be conceptualized as a macro version of agency. Culture may be man's most important instrument for adaptation, but one wonders how that instrument works. Agency may be the instrument that individuals, using options provided by their culture, use to adapt on a micro level. Anthropologists may be able to link the use of technologies and artifacts to adaptation using the knowledge generated from the construct of agency.

*The Environment and Children*

Bronfenbrenner (1979) outlined his conceptualization of person-environment interaction in an ecological framework of human development. He began by discussing the person in terms of the unit of activity at the molecular level. Molecular activities are the component parts of an activity, similar to activity analysis used by occupational therapists. To brush one's teeth requires grasping the toothbrush, applying the toothpaste, moving the toothbrush to the mouth, and brushing. These are all molecular activities. The next level is molar

activity, which is somewhat analogous to occupation. Willems (1976) called these "chunks" of activities that comprise a whole action. Brushing one's teeth is a molar activity. It has many parts but they all fit together as 'brushing teeth'. Molar activities are composed of smaller molecular parts.

Bronfenbrenner's ecological framework examines the social structures that comprise person-environment interactions. To understand the interaction with the environment, one must have an understanding of the multiple roles of the person. Roles usually imply some type of interpersonal relationship. The most basic social relationship unit is the dyad. One realizes that dyads can easily expand to triads such as father/mother/child and employer and two employees. Such descriptions of the interpersonal structure of human relationships tells nothing about how such relationships develop or are shaped. In the ecological framework, relationships are shaped and affected by, and shape and affect different layers of the environment. These social contexts encompass multiple environments, multiple roles, and a variety of molar activities (Bronfenbrenner, 1979).

Bronfenbrenner characterizes these complex relationships as having four layers: the microsystem, the mesosystem, the exosystem, and the macrosystem. He likened these layers to nesting Russian dolls. The first and innermost layer of this complex relationship is the microsystem. The microsystem encompasses the patterns of activities, the roles and social

relationships, and the physical settings experienced by the person. It is a face-to-face relationship. This is similar to the concept of local worlds, a term proposed by Kleinman (1992) to differentiate varying environments. The mesosystem is composed of direct links between settings, processes or relationships. Mesosystems are composed of many microsystems (Bronfenbrenner, 1979a, Wachs, 1994). The third layer is the exosystem. Exosystems are indirect links between systems. Exosystems encompass mesosystems. Exosystems indirectly have an effect on mesosystems and microsystems. The fourth and outermost layer in Bronfenbrenner's ecological framework is the macrosystem. It is defined as consisting of the exosystems, mesosystems and microsystems that characterize a given culture. Unlike culture, the macrosystem can include historic events or a time frame such as 'the 60s' (Wachs, 1994).

Yarrow, Rubenstein and Pedersen (1975) also describe the environments of children. They use the term *inanimate environment* when describing the play of normal infants. This has two parts. The first part consists of what is within the infant's reach, the near proximal environment; and the second consists of what the infant can see and hear, the distal environment. They also specify another aspect of the infant's environment, the social environment. The social environment consists of maternal interactions that include play, touch, smiling, and object interactions. Rubenstein and Howes

(1983) further define the infant and toddler social environment to include caregiver interactions, toddler affect and play, and infant-peer interactions. They posit that social interactions affect play competence. Darvill (1982) echoes many of the concepts already discussed and adds another. He writes of understanding the environment that is not readily recognized by the child or casual observer. It consists of spatial density, social density or sex ratio of the children at play.

The inanimate environment (Yarrow, Rubenstein, & Pedersen, 1975) needs further clarification. It consists of the variety, complexity and responsiveness of inanimate objects in the infant's environment. Variety refers to the number and kind of play objects available to the child. Complexity means amount of information a play object can provide through sensory modalities. This would be different colors, patterns, textures, shapes, and size. Responsiveness indicates the amount of feedback possible from a play object. A responsive toy changes in response to the child's actions. It can make a sound, change shape, or have different movements. Stimulation cannot be assessed in a linear fashion or on a frequency scale meaning that more is better. The environment may have a variety of toys and objects that are not complex or not responsive. At one point the stimulation may facilitate, and at another point the same stimulation may be ignored or even be disturbing.

Yarrow, Rubenstein, and Pedersen (1975) posit that a sense of control over the environment enhances motivation to explore and master new situations, therefore it leads to further learning. Yarrow and his colleagues (1983) use the term *mastery motivation* and posit that it may be a better indicator of intelligence than current cognitive tests or development tests. They suggest that achievement has underlying qualities including a motive to master the environment, to master skills, and to be effective. Their research has identified persistence to task, competence and affect as indicators of mastery motivation (Yarrow, et. al. 1983). Persistence to task is the time the child plays with the toy in a goal-directed way. Competence is the skill on the task. Affect refers to the child's affective behavior during the task. Toy play can be observed by the choice of the toy, the repetition of the action and the variance of the action. The child may choose a shape sorter. He may repeat placing the circle in the shape sorter. Finally, he may realize that he can hear his own echo by talking into the shape sorter, displaying variety in play.

*Agency and Children*

In therapy, play is used as purposeful activity and leads to competence in development. Toys become tools the occupational therapist uses to achieve this competence (Tobias & Goldkopf, 1995). The tools, or toys, are chosen by the therapist. The interest of the child is maintained by the novelty and reactiveness of the toy that was selected by the occupational therapist to meet a therapeutic

or educational goal. Florey (1973) notes that play is part-time learning that happens outside treatment sessions and home programs. She observes that children with disabilities have less play time due to the amount of time spent in therapeutic programs. When examining the free play of severely retarded children, Wehman and Marchant (1978) stated there was little development of the free play of skills of severely retarded children. They noted a lack of spontaneous play. This seems contrary to the beliefs of occupational therapists that our clients can demonstrate agency. Children may manifest agency in an unexpected manner. This may be observed in actions, social interactiveness, facial expressions, unusual body movements, or postures of children with disabilities. If occupational therapists understand different manifestations of agency in children with disabilities, they may be better equipped to respond to them and utilize these manifestions to facilitate lasting change in children with disabilities

Play is considered different from other occupations and activities because it is not deemed serious. It is given greater credibility by the truism that, 'play is the work of children' (Bundy, 1993). Play "characterized by activity suggests the individual believes that he or she can do anything he or she wants to with the object (organism-dominated behaviors) (p. 51)." This could be paraphrased to say that children through the use of their hands in play, energized by their mind and will, can affect the state of their health. Play and the

choices children make during play can demonstrate a manifestation of agency. Play appears effortless even when used as a therapeutic tool. Pediatric occupational therapists have heard many times that they are just playing with the child (Bundy, 1991).

To summarize, the range of human behavior involves occupation in context. Agency and its relation to occupation is a core concept in the field of occupational therapy. Although a core concept, agency has not been studied in a systematic manner. The intent of these studies was to examine the power of agency and the relationship to the environment in facilitating a lasting change. Agency as the central point helps focus the multiple variables that affect occupational performance. It is an attempt to link the various constructs presented in the literature such as context, meaning, and purpose, and to understand the complex interactions of children as action agents in different environments. Agency's unique focus on the power of occupation to foster lasting change can lead to discerning the elements that affect change.

# CHAPTER THREE

## Personal Agency in Preschool Children with Disabilities: A Descriptive Study

(submitted for publication to American Journal of Occupational Therapy)

# Personal Agency in Preschool Children with Disabilities: A Descriptive Study

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Abstract

*Objectives:* A recent demand for grounding occupational therapy practice in trustworthy research has occurred. The purpose of this study was to explore a basic tenet of occupational therapy, personal agency. Personal agency is defined as self-directed, active engagement in meaningful activities. The objective was to describe how agency is manifested in preschool children with disabilities.

*Methods:* The study was conducted using the naturalistic method of field observation. The participants were 6 children between 18-35 months of age who were physically disabled. The children were observed in various settings that were part of the child's typical day. In depth field notes were made during these observations and later examined for themes that reflected and described personal agency.

*Results:* The children in the study demonstrated personal agency in 4 ways: looking and observing, mobility, playing invented games, and interacting with adults as communicative partners. All the children, regardless of their disability, spent time looking at people, their actions, or the object of their play. Mobility was defined broadly to include movement that resulted in choice or self-initiation by the child. Invented games related to the creative play of the children. Adult participants responded to the actions and visual gaze of their child in meaningful ways. This reaction by parents seemed to reinforce personal

agency in the child and active engagement in occupational activities. This appeared to be reciprocal in nature.

*Conclusions:* The results provide a view of personal agency in preschool children with disabilities. The recognition of personal agency by occupational therapists may provide a useful tool to increase the effectiveness and satisfaction of occupation based therapy for the client.

## Introduction

Beyond its philosophical underpinnings in occupational therapy, very little is known about the concept of agency, defined as self-directed, active engagement in meaningful activities. Agency can be inferred in adults because of past occupational performance, functional activities, narratives, and occupational roles. One can compare an adult's occupational history before injury to his or her occupation after a disabling condition. Children with physical disabilities do not have the multiple roles that adults have developed. Children with physical disabilities appear to be in the state of liminality, that is, the social condition of being marginal to society, at the boundaries, ready to enter but at the threshold outside of society (Murphy, Scheer, Murphy & Mack, 1988). Children with disabilities may not have the opportunities for active, self-directed, meaningful activities. Often, activities are selected for them based on the therapeutic value. Children with disabilities may not be perceived by others as agents possessing mind and will or ability to influence the state of their own well being. The basic question, then is: does agency exist in children with physical disabilities and how can it be observed and recognized?

## Review of the Literature

The concept of personal agency has a long history in psychology that might best be reflected in White's (1959) writings on motivation and the works on mastery motivation, active striving for competence and persistence in goal

attainment (MacTurk, McCathy, Vietze & Yarrow, 1987; Yarrow et al., 1983; Yarrow, Rubenstein & Pedersen, 1975). A brief background on literature pertaining to agency from psychology and occupational therapy will help frame the problem. This will not be an exhaustive review but one to provide a reference for understanding the interactions of elements of agency with one another.

Agency

Cochran and Laub (1994) state that, superficially, an agent is one who makes things happen. This contrasts with patients who have things happen to them. From this simple definition the next logical step would be to list the properties of agency. But, as Cochran and Laub (1994) point out, these properties are not present at all times in all people. These authors present concepts that can shape the view of agency and acknowledge that the concepts are interrelated so that making distinctions among them can be difficult. Some of the concepts that they mention are action, meaningfulness, and self-determination. Action refers to everyday competence in goals, plans, and motivation. It does not refer to a single action but to the person who shows persistent action. Meaning is concerned with a sense of purpose that guides one's life plan. It transcends immediate satisfaction to include past and future and places value on what is being achieved and on what is desired. Self-determination means that the cause of action is within one's self; that is, the

person is the origin of the action. Cochran and Laub (1994) suggest that enhancing agency can be a transforming experience.

People vary in their degree of personal agency just as they vary in their degree of experience, competency, and understanding of the action. Vallacher and Wegner (1989) suggest that people vary their degree of personal agency in response to occupational demands and to temporal constraints. If the level of personal agency is difficult to maintain at a higher level, the person will move to lower level demands. Once these are mastered and maintained at the lower level, then one can attempt higher level demands. They suggest that the interplay of these demands provides for the emergence of new action. This is unlikely if one is unable to maintain action at a high level. These authors link agency and action effectiveness. Stated axiomatically, nothing succeeds like success.

History of Agency and Occupation

Occupational therapy has always valued the individual's agentic potential as exemplified in Mary Reilly's (1962) famous statement, "That man, through the use of his hands as they are energized by mind and will, can influence the state of his own health." (p. 2). Meyer's (1922) statement of philosophy asserted not only the role of meaningful occupation but of being active in life and active in use. The construct can be followed throughout the history of occupational therapy. Kielhofner uses the term (1977) *agenthood* in

reference to man's ability to adapt. Shannon (1977) describes the loss of agency as man becoming an object of technology. Fidler and Fidler (1978) describe doing as an organizing agent for personal growth. Gilfoyle (1984) uses the term *action agent.* Wood (1996), citing King (1978), defines the process of adaptation as actively created by the person and notes the crucial role of personal action. Agency appears to be a core construct in the history of occupational therapy

Yerxa's writing encompasses the construct of self-determination. Yerxa (1967) states that choice and self-initiation are key to occupational therapy treatment. She points out that occupational therapists work with clients and do not "do" to clients. Clients cannot be forced to initiate. The philosophical underpinnings of occupational therapy appear to have a core belief in agency as it relates to action, meaning, and self-determination. Wood (1996) postulates that control and choice are part of the adaptive process of occupational therapy. The Occupational Adaptation (OA) frame of reference asserts that the therapist guides the individual's adaptation process by using client-identified-meaningful-activities (Schkade & Schultz, 1992; Schultz & Schkade, 1992; Schultz & Schkade, 1997). The process of adaptation is facilitated by the occupational therapist who understands the power of occupation in the lives of people as action agents. The power of occupation, in this sense, refers to meaningful, self-directed actions.

## Purpose of This Study

The purpose of the study was to examine and describe agency as reflected in the occupations of children with special needs. The study describes how agency was manifested in preschool children with disabilities. It explored whether agency may differ with the occupational roles of young children and between differing disability levels of children.

## Methods

This was a naturalistic study using qualitative research methods to investigate personal agency embedded in social actions and occupations of everyday life.

### Participants

The participants were six children with special needs and their families who were enrolled in a suburban early childhood intervention program (ECI). At the beginning of the study, the children ranged in age from 18 months to 35 months. At this age, children are refining their hand skills and usually have the ability to independently interact in the environment. To examine the range of agency, a variety of children with disabilities were observed. Two children were classified as severely disabled; that is, they could not move independently but could interact with adults in some way. Two children were classified as moderately disabled, having limited mobility and 5-20 words or signs. Finally, two children were mildly disabled, having independent mobility and a

vocabulary of 20 or more words or signs. Multiple cases were employed to add confidence to the findings and to ground the data in specific everyday events in the lives of the children involved (Miles & Huberman, 1994).

Data Collection

The data were collected using naturalistic methods of field observation, review of documents (therapy progress notes), and interviews with parents (Miles & Huberman, 1994; Patton, 1990). The participants were observed from 5-9 times, for one hour each time. To obtain an accurate idea of what children do in everyday life, observations were done across several settings. All the children were observed in two different settings and one child was observed in three different settings. The settings included home, respite care, mother's day out programs, and therapeutic interventions such as occupational therapy, physical therapy, speech therapy, and hippotherapy. The observations were done within the home setting, then alternating with another setting. There were thirty days or more between observation sets. The observation sets were spaced apart to allow for naturally occurring development of the children.

Data Analysis and Interpretation

Written field notes were transcribed into computer text. A sampling of transcribed observations was shared with the child's parent who checked them for accuracy. The parents generally used this as an opportunity to discuss other issues about their child. The observations seemed to become a basis for further

conversation regarding the child's current occupational challenges and current occupational performance.

The data analysis consisted of multiple steps. After the sets of data were complete, a summary was made of each five minute time block followed by a general summary of the observation sessions as a whole. Data were then broken into "chunks" of activities and then were compared for children across disability levels: mild, moderate and severe. The comparison resulted in identifying themes relating to each disability level. When the data were examined as a whole, themes emerged that transcended disability level. Trustworthiness, consisting of credibility, dependability, transferability, and confirmability, was enhanced through prolonged contact, thick description, member checks with parents, and peer review of the data (Denzin, 1994; Lincoln & Guba, 1986). Peer reviewers included two experienced occupational therapists who examined the data. Their comments and insights were incorporated into the results.

## Results

Four major categories emerged that seemed pertinent to the construct of agency or self-directed active engagement in the environment. These categories were: (a) looking and observing, (b) moving and mobility, (c) playing invented games, and (d) interacting with adults as partners in communication

and play. All of these areas are related to one another and are not discrete categories.

Looking and Observing

In general, no matter what the disability level, the children in the study stopped their occupational pursuits and observed what was going on around them. This behavior happened during almost every observation. It is exemplified by a thirty month old child with a moderate disability in a preschool setting.

> Kelly takes hold of an orange and then sits on the floor. She holds the orange and licks it. She drops the orange and moves to chase the orange. Once she gets it, she licks it again. Kelly holds the orange and looks around the room. Kelly presses the orange to her face. Most children are in the kitchen area. Kelly drops the orange and gets a carrot. She watches another child play with a truck. He is opposite the kitchen area. Kelly is still near the children. The truck is unattended. Kelly pushes the truck and spins the wheels. She flips the truck and spins the wheels. Kelly stops and looks at the other children looking at books. One child seems to catch Kelly's attention. This girl appears engrossed in her reading. Kelly looks at her for several seconds. A boy comes by carrying a pan of play food. Kelly looks at him and smiles. She follows him to the stove and pulls to stand. Her teacher sees this and immediately moves

her away from the stove to the table. She tells Kelly it's too crowded at the stove. Kelly stands quietly and looks around her. She starts to lick the toy food on the round table. Kelly throws the food. (Is she angry? Her choice was the stove.) The teacher encourages the other children to tell Kelly, "NO!" Kelly gets to the floor, stops momentarily, looks around, then smiles at the teacher. She gets a book that is on the floor. While holding the book, she reaches out and takes the farm toy away from another child. She stops. The child objects and goes to tell the teacher. The child takes the toy from Kelly. Kelly watches. This seems to be the exchange (subject 5, field note 5).

Looking and observing did not always relate to the child's present activity or to his or her next choice of activity. From the observer's point of view, it occurred randomly. All the children in this study observed the environments that were part of their typical week. The minimally involved children, who could move to what and to where they wanted, stopped their actions to look at what was happening. Don stopped play to watch his mother's interactions with his severely disabled older brother (subject 1, field note 3). His mother came to the realization that he may not be potty trained because he watched his older brother being changed. At mother's-day-out, moderately involved Kelly repeatedly took play breaks to observe the action around her. She would

continue to play with her selected activity or crawl to her next choice. She did not seem to respond directly to what she chose to observe.

Paul, who is severely disabled, spent much of his time at respite care looking at the other children. Since he had no independent mobility, looking was his one independent means of moving through space. When held in a recumbent position like an infant, he whimpered until he was held in a more upright position. After he was positioned upright, he stopped whimpering and continued observing the action around him (subject 4, field note 5). Looking and observing occurred in therapy sessions as well. As part of physical therapy, Paul was placed in a gait trainer. He moved very slowly, stopped and looked. His mother explained, "He has to look at everything around him" (subject 4, field note 7).

Moving and Mobility

Moving and mobility were defined broadly in terms of active participation when choice and self-initiation were factors. First, mobility was seen as a group of movements such as walking that allowed the child to initiate and choose an activity. Second, moving was seen as a single movement of an isolated part of the body such as raising an arm that results in a child being moved by someone else. The first type of mobility noted in these observations was walking associated with climbing. The minimally involved children could not only move to what they wanted, but they could also climb to what they wanted. Don

climbed into the big easy chair his mother had just vacated. He climbed on and off his bed, on and off the rocking horse, and on and off the sofa (subject 1; field note 1 and 6). Kim showed the same sense of independence. She climbed in and out of the sand box, in and out of a large cardboard box, and up and down the slide (subject 3; field note 1).

The moderately involved children could move to areas of the environment of their choosing. They moved mostly by crawling and sometimes by cruising, and sometimes by pushing a toy. They had access to all that was in their reach from floor level. Like their non-disabled peers, they were continually moving but they could not climb. Choice and self-initiated participation could be curtailed by physical limitations. Kelly was placed in a chair at mother's day out. She sighed as she sat in the chair and kicked her feet until an adult noticed that she was not engaged in any activity (subject 5; field note 4). Kelly was helpless to make any other choices. Her peers could climb down, or call out for help, and seek other occupations. She was stuck. Kelly was also lifted by adults and placed in different areas to play (subject 5; field note 6). This did not happen to her peers. Sara, another moderately disabled child, also chose to move in her own patterns of exploration. Her pre-school Montessori classroom was organized to have many areas of learning and exploration. When placed in a chair, her mobility skills were curtailed. When sitting in a chair was not her

choice, Sara vocalized in "whining-like" sounds and kicked her feet. She did not engage in the activity placed before her (subject 2; field note 3).

The severely disabled children used the second kind of mobility to actively engage in their environment. It might best be described as the ability to change positions of their body, change their affect, and change their vocalizations. These severely disabled children were often moved by adults in response to the varied, subtle body movements. Warren, though severely disabled, was moved about the room fairly frequently. He used his limited body movement, voice, and affect to elicit a response from his mother. During an hour of observation in the home, Warren was moved by his mother twelve times.

Visual gaze was used as a form of mobility and choice. Looking and mobility are linked when adult and parent are partners in the interactions.

> Paul leans over the sink and splashes in the water with one hand. Dad narrates the action. Paul looks in the mirror. Mom joins us in the hall. Both parents comment on Paul's enjoyment of water and swimming. Paul splashes. Dad lets the water out. Dad explains that Paul looked at him directly and stopped splashing. That means that he is finished. (subject 4; field note 6).

Paul would look at the ceiling fan. That look indicated to his father that he wanted to play the ceiling fan game. Paul's father stated that Paul used visual gaze to end an occupational activity and start another.

Agency was reflected in the ability to move to what and where the child chose. In addition, the ability to move using natural gestures was also part of choice in the environment of the participants.

Playing Invented Games

It is considered an axiom that all children play with the box and not the toy inside. What is interesting concerning personal agency is that there is the variety, complexity, and persistence in the play of children with disabilities in regard to invented games. This was demonstrated by Don, a mildly disabled child.

> Don plays with the pig on the floor in front of the TV. He hits the pig. Mom tells him firmly to stop. The pig snorts. Don places the pig facing mom. Don brings the pig to the table with the play doh. He says, "Oink, oink." It is in a sing-song voice. He leaves the pig and goes to his brother's room. He looks around, then hides behind the door. He stays there quietly. This lasts for more than 3 minutes. Mom tells me Don likes to play hide and seek whether or not anyone plays with him. She says he can stay there for a half hour without someone 'finding' him. I sit down in the living room and Don stands behind KC's (his older, severely disabled brother) bedroom door. He hides and looks out from the crack (subject one, field note 4).

For the adults present, the game did not have meaning and did not have an apparent purpose. However, for Don, he invented his own hide-and-seek game and persisted in the game without an apparent play partner.

A close look at Sara, moderately disabled, pushing a shopping cart revealed complex play patterns. At first glance, it seemed that Sara repeatedly pushed her toy shopping cart in nonpurposeful circles around the living room. This was not the case. Sara tried a variety of actions. She pushed the cart sideways. She walked a few steps backwards with the cart. She walked to her mother and bumped the cart into the researcher. She experimented bumping the cart into a small stool, the sofa and a child sized table. Sara got the cart stuck and unstuck several times. She played with the cart for almost the entire hour of observation (subject 2; field note 1). An observation of a single act seemed repetitive and without meaning. However, taken as a whole, Sara played a complex game experimenting with movements and exploring space in which she lived.

Sometimes the existing game was modified by the adult present. Kim, a mildly disabled child, had a difficult time playing hide and seek with her family. Her father changed the rules. The person who hides must "meow" until found. With this variation, Kim could attend and find the person hiding (subject 3: field note 5). Paul, a severely disabled child, seemed to play the most original

games. His family had a game or a unique play activity for every room in the house.

> Carl explains that Paul likes to tip over the diaper genie. Paul smiles as he gets near the diaper genie. Paul sits on Carl's bent knee. Paul pulls to stand with Dad's help. He knocks down the diaper genie. This is repeated 15 times. Carl talks to the researcher about the therapy involved in this activity. Paul vocalized vowel sounds. The researcher is involved in the game. The diaper game continues 3 more times. Paul laughs and giggles. Carl, "How much time he spends on something depends on me. If I react, then he goes on. If not, he gets bored." Carl, "He is finished here. Finished." Carl walks Paul to the bathroom (subject 4; field note 6).

The family made games involving the microwave, the diaper pail, the items in a chest of drawers, the answering machine in the master bedroom, the ceiling fans, and water in the bathroom sink (subject 4; progress notes, field notes).

The preschool children with disabilities in this study demonstrated personal agency in the games that were invented by them and their families. Five of the six participants all played games they invented or games were modified so that they could play an active role. Only participant six, Warren, was not observed participating in any invented games or modified games. Other circumstances may have affected this observation. Warren, in addition to being

severely disabled, had a moderately disabled twin brother. During observations in the home, Warren's mother was often attempting to feed, comfort, and position two children with disabilities. This may have been a challenge in itself and did not allow much time for 'invented games' between parent and child.

Interacting with Adults as Partners in Play and Communication

Invented games and adults as communication partners seem to be one category. Concerning agency, it is two categories with fluid boundaries. Not all invented games involved adults. Not all shared interactive routines were invented games. Adults in this study were active partners in fostering choice and self-initiation with the children in their care. Adult partners seemed to respond to faintly distinguishable cues. For example:

> Rita cleans up the table as she holds Paul. Rita turns the TV volume down. Rita carries Paul to the train table. Paul looks at the trains then at the TV, then at the trains. He reaches for the trains. Rita places the trains on the floor. Rita invites another little boy to play. He responds politely, "No thanks." Rita builds the curved track as Paul sits in her lap and watches. Paul is quiet. He seems to be watching the other children. Rita offers to get him up. I ask her why? Rita responds that Paul was looking up. She stands Paul. He yawns 3 times. She sits him back down and he finally grabs for a train (Subject 4; field note 8).

Rita responded to an action of Paul's that was barely observable. Perhaps this is why Paul played the most invented games of any child in this study. In another example cited earlier, Paul's father realizes that playing in the bathroom sink is over because of Paul's looking in the mirror at him.

Moderately disabled Kelly demonstrated a similar experience of a parent responding to an action in a meaningful way to both of the participants.

> Kelly plays on the floor with a battery operated toy and watches the lights as the song plays. Taylor, her nine month old sister, tries to take a turn. Mom tells them to share. Kelly sneezes. We watch Kelly play. Taylor uses her pointer finger to push the key of the toy. Kelly uses her thumb. We encourage Kelly, verbally, to use her pointer finger. Mom shows Kelly what a pointer finger is. We tell her to do it like Taylor. Kelly watches us with apparent interest but she does not move. Is she tired? She starts to make the small dainty motions with her hands. Mom asks, "Do you want to play patty cake?" Mom starts singing and doing the patty cake motions. Kelly follows. She does not seem tired now.

Kelly's mother, like Paul's mother, Rita, knew what Kelly wanted and shifted the activity to that game by observing and responding to her motions. Kelly's choice and self-initiation were influenced by her parent as a partner in personal agency. Responding to patty-cake reinforced Kelly's role as an active participant in the turn taking process of learning.

Often adults were narrators of the actions that occurred. As Sara played with her shopping cart, her mother narrated her play and her actions. Most adults seemed to label the actions to the children.

> Mrs. D says, "Are you going to go shopping; take baby to the store?" Sara pushes the little shopping cart sideways. (The wheels slide easily across the tile floor.) As Sara moves, Mrs. D labels her movements. For example, "Sara is going in circles. She is going around the table" (subject 2; field note 1).

Narration seemed to occur whether or not the child had a large vocabulary of signs or words. Don knew many words. His mother also would describe what he was doing while playing with him. Praise was a large part of the narration as well. All the children in the study were praised for appropriate choices and self-initiated activity.

Parents also responded to personal agency when the child did not want to participate. As frequently happens when working with children who are eighteen months or older, they must do things that they would rather avoid. This was observed most frequently in therapy environments.

> Linda dons gloves and asks, "Can we open this?" Kim puts on a finger cot with help. Linda, "Can we do nosy?" Kim signs 'finished' 2 times. Linda begins oral facilitation on Kim's face and finishes in Kim's mouth. While Linda does this she recites a rhyme. (I didn't write it down.) Kim

pushes away and fights. She does not vocalize. This sequence is done three times. This is finished and toy milk is brought out. Kim vocalizes 'ahhh' 3 times with the milk. Kim offers the play milk to her mom, me, and Linda. Mom, "Say, yes, more" (subject 3; field note 6).

Parents responded to the choice to avoid the situation, by guiding their child to do the unwelcomed activity. What is apparent from watching for an hour of observation is that unwelcomed activities were often followed by activities of choice. These were usually woven into the treatment. When it was not woven into treatment, the passivity of the child tended to increase and the action and cajoling of the adults present tended to increase. This was seen in Paul who spent a therapy session on a ball, rolled in a blanket, sitting in mom's lap, and standing in a gait trainer (subject 4; field note 6). The action was by the adults. Paul frequently cried and whined in response to manual guidance and verbal encouragement. He was not an active participant as he was when playing games with his father.

## Interpretation

To summarize, agency was manifested in preschool children with disabilities in four ways: (a) looking and observing, (b) moving and mobility, (c) playing invented games, and (d) interacting with adults as communicative partners. Children with disabilities were observed with two assumptions. First, they were agents in their own environments. The children, no matter how

apparently disabled, had a means of interacting and being involved in the places where they lived and played. Second, the children were viewed as agents of change in the environment in which they lived, worked (therapy), and played.

Looking/observing and mobility are child centered. These actions occur as a means of the child's interaction with people and technology present. Looking and observing do not ordinarily seem agentic. They seem passive. Where is the choice, the meaning, the purpose, or the self-initiation? However, looking and observing can be seen as active. It is a part of the process of play. The two children with severe disabilities help to illustrate this point. In Paul's situation, looking and observing were part of the routine of play. People with whom he interacted knew that looking was an important part of choice-making. Additionally, Paul looked and observed the occupational and the physical environment around him to his mother's frustration as she tried to teach walking. Looking and observing for Paul were part of the routine and actions of his everyday life. Choice and self-initiation are the popular words surrounding meaningful occupation. Looking and observing are part of being. It may not have the same level of understanding by observers as action. However, a person cannot make a choice if they do not have background data on what to choose.

Mobility was child centered. It is somewhat obvious that children demonstrate agency via their mobility skills. In the children with mild and moderate disabling conditions, the ability to move from place to place was an act of choice and self-initiation. Of interest, moderately disabled children were often placed in situations that curtailed their mobility and therefore their choices of play activity. Both moderately disabled children in this study communicated using signs, natural gestures, and some vocalization to get them out of their unwanted situations. In the severely disabled children, movement occurred in partnership with an adult present. The adult interpreted a movement or a look that resulted in action.

Instead of being child-centered, the categories of invented games and interacting adults as communicative partners, had some type of dyad operating. What is significant is that the game or the interaction has meaning and purpose to the child and does not have to be apparent to the onlooker. Casual observation of Sara pushing her small shopping cart in circles could lead to the conclusion that Sara was perseverating and ignoring the adults present. Observing the entire occupation revealed a complex game of motor learning by moving in circles, bumping, getting stuck, getting unstuck, and playing with different toys along her way as her mother observed and narrated Sara's actions. Sara's game involved many shades of meaning and choice for her. She included her mother in the game by repeatedly pushing her cart back to

her mother who remained seated on the sofa. Even Don's solo hide and seek game had the implication for Don that he was hiding from someone.

Adult participants in this study often seemed to know the child's interactive intent very well. Don stood behind a door hiding and Kelly played patty-cake. Don's mother did not stop his hiding activity because it had no meaning for her and she occasionally became an active participant as the "finder". Kelly played patty-cake with her mother. The original therapeutic game was making a pointer finger to tap the keys of an electronic toy. Kelly's mother shifted from one occupation to another with ease. What was apparent in the shifting of occupation is that Kelly remained an active participant in the interactions. Kelly's mother directed the flow of the occupational pursuits and learning experiences by addressing Kelly's choices. Parents and children seemed to be able to shift adaptively to take advantage of spontaneous occurrences for learning and for fun. Intuitive actions by parents and other adults may be part of the adaptation process that later becomes incorporated into established rituals, routines, and invented games.

Culture as Adaptation

Part of the adaptation process may be thought of as the learning of culture. Cohen (1974) espoused that culture was man's most important instrument of adaptation. He thought of culture as artifacts, institutions, subjective perceptions and customary behaviors that help a society use the

energy and resources of a habitat (Cohen, 1974). One could hypothesize that the looking and observing done by the children was part of becoming familiar with the meaning that was present in the mini-cultures that comprised the child's life experience. Mobility and invented games allowed most of the children in this study to use the energy or resources of their various habitats for learning. For Geertz (1973), culture is defined as shared webs of significance whose meaning can be interpreted by construing social expressions. When adults responded to the meaning that the children had for their actions, they became part of that web of significance. What is important to note is the reciprocal action present. The adults interacted with the children and the children interacted with the adults as well, learning the meaning of social actions, artifacts such as the electronic toy, and the habitat around them.

The Power of Occupation

If Cohen (1974) is correct and culture is man's most important instrument of adaptation, then a focus on personal agency may be an instrument to help focus a child's adaptation. Personal agency allows a child to shift from one occupational pursuit to another. It is through this shifting that the child utilizes their personal perceptions, their energy, and their unique habitat. It is this mobilization that leads to an array of experiences in which an adaptation can occur. Without the shifting or movement from activity to activity, the same patterns and nonbeneficial patterns remain. Although a particular response to

an occupational challenge can be taught, generalizing the response cannot be as easily attained. By shifting from one activity to another with the child as agent, generalization has a greater chance due to the active involvement of the child in the occupational environment. Recognition of personal agency is a means for the occupational therapist to facilitate these occupational shifts into transforming experiences.

As King (1974) points out, occupational therapy is common sense. Everyone has had the experience of doing, being active, and learning. For the occupational therapist, recognition of personal agency is a means of discovering the mini-culture existing in the child's lifespace and using this culture as a tool of adaptation. By examining the child's occupational pursuits with personal agency as an underlying assumption, the power of occupation can be utilized. Nelson (1996, 1997) referred to the many factors that an occupational therapist must consider as occupational synthesis. Occupational synthesis is what is done by an occupational therapist. When agentic factors are included, this increases the power of therapeutic occupation by utilizing the energy and engagement of the individual.

## Conclusion

In this study, agency in preschool children with disabilities was described using four broad categories of looking and observing, moving and mobility, playing invented games, and interacting with adults as communicative partners.

Each category was manifested in the mildly, moderately, and severely disabled children in unique and individual ways. The results suggest that children with disabilities are energized by their mind and will. The results also suggest that adult participants must be aware of the sometimes faint cues that are manifestation of agency in the child. Supporting these agentic interactions by responding to them fostered continued active engagement by the children. Continued active engagement in activity and social interactions seemed to nurture further adaptations, and for the children to experiment with the new skill in a generalized manner. Therapeutic settings appeared to have the least opportunity and support for personal agency. Therapists may wish to rethink the culture of a treatment session moving from teaching specific occupational skills to responding to children's agentic intent. In doing so, occupational therapy can become a powerful tool of adaptation. Further study is needed to clarify the depth of issues surrounding personal agency in children in relation to adaptation, occupation, and therapeutic activity. The four categories presented provide a starting point for further research.

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# CHAPTER FOUR

## Exploration of Environmental Factors Affecting the Occupational Performance of Preschool Children With Disabilities

(Submitted for pulbication to the American Journal of Occupational Therapy)

Exploration of Environmental Factors Affecting the Occupational Performance of Preschool Children with Disabilities

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Key Words: agency, social environment, pediatric occupational therapy

Abstract

*Objectives:* The purpose of this study was to examine and describe the environments in which the occupations of preschool children with disabilities occurred. This investigation explored the places, routines, and occupations that shaped the environment.

*Methods:* Six children between the ages of 18-35 months of age who were physically disabled were observed in typically occurring environments. The children were observed 5-9 times at home, mother's-day-out programs, day care, and therapeutic settings. In depth field notes were made during these observations and later examined for themes regarding the environments encountered.

*Results:* The findings from the study led to themes in four major areas: a) the same physical setting does not have the same effect on occupation, b) therapeutic settings do not always yield desired occupations, c) social environments seem to have a direct relationship to how occupations are performed, d) structuring the environment enabled children to learn and play.

*Conclusions:* Environments are not simple physical places, but social and cultural entities that have an effect on the occupations and occupational performance of the participants. Ideas, thoughts and values about the physical, social and cultural settings shaped and had an effect on the occupations of the children in the study. The multi-dimensional nature of environments and

multiple factors that affect environment may allow clinicians to change the environment to change the person.

## Introduction

The importance of environment to adaptation and change has been a theme in the occupational therapy literature. Meyer (1922) spoke of the rhythm of life and daily routines as part of the healing process of occupational therapy. He noted the balance of individual work, shop work, daily routine, rest and sleep was part of this process. Meyer also stressed real performance and direct experience, as separate from fabricated performance, as a basis for wholesome feeling and thinking. When outlining the science of adaptive response, King (1978) characterized the adaptive process into four areas. The first was active participation by the client and the second was the demands of the environment. King pointed out that occupational therapy "consists of structuring the surroundings, materials, and especially the demands of the environment to call forth a specific adaptive response" (p. 423). Recently, Fisher (1998) reaffirmed the importance of ecologically relevant occupations versus contrived occupations. She suggests that practitioners establish client-centered performance contexts that will encompass person-environment interaction as well as meaningfulness and purposefulness within these interactions. The importance of person environment-interactions is also an issue in the treatment of children. Cohn and Cermak (1998) suggested function and context as a possible means to measure outcome for children receiving sensory integration therapy. They hypothesize that incorporating a family perspectives must be

considered in the evaluation and the direct treatment of children since most children's environments are structured by adults. It seems important to understand the context in which the children live and play, not only in terms of sensory integration, but as occupational therapists.

## Literature Review

The current Uniform Terminology (1994) includes performance contexts as one of the three areas context area cited. Performance context was divided into two categories: temporal and environment. A focus on environment is not new to the field of health professions. Kleinman (1992; 1988) a medical anthropologist, introduced the construct of local worlds as part of the process of understanding the illness experience of the patient. Local worlds are the every day social interactions and shared ways of expressing and coping with feelings, thoughts, and emotions that flow between, within, and around the participants. By understanding the local world of the client the health care professional can develop an appreciation of the meaning of illness. Willems (1972; 1976) is a proponent of studying the typically occurring environment of the patient. He noted that the same patient displays different behaviors in different environments. In his study of spinal cord injured patients, he noted the patients exhibited the most behavioral independence in the hospital's hallways and cafeteria and the least independence in physical, occupational, and

recreational therapy. To understand the client's adaptive skills, one must look at several contexts.

There are many different models and frames of reference in occupational therapy that address context. The Ecology of Human Performance (EHP) (Dunn, Brown & McGuigan, 1994) and Occupational Adaptation (OA) (Schkade & Schultz, 1992; Schultz & Schkade, 1992; Schultz & Schkade, 1997) are suggested as examples to help frame the importance of the relationship between context and performance. The EHP framework conceptualizes person, context, task, and performance components as interacting with each other. The person includes experiences, sensorimotor, cognitive and psychosocial abilities. Context includes physical, social, temporal, and cultural features surrounding the person. Tasks are the skills and abilities needed to accomplish a goal, while performance components refer to the "process and the results of the person interacting with context to engage in tasks" (Dunn, Brown & McGuigan, 1994; p. 606). Intervention can be targeted to any of the EHP components. OA posits a person-environment interaction as a basic part of the frame of reference. "Occupational adaptation characterizes the interactive nature of occupation and adaptation that is present in the internal process by which persons respond to the demand for change" (Schkade & Schultz, 1994; p. 87). Individuals are viewed in the person system with components similar to EHP. The environmental context is viewed as the occupational environment

consisting of work, play/leisure, and self maintenance. The occupational environment is uniquely configured in terms of the physical, social, and cultural subsystems of that environment. Functional outcomes are evaluated by efficient, effective and satisfying performance in the occupational environment.

Environmental influences on the development of children are conceptualized in the Ecology of Human Development (EHD) (Bronfenbrenner, 1979; Wachs, 1992). The EHD begins by defining the environment in terms of occupation delineated as molecular and molar. Molecular refers to the subparts of the activity such as picking up a spoon and molar refers to the act of eating the meal with the spoon. Molar activities are composed of smaller molecular parts. The ecological framework examines the social structures that comprise person-environment interaction. At the simple level there are the roles of the participants and the basic relationship unit of a dyad. Complex relationships of more than two people are conceptualized in four layers: microsystem, mesosystem, exosystem, and macrosystem. Bronfenbrenner (1979) likened these to nesting Russian dolls. Microsystems and mesosystem are significant to this discussion. Microsystems encompass the patterns of activities, the roles and social relationships, and the physical settings experienced by the person. It is a face-to-face relationship. This is similar to the concept of local worlds, a term proposed by Kleinman (1988; 1992) to differentiate varying environments. The mesosystem is composed of direct links between settings, processes or

relationships. Mesosystems are composed of many microsystems (Bronfenbrenner, 1979; Wachs, 1994). In the ecological framework, relationships are shaped and affected by, and shape and affect different layers of the environment. Changes in one system can effect changes in another system.

## Purpose of This Study

The purpose of this study was to examine and describe environments in which occupations of preschool children with disabilities occurred. Environment in this study is defined as the physical, social, and cultural aspects of place. The Occupational Adaptation frame of reference defines occupation as both a state and a process consisting of a state of competency and the process through which individuals and the environment interact to achieve competency (Schkade & Schultz, 1992). This definition seems best to align with the purpose of this study.

## Methods

This was a naturalistic study using qualitative research methods to investigate person-environment factors. In reality it was a study of the places, routines, and rituals of those places and the people who interacted in them. It is also a study of the ideology of environments, that is, the ideas, thoughts, values, that shape what the participants did and what those actions meant. In the diversity of actions and places that were observed, there was an involvement of

personal agency by the participants. Personal agency, defined as self-directed, active engagement in meaningful activities, makes sense when viewed in the meaningful and typical environments of the participants.

Participants

The participants were six children with special needs and their families who were enrolled in a suburban early childhood intervention program (ECI). At the beginning of the study, the children ranged in age from 18 months to 35 months. At this age, children are refining their hand skills and usually have the ability to independently interact in the environment by moving, walking, climbing, exploring, and talking.

To examine the range of environmental influences, six children with a variety of disabilities were observed multiple times in a minimum of two different environments. Two children were classified as severely disabled that is, they could not move independently but could interact with others in some way. Two children were classified as moderately disabled, having limited mobility and 5-20 words or signs. Finally, two children were mildly disabled, having independent mobility and a vocabulary of 20 or more words or signs. Multiple cases were employed to add confidence to the findings and to ground the data in specific everyday events in the lives of the children involved (Miles & Huberman, 1994).

Data Collection

The data were collected using naturalistic methods of field observation, review of documents, and interviews with parents (Miles & Huberman, 1994; Patton, 1990). The participants were observed from 5-9 times. Each observation lasted from forty-five minutes to one hour. Observations were done across several settings and over a three to nine month time span to obtain a more representative idea of the children's everyday life. The observations were done across time to garner a thick description of the environment. Each child was observed in two different settings and one of the children was observed in three different settings. The settings included home, respite care, mother's day out programs, and therapeutic interventions such as occupational therapy, physical therapy, speech therapy, and hippotherapy. After the first observation set of home and another setting, then another set of observations was done with thirty days or more between observations. The observations were spaced apart to allow for naturally occurring development.

Data Analysis and Interpretation

This was a secondary analysis of the data that was used in previous study. The data from the observations were documented in written field notes recorded during the observation process. Some observations were video taped. The data were transcribed into computer text. In order to create an audit trail, each observation was labeled by sequence, date, and subject. A sampling of

transcribed observations was shared with the child's parent for who checked them for accuracy. The parents generally used this as an opportunity to discuss other issues about their child. The observations seemed to become a basis for further conversation regarding the child's current occupational challenges and current occupational performance.

The data analysis consisted of multiple steps. After the sets of data were completed, a summary was made of each time block followed by a general summary of impressions of the observation as a whole. Following this, a line by line analysis for each child was performed. To facilitate this detailed analysis, a matrix was created for each observation with the categories relating to aspects of the environment: physical, social, cultural, and play. The data were then compared by disability grouping, mild, moderate and severe. The data were compared by settings. This resulted in identifying themes for the different groups. Finally, when the data were examined as a whole, themes emerged that transcended disability grouping. Trustworthiness, consisting of credibility, transferability, dependability, and confirmability, was enhanced through prolonged contact, thick description, member checks with parents, and peer review of the data analysis process (Denzin, 1994; Lincoln & Guba, 1986). The peer reviewer was an experience pediatric occupational therapist who examined a sampling of the data from each different subject. Her comments and insights were incorporated into the results.

# Results

The results of the study indicated that the same physical setting did not produce the same response in the children as individuals or across disability classifications. Secondly, settings where therapy occurred did not always yield the child's best adaptive response. A third finding was that some settings tended to yield greater mastery and signs of adaptation than others. These settings were social, cultural as well as physical places. Finally, parents and caregivers structured the environment to allow the active participation of their child or children.

## The Same Setting Does Not Lead to the Same Response

Some of the children in this study were observed in their homes at play and receiving therapy in their homes. The physical setting, the child's home, remained the same. The social and cultural setting changed. The social environment included a therapist who, generally, also introduced the culture of therapy to the setting. In the culture of therapy, the therapist directed the action and activities of the people present. There may even be artifacts of therapy such as large inflated balls, gait trainers, and special electronic toys. In contrast, children at play often initiated the actions and activities. They were noted for their persistence in the actions that they chose. This was demonstrated by Sally, a moderately disabled child.

Sally cruises away, then back. She crawls back behind the researcher and pats the researcher's back. Sally crawls behind the sofa, then back to the coffee table, back behind the researcher. She crawls to mom saying, "mmm." Sally crawls behind the sofa, then the chair, saying, "mmm, mmm, mm, mmmm, mm." Mrs. R responds "mmm; good talking today." Mrs. R says, "Do you have Miss T's purse." She is referring to Sally playing with the researcher's purse that is on the over-stuffed chair. Sally looks at her mother. She is patting the purse and tries to mouth it. Her mother says quite firmly, "No, no, no mouth." Sally stops and then pushes the hassock that is in front of the chair. She moves it across the floor towards the far side of the sofa. Sally has pushed the hassock to the place in between the computer desk and sofa. There is a toy shopping cart and car-ride-on push toy. Mrs. R says, "Are you going to go shopping? Take baby to the store." Sally pushes the little shopping cart sideways. (The wheels slide easily across the tile floor.) As Sally moves, Mrs. R labels her movements. Mrs. R notes that Sally, "is doing hard stuff." She wishes the video camera was charged so he husband could see this.

During a physical therapy session in the home Sally is not as active. Her actions seem adult directed:

> The PTA asks Sally to stand up. She repeats the requests 3 times. She assists Sally with just 2 fingers. Sally gets up and down repeatedly. The PTA gets shaving cream and places small dollops of it on the side of the pool. She repeatedly entices Sally to look and touch. During this time Sally is crawling in the pool and touching the inflated toys. The PTA places some shaving cream in the water. It floats. She splashes it towards Sally and then guides her hand to touch it. Sally notices it and touches it momentarily. She moves towards a spray bottle and examines it.

Both interactions took place in the child's home. At play without help or intervention, Sally actively explores and plays. She engages both her mother and the researcher in her activities. She initiates and directs experimenting with different movements by crawling, cruising along furniture, and walking with the assistance of a push toy. When in therapy, Sally did not show the same level of self-initiated activity. The action is therapist directed. Although Sally is engaging in her own interests, these interests appear not to coincide with the therapist's directed action. Consequently, Sally does not seem to show the same level of activity as she did during play. Five of the six children observed followed this samepattern of increased passivity during home-based-therapy compared with greater activity without a therapist present.

Don, mildly disabled, was the exception. At home and during the time the occupational therapist is present, Don appears actively engaged in his occupational pursuits. For example, at play:

> Don plays with blocks. He sees the stuffed cat on the head of the bed. He climbs up and gets it. He holds it and makes cat sound, 'meow.' I imitate the sound with the stuffed bear. Don laughs. We play. Don hugs the cat. He kisses the cat. Don drops the cat in play and picks up a small beige hat. Don slaps me on the face with a hat. He seemed to be handing it to me really. I place it on my head and ask, "How do I look?" We play with the hat. Don puts the hat on the horse. Then, he puts the stuffed bear on the horse. Don says, "He going. Fell down." The bear falls off the horse. Don tries to put the small bear hat over the horse's ears. This is not an easy task. Don works hard. He seems to attend and to concentrate.

An example of occupational therapy at home shows the same level of activity. At first glance, Don is not interested in the activity presented.

> Don seems to take notice of the OT. She asks for paper and is holding a squiggle pen. When Don sees the paper he stops watching TV and comes to the paper. He looks but looks away as well. They work at the coffee table. The TV is still on. Don shows no interest is what she has. He walks to the kitchen where mom is making his older brother's breakfast. She encourages him to go back saying that she will fix him oatmeal.

When he comes back, he looks at what the OT has on the coffee table. She has placed some other things from her shoe box of toys on the table. The OT disregards the paper and tries activities with tongs. Don walks over slowly and looks as the OT picks up the small pompom balls with the tongs. He examines tea spoon tongs. Don has difficulty spreading his fingers and then arching them around the tongs. The OT demonstrates squeezing the tongs. Don asks questions but is mostly quiet. Don knits his eye brows as he tries to make the tongs open and close. Mom feeds KC, Don's older severely disabled brother, his breakfast. Don is not imitating the action. He holds the tongs but cannot squeeze them. The OT continues to demonstrate. Don holds the tongs. He holds tongs in both hands. Don says 'ouch' in response to placing his fingers in-between the tongs. The OT talks to mom about this activity. She takes the tongs and feels the level of resistance that the OT is talking about. Don's mother invents a game called 'get mommy's nose.' Don is sitting in his small chair that is right next to hers. He laughs as mom tries to get his nose. He turns his head away and laughs. Mom grabs her own nose with the tea tongs repeatedly. She says, "Ouch." Mom tries to show him how to squeeze. He finally does it. Mom and Don play war with the tongs She 'fights' with Don's tongs. Mom and the OT discuss the tong activity and how it will help him.

At the end of the sessions, it is important to note that not only Don but also his mother are actively engaged in playing a therapeutic game. The simple plan of allowing Don to choose seemed to keep Don engaged in the occupation and learning new ways to move his hands. With his mother's help Don perseveres with the tong activity. By changing the agenda from writing with a squiggle pen to the tongs, Don remained an active participant.

Therapeutic Settings Do Not Always Lead to Therapeutic Responses:

Two of the children in the study were observed receiving therapy in clinical settings. The first clinic was one that focused primarily on sensory integration therapy. The physical space reflected this philosophy in the equipment. Treatment areas were divided into rooms containing mats and foam shapes, a scooter board ramp, net swing, and room with fine motor and tactual materials. The other clinical setting was a small room with a mirrored wall, mat on the floor, cabinets with toys, and a small wooden chair with locking tray. Common to both settings was the children's reactions to the treatment they received there. Both children seemed to display behaviors that indicated the experience was unpleasant. These include whining, twisting away, signing finished, and frowning. Moderately disabled Sally reacted thusly:

> Sally is taken out of the net. She walks with assistance to the scooter board room. Sally is vocalizing loudly in a crying manner. There are not tears but she doesn't sound happy. She is placed prone on a scooter

board at the top of the incline. She vocally protests. When she is pushed down, she begins to smile. Once on the floor, Sally crawls out to the room. Sally continues to vocalize loudly and crawls into the mat room. Mrs. R shakes her keys and throws them into the center of the mats. Sally crawls over the mats to the keys. The therapist makes a tent of small mats and attempts to get Sally to go under. This doesn't happen. The therapist shakes the keys again and throws them on the top of a stack of mats. Sally crawls to a platform swing and then back to a large inner tube. She crawls down to the tube. She does not crawl to the keys. The keys are thrown on the stack of mats. Sally crawls to the mats and climbs up them. The stack of mats is taller than she is. Sally is vocalizing loudly. Mrs. R says the vocalizing is protesting.

Mildly disabled Kim appears to have the same reaction to her time spent in therapy. There are times when she smiles and is active and there are times when Kim displays avoidance behavior. In Kim's situation, as each new activity is presented, she signs, 'finished,' or tries to twist away approximately 2/3 of the time. For example, ambulatory Kim seems to not like being positioned in a wooden chair.

The therapist says, "Get in your chair, then we put the table on." This refers to a wooden Rifton™ chair. Kim climbs into the chair. The therapist puts the tray (table) on the chair. Kim is contained in the chair and cannot

get out. She twists around and turns away from the therapist. Kim signs 'apple' and 'cold'. The therapist is holding a small container of applesauce and a half cup of frozen lemonade. The therapist asks, "Can you tell me what color? What do you think? What do you think?" Kim leans out of the chair as far as she can and looks at the floor. She signs finished.

By noting the children's reaction, clinic-based therapy seems somewhat unpleasant for a greater part of the time. Sadly, this seems support the adage "No pain, no gain." The Sally's and Kim's active engagement in the therapeutic process was elicited by limited choices, repetition, and restraint.

The Social Environment As A Means Of Adaptation And Change

Some settings tended to yield mastery of a skill, the ability to practice a skill, or the means to expand the way an occupation was performed. The children in the study were changing and learning new skills all the time. This change and learning seemed most evident at home. Sally, cited in an earlier example, does most of her walking and crawling at home. She maintained this level of active doing for most of the hour that observation occurred. Kim's home experience is important to examine because her experience reveals the influence of the social environment.

Kim tries to climb up on her bed using the foot stool. She does not make it. Instead, she gets a stuffed Pooh™ bear. She raises him up and down

> and vocalizes loudly, 'ba ba ba.' Mom says, 'He's jumping. Kim is making Pooh™ jump.' Kim makes the bear jump as Mom lines up Kim's toys. Kim begins jumping and vocalizing as well. Mom asks her to, 'Point to your eyes. Touch toes. Stamp feet.' K does all those things.

Kim also communicates and plays actively with her father.

> Kim gets a book from her book shelf in the corner. It's 'Bambi.' She vocalizes a 'k' sound. Carol, her younger sister, then gets 2 books. Kim signs to father, 'Mom bye-bye, plane.' (Kim's mother had flown out of town the day before.) Kim looks out the window. She gets a book and gives it to her Dad. Her dad reads to Kim who has climbed in his lap. Kim vocalizes a 'b' for bear. Carol plays near (about 1 foot away). Kim turns the pages. Dad encourages vocalizations and signs from Kim by asking questions. The questions are questions that require Kim to label what a picture is, what color it is, or a part of the picture. This leaves action words absent.

Both of Kim's parents are continually encouraging some type of speech from her, either sign or vocalizations. They ask her to express herself and to demonstrate that she understands what is said to her. Kim's mother brings the lessons learned in speech therapy into the home. Field notes reveal that this is a fairly typical occurrence, not only with communication but with cognitive and play occupations as well. This was a typical occurrence noted in other home-

based observations. Parents seemed to take pieces and parts of therapy and apply it to their everyday life. Parents did not 'do' therapy sessions with their child. They played with the child. During play, parents seemed to incorporate what occurred in therapy into typical situations in the home. With their parent's guidance, the children in the study tried new behaviors, reinforced old behaviors and modified existing behavior.

Structuring The Environment

Parents and caregivers seemed to be able to incorporate therapy techniques by weaving theses techniques into the environment. This occurred in the physical space, social routines, and rituals that were part of the mini-cultures of the place. In the environments observed, toys were accessible to the children with independent mobility skills. In Kim's home, play materials were stored in the children's bedrooms and under the armoire in the living room. The breakfast nook held Kim's play kitchen. In addition to availability of toys, there seemed to be a places were the children could play separate from other areas. The day cares and mother's-day out structured the physical environment into play centers. They provided places to color, to play with cars, to play dress up, to eat snacks, or to play pretend cooking. In home environments there were no structured centers. There were special places to play. Don's mother complained that toys covered his bedroom floor. When in his bedroom, Don moved from toy to toy quickly. He played for longer periods of time when he brought the toy to

the living room or to a child sized table and chair between the kitchen and living room.

In these two places he could not only persist in play without distractions but take advantage of the social environment by getting his mother's help. His mother placed his play table in a position to include her routines. She could have placed his play table in his room with the rest of his toys but did not. Don learned to ask for adult help and assistance as well. This was part of his social environment.

> Mom and the OT talk about the therapy sessions. Mom and the OT say what he is doing better, and what he needs to work on. Don comes back to the coffee table where the OT is writing her note. He quietly says, "come on," and looks at the OT, then at the cash register. Since she does not immediately move, Don takes her hand and gently tugs, repeating, "Come on." The OT tries to explain that she must say bye-bye. Don continues to gently tug and says, "Come on." He is not listening or not believing. He pulls harder and turns away and pulls even harder. The OT asks, "Where are we going?" He replies, "We go KC's room." She gets up and is led to KC's room. Don has a tea set on the floor. He shows her. They play tea party. The OT pours tea. Don drinks tea. KC's school bus is here. Mom and the OT go out to the bus. Don follows. They wait as KC

is unloaded from the w/c bus. The OT then goes in to write her progress note.

Kim's special place, in front of the fireplace next to the armoire, also took advantage of the social environment. On two of the three observations done in Kim's home, she and her family removed toys from under the armoire and played as a family.

Kim gets a complex peg puzzle from under the armoire. They take turns playing as before. Carol and Dad join them on the floor in the living room in front of the fireplace. Carol dumps the pegs. Carol and Dad play with a different set of colored pegs. Mom and Kim play with the round colored pegs again. They then play with the colored pegs in a foam board. Carol joins Kim. They take turns with their parents' help and the colored pegs are finished. Next, they build a tall tower with the two inch pegs that have a hole in the center. Carol talks while she works using one and two word phrases. Mom talks about Kim's building. Kim smiles at her work. (Or does she smile at her mom's comments?) The tower falls down. Mom talks about how it fell down. Kim builds another peg tower.

Kim's younger sister had the advantage of the language modeling done by both parents, and Kim had the model of a sibling for both language and play. In addition to the accessibility of toys there was the accessibility of help from adults

and siblings in the environment. In this social environment, parents extended the lessons learned in therapy.

Four of the six sets of parents had one special area or place set aside for this social learning. The two exceptions were the children with severe disabilities. Paul, an only child, played in every room of his home. During a hour observation done in Paul's home, his father and Paul played in the master bedroom, the bathroom, his bedroom, and the living room. When positioned in a gait trainer during therapy, with his mother's suggestions, Paul was guided to the spare bedroom, the bathroom and the master bedroom. During occupational therapy in the home, Paul's mother demonstrated a game played in the kitchen prior to feeding Paul who was then positioned in the dining area. An important social factor here may be that Paul is an only child. Both parents have time and energy to lavish on his learning. In contrast,Warren was one of a set of twins, both of whom had a diagnosis of cerebral palsy. Warren's cerebral palsy was characterized as severe and his brother's was characterized as moderate. Again, assessing the social environment, it is difficult for Warren's mother who was raising twin boys to make a special place or have special family activities. This is was even more difficult because both children had a disability. The fact that Warren was moved about his environment by his mother to different areas of the living room may have been the family's special area.

The cultural environment consisting of rituals, routines, technology and artifacts that composed the lived experiences of the participants, was also structured to help the children in the study learn and adapt. The rituals and routines of the mother's-day-out, the day care, and the respite center were all different from one another. Yet, each setting had a prescribed way of doing things. All settings had the routines of clean up, presentation of snack, resolving fights with friends, or preformance of crafts. Within these routines were embedded the active participation of all the participants, nondisabled and disabled. All the children were asked to follow the routines, and the children with disabilities learned along with their nondisabled peers.

Homes consisted of mini-cultures that helped children learn to adapt. Home is a mini-culture in that there were rules to obey and routines to follow that differed from home to home. In some homes there was a different social environment such as an only child or one with several siblings. Part of the culture of the home was how siblings interacted with one another. Carol expected to be part of Kim's tower building. The role of playmate was learned in her home. Artifacts and technology were different in each home. For the children with severe disabilities there was more evidence of adapted equipment to help children participate in meal times, play times, and therapy times. Children with severe disabilities were not asked to follow social routines as frequently as others. Children with severe disabilities rarely experienced 'time

out' if at all. Children with mild disabilities experienced 'time out' more frequently as did their typically developing peers. Not being included in part of typical rituals and routines indicated the separateness of children with disabilities from the cultural learning experience. Parents structured the culture, knowingly or unknowingly, to help the children learn.

## Discussion

The findings from this study lead to reflections in four major areas. First, the same physical setting does not have the same effect on the occupations of preschool children with disabilities. Second, therapeutic settings do not always yield desired occupations. Third, the social environment appears to have a direct influence on how occupations are performed. Finally, parents structured some parts of the environment in that they manipulated the physical space, the social setting, or the cultural norms, either knowingly or unknowingly, to enable the children in the study to play and learn.

It was surprising that the children in the study did not have the same level of activity in the same setting. Their self-directed activity seemed to decrease and passivity to increase when a therapist was present in their homes. Because of the small number of children in the study, this is not a cause-effect relationship but an interesting observation. It was expected that that agency, active self-directed engagement in meaningful activities, is more valuable than rote activity and this seemed to be supported by the data. By being active the

children tended to persist in the play for longer durations than therapy initiated activities. This sustained play allowed them to master the skill that was embedded in the play activity. In sustaining natural play for longer periods the children could expand and vary the activity. Don did this with the small hat that he tried on different toys. Practicing a skill, persisting with an activity, varying a skill, and expanding how a skill is used can lead to opportunities for adaptation and generalization. Mastery motivation theory discusses the construct of improving and achieving a skill even with paucity of any physical reward (Busch-Rossnagel, 1997). Children will persist with a task to attain a goal. Don sustained play with the tongs. With his mother's help he varied how he held the tongs and expanded his play to the new game of 'Get Mommy's Nose.'

Persistence, variability, and expanding a skill did not seem to occur as readily in therapeutic environments. The children practiced skills in therapy. Therapy environments did not seem to be a pleasant experience for some children. For those children who did not cry or protest, therapy experiences were passive with small bursts of meaningful action. Active participation of the client in the treatment process has been recognized as basic to occupational therapy treatment (Fisher, 1998; King, 1978; Reilly, 1962; Trombly, 1995; Wood, 1996; Yerxa, 1967). King (1978) also proposed that to be adaptive the occupations should be self-reinforcing. Superficially, neither active participation or self-reinforcing activities were consistent elements in therapy sessions of the

children observed. Other than the therapist, the most active participant in therapy sessions seemed to be the parents. The parents were the ones observed carrying on with therapy activities at home. Bronfenbrenner (1979) hypothesized that one system can have an effect on another system. The mesosystem can affect the microsystem. It seems the mesosystem of therapy has an effect on parents who in turn affect occupational functioning of the child.

As active participants, parents and caregivers incorporated the lessons learned in therapy into play sessions and in everyday activities of their children. Kim's parents seemed to work speech therapy lessons into each play interaction, sensory processing goals at the sandbox, and developmental activities into play with a stuffed bear. From the observer's point of view, it seemed as if parents took pieces and parts of what occurred in therapy sessions and applied it to their unique situation. Parents who participated in this study seemed to recognize their skills, abilities, and interests and used those with the unique skills, abilities, and interests of the child. Parents and caregivers elicited the active participation of their child in meaningful play activities. The play activities were self-reinforcing. In one case, the child elicited the active participation of an adult, as Don did when he forcefully requested the occupational therapist's attendance at a tea party. The social environment appeared to be reciprocal in nature. Don learned how to include adults in his

occupational pursuits, just as the adults in his environment included Don in social learning situations.

Not only did parents and caregivers incorporate the lessons learned in therapy, they expanded the lessons to adapt to the home or daycare environment. Most parents in the study created special places for their children to play. Occupational space and place, terms coined by Hasselkus (1998), describe the multi-dimensional nature of environmental factors affecting occupations. Occupational space is described as "a three phase phenomenon of bringing about engagement in occupation and relative well being" (p. 433). Occupational place refers to the actual engagement in occupations. Hasselkus used these terms to describe interaction between staff and clients with dementia. The first phase is described as a meeting of the minds. Meeting of the minds encompasses shared ideas about the space and finding shared meaning. If the construct, occupational space, could be extended to included the families in this study, then meeting of the minds could refer to the ideas families have about the space created and the play and interactions that occurred in the spaces. The parent in this study did not just make the space physically accessible to the child by placing toys within reach. They also made the social and cultural environments available. Both Don and Kim could play in their bedrooms, yet both families had other areas that meant social play for the children. Additionally, the parents in the study recognized different values and

ideas. One idea was that active participation should be incorporated into the natural play of the child. Another idea recognized by parents was allowing the child to choose the activity. Parents did not have a preconceived notion of what was therapeutic, and therefore could allow the child to choose.

This happened with five of the six families. The exception was Warren's family. Warren was severely physically disabled and one of a set of twins. His brother also was moderately disabled as well. This leads to the question: can occupational space be created for this family and for other families? The data from this study suggest that occupational space can be created by structuring the environment as most families in the study did. This would necessitate an understanding of the physical, social, and cultural environment, and the time and the energyto devote to this effort.

## Conclusion

The results from this study indicate that environments are more than just places defined by accessibility or geographic configurations. Social factors seem to have an effect on physical places Parents placed toys within reach and created special places to play. The social environment affected the occupations performed as well as the social interactions of the participants. The cultural environment of the home facilitated structuring environments for occupational performance of the participants. It is noteworthy that, one environmental system appeared to have an effect on other systems. Therapists may be able to effect a

change in the occupational functioning of a child by focusing on the parent system.

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# CHAPTER FIVE

## Collaboration: The Use of the Construct of Agency in Fostering Change

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# Collaboration: The Use of the Construct of Agency in Fostering Change

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## Abstract

The objective of this study was to gain an understanding of the construct of agency in a specific setting of an occupational-therapy-parent-training group and to examine whether this focus facilitated change. In addition, the question was posed whether a focus on agency cultivates the collaborative process between therapist and parent. The collaborative process is assumed to occur with little knowledge about its manifestation in treatment. The study, using naturalistic methods, examined an ongoing occupational-therapy-parent-training group over seven class sessions that included five family participants. Using field notes, documents, and interviews, several themes emerged. These included how the class changed to a more supportive group, changes in parents as action agents, and positive changes in children.

Parents acting as equal and collaborative partners in early childhood intervention (ECI) is becoming an accepted practice in assessment and treatment of children (Allen & Hudd, 1987; Bazyak, 1989; Hanson & Widerstrom, 1993; Humphry, Gonzalez, & Taylor, 1993; Safer & Hamiltion, 1993; Tingey, Doret, & Rosenblum, 1989; Winton, 1996). It is not apparent in the literature how these parent partnerships are built or how they are manifested in treatment. One view is that collaborative partnerships are built and fostered through the creation of a cultural environment that encourages agency in both the parent and child. Agency, in this context, means a person's self-directed, active engagement in meaningful occupation or activities.

## Review of the Literature

A brief background on literature pertaining to agency and the environment from psychology, occupational therapy, and child development fields will help frame the problem and provide a reference for understanding the interactions of these elements with one another.

### Agency

Cochran and Laub (1994) state that, superficially, an agent is one who makes things happen. This contrasts with patients who have things happen to them. From this simple definition the next logical step would be to list the properties of agency. But, as Cochran and Laub point out, these properties are not present at all times in all people. They present concepts that can shape the

view of agency and acknowledge that the concepts are interrelated so that making distinctions among them can be difficult. Some of the concepts that they mention are action, meaningfulness, and self-determination. Action refers to everyday competence in goals, plans, and motivation. It does not refer to a single action but to the person who shows persistent action. Meaning is concerned with sense of purpose and guides one's life plan. It transcends immediate satisfaction to include past and future and places value on what is being achieved and what is being desired. Self-determination means that the cause of action is within one's self; that is, the person is the origin of the action. Cochran and Laub suggest that enhancing agency can be a transforming experience.

Agency is a multifaceted construct, and the word is used by different authors in different ways in the occupational therapy literature. It seems to share common themes of action, meaning, and self-determination. As early as 1922, action was stressed as part of occupational therapy treatment. Meyer (1922, 1977) addresses the fact that to promote health, humans must be active in life and active in use. Fidler and Fidler (1978) recognize the importance of being active and of doing. They point out the developmental importance of doing that leads to an understanding of a person's unique competencies and limitations in themselves and in the environment. King (1978) points out that action and active participation of the client is a defining characteristic of occupational

therapy. Gilfoyle (1984) uses the term "action agent" when describing the role of the client.

Meaning refers to personal meaning to the client. Meaningfulness and purposefulness were determined by Trombly (1995) as central to occupation-as-means. Occupation-as-means is defined as therapy used to bring about changes in impaired performance. Yerxa's writing encompasses the construct of self-determination. Yerxa (1967) states that choice and self-initiation is key to occupational therapy treatment. She points out that occupational therapists work with clients and do not "do" to clients. Clients cannot be forced to initiate. The philosophical underpinnings of occupational therapy appear to have a core belief in agency as it relates to action, meaning, and self-determination. Wood (1996) posits that control and choice are part of the adaptive process of occupational therapy. The process of adaptation is facilitated by the occupational therapist who understands the power of occupation in the lives of people as action agents. The power of occupation, in this sense, refers to meaningful, self-directed tasks that may or may not be associated with discrete developmental skills.

The Environment

Implied in a discussion of agency is a recognition of the environment as a factor that affects personal action. This can be described as person-environment interactions. Bronfenbrenner (1979) outlines his conceptualization

of person-environment interaction in an ecological framework of human development. He begins by discussing the person in terms of the unit of activity at the molecular level. The next level is molar activity that is somewhat analogous to occupation. Willems (1976) called these "chunks" of activities that comprise a whole action. The next unit in the ecological framework is social relationships. The most basic social relationship unit is the dyad. The structure is deceptively simple, involving interchange between two persons at a time. Dyads have a wide range of partners: parent/child, husband/wife, employer/employee, to name a few. One realizes that dyads can easily expand to triads such as father/mother/child and employer and two employees. Such descriptions of the interpersonal structure of human relationships tell nothing about how such relationships develop or are shaped. In the ecological framework, relationships are shaped and affected by, and shape and affect, different layers of the environment. These social contexts encompass multiple environments, multiple roles, and a variety of molar activities (Bronfenbrenner, 1979).

Bronfenbrenner characterizes these complex relationships as having four layers: the microsystem, the mesosystem, the exosystem, and the macrosystem. This discussion focuses on the microsystem and mesosystem. Important to the concept of layers is that they are dynamic. Each layer or system can have an effect on the others. The layers are not simply a means of

understanding the geography of social relationships. They are a means of conceptualizing interactions by refining the larger contexts that affect single actions. Bronfenbrenner likened these layers to nesting Russian dolls. The first and innermost layer of this complex relationship is the microsystem. The microsystem encompasses the patterns of activities, the roles and social relationships, and the physical settings experienced by the person. The child encompasses one microsystem and the mother is another microsystem. The second layer is the mesosystem. This is comprised of direct links between settings, processes or relationships. The family of father, mother, and child is a mesosystem, each forming a separate microsystem. Mesosystems are comprised of many microsystems with direct links (Bronfenbrenner, 1979, Wachs, 1992). This conceptualization clarifies the implications of context on function across multidimensional environments.

The ecology of human performance (EHP) posits that the environment not only frames an understanding of human performance but is a treatment modality (Dunn, Brown, & McGuigan, 1994). The EHP framework conceptualizes person, context, task, and performance components as interacting with each other. The person includes experiences, as well as sensorimotor, cognitive and psychosocial abilities. Context includes physical, social, temporal, and cultural features of the person. Tasks are the skills and abilities needed to accomplish a goal, whereas performance components refer

to the "process and the results of the person interacting with context to engage in tasks" (Dunn et al., 1994, p. 606). The EHP framework allows for intervention to occur in any of the different components.

Occupational adaptation (OA) (Schkade & Schultz, 1992; Schultz & Schkade, 1992) asserts a person-environment interaction as basic to understanding human performance in response to a demand for change. Individuals are viewed in the person system. As in the EHP framework, the person system reflects sensorimotor, cognitive, and psychosocial components. The environmental context is viewed as the occupational environment consisting of work, play/leisure, and self-maintenance. The occupational environment is uniquely configured in terms of the physical, social, and cultural subsystems of that environment. This configuration of person to environment is unique to each individual, and the individual uniqueness is manifested as presence of a functional challenge in the person's environment subsystem. What makes this person-environment frame of reference of interest is an attention to individual action and self-determination or agency as part of the adaptation process.

Intent of the Study

The vision of the occupational-therapy-parent-training group was to provide a supportive and collaborative environment for parents and children to try new skills involving occupational therapy tools and techniques. More

important, it was an environment where parents could learn to see their child as an individual capable of learning and as action agents in the process of learning. Two research questions guided this study: (1) To what extent does a focus on agency, in addition to the elements of treatment, affect occupational therapy treatment? (2) Does a focus on agency affect the parents' views about their child or changes in their child?

## Methods

This was a naturalistic study using qualitative research methods involving narrative field notes based on observations, interviews, and review of documents (Patton, 1990).

### Background for the Context of This Study

The treatment environment was a parent-training class for parents with children with a disability that affected functional skills. It was facilitated by an occupational therapist. The class was developed based on Bronfennbrenner's ecology of human development (Bronfenbrenner, 1979), occupational adaptation, an occupational therapy frame of reference (Schkade & Schultz, 1992; Schultz & Schkade, 1992), and the construct of agency. The class had four purposes: (a) to learn how to utilize occupational therapy tools and techniques, (b) to learn how to observe the qualities of occupational functioning in children and not just discrete developmental tasks, (c) to practice occupational therapy treatment for the child, and (d) to provide a model of

agency and agentic interactions to carry over into other settings. The class was parent centered rather than child centered. The setting was an elementary school classroom that was furnished with large pieces of therapy equipment such as a platform swing, physioballs, and a barrel. It also contained smaller toys and tables appropriate for small children. The small classroom size limited participation to five families.

The class sessions lasted 11 weeks and met once a week. Each class lasted from 75-90 minutes. The class sessions incorporated information from different theories and frames of reference in occupational therapy. Sensory integration, motor learning, and a neurodevelopmental frames of reference were included. The sessions were structured to create a culture of active participation by the child and the parent. Children were allowed to choose the center or area of play. Parents participated in something called a "splash activity." The splash activity was designed to help parents understand the sensory-motor lecture. It usually demanded personal action on the part of the parent participant. After the activity, discussion followed. Part of the culture created in the parent-training class was activity followed by discussion and active social engagement.

Participants

The participants were families enrolled in the summer session of the

parent-training class. Enrollment was limited to five families. Criteria for inclusion were the following: (a) identified problem with functional or play activities, (b) a child who is 18 months or older, and (c) enrollment in an ECI program. Although inclusion criteria have been somewhat unrefined, families and service coordinators seemed to show the most interest when the child had an underlying sensory-motor problem. Information about the age of the child, reason for referral to ECI, and the reason for referral to the class are displayed in Table 1.

Data Collection

The data were collected using naturalistic methods of field observation, review of documents, and interviews with parents. Documents such as the child's record and class activity papers were included as part of data collection (Patton, 1990). Because it was an ongoing treatment, no attempt was made to alter the class, its setting, participants, subject matter, or teaching style from previous classes. In this study, as in the field of ethology, the participants were observed without manipulating the variables (Willems, 1976). Field notes for each class were done by the researcher. Parents were interviewed after the class and asked about their experience. The interviews were guided by two questions: What changes did you see in your child? and How did the class help or not help?

Data Analysis

The data were transcribed and an audit trail created. Field note citations correlate to the sequence of the class sessions. Field note 4 refers to the fourth session in the sequence of seven. Field notes were labeled by date and session number. Each interview was labeled by subject number and date of the interview. A sampling of transcribed sessions was shared with parents for member checks. The child's record and progress notes were reviewed. Trustworthiness was enhanced through prolonged contact, extensive description of the sessions, member checks, and documents. After the data were collected and analyzed, it was reviewed by an experienced occupational therapist for peer debriefing (Lincoln & Guba, 1986). The participants were assigned an alias to ensure confidentiality.

The data were examined for themes that might reflect agency and to scrutinize the child and parent as action agents. Agency and its relationship to the delivery of occupational therapy treatment were considered as factors when identifying themes. First, data were analyzed by each session and the emerging themes were categorized. The sessions were examined sequentially for changes over time. Second, each mother/child dyad was reviewed for each session. The dyads were considered over time as well. Once themes of agency were identified, the data were considered in terms of the physical, social, and cultural environments of the treatment class.

# Results

The results were based on examining seven sessions of an ongoing parent training class. Four major categories emerged that seemed pertinent to the construct of agency and its relationship to the environment. These were labeled as changes from a class to an interactive group, changes in mother/child dyads, changes in parents, and changes in children.

## Changes from a Class to an Interactive Group

The stated reason for the class was to teach parents occupational therapy techniques and therapeutic tools to use with their children at home. Another purpose was to take advantage of the social environment (Bronfenbrenner, 1979; Wachs, 1992) and the cultural environment (Cohen, 1968; Schkade & Schultz, 1992) to effect change and build collaborative partnerships. The class began as a class. Its beginning routines centered on the culture expected in a classroom. Class started with the participants removing their shoes and socks, followed by parent-learning activity, lecture by the occupational therapist, practice by the parents and children, and working at centers. Class finished by cleaning up, donning socks and shoes, then singing a good-bye song. In the first three classes, the children chose where to play, what to play with, and with whom to play. All the children played in areas of the room different from one another. Parents tended to stay with their children. Although the routine was the same, by the fourth class the parents and children

behaved differently with one another. The children demonstrated an awareness of social interaction during play. They began to demonstrate parallel play. A 3-year-old sibling tried to include an 18-month-old nonambulatory child in play. As she tried to get him to play with a doll house, her 2-year-old brother came to the same area and played with a puzzle (field note 4). By class six, children playing together or near each other was very evident. Most of the children played with the same toys or in the same area. If one was at the chalk board, they all were at the chalk board (field note 6).

Over the time the class met, changes were also observed in the parents' behavior. In the first weeks of the class, parents followed the class routine. They tended to stay close to their child, listen to the occupational therapy lecture, then try the techniques or do the assignment. The parents were very quiet (field note 2). As the class evolved, mothers in the class began talking to the leader and others. At first, it was by asking questions. The questions showed an evolution as well. Initially, questions were about the subject of the class. Later classes were characterized by mothers asking questions regarding issues apart from occupational therapy. Cynthia, a mother of a 2-year-old boy, asked about services that would occur once Ron was dismissed from the program (field note 7). By class three, the parents were talking socially to one another (field note 3). In the last class, the mothers present discussed with each other issues that concerned them such as how to choose a mother's day out program (field notes

7). Instead of immediately doing the class assignment, the mother's chose to digress by discussing listening skills and their relationship to behavior of their children (field note 6). The parents changed from passive participants to active collaborators as to the topics they wished to discuss.

Changes in Mother/Child Dyads

Mothers seemed to perceive the children's abilities differently from the first class to the last class. Part of the class routine required the child to remove shoes and socks at the beginning of class, to don them at the end, and to clean up. Field notes reflected parents doing this for the children for most of the classes. A shift occurred at class six. As the class ended, parents encouraged the children to clean up and independently put on their socks and shoes (field note 6). This occurred without the direct facilitation of the class leader. In class six, Marge played with her son, Sammy, on a platform swing. During this interaction, she employed both sensory-motor and communicative tools. Marge encouraged him to sign for "help" before responding to his inappropriate vocal shouts. Parents stated in interviews following the class that they viewed their child differently. A focus on agency removed the pressure to perform discrete developmental tasks. Cynthia, mother of 2-year-old Ron, stated, "I liked watching him. It took the pressure off Ron to perform. I watched him doing stuff. Climbing on the yellow foam. Actually seeing things. He stopped drooling as much and started speaking better" (parent interview #1).

Marge also saw her son differently. As the other children in the class tried new things, Sammy continued with his old routine. He moved from center to center and did not stay with activities. He repeated actions over and over. There was little variation in his play or play choices (field notes 1, 2, and 6). However, he was able to stay with activities and vary them with adult direction. Sammy played with cars when a staff person helped him by showing him different ways to play (field note 2). He played on the platform swing when it was turned into a game (field note 6). From his play in this class, Marge was able to see that her son may have more than a speech impairment. She began to include sensory and motor play in the home environment. When he was dismissed from ECI because he turned three, she had him referred to occupational therapy.

Changes in Parents

Mothers seemed more willing to try therapy techniques and therapeutic tools as the class progressed. In class three, only one mother allowed the class leader to demonstrate a brushing technique on her (field note 3). One mother, June, would not allow her 18-month-old son, David, to initiate activities and was not effective in interpreting his communicative signals. She would hold and cuddle him as he arched backward out of her arms (field note 4). She told the occupational therapist that her son would not like to be on his stomach on a platform swing (field note 4). June seemed very uneasy regarding any changes in her child's posture and position. She did allow the occupational therapist to

place her son in a sitting position on a scooter board. The occupational therapists encouraged David to get on his stomach. June seemed anxious and repeatedly asked him if he was all done. During this interaction, David suddenly pushed the scooter back and forth several inches. This was the first time he initiated independent mobility. After discussing what happened, June then asked how to make a scooter board for use at home (field note 4). In later classes, other parents initiated requests to borrow a large piece of equipment for home use (field note 6). This seemed to indicate a recognition of the relationship between using therapeutic tools and the desired outcomes that parents had for their children.

Changes in Children

Changes in the children's behavior were also evident. The environment provided the children with the opportunity to seek out different sensory-motor learning experiences. In a home environment, these opportunities may not be as apparent and the sensory-motor challenges may not be as varied. For example, Ron would get in and out of a child's wading pool filled with rice and toys. He grasped handfuls of rice and held them tightly. As he did this, his drooling increased and his vocalizations decreased (field note 6). This seemed to indicate a need for tactual materials in his intervention program. When he worked on the platform swing, he would hold tightly, drool, and not make a sound (field note 4). By class six, he played prone on foam shapes with a

heavy medicine ball. As he repeated this activity, his drooling decreased (field note 6). After this class, Ron worked on prone at home and during speech therapy (progress notes). In class seven, Ron wrote on the chalkboard, a novel fine motor activity. He did not drool at all (field note 7).

David was also reluctant to touch objects and toys. His mother, June, described him as a straw because, "He absorbs everything through his mouth" (field note 1). As the class progressed, David began to mouth toys less and he began to look at a toy, turn it over, and examine it visually from different angles (field note 2). At home, David would stay in one place and toys were brought to him (progress notes). He did not move from wherever he was placed. In class, David would try to pull to kneeling to get to pans of water placed on low tables, and he initiated play activities. In class three, June reported that David crawled down a hallway in which she had placed a favorite toy. See table 2 for a list of changes experienced by the participants.

## Discussion

The change from a class to a group may be thought of as a change from passive learning to collaborative involvement resulting in an accelerated adaptation process. It could be interpreted that both parents and children displayed agency. Sensitivity to agency may be a key concept in fostering adaptation as well as collaboration. Observations of the child's active engagement in class by the mothers appeared to help encourage sensory-

motor activities outside of the class. A complex interplay of factors does not just happen, they are facilitated by the class leader (Notori & Cole, 1993; Yalom, 1975). If agency had not been a key factor, then the class would have been only a means of giving occupational therapy information in a cookbook type way. A superficial look at the structure could lead to that conclusion.

The actions of the parent participants suggested that the occupational-therapy-parent-training group was more than an information source for therapy techniques. As collaborators and action agents more than "passive students," parents tried techniques in class and reported how the techniques worked at home. This was attained by creating a culture that facilitated adaptation. The culture of the group reflects active doing (functional occupation) by all the participants. Individual differences, unique experiences, and agency of the participants were acknowledged by the group leader. The "splash activity" that was incorporated into the beginning of each class was useful tool. It set the stage for "doing" and the discussion that followed inevitably showed how differently the same action could be interpreted and experienced. Following the splash activity was a related child-based activity. Again, each child seemed to respond differently. This heightened parents ability to observe critically their child and the behaviors of the other children in the group. Parents were guided to observe variety, complexity, and spontaneity of play (Yarrow et al., 1983; Yarrow, Rubenstein & Pedersen, 1975). These guidelines help

parents recognize and measure actions and the qualities of active engagement of the child separate from developmental tasks. Parents shifted their focus from the toy to the act of engagement.

Cohen (1968) stated that culture was mankind's most important nonbiological means of adaptation. Culture in this sense means the rituals and routines, beliefs and traditions, and social networks and tools that are present in the environmental-microsystem of the occupational-therapy-parent-training group. The occupational-therapy-parent-training group was designed with these cultural components of the environment in mind. Culture was created by means of structure and routine. The class had a scheduled sequence of events. Rituals were incorporated via the different structured activities. Beliefs regarding therapy were addressed in the weekly handout and through group discussion. Social networking seemed to happen spontaneously, yet this was facilitated by the group leader by means of the discussion portion of the group. The culture created an environment where parents were comfortable questioning the leader and each other and where parents could try new tools. By trying new tools, parents were provided with a means of determining for themselves what worked for them rather than following the prescription of the group facilitator. The tools of this class involved not only toys, play equipment, and occupational therapy and techniques, but a recognition of agency.

## Conclusion

Throughout this study, attention to personal action or agency of both the parent and the child was emphasized in the context of the person-environment interaction. This study seemed to suggest that a child enrolled in ECI can change when intervention efforts are focused on the microsystem of the parent and agency in that system. This approach seems to foster collaboration among parents and between the occupational therapist and parents. Often active engagement in meaningful occupation of a child with a disability is discarded in favor of a particular developmental task or therapy technique. Agency is an important factor in helping a child attain functional goals. It fosters collaboration between parents and child.

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Table 1: Class Participants.

| Parent/Child (pseudonyms) | Age of Child | Referral to ECI | Referral to class |
|---|---|---|---|
| Cynthia and Ron | 25 months | speech delay | drooling, upper body weakness |
| Marge and Sammy | 32 months | speech delay | delayed fine motor, gross motor, and self help skills |
| June and David | 19 months | hypotonia | developmental delay |
| Diddi and Leo | 31 months | speech delay | upper body weakness, tactual hypersensitivity |
| Ann and Mark | 32 months | speech delay | atypical fine motor skills |

Table Two: Changes in Class Participants

| Pre-intervention | Post-intervention |
|---|---|
| Parent and Group Focused | |
| leader directs and facilitates the class discussions | parents initiate the discussion of topics pertinent to them |
| leader directs class routines | participates initiate class routines with out direct facilitation |
| parents ask leader for help and advice | parents ask each other for help and advice |
| children play in isolated areas of the room | parallel play occurs; socialization occurs among the children |
| focus on discrete developmental task | focus on the child's unique abilities, actions, and performance |
| narrowly defining the area of intervention (such as a speech only deficit) | expanding the intervention into a multi-disciplinary focus |
| narrowly defining behavioral changes in the child participant (developmental criteria) | expanding observations of behavioral changes to include self-initiation, variety, complexity, and spontaneity of play |

| | |
|---|---|
| reticence to try therapeutic tools and techniques | enthusiasm for therapeutic tools and techniques including:<br>borrowing equipment;<br>asking how to make equipment;<br>describing success at home with activities<br>tried in class |
| Child Focused | |
| drooling | decreases in drooling |
| no independent mobility | mobility on a scooterboard and crawling at home |
| tactual hypersensitivity contributing to poor manual exploration of toys | explorations of a variety of toys both visually and manually |
| mouthing toys | increased tactual and visual exploration of rattles and blocks |
| fisted grasp on a piece of chalk | pincer grasp on a piece of chalk |

# CHAPTER SIX

## Discussion and Implications

The three studies conducted have the central theme of agency framed in person-environment interaction. The first study focused on the agency of the individual and indicates the complex factors that affect the occupational performance of the children studied. The second study focused on the environment as it relates to person-environment interaction. This study conveyed the social, cultural, and physical factors that affect occupational performance. The third study examined clinical intervention based on the construct of agency and the importance of person-environment interaction. This study investigated changes in parents and children with disabilities by focusing on agency and changing the typical culture of a therapy group. All three studies had the common theme of agency, self-directed, active engagement in meaningful activities.

Agency complexities were manifested somewhat differently in each of the studies. It had a common theme of shared vision. Agency is a belief held by therapists, caregivers, and parents about themselves and the children in their care. When the belief was similar among the participants, they seemed to share the same vision about the child. In relation to the first study, belief in agency

was a belief in the occupational functioning of the children. Parents, who acted as partners with their children, seemed to expect that the children could 'do.' This belief or shared vision transcended disability level. It was perceived in all three disability categories of severe, moderate, and mild. From this belief, parents in the study were able to respond to the active engagement of the child in meaningful activities. With parents as partners, the child's choices were reinforced and did not go unnoticed as they tended to be in therapeutic settings. The children in the study were far more active at home and day cares than in therapy settings. Having the same belief about the skills, abilities, and interests of the child was similar to having a shared vision about the child. The beliefs or shared vision about the child with a disability seemed to affect the level of active engagement of the child.

The energy of active engagement was manifested in the children's looking and observing the environment around them, moving and mobility, and playing invented games. Looking seems a passive activity. Attending may be a more accurate word. When learning anything it is important to attend to the teacher and the lesson. All the children in the study but one stopped their occupational pursuits to look and observe the environment around them. They observed not only the physical space but the social interactions that occurred. In this still space are the components of choice. The children learned the world around them, then moved to what and where they wished. In some cases,

parents used the child's looking as an indicator of choice. Paul, a child with a severe disability, was moved by his parents around his environment on the basis of what he looked at. Mobility, another manifestation of agency, was often encouraged at home and discouraged in therapy. Therapists did not seem to share the vision of self-directed, active engagement. In doing so, they seemed to miss opportunities for learning that parents did not. Therapists seemed to spend their energy directing the child. Parents seemed to spend more time in active engagement with the child. With the child actively engaged, the parents were able to guide the child towards learning activities.

It was as if the parents were demonstrating agency as well as affecting agency in the child. Parents were actively engaged in the self-directed play of their children. Part of the recognition of agency in the child was looking and observing. Parents were looking and observing as well. They looked at the 'doing' of the child without a therapeutic bias. Parents noted subtle cues in their children and responded in a variety of ways. Some parents narrated what was occurring. Other times, they praised their child verbally. Sometimes parents moved the child to help the child gain access to the occupation of their choice. The parents, as facilitators of agency in their children, were agents themselves.

The second study in the series examined environments in which children engaged in occupations. These environments included the child's home, therapy in the home, therapy in clinic settings, daycare, respite care, and

mother's day out programs. This study illustrated the means that parents, caregivers, and therapists used to guide their child to learning experiences by structuring the physical, social, and cultural environments. Parents provided the tools of play and made the tools of play accessible in the environment. This was one part of the parents' success in teaching their children. This was paralleled in day care environments as well. It did not matter what the disability of the child was. A severely disabled subject, Paul, not only had access to different play centers by being moved by the caregivers present, but he was also actively engaged in play at the centers. But, it was more than accessibility. The same toys and tools were present when therapists were in the home environment, yet an increase in passivity and a decrease in active engagement were noted with the therapist present. One difference seemed to be flexibility of choice that allowed parents to shift from passive learning experiences to active learning experiences. More often the parents recognized the active play of the child as a good thing and encouraged it. It was encouraged in many ways and one way was through the social environment. In the social environment, parents were available to extend the lessons taught in therapy. Parents did not depend on the tools of play but interacted with the child to assist with toy play, social games, and social interactions.

In addition to the social environment, the cultural environment supported personal agency. Parent and caregivers, knowingly or unknowingly, provide a

culture of active engagement. In study one this was recognized by playing invented games and in study two it was in creating a social place to play. Also, parents were noted in both studies to comment on the actions of the child whether the children were verbal or nonverbal. In this labeling and social interaction are the beginnings of a web of significance (Geertz, 1973). A lot is happening in the physical, social, and cultural settings. It leads to the question, if parents are not structuring the environment, labeling the environment, or responding to agentic interactions of the child, can these skills be taught to parents.

To answer whether, if these skills can be taught, one must examine the construct of occupational synthesis (Nelson, 1996; Nelson, 1997). Occupational synthesis is what the occupational therapist does. It is combining occupational form and performance in collaboration with the client. Expanding on the first part of idea of occupational synthesis, the therapist must not only know the tools of occupational therapy but his or her beliefs about the use of those tools in collaboration with the client. If the therapist believes that clients are agents of change, then more active participation is elicited in the treatment process. If the therapist believes that contrived occupations develop an adaptive repertoire, then the client may be asked to do therapist directed and therapist meaningful activities. The first part of occupational synthesis starts with the values, beliefs and skill of the therapist.

Occupational synthesis includes the therapist's knowledge of occupational forms and understanding the person. Occupational form is the physical and sociocultural background outside of the person that influences occupational performance. It is the context in which occupations occur. Context situates the beliefs that the participants have about the circumstances surrounding them. The physical space may be the same. It may be home with furniture and toys in the bedroom. What make one context different from another is the belief and values of the participants. One home may not allow the children to bring their toys into the living room. Play areas may be isolated away from family social areas. Other households may allow play in the living room but not in the kitchen. The beliefs may not be easily assessed. Parent may not wish children to play in the living room because they designated that room for company. Some parents may believe that children should be seen and not heard. Some parents allow children to get dirty; others do not. These differences may seem small and inconsequential yet they make up the unique mini-culture of each child's household. These beliefs guide actions. Understanding these webs of significances is part of occupational synthesis. For example, if the parents do not allow the child to get dirty, then tactual activities should be centered on bath time. In addition to beliefs about space, there may be beliefs about family. The roles and expectations that the family

members have as well as the roles and expectations of the child are all factors concerning the sociocultural environment.

Once the occupational therapist is aware of the physical, social, and cultural aspects of a child's life, can this information be used to effect changes in the child's occupational functioning? The third study in this series examined an ongoing parent-training-group that recognized the importance of agency and the importance of environmental factors and used these principles as part of the group structure. Like the parents in study two, the occupational therapist knowingly structured the physical, social, and cultural environment of the group that focused on parents to effect changes in children. Central to this group was the belief espoused by Bronfenbrenner (1979) that one social system can have a dynamic effect on another part of the system. The assumption that parent learning had an effect on the occupational functioning of their child was supported by the data from study three.

This does not succinctly answer the question of 'How?' Examining person-environment interaction may be like examining a topographical map. The map does not show the way to go. It shows elevation, barriers, water and other geographic landmarks. How you move to your destination is up to you. You may move slowly or go quickly. You could decide to detour to a quiet stream or your skill may enable you climb up to a rocky summit. You decide. In occupation it is important for clients to decide the destinations and the detours.

They decide. Choice was an underlying component of the three studies. It affected where the children chose to look, where they chose to move, the games they chose to play and the partnership they developed with parents. Choices keep the children actively engaged, in essence, moving along their topographical map. The first part of how to effect change is knowing the end goal.

When navigating on the occupational functioning topographical map, it is important to accurately interpret the markings and know what they mean. Meaning is important to map reading as it is to occupation. If there is a barrier to the destination, is that barrier something to overcome or to simply go around? Often in occupational therapy treatment we try to change the client so that they may maneuver over any barrier on the map. Sometimes it is a choice to shift directions to get to the same goal. This ability to shift is part of the power of occupation. Parents who were observed in their homes seemed to be able to recognize choices that lead to learning experience. Since parents were not focused on a single trail, they could go anywhere on the map. Therapists seemed to focus on specific parts of occupations or functions. They seemed to spend their time and energy maneuvering the child. The therapists cannot seem to perceive that other trails and byways may get them to the same place. Lawlor and Mattingly (1998) point out that some therapists have difficulty moving away from hands on therapy and struggle with the nature of real work. One

topographical characteristic of occupational functioning is that the social environment affects occupational functioning. Parents can learn how to take the child to the end goal. For each parent the end goal may be different even if the map is the same. Some parents may wish to aggressively climb mountains, while other may wish to sit by a quiet stream. As agents of change the parent and child guide the direction and pace.

Cochran and Laub (1994) posit that agency can be a transforming experience. They illustrate this by the use of narratives that move from victim themes to agentic themes. Occupations are the benchmarks of the agentic actions of children. The qualities of agentic interaction defined in narrative stories can also be observed in agentic occupations. These occupations are transforming experiences for the child. Children seem to intuitively know this and share this information with the phrase, "Me did it myself." Agency's importance in change is that it provides power and energy for change. When a therapist works without the child's active engagement, then the therapist works. When the therapist works with the child's and family's active engagement, then the child and family work. Another aspect of occupation is that it serves as one of the benchmarks for change. In study three, one of the goals of the group was to teach parents to recognize agency in their children and not to measure success by discrete developmental criteria. Parents learned to evaluate occupations in terms of variety of the occupations, the persistence with the

occupations, and ability to explore the complexity of the occupations. Variety, persistence, and complexity can be compared to the topographical marking on the occupational therapy map. These constructs help define how the children move through space before they reach the final goal. With these constructs as tools and guides, the occupational therapist and family can evaluate the progress to the eventual goal. Occupational functioning is the final goal.

These ideas can be summarized as the power of occupation in typically occurring environments. Recognition of personal agency allows the therapist to let go of a personal therapeutic agenda and the client to shift from one occupation to another following their agentic agenda. This is a powerful tool. It is powerful because it elicits the most from the client. When occupations are therapist-directed, and contrived, they address only that part of the nervous or musculoskeletal system targeted. When the occupations are agentic in nature, the client engages memories, thoughts, ideas, associations, as well as nerves and muscles. In essence, since the client does a larger portion of the work, the client receives the benefit of integrated learning. Letting go of a therapeutic agenda allows the client to shift to personally meaningful activities. In doing personally meaningful activities, the client can demonstrate if the learning has generalized. An agentic approach to occupations provides opportunities for generalization. An agentic focus allows the client occasions to experiment with what they can do, with how they can do it differently, and how the occupation

may be associated with other occupations. The power of occupation lies in its agentic use in typically occurring environments.

## Implications for Occupational Therapy

Study three attempted asked if agency can be taught to parents and if it is a significant part of the change process. The data support these two assertions for the parents and children in study three. Another question is whether agency can be taught to therapist and incorporated successfully in treatment. There are several considerations for this. The first is shared vision. Therapists would have to share the belief that agentic occupation can be a transforming experience. The data from all three studies supports this notion. Then, therapists would have to assess the shared vision further. This would be assessing the thoughts and ideas about the physical spaces in which the client moves. It would mean recognizing the social and cultural contexts of the client and of themselves as therapist.

Part of the process of teaching therapists how to use the construct of agency would be similar to that of teaching parents. Therapists would learn to look and observe their clients in new ways. To be effective, the observations would require some basis to control for bias. Using variety, complexity, and persistence in play occupations helps frame the occupations and behaviors in a measurable manner. These observation criteria help form the benchmarks of agentic assessment. The therapist observes before and after treatment using

the variety, complexity, and persistence constructs and not specific developmental criteria. For example, a child might only play with light plastic toys. After intervention, the child might expand their play choices demonstrating variety by choosing soft, cuddly toys.

Finally, therapists could use parents as active partners in facilitating change in the child. Throughout the studies, parents played an active role in the transforming experiences of their children. This occurred in the person system and in the environment system. In letting go of old therapeutic agendas, therapists may need to develop the confidence to let go of hands on therapy and shift to teaching parent the pieces of therapeutic knowledge they need to know. In a more advanced form, therapists will teach intervention skills, then allow the parents as agents to choose which skills they are comfortable using.

## Reflections on the Research Process

These three studies can be regarded as a beginning to understanding the complexities of agency in the person-environment interaction of preschool children with disabilities. The studies had several limitations that make the findings difficult to generalize. It seemed that most of the subjects displayed agency, especially when at home with their parents. Although it would be desirable to think agency is the norm for all preschool children with disabilities, this may not be supported if more children were included in the study. An additional limitation was only parents were interviewed for their perceptions

about the occupational functioning of the child. It would have lent strength to the findings if the therapists and caregivers could share their views.

The studies did have several strengths. Multiple subjects and many observations gave confidence and trustworthiness to the data. There were six subjects with various disabilities for study one and two, and five subjects for study three. There was a total of twenty-seven observations for study one and two, and seven for study three. The multiple subjects and multiple observations lent richness to the data and confidence to the study. Peer review was a strength of each study. The peer review process did not seem as useful as supposed. There were two peer reviewers for study one. They were given samples of the raw data and an abstract with possible categories for interpretation. Basically, they seemed to agree and suggested better ways to phrase the categories, and to break one category into two. The peer reviewer for study two was an experienced pediatric occupational therapist. She examined the data and the suggested categories. There were many lively phone discussions but there were no substantive changes. Study three was peer reviewed by an experienced occupational therapist who was familiar with the environment of study three. She examined the raw data, the data in categories and a draft of a summary of the categories. She made no comments other that those with which she agreed. Peer reviewers did not seem to change

the interpretation of any study. Peer review is important. Without it the studies would not have the confidence needed to make the assertions that were made.

If redesigning the studies a few changes could have made them slightly stronger. The studies' participants were all recuited from the same ECI program. The inclusion of two different ECI programs would make the studies robust. If two ECI sites were to be used, then the number of participants should be twelve, or six for each site. The same criteria for observations and subject selection would be used. If the study could be conducted over five years making nine observation a year, then this would account for development and add confidence to this body of research.

## Conclusion

A major implication for the therapist may be that we often do not perceive the cues for agentic interaction or active engagement. If Nelson's model of occupational synthesis is accurate, then therapists may be missing powerful opportunities to help clients adapt and change. Occupational synthesis means knowing the cultural context of the client, the meanings of the social rituals and objects that are part of the culture, and how the culture teaches or imparts these to its members. The power of occupation is embedded in its agentic use. The authentic use of occupation for health and well-being lies in the shared vision with clients who can move towards their own unique goals and purposes.

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# APPENDIX A

## Human Subjects

TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON

HUMAN SUBJECTS REVIEW COMMITTEE - HOUSTON CENTER

# HSRC APPROVAL FORM

Name of Investigator(s): Teresa Pfeifer

[redacted]

Name of Research Advisor(s): Jean Spencer, PhD, OTR, FAOTA

Address: 8635 Alcott Dr.
Houston TX 77080-4303

Dear: Ms. Pfeifer

Your study entitled: Exploration of Agency in Preschool Children with Disabilities

*(The applicant must complete the top portion of this form)*

has been reviewed by the Human Subjects Review Committee - Houston Center and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health and Human Services regulations typically require that signatures indicating informed consent be obtained from all human subjects in your study. These are to be filed with the Human Subjects Review Committee Chairman. Any exception to this requirement is noted below. Furthermore, according to HHS regulations, **another review by the HSRC is required if your project changes or if it extends beyond one year from this date of approval.**

Any special provisions pertaining to your study are noted below:

_____ The filing of signatures of subjects with the Human Subjects Review Committee is not required.

_____ Other: see attached sheet.

_X_ No special provisions apply.

Sincerely,

Doris E. Wright

Doris E. Wright, Ph.D.
Chairperson, HSRC - Houston Center

June 17, 1997
Date

HSRC 1994-95

TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON

HUMAN SUBJECTS REVIEW COMMITTEE

1130 M. D. Anderson Blvd., Houston, Texas 77030 713/794-2114

**MEMORANDUM**

TO: Teresa Pfeifer

FROM: HSRC

DATE: June 17, 1997

SUBJECT: HSRC Application

Proposal Title: Exploration of Agency in Preschool Children with Disabilities

Your application to the HSRC has been reviewed and **approved.**

**This approval lasts for 1 year. If your study extends beyond that time you must notify the Human Subjects Review Committee.**

**REMEMBER TO PROVIDE COPIES OF THE SIGNED INFORMED CONSENT TO ME WHEN THE STUDY HAS BEEN COMPLETED. GRADUATION MAY BE BLOCKED UNLESS CONSENTS ARE RETURNED.**

Thank you for your patience in awaiting the committee's decision. The committee extends its best wishes for a productive and very successful project. Should you have any further questions about your application, please contact me at 794-2114.

Doris E. Wright

Doris E. Wright, PH.D.
Chairperson

## Guidelines For Observations

These guidelines will direct the participant observation of agency in different settings:

The physical environment:

- mapping the spatial density
- noting the social density of children
- noting the number of adults or caregivers
- variety of play objects
- play settings

Social environment:

- peer interaction: action initiated by peers with the child that include the child, that are about the child, or in response to the child
- adult or sibling interactions: giving eye contact, smiling, vocalizing with the child, responding to the child's vocalizations
- role of the adults in the environment such as parent or caregiver
- role of children in the environment such as older brother, friend, or classmate

Cultural environment:

- routines: things that occur in the environment on a regular basis, sequences such as snack time followed by nap.
- rituals: how activities are done such as how snacks are served
- procedure: rules that guide the environment, for example, if you do not pick up your toys you must go to time out
- methods: how a particular routine or ritual is carried out such as the teacher guide painting and the aide supervises play ground time.

Play

- exploration of the complexity of play objects
- investigation of the responsiveness of play objects
- variety of choice in play objects, what is the child playing with
- persistence: play with the toy to discover it unique qualities
- competence: play with the toy appropriately
- variation: creativity in toy play
- action initiated by the child such as looking, vocalizing, speaking, responding to others, and how quickly the child responds
- child's affect during play.

# APPENDIX B

## Reviewer's Comments

## Collaboration: The Use of the Construct of Agency in Fostering Change

Reviewer's Comments

Collaboration: The Use of the Construct of Agency in Fostering Change

1. Background for the Context of the Study. This entire section should either be eliminated or moved to the methods section. Fits better in the methods section.
2. Summarize changes in parents and children by including an additional table.
3. Author should include specific instructions on how the ECI provider can move closer to the model/outcomes described in this manuscript.
4. Eliminate some of the "unusual print on the back of pages 17, 23, and 25.
5. Do not number the pages with Table one.

May 4, 1998

Teresa Pfeifer, MOT, OTR
8635 Alcott Drive
Houston, TX 77080-4303

Louis Rossetti, Ph.D.
Center for Communicative Disorders
University of Wisconsin, Oshkosh
Oshkosh, WI 54901

Dear Dr. Rossetti:

Thank you for the information that your sent to me. Enclosed in a manuscript for your consideration for Infant and Toddler Intervention. I hope that it is of interest to your and your subscribers. Please let me know when you receive this manuscript. Thank you.

Sincerely,

Teresa Pfeifer, MOT, OTR

## Infant Toddler Intervention: The Transdisciplinary Journal

*Louis Rossetti, Ph.D., Editor*
*Center for Communicative Disorders*
*University of Wisconsin Oshkosh*
*Oshkosh, WI 54901*
*(920) 424-2421; e-mail: Rossetti@uwosh.edu; fax (920) 424-0883*

May 26, 1998

Teresa Pfeifer, MOT, OTR
8635 Alcott Drive
Houston, TX 77080-4303

Dear Ms. Pfeifer;

I am in receipt of your manuscript submitted for publication in *Infant Toddler Intervention*. I have forwarded the manuscript on for appropriate editorial review. I will keep you informed of the status of the manuscript as it passes through the editorial process. I appreciate your consideration of the Journal for dissemination of your work. Please call if I can be of further assistance to you.

Cordially,

Louis Rossetti

Louis Rossetti, Ph.D.
Editor, Infant Toddler Intervention
(920) 424-2421
FAX: 920-424-0883

P.S. Please excuse my delayed response. I was out of the country for the past 4 months.

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## Infant Toddler Intervention: The Transdisciplinary Journal

*Louis Rossetti, Ph.D., Editor*
*Center for Communicative Disorders*
*University of Wisconsin Oshkosh*
*Oshkosh, WI 54901*
*(920) 424-2421; e-mail: Rossetti@uwosh.edu; fax (920 ) 424-0883*

June 3, 1998

Teresa Pfeifer, MOT, OTR
8635 Alcott Drive
Houston, TX 77080-4303

Dear Ms. Pfeifer;

I have enclosed a copy of your manuscript with editorial changes included on the manuscript. As you make changes in the manuscript please consider the editorial input provided. Once you have made suggested editorial changes please forward three edited copies of the manuscript to me. It would be preferable if I could receive your edited manuscript by **July 1, 1998** for possible inclusion in the December 1998 issue of the Journal. Please let me know if you have any questions or if I can be of further assistance. Once I receive your edited manuscript I will inform you of our final decision regarding publication.

Cordially,

Louis Rossetti

Louis Rossetti, Ph.D.
Editor Infant Toddler Intervention
(920) 424-2421
FAX: (920) 424-0883

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June 24, 1998

Teresa Pfeifer, MOT, OTR
8635 Alcott Drive
Houston, TX 77080-4303

Louis Rossetti, Ph.D.
Center for Communicative Disorders
University of Wisconsin, Oshkosh
Oshkosh, WI 54901

Dear Dr. Rossetti:

Thank you for your consideration of my manuscript. I have made the changes suggested by the reviewer I hope these changes improve the quality and readability of the work. Enclosed are three edited copies. I appreciate the feedback and hope you receive the manuscript in a timely fashion. I am sending it overnight. I hope your summer is pleasant and that you are not overloaded trying to catch up on work that may have accumulated in your absence. Thank you again for your attention.

Sincerely

Teresa Pfeifer
713-973-9529 (home)
281-655-2340 x1343 (voice mail)

## Infant Toddler Intervention: The Transdisciplinary Journal

*Louis Rossetti, Ph.D., Editor*
*Center for Communicative Disorders*
*University of Wisconsin Oshkosh*
*Oshkosh, WI 54901*
*(920) 424-2421; e-mail: Rossetti@uwosh.edu; fax (920) 424-0883*

July 6, 1998

Teresa Pfeifer, MOT, OTR
8635 Alcott Drive
Houston, TX 77080-4303

Dear Ms. Pfeifer:

This letter is to confirm that your manuscript titled "Collaboration. The Use Of . . . . ." has been accepted for publication in Infant Toddler Intervention. The exact issue of publication is uncertain at this time. However December, 1998 looks probable. You will be contacted by the publisher once the manuscript goes through technical editing and if there is a need for clarification from you on any issues. You will have a chance to review galley proofs prior to publication. It will be several weeks before this takes place.

On behalf of the entire Journal team we appreciate your consideration of the Journal for dissemination of your work, and we wish to congratulate you on a well written manuscript. Please feel free to call if you have any questions.

Cordially,

Louis Rossetti

Louis Rossetti, Ph.D
Editor
(920) 424-2421
(920) 424-0883) FAX

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September 23, 1998

Ms. Teresa Pfeifer
8635 Alcott Dr.
Houston, TX 77080

Dear Ms. Pfeifer:

Enclosed is the copy-edited manuscript of your article for the December 1998 issue of *Infant-Toddler Intervention*. Please look over the changes that have been made to make sure that none have changed your intent. While reviewing the manuscript, please bear in mind that this is the only opportunity you will have to do any rewriting. Once the manuscript has been typeset, extensive changes are both expensive and time consuming. In addition, be sure to respond to all of the copy-editor's queries written on the manuscript.

Please enter all of the copy-editing changes, and any other changes you wish to make on a disk and print out a revised hard copy. This ensures accuracy and will save time later when you proofread the page proofs of your article. A list of proofreading/copy-editor symbols and a checklist have been enclosed for your convenience.

Please return the original copy-edited manuscript, a hard copy of your revised manuscript, a disk containing your revised manuscript, author affiliation, and completed offprint order form to me no later than Wednesday, September 30th. If you are unable to meet this schedule, or have any questions regarding the copy-edited manuscript, please call me at ext. 208, or Sandy Doyle at ext. 213.

Thank you.

Sincerely,

Dana L. Wassarman

Dana L. Wassarman
Journals Production Assistant

*encl.: copy-edited manuscript, proof symbols, checklist, copy-editor's notes, author affiliation, offprint order form.*

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Please fill in your name, your highest degree(s), and your title at your professional setting (university, hospital, clinic, etc.), in the way you would like it to appear in the journal. Please give the name of the school, hospital, or clinic as they are officially written. It is important that we be given notification of any changes in your affiliation and mailing address between now and publication of this issue of the journal.

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Teresa Pfeifer MOT, OTR (your name, degree) staff occupational therapist / Master of occupational therapy (department or position)

Harris County Department of Education / Texas Woman's University Doctoral Candidate (university, hospital, clinic, etc.)

6300 Irvington Blvd., Houston TX 77022 (city, state)

Telephone & Fax # (for our office records): Fax 281-379-6261, Home 713-973-9529

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September 28, 1998

Teresa Pfeifer, M.O.T., O.T.R.
8635 Alcott Drive
Houston, TX 77080

Dana L. Wassarman
Journals Production Assistant
Singular Publishing Group, Inc.
401 West "A" Street, Suite 325
San Diego, CA 92101-7904

Dear Ms. Wassarman:

Enclosed are all the changes that you asked. The checklist was very helpful. I am requesting a copyright release. I would like to include this manuscript as part of my doctoral dissertation. Can you help me with this? Please let me know if there are any problems with this or if I need to fill out any required forms. Thank you.

Sincerely:

Teresa Pfeifer, M.O.T., O.T.R.

March 18, 1999

Teresa Pfeifer, MOT, OTR
8635 Alcott Drive
Houston, TX 77080-4303

Betty R. Hasselkus, PhD, OTR, FAOTA
University of Wisconsin-Madison
1300 University Avenue
Madison, WI 53706

Dear Dr. Hasselkus:

Enclosed is a manuscript that I am submitting for your consideration for possible publication in the American Journal of Occupational Therapy. I hope it will be of interest to AJOT's readers. Also, I am enclosing a self-address stamped envelope. Would you please send confirmation back that the manuscript was received. Thank you.

Sincerely

Teresa Pfeifer, MOT, OTR
713-973-9529

enclose

TEXAS WOMAN'S UNIVERSITY
THE GRADUATE SCHOOL

CERTIFICATION OF FINAL EXAMINATION

April 9, 1999

To the Associate Vice President for Research and Dean of the Graduate School:

The undersigned have on this date examined Teresa Arlene Pfeifer for the degree of Doctor of Philosophy and hereby certify that the examination has been successfully completed. This dissertation has been reviewed by each of us and is approved.

According to departmental records, this student has met all requirements for graduation.