

## Adaptations for Children in their Natural Environments

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## Adaptations for Children in their Natural Environments

- Objectives:
  - Explore strategies to evaluate a child and the human & non-human environment
  - How to measure the effectiveness of environmental outcomes selected

## “Environment”

- How do you define environment?
- What comprises the environment?
- How does the environment effect your practice?

## Environment

- Human vs Non-human
- MOHO – objects, tasks, social groups
- Physical or Geographic Space
- Cultural
- Temporal
- Chronological or Developmental
- Spiritual
- Political & Economic

## Model of Human Occupation

- Layers of the Environment: 3 Dimensions
  - Object Dimension (availability, complexity, flexibility, & symbolic meaning)
  - Task Dimension (complexity, temporal boundaries, rules, seriousness, social)
  - Social Group & Organization Dimension (size, function, permeability, structure)
- All viewed within a cultural perspective

## “Shop Talk”



## Implications for Practice

Content Area	Modified or Special Objects	Space Modification	Task Modification	Social Group Modification	Team Members	Intervention	Outcome
Playing	Cooking objects	Create a safe play space in/ near kitchen with limited stimulation	Parent incorporates meal prep into child's play activity	Parent and child engage in play activity during meal prep	Parent, Child, OT	While parent is preparing meal, child is playing nearby with cooking objects.	Parent is able to simultaneously complete meal prep and incorporate therapist's recommendations into child's play
Accessing toys in pre-school classroom during playtime		Utilize lower shelves to store toys			Teacher, child, OT, PT	Teacher stores toys in lower shelves and encourages child to independently retrieve toys.	Child independently retrieves toys from lower shelves and transports them to play area.

## Culture/Clinical Reasoning Interaction



## Parent-Therapist Interactions and Relationships

- Think about "The encounter"
  - Is there time for Parents to tell their story?
  - Who is in control? How do you know?
  - How does the therapist use nonverbal signals such as gaze, gesture and postural orientation?

## WHAT IS GOING ON HERE?

An exercise in alternative explanations

Taking another point of view

## A Three Pronged Approach to Adaptations includes:

- **1. The Practitioner's Clinical Reasoning**
- **2. Client Perspectives**
- **3. Available Research and other data**

- What does an interaction look like when a therapist and parent are collaborating on activities and routines?

### Involvement/Interaction/Behavior looks different depending on:

- The setting
- The person's background (culture, age, gender, socioeconomic status)
- The person's past experiences in similar and different situations

### Behavior is Experientially Based/Learned

- Varies based on the person's "social construction" of the situation
- How familiar are they with this place?
- How familiar are they with you? And people like you?
- What is their view of your "job"? Are you the professional? The expert? The authority?
- Who has the power in the situation?

### What goes into the interaction?

- The therapists view of
  - His/her work (this is what an OT/PT/Speech Therapist does/does not do)
  - Authority
  - Collaboration
  - How much each of the people involved are interested/willing to collaborate?

### Evaluating the structure of the interaction

- Who asks the questions?
- How do you know if someone is listening?
- What is 'off topic'? And what happens when it occurs?
- Who controls the flow and organization of the interaction? (the turn taking, length of speaking, speaker sequence)

### Things that interfere with interaction

- The use of jargon
- Cultural differences (rules of social conduct)
- The structure of the interaction itself
- "Restrictions" in the communication freedom and limitations in responses to topics

### More interferences

- Different expectations
- Different styles in communication
- Increased possibility of misunderstandings due to intonations and other linguistic cues
- The setting (place, objects, time of day)
- The people that are/are not present

Therapists can look at interactions and:

- Identify breakdowns in function
- Identify areas of need
- Enlist participation of child and family/caregivers
- Assist child/parent/caregiver to develop skills
- Provide adaptive strategies to increase desired function

### Elements of the Interaction

- Rhythm, tempo and kinesic movements
- Presentation of self
- Use of Gaze, movement, physical expressions
- Use of Space

Therapists bring their own point of view about:

- The purpose of the intervention session
- The role of the parent/caregiver
- The way to interact with parents/caregivers
- Parent trouble: what it is, why it happens, how it should be handled

### GAZE

- Used to initiate the interaction
- May or may not be coordinated with vocal or physical movement
- May be used to maintain involvement (along with gesture, body movement including postural shifts and pointing)

### Therapists use Eye Gaze

- To signal parents that they are listening
- To strengthen a verbal message they are giving
- To enlist a parent in the interaction

Therapists also use other nonverbal signals:

- Head nodding
- Body positioning/shifting
- Forming & reforming interactional space

### Therapists tend to:

- Control the topic
- Use verbal requests to focus attention
  - Direct questions/requests
    - Provide additional cues
  - Indirect questions/requests
    - Subtle, difficult to recognize, no additional cues

### Therapists tend to:

- Interrupt when something is said or something is done that is important
- Ignore certain topics
- Talk outloud
  - about what they are seeing or doing to cue someone (parent, student, themselves)
  - to make a child feel comfortable

### Strategies for Guiding Decision Making

- Person-Environment-Occupation (PEO)
- Ecology of Human Performance (EHP)

### Considerations for Decision Making

1. The Person/The Child
2. The Environment and it's Demands
3. The Child's Occupational Roles

### Person-Environment-Occupation Model

- Theoretical Origins
  - Environment – behavior studies
    - Lawton, Environmental Press
  - Occupational Therapy Perspective of Environment
    - Occupational Behavior (Reilly)
    - Model of Human Occupation (Kielhofner & Burke)
    - Ecology of Human Performance (Dunn, Brown, & McGuigan)

### PEO Interactive vs. Transactive

- Interactive Approach
  - Medical Model
  - Characteristics of the person and environment are independent of each other
  - Linear & assumes cause and effect
- Transactional Approach
  - Interdependence of person & environment
  - Behavior is influenced by multiple contexts
  - Contexts are continually shifting

## Major Concepts: Person

- A unique being who simultaneously assumes a variety of dynamic roles, which vary over time and context in importance and duration.
  - Holistic view of mind, body & spirit
  - Body systems and functions
  - Innate and learned skills to interact with the environment and engage in occupational performance.

## Major Concepts: Environment

- The context in which occupational performance takes place; can be enabling or limiting.
- Equal importance given to cultural, socioeconomic, institutional, physical and social aspects.
- Each domain is considered from perspective of person, household, neighborhood or community

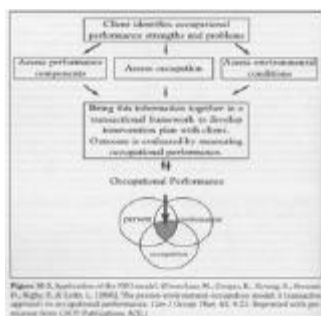
## Major Concepts: Occupation

- Clusters of activities and tasks in which the person engages in order to meet his/her intrinsic needs for self-maintenance expression and fulfillment throughout the lifespan
- Are carried out within the context of individual roles and multiple environments.

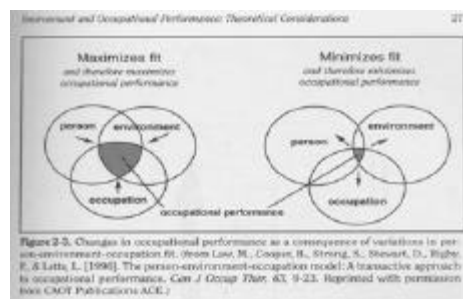
## PEO Fit

- The compatibility of the person, environment, and occupation, which provides for greater or lesser occupational performance.
- “When there was a good fit between the child, the play setting, and the play opportunities, the children were playful” (Rigby & Huggins, 2003)

## Application of PEO



## Changes in the Environment



### Intervention Process

- Identify strengths and problems in occupational performance
  - Assess the person, environment, occupation
  - Assess the transactive relationship of the person, environment, occupation
- Collaborate on the outcome
- Collaborate on developing the intervention plan
- Measure occupational performance

### Implications for Practice

- After-school Program
  - A literacy-based program operated by a non-profit organization.
  - Approx. 70 children (Grades 1-3, Grades 4-6)
  - Poverty, exposure to drugs and violence, homelessness
  - Limited range of play occupations
  - Limited availability & complexity of toys & games
  - Large open basement setting, split in half by low bookshelves
  - Teachers preference for quiet and order
  - Women from the community with an interest in the welfare of the children hired as “teachers”
  - Children demonstrate difficulty transitioning from/to activities
  - Impaired social skills, problem solving, coping, self-control

### Implications for Practice

- Today, the after-school program is in a new, state of the art, technologically equipped facility.
- How can you build an environment that enables play and playfulness within the context of a literacy based program?
- Sometimes it’s easier to adapt the environment than it is to adapt the child.
- Use PEO concepts to identify environmental adaptations.

### Implications for Practice

- Describe environmental adaptations to influence and support students’ performance
  - Political Adaptations
  - Institutional Adaptations
  - Building/Classroom (Physical) Adaptations
  - Cultural Adaptations
  - Temporal Adaptations
  - Social Adaptations

### Context

- A lens for which persons view their world
- The interrelationship of person and context determines which tasks fall within the person’s performance range
- External to the person
  - Physical environment
  - Social, cultural and temporal factors
- Context influences behavior and performance

### Ecology

- The interrelationships of organisms and their environments
- Compliments OT view of the importance of the interrelationship of humans and their context and the effect of these relationships on performance.

### Knowledge Base: Social Sciences

- Environmental psychology: context and person are interactional
- Bruner – the person constructs the self in the context of the environment
- Lawton – environmental press – the dynamics of ecological change, competence and environmental press in which a person's environment affects perceptions of competence.
- Behavior - a function of competence of individual and environmental press of situation

### Knowledge Base: Social Sciences

- Phenomenological perspective – consideration of relationship between person and environment
- Developmental psychology – social relationships that environment offers
- Bronfenbrenner – ecological validity: research invalid unless grounded in context
- Vygotsky – zone of proximal development

### Knowledge Base: Occupational Therapy

- Llorens – environment to assist in development
- Fidler & Fidler – develop skills and mastery through interaction with human and nonhuman environment
- King – use environment to evoke adaptive response

### Knowledge Base: Occupational Therapy

- Reilly – GST, person & environment are interdependent
- Kielhofner & Burke – Environment as objects, persons, events
- Howe & Briggs – environment as concentric circles with person at center

### Ecology of Human Performance Framework

- Non-linear; dynamic
- Theoretical Postulate: Ecology, or the interaction between person and environment, affects human behavior and performance; performance cannot be understood outside context (p. 598)
- “For investigating the relationship between important constructs in practice: person, context, tasks, performance, therapeutic interaction”

### Concepts and Constructs

- **Person**
  - Experiences
  - Sensorimotor skills and abilities
  - Cognitive skills and abilities
  - Psychosocial skills and abilities



## Concepts and Constructs

- **Context**
  - See the person through contextual lens
- **Tasks**
  - Objective sets of behaviors necessary to accomplish a goal

## Concepts and Constructs

- **Performance**
  - Contextual lens interacts with persons' skills and abilities to enable the performance of certain tasks
  - Performance Range: Scope of performance
    - What does this look like when a person with a disability is embedded in a typical environment?

## Intervention

- Evaluating performance is dependent upon considering the context of performance
- Five alternatives for intervention
  - Establish & Restore
  - Alter
  - Adapt
  - Prevent
  - Create

## Establish & Restore

- Evaluate skills and barriers in environment and work to improve skills and abilities of the person
  - Grade activities to increase strength after bed rest

## Alter

- OT does not try to correct the person or environment; looks for best match between person and current contextual features available
  - Suggest flexible work schedule while person builds endurance for working an 8 hour day

## Adapt

- Design a more supportive context for person's performance
  - Raising desk height for secretary in a wheelchair

## Prevent

- Prevent occurrence or evolution of maladaptive performance within the context
  - Providing wrist rests for people who work with computers

## Create

- Create circumstances that promote more adaptable or complex performance in context; design the best possible use of environment to enhance living and development
  - Summer enrichment program

## Ecology of Human Performance

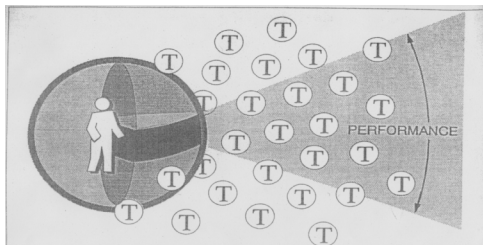


Figure 2. Schemata of a typical person within the Ecology of Human Performance framework. Persons use their skills and abilities to look through the context at the tasks they need or want to do. They derive meaning from this process. Performance range is the configuration of tasks that the persons execute.

## Ecology of Human Performance

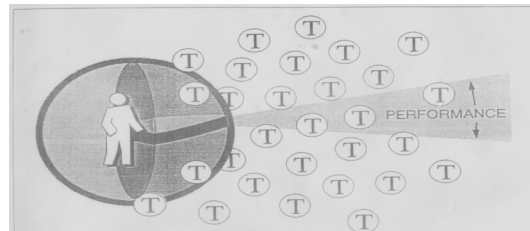


Figure 4. Schemata of a person with limited skills and abilities within the Ecology of Human Performance framework. Although context is still useful, the person has fewer skills and abilities with which to look through context and derive meaning. This lack limits the person's performance range.

## Ecology of Human Performance

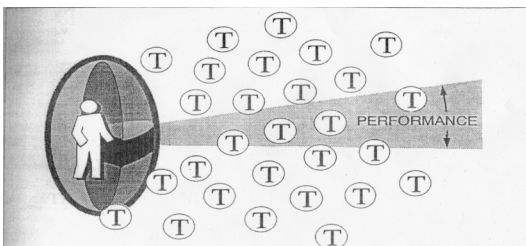


Figure 5. Schemata of a limited context within the Ecology of Human Performance framework. The person has adequate skills and abilities, but the context does not provide resources needed to perform. In this situation, performance range is limited.

## Ecology of Human Performance

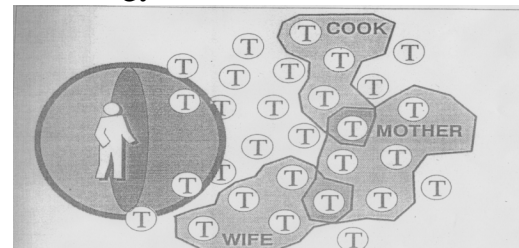


Figure 3. Illustration of roles in the Ecology of Human Performance framework. Life roles are a constellation of tasks. Persons have many roles; some tasks fall into more than one role. These role configurations are unique for each person.

### Measuring Effectiveness of Adaptations

- Systematically collecting your own information about increasing a child's participation within the home, community, school
- Looking at what is already known about the effectiveness of a certain approach.

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