Meaning and occupational engagement in a day program for adults with developmental disabilities

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MEANING AND OCCUPATIONAL ENGAGEMENT IN A DAY PROGRAM FOR ADULTS WITH DEVELOPMENTAL DISABILITIES

by

Wanda Jean Mahoney

Submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in the
Occupational Therapy Department
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ABSTRACT

Occupational justice recognizes that all people have the right to occupational engagement because it is through occupational engagement that people experience well-being. Occupational injustice occurs when outside forces prevent people from engaging in occupation, require participation in activities that they find meaningless, or prevent people from making choices about their occupations. People with developmental disabilities in a day program are at risk for occupational injustice because they require environmental support in order to engage in occupation. This phenomenological study explored occupational engagement of adults with moderate to severe disabilities in a day program by examining what the staff members and consumers found meaningful within the program activities and capturing how the consumers exhibited occupational engagement. This study understood occupational engagement in terms of meaning, self-choice, and motivation leading to involvement in occupation. The methods involved phenomenological interviews with 10 staff members regarding satisfying and dissatisfying experiences working with the consumers, interviews with 10 consumers with moderate to severe developmental disabilities regarding the activity groups using visual supports to enable participation, and four observations of consumers in preferred and less preferred activity groups using the Volitional Questionnaire. Strategies were employed to ensure trustworthiness of the data and analysis including dense description, data triangulation, member checks, peer review, reflexive journaling, and the use of a structured observation tool with demonstrated reliability and validity. Thematic analysis demonstrated that staff members found meaning in the day program activities through
Consumer Engagement in Program Activities and Reciprocal Interaction, and the consumers found meaning in the day program activities through Doing/Active Engagement and Respectful Interaction. The consumers demonstrated occupational engagement through the following themes: Doing Activity/Initiating Action, Positive Affect, and Focused Attention. The findings demonstrated the influence of a supportive environment, choice, and relationships between consumers and staff members that may be reflective of co-occupation on occupational engagement. This information is important in order to build the body of knowledge regarding occupational engagement in an infrequently studied population, understand the implications related to such persons’ occupational justice, and include the perspectives of people with moderate to severe cognitive disabilities in the study of occupation.
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CHAPTER 1: INTRODUCTION

Introduction

This study explored occupational engagement of adults with moderate to severe disabilities in a day program by examining what the staff members and consumers find meaningful within the program activities and capturing how the consumers exhibit occupational engagement. This information is important in order to build the body of knowledge regarding the occupational performance of an infrequently studied population by occupational therapists, to inform practice, and understand any implications related to such persons’ occupational justice.

Rationale and Need for the Study

Occupational therapy is based on the fundamental premise that occupation and health are related such that participation in occupation facilitates health and well-being (Clark, 1997; Hasselkus, 2002; Meyer, 1922; Reilly, 1962; Whiteford, 2000; Wilcock, 2006). There is evidence to support this premise with several populations including healthy older persons, people with Alzheimer’s disease, people living with HIV/AIDS, people with spinal cord injuries, and people with mental illness (Clark et al., 1997; Horowitz & Chang, 2004; Law, Steinwender, & Leclair, 1998). There is limited support in the literature for the relationship between occupation and well-being in adults with developmental disabilities although this is a population with whom occupational
therapists work (Ross & Bachner, 2004), and this population is growing (Bittles et al.,
2002; Heller, Caldwell, & Factor, 2007). For occupational therapists to support well-
being through engagement in occupation, they need to understand how different
populations, including adults with developmental disabilities, engage in occupation.

There are approximately four million adults with developmental disabilities in the
United States (MacFarland, 2003; Ross & Bachner, 2004). The average life span of
people with developmental disabilities has been steadily rising since the early twentieth
century. While a person with a developmental disability lived into their teens or twenties
in the 1930s, people with severe developmental disabilities are now living into their
fifties, and people with mild to moderate disabilities can live into their seventies (Bittles
et al., 2002; Heller et al., 2007; Patja, Iivanainen, Vesala, Oksanen, & Ruoppila, 2000).
The median age of people with developmental disabilities has steadily risen from 12
years in 1960 to 44 years in 2000 (Bittles et al.). As people with developmental
disabilities continue to age and family caregivers age and become unable to provide care,
this population is requiring expanding support from human service fields (Heller et al.).
This growing population requires quality services and supports including access to
occupation that facilitates health and well-being. This study is a first step in studying the
occupations of this population.

The Illinois legislature defines “developmental disability” as a disability caused
by mental retardation, cerebral palsy, epilepsy, autism, or a condition similar to mental
retardation which starts prior to age 18, is expected to last indefinitely, and results in a
significant barrier to participation (Illinois General Assembly, 2007). Day programming
is one type of service for adults with developmental disabilities.
The agency in this study uses the definition of developmental disability adopted by the state of Illinois. The agency provides services to adults 18 years and older who have a developmental disability. Additional requirements for the day program in this study are that the consumers live within a specified area or provide their own transportation, do not require continuous one-on-one assistance or continuous medical care, and have funding or means to pay for services. The consumers may have a diagnosis of mental illness in addition to developmental disabilities. The consumers in the day program do not have the skills to work independently in the community. Some of the consumers participate in a sheltered workshop for up to half a day daily in addition to using day program services. The agency has two sheltered workshops: one off-site and one on-site. While the on-site sheltered workshop offers more support, the consumers still must independently complete their work. The on-site workshop is considered one of the groups in the day program. Those who do not participate in the sheltered workshops have no interest in doing so or do not have the necessary skills to complete the sheltered workshop tasks. The individuals who participate in the day program or on-site workshop often require assistance or supervision for toileting, eating, and/or behavior management, as these supports are not available in the off-site sheltered workshop setting.

Individuals with moderate to severe disabilities often need more support or assistance for participation in occupations including activities of daily living, productivity, leisure, and social participation as well as assistance or adaptations with communication, mobility, and learning (MacFarland, 2003). Most adults with severe disabilities participate in day programs or other segregated day settings as opposed to being employed (Lecher & McDonald, 1996; Parsons, Rollyson, & Reid, 2004). These
programs typically involve groups engaged in different training activities that may include activities of daily living, instrumental activities of daily living, leisure, and vocational preparation (Parsons et al., 2004). There is limited research in day programs for adults with developmental disabilities (Dobson, Stanley, & Maley, 1999; Dychawy-Rosner, Eklund, & Isacsson, 2000; Parsons et al., 2004; Paul, Culver, & McComb, 2000), and none of the previous research specifically addressed describing occupation and meaning with this population.

This study explored the experience of participation in occupation among adults with moderate to severe developmental disabilities who attended a day program from the perspective of staff members and consumers. It describes the meaning behind the activities of a day program and demonstrates how the consumers engage in occupation.

Theoretical Framework for the Study

This study was guided by the principles of the Person-Environment-Occupation (PEO) model (Law et al., 1996). The study examined the occupational engagement of adults with moderate to severe developmental disabilities by exploring the perspectives of the consumers themselves and the perspectives of staff members who directly influenced their engagement. The study’s use of the PEO model informed the understanding of occupational engagement as affected by a person’s characteristics and choices, the human and non-human aspects of the environment, and the available activities or occupations. The use of this theoretical model is detailed in the subsequent chapters.
Statement of the Problem

Occupation is defined as the meaningful activities in which one engages (Law et al., 1996). People require occupation and meaningfulness in order to function as humans (Hasselkus, 2002; Wilcock, 2006). If there are outside forces blocking access to meaningful participation in occupation, people can experience occupational deprivation or other forms of occupational injustice, which are detrimental to their health and well-being (Townsend & Wilcock, 2004; Whiteford, 2000, 2003). Because people with developmental disabilities often require a supportive environment in order to engage in occupation, they are at risk for occupational injustice. People with developmental disabilities exhibit issues that may be the result of occupational injustice. These include increased risk of sedentary lifestyles leading to obesity and other health issues (Havercamp, Scandlin, & Roth, 2004; Jones et al., 2006), inadequate emotional support (Havercamp et al.; Heller et al., 2007), and self-injurious or harmful behavior (Bailey, Hare, Hatton, & Limb, 2006; Dobson et al., 1999; Jahoda & Wanless, 2005). Like all humans, people with developmental disabilities need access to meaningful occupation in order to live meaningful lives, a basic human right (Townsend & Wilcock; Whiteford, 2003; Wilcock, 2006).

If a day program for adults with developmental disabilities works to ensure that the activities provided are meaningful to the consumers (i.e., occupation), the program has the potential to prevent occupational injustice and facilitate the consumers’ well-being. The day program director described the purpose of the day program in this study as providing activities and teaching skills in order to increase the consumers’ independence and overall well-being, which are objectives consistent with occupational
justice (Townsend & Wilcock, 2004). An important component of quality day services is insuring that the activities offered are purposeful and meaningful to the consumers (Parsons et al., 2004), and meaningful activities are necessary for occupational justice (Townsend & Wilcock). It is common for people with developmental disabilities to have limited choices about activities in their lives (Renblad, 2002; Stancliffe, 1995) which affects the meaningfulness of the activity. If an activity is not meaningful to the individual, then it is not occupation (Gray, 1998). In day programs described in the literature, the focus often appears to be on group routines and behavior management rather than on facilitation of participation in meaningful occupation (Parsons et al., 2004; Reid, Parsons, & Green, 2001).

Purpose of the Study

The purpose of this study was to investigate meaning and occupation among adults with moderate to severe disabilities in a day program. It also explored how adults with moderate to severe developmental disabilities demonstrate occupational engagement. This study described how staff members attribute meaning to the activities in a day program and explored the perspective of the consumers using several methods.

Significance of Problem and Study

Occupational deprivation and other forms of occupational injustice occur when conditions in the environment, beyond one’s control, prevent a person’s ability to participate in occupations necessary for physical, spiritual, mental, or economic well-being (Townsend & Wilcock, 2004; Whiteford, 2003). While there is evidence in the
literature of occupational deprivation in older adults and staff in a nursing home setting (French, 2002), the potential for occupational injustice exists with any population who requires assistance for participation in meaningful activities (Townsend & Wilcock; Whiteford, 2003). The intention of day programs for adults with developmental disabilities is to offer meaningful and purposeful activities and increase consumer independence. This minimizes the risk of occupational injustice and increases well-being. Research investigating occupational engagement of adults with moderate to severe developmental disabilities in a day program has significance for the consumers, their families, and those staff members serving them including direct care staff members, administrators, and occupational therapists.

**Significance to Participants**

Adults with moderate to severe developmental disabilities often need assistance in order to participate in occupation. Without this assistance or support, the consumers are at high risk for occupational injustice and its subsequent ill effects on health and well-being. In the day program, staff members provide activities as well as supports or assistance for adults with developmental disabilities to enable participation in the activities. In order to meet the goals of the day program and provide quality services, it is important for staff members to ensure that the activities are purposeful and meaningful and this in turn increases the consumers’ engagement in occupation, facilitates well-being, and prevents occupational injustice. This is in alignment with the basic premise of occupational therapy of consistently offering the consumers meaningful and purposeful activities (i.e., occupations) (American Occupational Therapy Association, 2002). The findings of this study can be used to facilitate an occupationally just environment by
informing staff members how to facilitate occupational engagement of the consumers and subsequently increase the consumers’ well-being.

The findings of this study could assist with future development and evaluation of the day program. The quality of the day program is significant to the consumers, the consumers’ families, and the staff members who work in the program. In addition, the findings of this study illuminated ways to discern consumer preferences and motivation for program activities, which can be used to inform future staff training.

Significance to Society

This study to understand how adults with moderate to severe developmental disabilities engage in occupation can provide information about how to facilitate the health and well-being of those individuals. Because occupational justice is a societal concern, as it affects the health and well-being of all people, focusing on engagement in occupation with this population supports occupational justice for society at large.

Significance to the Profession of Occupational Therapy

Occupational therapy uses occupation as the means and ends of treatment (Friedland, 1998; Gray, 1998; Ludwig, 2004; Pierce, 1998). In order to practice in an evidence-based manner, occupational therapists have to supply evidence about what occupation is for different populations and how it relates to well-being. This qualitative study is a beginning step for evidence with adults with moderate to severe developmental disabilities as it describes occupational engagement for a group of individuals within this population.
Research Questions Investigated

This study addressed the following research questions:

- What is the meaning of the activities in a day program to staff members?
- What is the meaning of the activities in a day program to consumers?
- In what ways do consumers participating in a day program demonstrate occupational engagement?

Delimitations and Limitations of the Study

Delimitations are the factors that affect the generalizability and external validity of a study (Mauch & Park, 2003). This study focused on one setting, a day program, and occupations in other settings including home and community were not explored. Therefore, it is not efficacious to draw conclusions regarding the occupations beyond the day program. An additional delimitation is that this study involved participants from a single agency. The researcher has described program and participants in sufficient detail to allow readers to determine the transferability of the findings.

The limitations of a study involve factors that affect the internal validity of the study (Mauch & Park, 2003). This study involved observations of the consumers over approximately one month. In order to increase the validity of the information gathered from the observations, the researcher used the Volitional Questionnaire (VQ), an observational tool to assess the volition/motivation of people who are unable to participate in in-depth interviews or written questionnaires (Chern, Kielhofner, de las Heras, & Magalhaes, 1996; de las Heras, Geist, Kielhofner, & Li, 2007). The researcher completed the first observation with a consumer in a preferred activity based on a staff
member’s recommendation. This was a limitation because although the staff member viewed it as a preferred activity, the consumer may not have. It was important to observe the consumer prior to interviewing him or her. The observation was an opportunity to gather background information, informally assess the consumer’s communication strengths and weaknesses to facilitate the interview, and develop an initial rapport with the consumer (Patton, 2002). The researcher controlled the effects of this limitation by using consumer reports for activity choices for subsequent observations.

There were also two competing limitations within this study. On the one hand, people with moderate to severe developmental disabilities exhibit specific types of response biases so it is difficult to get valid information from them (Heal & Sigelman, 1990, 1995; Sigelman et al., 1980; Sigelman & Budd, 1986; Sigelman, Budd, Spanhel, & Schoenrock, 1981; Sigelman, Budd, Winer, Schoenrock, & Martin, 1982; Sigelman, Winer, & Schoenrock, 1982). The common way to minimize this limitation is to use caregiver reports (Stancliffe, 1995). However, excluding the consumers would increase the risk of disempowerment in a group whose members often experience low levels of empowerment (Balcazar, Matthews, Francisco, Fawcett, & Seekins, 1994; Holosko, Leslie, & Cassano, 2001; Kosciulek, 1999; Renblad, 2000, 2002, 2003). The design of this study attempted to minimize these limitations in multiple ways. The researcher attempted to ascertain the meaning of the activities from the perspective of the consumer through multiple methods including an observation tool designed for such a purpose (de las Heras et al., 2007). In this way, the consumers could share their perspectives through actions even if they were unable to express it in an interview thereby accounting for response bias and potential disempowerment. In addition, the study design used specific
techniques including picture choices to limit response bias from the consumers (Sigelman & Budd; Sigelman, Budd, Winer, et al., 1982). This included the consumers’ perspectives in a more reliable and valid way. In addition, this study included recruitment of equal numbers of staff members and consumers so that the study did not value the staff members’ perspectives more than the consumers’ perspectives to decrease the possibility of disempowerment.

Definition of Terms

Consumer: Person who receives services from a developmental disability support agency.

Developmental disability: Defined by the state of Illinois as a disability caused by mental retardation, cerebral palsy, epilepsy, autism, or a condition similar to mental retardation which starts prior to age 18, is expected to last indefinitely, and results in a significant barrier to participation (Illinois General Assembly, 2007). For the purposes of this study, the participants were considered to have a developmental disability if they received services in the day program.

Occupation: The meaningful activities in which a person engages (Law et al., 1996).

Occupational injustice: Denial from forces outside the individual to the following occupational rights

Right to experience occupation as meaningful and enriching…
Right to develop through participation in occupations for health and social inclusion...

Right to exert individual or population autonomy through choice in occupations…

Right to benefit from fair privileges for diverse participation in occupations

(Townsend & Wilcock, 2004, p. 80).

Occupational justice: A form of social justice that recognizes access to occupational engagement as a basic human right (Townsend & Wilcock, 2004).

Mental retardation: “A disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills…originat(ing) before the age of 18” (American Association on Intellectual and Developmental Disabilities, 2007)

Participation: Involvement in everyday activities (Law, 2002); “involvement in a life situation” (World Health Organization, 2001, p. 10)

Well-being: State of good physical, social, and mental health (Wilcock, 2006)

Summary

This study explored engagement in occupation among adults with moderate to severe developmental disabilities and the meaning behind activities in a day program from the perspectives of consumers and staff members. It involved staff member interviews, consumer interviews, and observations by an occupational therapist using the VQ to ascertain the meaning of the activities and examine occupational engagement.
CHAPTER 2: REVIEW OF THE LITERATURE

Introduction

This chapter reviews the literature related to studying occupational engagement in adults with developmental disabilities. It begins with a broad overview of occupation and occupational engagement and related constructs. Then the adult with a developmental disability is introduced in terms of demographics, historical programming, and engagement in occupation. Occupational engagement was understood in this study in terms of the Person-Environment-Occupation model (Law et al., 1996). This leads into a description of what is known about occupational engagement in adults with developmental disabilities and other populations with cognitive disabilities. The implications of limited occupational engagement are presented in terms of occupational injustice. This leads into a presentation of the literature on supports within day programs for adults with developmental disabilities because the goal of these programs is to address the consumers’ occupational needs, and it was the setting for the present study. Literature about how to study occupational engagement is presented with a focus on strategies to do so with people with cognitive disabilities. A presentation of the relevant contexts of this study follows. The literature review concludes with how the current study contributes to the literature, addresses gaps in the literature, and contributes to the field of occupational therapy.
Occupational Engagement

Occupation and occupational engagement are key concepts in occupational therapy and this study specifically. In order to understand how adults with developmental disabilities demonstrate occupational engagement, it is essential to understand what occupational engagement is.

Because occupational engagement is a key concept in this study and the researcher used Van Manen’s (1990) methodological approach, the researcher followed the recommendation that an investigator determine the etymology of words used to describe a phenomenon as a way to ensure that the words chosen represent the meaning intended (Van Manen). Therefore, the researcher completed an etymological analysis of the term “engagement”. Engagement is defined in the dictionary as the “action of engaging” or “being engaged” (The New Oxford American Dictionary, 2005, p. 560). To “engage” is to “occupy”, “become involved in”, to “participate”, or “to hold the attention of” (The New Oxford American Dictionary, p. 560). “Engaged” is “busy” or “occupied” (The New Oxford American Dictionary, p. 560). Therefore, engagement entails both action and attention components, which correlate with the doing and volitional components of occupation and occupational engagement expanded upon in subsequent sections.

Definitions of engagement in the developmental disabilities literature reinforce the concept of engagement as an aspect of attention and action. These definitions include engagement as “sustained attention to an activity or person” (National Research Council, 2001, p. 160) and “interacting appropriately with the environment at different levels of competence” (McWilliam & Bailey, 1992, p. 234). One set of researchers further defined
engagement in terms of compliance with directions and congruence of behavior with peers (Ruble & Robson, 2007). The American Occupational Therapy Association (2002) defines occupational engagement as:

(T)he commitment made to performance in occupations…as the result of self-choice, motivation, and meaning and alludes to the objective and subjective aspects of being involved in and carrying out occupations…that are meaningful and purposeful to the person (p. 631)

These definitions of engagement and occupational engagement suggest action and attention to a meaningful and purposeful activity. They further relate to the World Health Organization’s (2001) definition of participation such that in order to be involved in a life situation, one needs to engage in occupation. The definition of occupational engagement specifically includes performance in occupations (American Occupational Therapy Association, 2002). In addition, meaning, self-choice, and motivation are essential to occupational engagement (American Occupational Therapy Association, 2002). When one is engaged in a meaningful and purposeful activity, a person attends to and does the activity based on intrinsic motivation and choice to do so (American Occupational Therapy Association). The following sections describe these aspects of occupational engagement: occupation, occupational performance, meaning, self-choice, and motivation, in more detail.
Defining Occupation

There is a distinction between activity and occupation (American Occupational Therapy Association, 2002). Activities are goal directed actions (American Occupational Therapy Association). An activity is occupation only if it is meaningful to the person engaging in it (American Occupational Therapy Association; Christiansen & Townsend, 2004). This distinction is important for this study because the day program offered activities, and this study explored whether these activities were actually occupations, which have the potential to positively influence health and well-being (Hassellkus, 2002; Wilcock, 2006).

Most explanations of occupation encompass the “doing” of occupation. However, researchers and theorists have also conceptualized occupation as a process of doing, being, belonging, and becoming (Hammell, 2004; Rebeiro, Day, Semeniuk, O'Brien, & Wilson, 2001; Wilcock, 1998, 2006). Doing involves action and purposeful activities (Hammell; Wilcock, 2006). Being involves reflection, identity, and contemplation (Hammell; Rowles, 1991; Wilcock, 2006). Belonging is the human need for social connectedness, support, and interaction (Hammell; Rebeiro et al.). Becoming involves self-actualization and visions of oneself and one’s contributions in the future (Hammell; Wilcock, 2006). The definition of occupation used in this study, meaningful activities in which a person engages (Law et al., 1996; Wilcock, 2006), is broad enough to encompass doing, being, belonging, and becoming. When people engage in occupation, they choose activities which are meaningful and that they are motivated to do incorporating the aspects of self-choice, meaning and motivation of occupational engagement (American Occupational Therapy Association, 2002).
Occupational Performance

The definition of occupational engagement includes “performance in occupations” (American Occupational Therapy Association, 2002, p. 631) which relates to a key concept in the Person-Environment-Occupation model (Law et al., 1996) used in this study, occupational performance. Occupational performance is “the dynamic experience of a person engaged in purposeful activities and tasks within an environment” (Law et al., 1996, p. 16). Improving occupational performance leads to occupational engagement (American Occupational Therapy Association). Occupational engagement is the process or “carrying out” of occupations, and it is directly related to occupational performance, which is how well a person performs the occupation based on the fit between the skills and other aspects of the person, aspects of the occupation, and environmental supports or barriers (Law et al., 1996).

Because occupational performance, the fit between the person, occupation, and environment (Law et al., 1996), leads to occupational engagement (American Occupational Therapy Association, 2002), this study investigated occupational performance as well as engagement of the consumers in the day program. This entailed noting aspects of the person’s abilities, aspects of the occupation or activity that was occurring, and the environment including the physical, social, and institutional aspects. One engages in activity, a goal directed action; if the activity is meaningful, it is occupation (American Occupational Therapy Association; Christiansen & Townsend, 2004). This directly relates to the self-choice aspect of occupational engagement. People engage in occupation when they choose their activities according to what motivates them and what is meaningful.
Meaning and Occupational Engagement

Meaning is a definitional component of occupational engagement (American Occupational Therapy Association, 2002) because in order for an activity to be occupation, it must be personally meaningful to the individual (Law et al., 1996). Prior to this study, it was not known if the consumers in the day program were engaging in activities or occupations; that is, whether the activities were personally meaningful or not.

People create, express, and understand meaning in their lives through occupation and social relatedness (Hammell, 2004; Hasselkus, 2002; Wilcock, 2006). People find meaning in their lives through each of the being, doing, belonging, and becoming aspects of occupation (Hasselkus, 2002). The concept of meaning has personal and social components (Hasselkus, 2002). In the personal realm, meaning is perceived on an individual basis through one’s own experiences. In the social realm, meaning is also socially constructed because it is affected by cultural and social beliefs (Hasselkus, 2002) and created through social interactions (Mattingly, 1998). Hasselkus (2002) discussed several manifestations of meaning. She noted how we construct meaning through doing and by looking at situations from different perspectives. People often do not explicitly state what is meaningful to them, but rather theorists propose that people discover and share meaning through the stories of their life events (Bruner, 1990; Coles, 1989; Hasselkus, 2002; Mattingly; Mattingly & Fleming, 1994; Polkinghorne, 1988). Because adults with moderate to severe developmental disabilities are often unable to verbally share stories, this study explored other ways that this population shares meaning.
Self-determination and Occupational Engagement

Another aspect of occupational engagement is self-choice such that occupational engagement involves a person choosing occupations (American Occupational Therapy Association, 2002). Adults with developmental disabilities who participate in day programs have activities prescribed for them by staff members, and there may be limited choice around these activities. Because self-choice is one of the components of occupational engagement, this prescription of activities may affect whether or not the consumers are engaging in occupation. In the developmental disabilities literature, Stancliffe (2001) defined choice as actively selecting the preferred alternative between at least two options without coercion. This construct of choice is closely related to the concept of self-determination discussed in the developmental disabilities literature. Self-determination is a complex construct that involves a person making choices and causing things to happen in one’s life (Abery & Stancliffe, 1996; Stancliffe, 2001; Wehmeyer, 2005). Stancliffe (2001) cited evidence that people with disabilities want choice and self-determination in their lives, but they have fewer choices and less self-determination than people without disabilities. This discrepancy between the actual and desired condition of choice and self-determination in adults with developmental disabilities makes self-determination an important construct in the developmental disabilities literature as well as literature on occupational engagement in how it relates to the self-choice of occupations.

Self-determination or choice making occurs as an individual interacts with the environment (Abery & Stancliffe, 1996). The personal skills affecting self-determination consist of decision making, self regulation, problem solving, and self advocacy (Abery,
The environment that supports or constrains self-determination involve physical and social aspects as well as the “pattern of activities, roles, and interpersonal relations” (Abery, p. 115) as the context in which self-determination develops and is practiced. Abery’s description of the environment affecting self-determination includes environmental and occupational influences of occupational performance. Therefore, Abery’s ecology of self-determination (Abery; Abery & Stancliffe) relates to the PEO model in occupational therapy. In the ecology of self-determination, a good fit between the person and environment, which includes activities and roles, can enable self-determination (Abery; Abery & Stancliffe), and in the PEO model, a good fit between the person, environment, and occupation leads to increased occupational performance (Law et al., 1996) and subsequent occupational engagement (American Occupational Therapy Association, 2002).

**Motivation and Occupational Engagement**

Another facet within the definition of occupational engagement is motivation. One’s motivation for engaging in activities is also described as volition (Kielhofner, 2002). Volition is how a person feels, thinks, and decides about the activities in which he or she engages and is inextricably linked to how a person ascribes meaning to an activity (de las Heras et al., 2007). Volition consists of personal causation, values, and interests and relates to how a person chooses occupations and ascribe meaning to these occupations (de las Heras et al.; Kielhofner). Therefore, although volition is closely related to motivation, it also includes the meaning and self-choice aspects of occupational engagement.
Personal causation is how a person feels about his or her competence both as a self-assessment of one’s abilities and as one’s feelings about those abilities (de las Heras et al., 2007; Kielhofner, 2002). When a person has higher levels of personal causation, he or she seeks challenges and attempts to solve problems (de las Heras et al.). When a person has low levels of personal causation, he or she puts minimal effort into an activity or attempts to avoid an activity (de las Heras et al.).

Values are beliefs that determine meaning and importance for an individual and his or her activities (de las Heras et al.; Kielhofner, 2002). When a person’s values do not relate to an activity, that activity does not have meaning or importance for the person (de las Heras et al.). People show if an activity is important in how they approach it (de las Heras et al.). For example, a person may approach a valued activity with enthusiasm and demonstrate apathy toward an unvalued activity.

Interests are what one finds enjoyable (de las Heras et al., 2007; Kielhofner, 2002). Positive emotional responses such as smiling, clapping, and increased movement demonstrate a person’s interest (de las Heras et al.).

**Occupational Engagement Summary**

Occupational engagement is the construct under investigation in this study. A person engages in occupation by choosing meaningful activities to be involved in that are intrinsically motivating (American Occupational Therapy Association, 2002). This recognizes meaning, self-determination, and motivation as important aspects of occupational engagement. The following section will describe the population that this study targeted: adults with developmental disabilities.
Adults with Developmental Disabilities

There are approximately four million adults with developmental disabilities in the United States (MacFarland, 2003; Ross & Bachner, 2004). The average life span of people with developmental disabilities has been steadily rising since the early twentieth century. People with severe developmental disabilities are now living into their fifties, and people with mild to moderate disabilities can live into their seventies (Bittles et al., 2002; Heller et al., 2007; Patja et al., 2000).

People with developmental disabilities, by definition, require support in at least three of the following areas: “self-care, language, learning, mobility, self-direction, capacity for independent living, and economic self-sufficiency” (MacFarland, 2003, p. 172). Individuals with moderate to severe disabilities often need more support or assistance in these areas. As more people with developmental disabilities live in community settings and services are more person-centered, there is an increasing focus on viewing people with developmental disabilities through their strengths and supports needed to participate rather than functional limitations or deficits (MacFarland; Snow, 2001).

This strengths-based approach, consistent with client-centered practice in occupational therapy (Law, Baptiste, & Mills, 1995; Townsend & Wilcock, 2004), views individuals with developmental disabilities as people first and focuses on necessary supports to enable participation rather than changes necessary within the person (MacFarland, 2003; Snow, 2001). As with all people, adults with developmental disabilities have individual experiences that shape their perspectives. Through a case study and literature review, Ferguson and Ferguson (1996) identified that adults with
developmental disabilities usually have or would like the same roles as other adults including son or daughter, brother or sister, spouse or partner, parent, friend, worker, and other valued roles.

**Historical Perspective**

The history of services for people with developmental disabilities is important in order to understand current services and options. Three major trends in service delivery are evident in United States history. From the 1800s until the late 1960s, institutions were the main formal service providers for people with developmental disabilities (Kornblau & Hinds, 2004; Snow, 2001; Ward, 1996). People often lived in institutions from birth or shortly afterward until death under deplorable, inhumane conditions. In the late 1960s and early 1970s, the process of deinstitutionalization began and the principle of normalization guided service delivery (Snow; Ward). The principle of normalization is that people with developmental disabilities have the right to the normal routines of life and developmental experiences (Snow). This principle of normalization was formalized through legislative acts in the United States such as the Rehabilitation Act of 1973, Developmental Disabilities Services and Facilities Construction Amendments, and the Education for All Handicapped Children Act later renamed the Individual with Disabilities Education Act (Kornblau & Hinds; Snow; Ward). This legislation led to the requirement of special education services in all states, although some states had started these services much earlier. It also initiated funding for services for adults with developmental disabilities other than those available in institutions. The type of services and funding varied from state to state. The Independent Living Movement, a civil rights movement by people with disabilities, which promoted inclusion in all aspects of life
started about the same time as service providers adopted the principle of normalization (Kornblau & Hinds; Snow; Ward). Inclusion is based on the principle that all people regardless of their disabilities have the right to participate in activities and environments of their choosing. It promotes modifying the environment to ensure participation rather than enhancing skills or focusing on deficits.

With the Americans with Disabilities Act and an increased focus on self-advocacy, services for people with developmental disabilities became increasingly community based. Although there are institutions still in existence, there is a range of services for adults with developmental disabilities based on the principles of normalization and inclusion. There continues to be great variety in service types and delivery from state to state based on state laws and funding mechanisms including state-funded institutions, center-based day programming, and community-based services. In the past ten years in the United States, there has been an increase in community-based services such as integrated employment, volunteering, and leisure pursuits in the community and a decrease in the facility-based services such as day programs and sheltered employment (Winsor & Butterworth, 2008). The state where the current study was completed did not report data for these statistics (Winsor & Butterworth), continues to fund facility-based services especially for adults with moderate to severe developmental disabilities, and ranked last among all the states in the United States for funding community based residential services for adults with developmental disabilities (Braddock, Hemp, & Rizzolo, 2008).

The majority of adults with developmental disabilities live in family settings and may or may not receive formal services (Heller et al., 2007; Snow, 2001). As people with
developmental disabilities continue to live longer and family caregivers become unable to continue providing care, the demand for services for adults with developmental disabilities continues to increase (Bittles et al., 2002; Heller et al.; Patja et al., 2000). This study focused on occupational engagement in one type of service setting for adults with developmental disabilities, a day program. Exploring how the consumers engage in occupation may inform aspects of program development and service delivery.

Routine Activities for Adults with Developmental Disabilities

Adults with developmental disabilities engage in activities in a variety of settings including work settings, day programs, residential facilities, and home environments, however little is known about whether these activities are occupations. The studies investigating activities and adults with developmental disabilities in general or in specific environments most often explore the types of activities the consumers engage in, the frequency of engagement, and staff training to increase engagement (Anderson, Sherman, Sheldon, & McAdam, 1997; Parsons, Reid, Reynolds, & Bumgarner, 1990; Parsons et al., 2004; Paul et al., 2000; Reid et al., 2001; Reynolds, 2002; Salkever, 2000; Siporin & Lysack, 2004; Smith, Felce, Jones, & Lowe, 2002; Wilson, Reid, & Green, 2006). Few have explored whether these activities are meaningful to the individuals and occupation (Parsons et al., 1990; Siporin & Lysack; Wilson et al.).

Work Settings

Researchers have studied engagement in work activities for adults with developmental disabilities (Parsons et al., 1990; Siporin & Lysack, 2004). Through a case study and a single subjects design, the researchers demonstrated that consumers do find
aspects of work meaningful (Siporin & Lysack) and making choices about work tasks increases engagement (Parsons et al., 1990).

In one study that did specifically explore meaning and activity, the researchers explored the meaning of work through case studies with three women who had transitioned from sheltered employment to supported employment in a work enclave with a hotel cleaning service (Siporin & Lysack, 2004). Through constant comparative analysis of observation field notes and interviews with the women, job coach, and family member or group home manager, the researchers determined that the women were more satisfied with their lives since leaving a sheltered workshop setting in the areas of general well-being and social well-being. However, the consumers wanted more choice in their lives and perceived government policies about subsidy and health care as limiting their employment options. This study demonstrated a possible relationship between well-being and employment, making choices, and social relationships. It also demonstrated that these women with developmental disabilities did find work meaningful, suggesting, by definition, that they did engage in occupation. Such findings provide support for meaning and self-choice as aspects of occupational engagement for adults with developmental disabilities.

Another group of researchers studied if there was a difference in the work performance of four individuals with moderate to severe developmental disabilities in a sheltered workshop when the study participants had choices versus being assigned tasks (Parsons et al., 1990). After completing a structured preference assessment to determine work activities that the consumers preferred, the researchers compared the consumers’ on-task behavior and disruptive behavior in 10 second increments across three situations:
when given a preferred work task (based on preference assessment), given a non-preferred work task (based on preference assessment), and given a choice about work tasks. Findings demonstrated that the consumers engaged in preferred work activities (90% of observation increments) or chosen work activities (91% of observation increments) more than less preferred work activities (46% of observation increments).

This study demonstrated that consumers with moderate to severe disabilities have preferences in work tasks, can make those preferences known, and actively engage in preferred work activities. This supports the relationship between choice and occupational engagement for this population and demonstrates that when consumers engage in occupation (i.e., work activities that they prefer/have personal meaning for them), they demonstrate more on-task behavior and less disruptive behavior.

Residential Settings

Researchers have studied engagement in activities, primarily leisure activities, in residential settings in the United States and United Kingdom (Anderson et al., 1997; Reynolds, 2002; Smith et al., 2002; Wilson et al., 2006). These studies demonstrate a relationship between choice making and engagement (Anderson et al.; Wilson et al.) as well as the risk for occupational injustice for adults with developmental disabilities due to a lack of engagement in leisure occupations (Reynolds; Smith et al.; Wilson et al.).

Reynolds (2002) surveyed 34 managers of group homes for adults with developmental disabilities in England in order to determine the availability of creative leisure opportunities for the consumers. She found that the majority of managers reported that the consumers had at least weekly access to music (listening or playing), art, dance, or needlecrafts. The managers reported that the consumers engaged in creative art
activities at home and in day programs and less frequently in community or adult education settings. This article discussed consumers’ access to creative leisure activities, a specific type of occupation in which to engage, and the environmental limitations regarding consumers’ access. The limitations most frequently cited included the consumers’ lack of money for creative leisure, the lack of available staff members, unavailability of transportation, and unwelcoming community venues. Each of these factors is an environmental feature. Such findings illustrate the effect that the environment can have on occupational engagement in adults with developmental disabilities.

A group of researchers studied the effect of picture activity schedules on the engagement of three adults with moderate to severe developmental disabilities living in a group home in the United States (Anderson et al., 1997). The researcher discussed how to encourage consumer engagement with the staff members especially in the realm of offering choices about activities and introduced activity schedules consisting of line drawings or photographs for each individual. The researcher observed each consumer for three seconds every 30 seconds for three 16-minute periods and recorded the highest level of engagement, task, and staff support. The researcher noted whether or not the activity schedule was available (session observations included alternations of schedule availability), the type of assistance or prompts the staff members provided, and how the consumer was engaged using a researcher-designed 5-point observation scale. The scale rated whether or not the consumer engaged in a functional activity, attended to another person or activity but did not do action, did not participate in functional activity or maladaptive behavior, engaged in non-harmful maladaptive behavior, and engaged in
harmful maladaptive behavior during each 3-second observation. The researchers analyzed the frequency of the engagement scores with descriptive statistics and found that the consumers engaged in functional activities to a greater extent with the picture schedules than without them, the staff members gave more verbal prompts toward an activity without the picture schedules, and the consumers engaged in more activities with the schedules. These findings have implications for a method to increase consumer engagement in activities and facilitate choice about activities in which to engage. In the group home in Anderson et al.’s study, the staff to consumer ratio was 3:8, an important factor when considering application of the findings to a setting such as the day program in this study in which the staff to consumer ratio is 1:8-12 or 2:8-12. Anderson et al. may have missed information about the engagement of the consumers through the use of a researcher-developed 5 point scale and the short 3 second period in which to assign a score. This limitation informed the current study and was one of the factors prompting the use of the VQ and longer observation periods with the inclusion of descriptive information.

Another group of researchers studied engagement of adults with developmental disabilities by investigating the effectiveness of active support training on increasing engagement (Smith et al., 2002). This study was prompted by evidence that consumers with lower adaptive behavior scores (i.e., more significant disabilities) spend less time engaged in activities in residential settings (Emerson et al., 2000; Felce et al., 1998; Felce & Perry, 1995; Hatton, Emerson, Robertson, Henderson, & Cooper, 1996). Active support training involves training staff members to use an appropriate amount of assistance to enable the consumers to engage in activities through didactic and hands-on
monitoring components. Researchers recruited 188 consumers living in 74 residential houses in the United Kingdom and the staff members that worked with them and separated the participants into two groups, one group in which the staff members received the full active support training and one group in which the staff members received only the didactic component of the training. Data were collected by noting the consumers’ engagement in pre-determined activity categories and staff interaction/assistance that the consumer received during 10 minute structured observations of each consumer in their homes for three sessions before and after training. Findings indicated that the didactic training alone was not effective, but for the group whose staff members received the full training, there was an increase in engagement in activities following the training ($p < .01$). The researchers also analyzed the engagement of the consumers with high and low adaptive behavior and found that it was the consumers with lower adaptive behavior scores whose engagement increased following staff training ($p < .01$). The study has significance for the current study because they demonstrated that people with moderate to severe developmental disabilities engaged in activities less frequently than people with less severe disabilities, they required appropriate staff assistance in order to engage, and training was effective in teaching staff members how to assist the consumers to engage in activities.

P. G. Wilson et al. (2006) studied engagement in leisure activities among three adults with severe developmental disabilities in supported living settings in the United States through interviews with staff members and family members and observations of the consumers during leisure times at home. Each participant used gestures and facial expressions to communicate, used a wheelchair for mobility, and required assistance for
self-care and daily living activities. Data were collected about how the consumers engaged in leisure activities, choices provided by staff members, and consumer responses to the choices during 20-second intervals for 10-minute sessions during baseline, intervention, and follow-up periods. The baseline period involved observations during time when no other scheduled activities took place in the home. During the intervention period, the researchers trained staff members on how to present choices and facilitate consumer engagement in leisure activities. Following the training, the researcher completed observations in the same manner as during the baseline period except the researchers provided feedback about how the consumers were engaging and how the staff members facilitated choice making. The researchers conducted follow-up observations over four weeks for one consumer and over 10 weeks for another consumer.

The researchers found that during the baseline period, the consumers did not engage in leisure activities and staff members did not offer choices (Wilson et al., 2006). During the intervention period, the consumers engaged in leisure activities more than 50% of the observed time for all but one observation (range 34-99%) and staff members offered choices 3% to 13% of the observed time. The consumers continued to engage in leisure activities during the follow-up period as opposed to the lack of engagement during the baseline period. To determine if the lack of engagement in leisure activities was common among adults with developmental disabilities, the researchers conducted observations without intervention with nine individuals with severe developmental disabilities in different residential facilities. They found that engagement in leisure activities ranged from 0% to 13% of the time for eight of the nine individuals; one individual was engaged in leisure activities 87% of the observed time. This study
provided evidence that adults with severe developmental disabilities are at significant risk for occupational injustice due to a lack of engagement in leisure occupations. It also demonstrated how facilitating choice-making among consumers can enable occupational engagement.

Day Programs

There have also been studies about engagement of adults with developmental disabilities in day programs (Parsons et al., 2004; Paul et al., 2000; Reid et al., 2001). Most adults with severe developmental disabilities attend day programs, sheltered workshops, or other adult education settings specifically for people with developmental disabilities (Parsons et al., 2004). These programs are primarily based on the normalization principle in that they provide adults with a “normal” routine of leaving home during the day for work or other activities. Day programs are designed to provide activities for adults with developmental disabilities, and studies have investigated the nature of these activities in terms of purposefulness and age appropriateness (Parsons et al., 2004; Reid et al.) and how the activities can be used to facilitate skill development (Paul et al.), but they have not addressed the meaningfulness of the activities.

A group of occupational therapy researchers completed a program evaluation to determine if community-oriented day programs for adults with developmental disabilities increased the daily living skills of the participants (Paul et al., 2000). The day program in the study had the following activity groups that occurred in community settings with six consumers and two staff members in each group: Leisure, Swimming, Laundry, Shopping, Community Mobility (public transportation), Restaurant, and Bowling. Staff members collected data on the consumers’ performance on each step of a task analysis.
for the activity, and the researchers visually analyzed the graphs of the consumers’
performance to determine improvement over time for individual consumers and the
effectiveness of the training groups in teaching specific skills across multiple consumers.
The researchers found that the groups were effective in teaching daily living skill
components although some skills needed to be further task analyzed into smaller steps.
They determined through review of behavior records that there was a 30-40% decrease in
challenging behaviors over the three-month period since the implementation of the
community groups. The most relevant finding of Paul et al.’s study to the current study
was that the consumers had fewer challenging behaviors when involved with the
community groups. This may demonstrate that occupational engagement can lead to a
decrease in problem behavior, an important indicator of program success with adults with
developmental disabilities (Bailey et al., 2006; Jahoda & Wanless, 2005; Parsons et al.,
1990) and a potential indicator of increased well-being.

Reid et al. (2001) completed one observation in 100 day programs for adults with
developmental disabilities across six states in a combination of state institutions and
community agencies to determine how the programs support age-appropriate and
purposeful activities. They observed an average of seven individuals in the institutional
sites and an average of nine individuals in the community agencies, which was the only
information provided about the number of individuals observed. The inclusion criteria for
day programs was that the majority of individuals served had severe or profound mental
retardation and were ambulatory and that services were provided in a self-contained
program area such as a classroom or sheltered workshop.
The authors evaluated the activities offered in the day programs in terms of purposefulness and age appropriateness through structured observations (Reid et al., 2001). An observer recorded what each individual was doing according to pre-established categories of activities in 10-second intervals for at least 10 data points (most often from 10 separate individuals) during each observation. The authors found that the consumers in the day programs were involved in purposeful activities or self-care (recorded as a separate category) 51% of the time during observation sessions in community sites. Of the purposeful activities in community and institutional sites, 75% of them were age-appropriate.

This study provided valuable background information about the nature of day program activities although only descriptive statistics were presented. Most of the time, the activities offered are age-appropriate for adults, but the amount of time an individual spent in purposeful activities varied greatly between 0% and 100%, averaging 51% of the time and demonstrating room for improvement (Reid et al., 2001). There were several limitations of this study. It involved observing a consumer for only a 10-second interval, categorizing activities in terms of pre-established categories of purpose, and did not explore what was personally meaningful to the consumers. This study and its limitations informed the current study, which explored how consumers engaged in occupations and what they found meaningful and used methods to study engagement more in-depth rather than in momentary increments.

Parsons et al. (2004) used the information from the previous study to implement and evaluate a staff training model to increase functional task involvement in four day programs for adults with developmental disabilities who had severe or profound mental
retardation, significant communication disabilities, and required assistance for self-care. The authors developed a program to target the consumers’ on-task behavior, which included working on an assigned task, interacting with a staff member, and receiving instruction or interaction from staff member. The on-task behavior was categorized as functional or non-functional based on established criteria for functional materials and functional activities. Domains of functional activities were leisure, vocational, social, community participation, or self-care. The study also targeted staff behavior of teaching which included physical, verbal, or gestural prompting or praising.

The researchers conducted structured observations to measure specific aspects of consumer on-task behavior and staff teaching behavior during three periods: baseline, during program implementation, and follow-up (Parsons et al., 2004). The observations were structured so that the researcher observed each consumer in the group for 10-second intervals, each staff member’s teaching behavior for one-minute increments, and each consumer again for a 10-second interval. Two of the four day programs were targeted for staff training based on the baseline data for consumer on-task behavior which was an average 27% of the time in one program and an average 36% of the time in the other (Parsons et al., 2004). The staff members had teaching interactions with the consumers an average of 45% and 54% in each of the targeted programs. The other programs had consumers with on-task behaviors and average of 59% and 74% of the time, which the researchers noted as acceptable because it was above the average noted in Reid et al.’s (2001) study and 100% of the on-task behaviors involved functional activities.

The staff training consisted of an in-service training session, a follow-up meeting, and on-the-job training over four weeks to train the staff members on providing short
teaching interactions with individual consumers, rotating frequently between the consumers (Parsons et al., 2004). The researchers conducted 10 follow-up structured observations over a 62 to 64 week period using the same procedure as the baseline. During the program, consumer on-task behavior increased to an average of 67% in one program and 68% in the other program. The teaching interactions increased to 68% of the time at one site and 70% of the time at the other site. During the follow-up observations, the on-task behaviors and teaching interactions remained above baseline except twice for one of the programs. This study demonstrated that staff training can be effective in increasing consumers’ on-task behavior and engagement in functional activities. Again, there was no exploration into whether these functional activities were meaningful to the consumers. The programs had two staff members, one trained as a special education teacher, for three to six consumers, which is significantly different from the program in which the current study took place as described further in Chapter 3.

Other Settings

Another study examined relationships between activity status, life satisfaction, and perceived productivity among young adults with developmental disabilities (Salkever, 2000). While it did not study what activities were meaningful to the participants, it showed a relationship between engagement in certain classes of activities and life satisfaction. The researcher used national survey data from the 1990 National Consumer Survey of People with Developmental Disabilities and Their Families conducted through each state’s Developmental Disabilities Council. The study focused on survey data from people aged 16 to 27 years old with developmental disabilities. The majority reported their disability as mental retardation, and other disabilities included
speech/language impairments, epilepsy, cerebral palsy, orthopedic impairments, and emotional disorders. The participants’ activity status was measured using their answers to four yes/no questions about their participation in paid employment, volunteer work, housework, and education and the average hours per week of paid work, volunteer work, and housework. The measure of life satisfaction and perceived productivity was based on a five point scale that the consumers used to rate their satisfaction with life in general, satisfaction with how they spend their spare time, and how productive they think they are. The authors completed a linear regression in order to determine predictive factors for life satisfaction and satisfaction with how they spend their time. The researchers found that life satisfaction was lower for people who did not participate in any of the specified activities (paid work, volunteer work, housework, education) \((p < .001)\) or who only participated in housework \((p < .001)\). The individuals who did not engage in any of the specified activities or only participated in housework also reported lower self-perceived productivity \((p < .001)\). The individuals engaged in paid employment \((p < .001)\) or volunteer work \((p = .001)\) reported higher levels of self-perceived productivity. This study demonstrated a relationship between engagement in paid work, volunteer work, or education and life satisfaction in young adults with developmental disabilities. The authors did not investigate how these activities were meaningful to the individuals, so there is a need for further study into what activities adults with developmental disabilities find meaningful and how they engage in occupation.

*Routine Activities Summary*

There is evidence in the literature of the potential for occupational injustice among adults with developmental disabilities (Reynolds, 2002; Salkever, 2000; Smith et
al., 2002; Wilson et al., 2006). This population has limited access to leisure occupations due to environmental factors (Reynolds; Smith et al.; Wilson et al.) and report lower life satisfaction when they are not involved in paid work, volunteer work, or educational occupations (Salkever). These findings provide evidence of the problem of occupational injustice that prompted this study.

In addition, these studies with adults with developmental disabilities in a variety of settings demonstrate what is known about occupational engagement in this population and an existing gap in the literature. Several of the studies provide evidence for the meaning, self-choice, and motivation aspects of occupational engagement for adults with developmental disabilities (Anderson et al., 1997; Parsons et al., 1990; Siporin & Lysack, 2004; Wilson et al., 2006). Although all the studies reviewed on the routine activities of adults with developmental disabilities investigated some aspect of the activities and engagement, few examined whether or not the activities were meaningful to the consumers (Parsons et al., 1990; Siporin & Lysack; Wilson et al.). The current study expanded upon previous studies by specifically examining whether the activities were meaningful to the consumers, whether they were occupation, and how the consumers engaged in occupation.

The findings of these studies demonstrated several factors that positively affected the engagement of the consumers including the use of visual supports (Anderson et al., 1997) and staff training in how to offer choices and facilitate participation (Parsons et al., 1990, 2004; Smith et al., 2002; Wilson et al., 2006). Such findings demonstrate that adults with developmental disabilities can express their preferences to staff members and that staff members can facilitate engagement following specific training. This
information provided justification for further exploration of the consumers’ perceptions of the activities in a day program and how consumers can communicate their preferences to staff members.

**Adults with Developmental Disabilities Summary**

Adults with moderate to severe developmental disabilities often require environmental support in order to make choices and engage in occupation (Anderson et al., 1997; Parsons et al., 1990, 2004; Smith et al., 2002; Wilson et al., 2006), and without such environmental support, they may be unable to engage in occupation (Reynolds, 2002; Salkever, 2000; Smith et al.; Wilson et al.) and be at risk for occupational injustice. The following section will describe this relationship between the environment and occupational engagement in more detail through the Person-Environment-Occupation model.

**The Person-Environment-Occupation Model**

In a study of occupational engagement, it is necessary to have a theoretical model through which to understand the complex construct. As discussed earlier, there is a connection between occupational performance and occupational engagement such that increased occupational performance, i.e., a better fit between the person, environment, and occupation (Law et al., 1996) leads to occupational engagement. Therefore, in order to research occupational engagement, a researcher must be aware of the dynamic interaction between a person, occupation, and the environment because occupational engagement does not occur in isolation. Occupational engagement is affected by a person’s characteristics and choices, the human and non-human aspects of the
environment, and the available activities. The Person-Environment-Occupation (PEO) model (Law et al., 1996) guided the development and analysis of this study in how occupational engagement was understood and explained.

The PEO model explains occupational performance in terms of the transactive relationship between a person, the environment, and his or her occupations (Law et al., 1996). In this model, the person is an individual or group who assumes a variety of roles, has an array of skills, and is shaped by life experiences (Law et al., 1996; Strong et al., 1999). Volition is a construct from the Model of Human Occupation (MOHO) (Kielhofner, 2002), and the PEO model does not explicitly include volition in its description of the person. However, MOHO and PEO are related in that they are both ecological occupational therapy models describing the interaction of the person, environment, occupation, and performance (Baum & Christiansen, 2005). Therefore, this study considered volition an aspect of the person. In the current study, the focus was on the consumer as the person, although there was also recognition that the staff members demonstrate occupational performance through their role as a worker. The environment consists of social, institutional, socio-economic, physical, and cultural aspects (Law et al., 1996; Strong et al.). The social environment for the consumers in this study included the staff members and other consumers, the institutional environment involved the rules and traditions guiding the day program, and the physical environment was the day program space and objects used in the activities. Occupation consists of the meaningful activities in which the person engages (Law et al., 1996). For the purposes of the current study, the focus was on the day program activities and whether these activities were occupation for the consumers. Occupational performance, the interaction of these three components, is
the dynamic experience of a person participating in meaningful activities within an environment (Law et al., 1996). When there is a good fit between the person, the occupation, and the environment, there is a high level of occupational performance (Law et al., 1996). According to the PEO model, the goal of occupational therapy is improving occupational performance (Law et al., 1996; Strong et al.), and improving occupational performance leads to occupational engagement (American Occupational Therapy Association, 2002).

Other researchers have used the PEO model to guide their qualitative research studies during development, implementation, and analysis (Lyons, 2006; McGuire, Crowe, Law, & VanLeit, 2004; Murray, Klinger, & McKinnon, 2007; Peachey-Hill & Law, 2000; Schwartzman, Atler, Borg, & Schwartzman, 2006). The following section describes examples of how two of these studies used the PEO model and relates them to how the PEO model was used in the current study.

McGuire et al. (2004) used the PEO model to study occupational strategies that 23 mothers of children with disabilities used to care for their children and themselves. The PEO model guided the occupational therapy groups that were the intervention in the study; was explicitly used during data analysis such that initial themes were divided according to person, environment, and occupation factors; and was used during the analysis and discussion to understand how different themes facilitated or prevented a good person-environment-occupation fit in the participants. Although the current study did not organize the findings according to the PEO model, the model was useful in understanding relationships between phenomena during analysis and discussion.
Murray et al. (2007) investigated how seven members of the Deaf culture participate in their communities and whether the PEO model would be useful in understanding their participation. The participants’ participation was described in terms of a good or poor PEO fit (Law et al., 1996) with environment factors being the primary barrier to a good fit and subsequent participation. According to Murray et al., the PEO model was helpful in understanding barriers to participation for members of the Deaf culture as well as opportunities for education and advocacy among hearing communities. In the current study, the PEO model was primarily used during analysis to understand how the themes related to each other and in the discussion of the results, which is similar to how the model was used in the current study.

The PEO model is helpful in discerning aspects of the person, environment, and occupation that contribute to occupational performance and subsequent occupational engagement. Research has shown that adults with moderate to severe developmental disabilities need a supportive environment in order to facilitate their engagement in activities (Anderson et al., 1997; Parsons et al., 1990, 2004; Reynolds, 2002; Wilson & Bartak, 1997). One of the most important environmental factors in the day program is the staff members because as members of the social environment and provider of activities, they act as primary facilitators of occupational engagement for the consumers. In the current study, the PEO model guided the researcher’s understanding of occupation and occupational engagement. Specific ways the PEO model was used during data collection and analysis are included in Chapter 3.
Occupational Engagement in Persons with Cognitive Disabilities

Although there are few studies on occupational engagement with adults with developmental disabilities (Parsons et al., 1990; Siporin & Lysack, 2004; Wilson et al., 2006), there are studies of this construct or related constructs with other populations with cognitive disabilities (Craik & Pieris, 2006; Hasselkus, 1998; Hvalsoe & Josephsson, 2003; Lee et al., 2006; Nagle, Cook, & Polatajko, 2002; Nygard & Borell, 1998; Rebeiro, 2001; Rebeiro & Cook, 1999). Such literature suggests a logical first step in studying occupational engagement is determining what occupation is by discerning what is meaningful to the participants. It is also important to determine how the environment supports or constrains occupational engagement because for persons with cognitive disabilities, a supportive environment is essential for engagement. For people with cognitive disabilities, caregivers or staff members are an important aspect of the environment that can enable or constrain occupational engagement.

Studying Meaning and Occupation

As discussed previously, people relay meaning through the stories that they tell (Bruner, 1990; Coles, 1989; Polkinghorne, 1988) and how they approach activities (de las Heras et al., 2007; Kielhofner, 2002). There are examples in the occupational therapy literature of how researchers have studied meaning and occupation with a variety of populations including those with cognitive disabilities such as people with dementia, severe mental illness, or autism (Craik & Pieris, 2006; Goode, 1994; Hasselkus, 1989, 1992, 1998; Hvalsoe & Josephsson, 2003; Ivarsson, Söderback, & Ternestedt, 2002; Lee et al., 2006; Nagle et al., 2002; Nygard & Borell, 1998; Ohman & Nygard, 2005; Rebeiro, 2001; Rebeiro & Cook, 1999; Spitzer, 2003a, 2003b). There are similarities between these
populations and adults with developmental disabilities. These similarities include adaptations to compensate for cognitive and communication disabilities, the importance of a supportive environment to enable participation, and the availability of day program services (personal communication, T. Krupa, March 19, 2008).

Researchers have studied meaning and occupation in people with dementia (Lee et al., 2006; Nygard & Borell, 1998; Ohman & Nygard, 2005), people with mental illness (Craik & Pieris, 2006; Hvalsoe & Josephsson, 2003; Ivarsson et al., 2002; Nagle et al., 2002), young children with autism (Spitzer, 2003a, 2003b), caregivers of people with dementia (Hasselkus, 1989), and staff members working with people with dementia (Hasselkus, 1992, 1998). Detailed information about these studies follows in chronological order to illustrate the evolution of this body of knowledge. Such literature informed the intentions and design of the current study.

Hasselkus (1989) interviewed 15 family caregivers four times using an ethnographic approach to understand the meaning of activities in caregiving. The clients were older adults, related to the caregivers, and required assistance with activities of daily living or instrumental activities of daily living. Through these interviews and subsequent thematic analysis, Hasselkus (1989) identified the meaning behind caregiving occupations as getting things done, addressing the health and well-being of the client, and addressing the health and well-being of the caregiver. Dilemmas arose when there were conflicts between these three issues although the health and well-being of the client often superseded that of the caregiver. These findings contribute to an understanding of caregiving activities, reflect that the choices of activities by caregivers are influenced by
what the caregivers perceived as the clients’ needs, and illustrate a type of reciprocal interaction in meeting the needs of the client.

Hasselkus (1992) later studied the meaning of prescribed activities in a day care for people with Alzheimer’s disease. She studied this from the perspective of staff members through interviews and participation as a staff member for four weeks at a day care center for people with mid- to late-stage Alzheimer’s disease or related disorders. Interviews centered on understanding staff members’ perceptions of activities and daily routines, rationale for the programming, and what constituted a rough day versus a good day. She used thematic analysis and member checking of the themes to develop themes about the meaning of the activities in the day care. Results indicated that meaning for staff members was derived from preventing the clients from harming themselves or others and providing meaningful purpose. The staff members used activities to prevent harm and functional decline as well as enable participation while ensuring safety. Hasselkus (1992) noted that the staff members struggled with balancing control and over-control such that in order to ensure safety, the staff members provided assistance before it may have been needed and put procedures in place to prevent harm that may have led to over-control. This finding demonstrates that there may be a conflict between the program goal of ensuring safety and the necessity of allowing choice and self-determination to facilitate occupational engagement, which may also be important for the current study.

Hasselkus’s (1992) study informed the current study by justifying studying this phenomenon in the setting of a day program, eliciting staff member perspectives, and seeking to determine the meaning of activities for people participating in a program. The methodology of this study was used to inform the methods of the current study as well.
To build on the previous study, Hasselkus (1998) interviewed 42 staff members from a random sample of day care centers for people with dementia to explore staff experiences of occupation in this setting. She elicited narratives by asking staff members to describe especially satisfying and dissatisfying experiences working in day care for adults with dementia so as to determine what they found meaningful, analyzed the interviews via thematic analysis, and conducted member checks with 10 staff members. The findings demonstrated that the staff members found meaning when the program participants were actively engaged and demonstrating aspects of well-being. Active engagement was facilitated through a meeting of the minds in which there was a connection between the staff member and the individual with dementia. The staff members used various techniques including persuading, redirecting, teaching, enabling, and searching for the way to develop a connection. The staff members described engagement in occupation in terms of levels of spontaneity, use of rational communication, use of skills, and emotional expression. The staff members noted indicators of well-being in the individuals with dementia such as smiling, laughing, pleasant facial expressions, showing affection, socializing with others, staying in place, attending to a task, remembering the past, signs of independence, and being involved in activities. The staff members also described influences on their own well-being when the meeting of the minds and engagement in occupation occurred. The format of the interview questions in this study formed the basis for the interview questions and the order in which the questions were asked in the current study (personal communication, B. Hasselkus, September 23, 2007). This study’s use of only staff members’ perspectives prompted the researcher to seek means to enable participation by consumers as well.
A clinical interpretation of Hasselkus’s (1998) study noted that meeting of the minds occurred when a client found meaning in an activity, and that therapists can teach strategies to facilitate meeting of the minds with caregivers and clients (Coppola, 1998). In order to facilitate occupational engagement, people with dementia benefit from staff members or caregivers creating opportunities in a physical space and time conducive to activity with materials that require action from the clients and that the clients find meaningful. This has implications for other populations beyond adults with dementia including adults with developmental disabilities and relates to the results of this study regarding occupational engagement discussed later.

Nygard and Borell (1998) studied the everyday life of two people with dementia over the course of three years through informal conversational interviews in person and over the phone, participant observation at home, and administration of the Assessment of Motor and Process Skills (AMPS) once a year to learn about the experience of living with dementia. They analyzed the data using the empirical, phenomenological, and psychological method with an emphasis on an occupational therapy perspective rather than a psychological perspective, the aim of which was to describe meaning within psychological (or in this case occupational) phenomena. The researchers found that the participants’ meaning of occupation changed over the three years of the study with disease progression, and the results of the AMPS demonstrated a progressive decrease in functional skills. The participants found the importance of the objects and tasks of everyday life increasingly meaningful to their engagement. Another main theme about what participants found meaningful was the threat to order and control in their lives with
decreasing reflection on this over time. These finding have implications for the importance of objects, routine, and self-determination in occupational engagement.

Rebeiro and Cook (1999) studied the meaning of occupational engagement in women with mental illness. The researchers conducted in-depth interviews and participant observations with eight women from an outpatient occupational therapy group at a mental health facility to determine how occupational engagement in the group was affecting their well-being. The participants had a history of psychiatric illness lasting at least 10 years and had at least one in-patient psychiatric admission. The researchers conducted in-depth interviews and observations in group sessions. The researchers analyzed the data using the constant comparative method and conducted member checks regarding emerging themes. The researchers organized the themes into three categories: person, occupation, and environment. The authors proposed a model of occupational spin-off to describe the relationship between the themes. The researchers noted the social environment was affirming and led to occupational engagement. Occupational engagement led to confirmation of competence through doing and interaction with others. The environment and occupation interacted to facilitate actualization and anticipation in the individual. It was at this point that participants expressed feelings of well-being and anticipation of continued occupational engagement supporting their sense of self. This anticipation led to an increased engagement in occupation. The authors named this cycle “occupational spin-off”. The primary implication of this study was the positive influence the social environment can have on occupational engagement. This is something that may also affect the occupational engagement of the consumers in the current study.
Rebeiro (2001) expanded upon the results of the previous study to discuss the aspects of the environment that facilitate occupational engagement. She conducted a secondary analysis of the previously described study of eight women with mental illness and data from two additional qualitative studies on occupational engagement in people with mental illness to determine what participants said about the effect of the environment on their occupational performance. The results were that the participants felt affirmed in their therapy group, and aspects of the environment that contributed to this feeling were having a place with others who were similar to them, being accepted unconditionally, and having a safe place to belong. This secondary analysis reiterated the importance of the social environment on occupational engagement especially in the realms of being and belonging.

Another study looked specifically at the meaning of occupational therapy, rather than occupation per se, for women with mental illness in Sweden (Ivarsson et al., 2002). The researcher collected narrative interview data twice from the participants immediately following occupational therapy sessions. The researchers analyzed the transcribed interviews with the empirical, phenomenological, psychological method approach using an occupational therapy perspective rather than a psychological perspective. The researchers described themes about the meaning of occupational therapy, and findings were that occupational therapy helped the participants to relax and temporarily relieve symptoms of their mental illness, gave them hope and a vision for the future, and increased their self-knowledge and capability through shared decision-making with the therapist and increasing challenge in the activities. The participants stated how participating in occupational therapy made them feel happy and how it was better than
the alternative of being idle, in spite of the difficulty of some of the activities. This study did not provide information about the interview questions asked, and it focused on the experience of occupational therapy rather than occupational engagement. It provided some weak evidence for a relationship between occupation and well-being in terms of the women feeling satisfied with the activities in therapy and preferring the activities in therapy to idleness.

Another study explored the occupational experiences of people with severe mental illness who do not work to determine what occupations they engage in and what meaning they derive from these occupations (Nagle et al., 2002). The researcher completed qualitative interviews and member checks with eight individuals with schizophrenia or schizoaffective disorder in Canada about what occupations the participants engaged in and hoped to engage in and what supported or hindered their occupational engagement. The researchers analyzed the interview transcripts with the constant comparative method. The results showed how the participants’ illnesses affected their occupational choices and the importance of social connections. The participants stated that having nothing to do could lead to an increase in symptoms but doing too much could also lead to this, therefore, the participants enjoyed doing but had to find a balance of doing enough but not too much to stay well. The participants in this study specifically chose their occupations in order to meet health, doing, or social connection needs. Such choices and relationships may also be important for people with developmental disabilities.

Another researcher studied what constitutes occupation in five young children with autism, who did not use verbal language, to determine what the children found
meaningful (Spitzer, 2003a, 2003b). The researcher used extended participant observation in a variety of settings to understand what the children engaged in and what they found meaningful. In order to understand the subjective experiences of the participants, Spitzer used a series of “natural experiments” developed by Goode (1994) in his research to determine what was meaningful to children who had cognitive disabilities, blindness, and deafness. Spitzer tested her interpretations of the participants’ experiences through interactions with the participants and their reactions to the interactions. The findings of the study demonstrated that for young children with autism, occupation consisted of intentionality, meaning-making, and framing. Intentionality dealt with directed action, which may have been self-initiated or other-initiated. Meaning-making was closely related to the motivation to engage, and framing was the collection of actions that were directly related to the occupation, which were different for each individually defined occupation. These findings and method informed the current study in terms of using a variety of methods to ascertain meaning from the consumers. It was also important to realize that naming themes around what the consumers find meaningful can be difficult due to the nature of associating language with something that is more intuitive in a less-verbal population (Spitzer, 2003b) rather than associated with stories as with the majority of people (Bruner, 1990; Coles, 1989; Polkinghorne, 1988).

Hvalsoe and Josephsson (2003) studied what eight people with mental illness receiving services from a community-based mental health agency in rural Denmark experienced as meaningful occupations through narrative interviews. Interviews consisted of discussions about descriptions of the participants’ occupations, meaning of the occupations, occupational experiences, and preferences for future occupations. They
used the same empirical, phenomenological, and psychological method from an occupational therapy perspective rather than a psychological perspective as in previously described studies to analyze the data. Findings were that the participants found meaning in occupations that supported normality, autonomy, and visualization of the future. The participants’ occupations reflected their personal value and preferences, was linked to their pasts, supported roles and identity, and brought personal satisfaction and acknowledgement from others. The participants expressed the importance of being productive, contributing to society, having goals, and socializing within their occupations. Engaging in occupations facilitated a sense of well-being with the participants by allowing them to escape from their illness, stay physically well, be safe, have control, create balance and variety, and structure their time. These themes around meaning and occupation in people with mental illness may also be applicable to adults with developmental disabilities, although the method of eliciting narratives through interviews may not be useful with less articulate participants.

Ohman and Nygard (2005) interviewed and observed six older people with mild to moderate Alzheimer’s disease living in the community to determine the meaning to them of engaging in self-selected occupations. Inclusion criteria specified that the participants be able to articulate their experiences of living with dementia. The participants discussed their routines, occupations, motives for engaging in occupations, and the meaning of the occupations through qualitative interviews and observations. The authors defined themes around the participants’ meanings of occupational engagement as maintaining their patterns of everyday life, having a coherent social context, importance of feeling autonomy, occupation as communicating identity, creating personal space for
occupation, occupation as a way to maintain skills, individual keys for occupation, and making sense of occupation cessation. This indicates the importance of the social and self-determination aspects of occupational engagement as well as how occupational engagement relates to skill development and identity. Although this study involved participants who were able to verbalize their experiences, the researchers compensated for the participants’ cognitive disabilities by using a combination of interview and observation, a method adopted by the current study.

Another set of researchers studied the motives people with dementia have for engaging in occupation as well as how they adapt their occupations in response to cognitive changes (Lee et al., 2006). The researchers studied occupational engagement in eight adults with mild to moderate dementia and their caregivers in Canada, seven of whom attended a day program for people with dementia. The researchers sought to understand what occupations the individuals engage in, their motivation behind the occupations, and adaptations they made for memory impairments. The researchers interviewed caregivers to get background information and caregivers’ perceptions of past and present activities. They used this information to enhance and structure the interview questions for the participants with dementia and then interviewed the participants with dementia one to three times each about past and present activities. The researchers used the constant comparative method to analyze the interview transcripts and field notes taken during the interviews. They found that the participants continued to engage in occupations that they felt obligated to do, enjoyed, kept them busy, and that they were used to doing. They had stopped some activities that other people now did for them such as cooking or that they had forgotten how to do. The caregivers noted that the individuals
with dementia had significant difficulty initiating tasks. The individuals and caregivers did occupations together as an adaptive strategy to enable occupational engagement, which may be an important factor for adults with developmental disabilities who may be unable to engage in occupation independently. In addition to showing how caregivers facilitate occupational engagement, this study also demonstrated the importance of obtaining the caregiver and client perspectives.

Craik and Pieris (2006) studied the meaning of leisure occupations for ten people with mental illness living in the community and receiving outreach services in England. The researchers conducted in-depth interviews with the participants, and analyzed the transcripts by content analysis. The researchers found that hallmarks of leisure for the participants were that there were no requirements to engage, and the participants controlled the time and pace of the activities, valued the activities, and had positive feelings during the activities. This has implications for occupational engagement in general because it refers to self-determination, meaning, and emotional aspects, all of which may be important for this study on occupational engagement in adults with moderate to severe developmental disabilities.

These studies with people with various cognitive disabilities demonstrate that it is possible to elicit what is meaningful with these populations through a combination of methods including interviews with staff members or caregivers (Hasselkus, 1989, 1992, 1998; Lee et al., 2006), participant observation (Hasselkus, 1992; Nygard & Borell, 1998; Ohman & Nygard, 2005; Rebeiro, 2001; Rebeiro & Cook, 1999; Spitzer, 2003a), and adapted interviews (Craik & Pieris, 2006; Hvalsoe & Josephsson, 2003; Ivarsson et al., 2002; Lee et al.; Nagle et al., 2002; Nygard & Borell; Ohman & Nygard; Rebeiro;
Rebeiro & Cook). These methods supported the rationale for the utilization of each of these methods in the current study in order to study occupational engagement of adults with moderate to severe developmental disabilities in a day program, a population with whom occupation and meaning had not been previously studied.

**Staff Members as Environmental Support**

Staff members are an important aspect of the social environment and one of the primary facilitators of occupational engagement for adults with moderate to severe developmental disabilities in a day program. Studies have explored the impact of staff members on the frequency and type of interactions between staff members and adults with developmental disabilities (Bartlett & Bunning, 1997; Chan & Yau, 2002; Repp, Felce, & Kock, 1987). These studies on the influence of staff members on consumer participation in activities have not included the perceptions or responses from the consumers participating in these staff-influenced activities. Other studies discussed previously also demonstrated the importance of staff members as environmental support for engagement (Anderson et al., 1997; Parsons et al., 1990, 2004; Reynolds, 2002; Wilson & Bartak, 1997).

**Staff Member and Consumer Interactions**

A set of researchers conducted a review of 75 experimental and quasi-experimental studies on behavior of staff members working with people with developmental disabilities (Repp et al., 1987). The majority of the studies focused on the type and frequency of interaction between consumers and staff members. According to Repp et al., this focus was chosen because findings in the education and developmental disabilities literature indicated that interactions between staff members and consumers are
a major source of learning for the consumers. The reviewers found that there is often limited interaction between consumers and staff members, a small number of consumers receive the most interaction, structured activities increase interactions, and working with small groups of consumers increases interactions. The authors did not discuss a critical appraisal process, a limitation of the review. Another limitation is that the studies reviewed were from the 1970s and 1980s, and services for adults with developmental disabilities have changed substantially since that time as discussed earlier in the historical perspective section of this chapter. However, this study supports the importance of staff members as facilitators of occupational engagement.

Bartlett and Bunning (1997) studied the communication exchanges between six staff members and six adults with developmental disabilities with some verbal communication skills in England to determine how staff members socially interact and provide instruction to the consumers. The data were collected during the consumers’ speech therapy sessions and consisted of recorded conversations between the staff member and consumer about specific picture cards or a topic chosen by the staff member and an evaluation of the consumers’ language comprehension in terms of the phrase length (number of information-carrying words) they understood. The researcher transcribed and analyzed the conversations between the consumers and staff members to determine how staff members’ communication with consumers differed with and without pictures and how it compared to the consumers’ comprehension. By counting the number of information-carrying words that the staff members used in the different conditions, the researchers demonstrated that the staff members consistently used longer phrases than the consumers understood, but the phrases contained significantly fewer words and better
matched the consumers’ comprehension levels when discussing pictures \( (p < .03) \). The researchers discussed implications of the results in terms of staff training to ensure that staff members provide instructions and social interaction that the consumers can understand. Bartlett and Bunning proposed that pictures could be useful for two reasons: they can assist the consumer in understanding verbal information and they may prompt the staff members to limit their verbiage to what is essential and understandable to convey the information. This has implications for how staff members support occupational engagement in terms of providing assistance and instruction as well as how the staff members facilitate the consumers’ social participation.

Another study examined the interactions between 30 staff members and consumers with significant physical, communication, and cognitive disabilities and without significant behavior challenges in an institution in Hong Kong (Chan & Yau, 2002). The researchers observed participating staff members in 15-minute increments during their typical duties on the ward and noted whether and how they interacted with consumers during the observation period. They found that the staff members spent significantly less time interacting with consumers than being involved in other activities during the observation periods \( (p < .001) \). In addition, the staff members initiated 98% of the interactions, most of the interactions involved neutral affect (neither positive nor negative), and the interactions occurred primarily during personal care activities. The authors also conducted in-depth interviews with seven of the participating staff members to learn about their perceptions of their interactions with the consumers. The staff members felt that they interacted with the consumers by smiling, talking with them, and playing, but the observational data did not support this. Factors that negatively influenced
The amount of interactions included limited responses from the consumers and the culture of the institution encouraging staff members to approach consumers only during routine care. Although this study took place in an institutional environment, it shows how staff perceptions of interaction may differ from observations and environmental factors that can influence how staff members interact with consumers. This study also showed that staff members initiate the majority of interactions with consumers, which further supports the supposition that they are important facilitators of occupational engagement for the consumers.

The findings of these studies on interactions between staff members and adults with developmental disabilities demonstrate that there may be limited interaction between staff members and consumers (Bartlett & Bunning, 1997; Chan & Yau, 2002; Repp et al., 1987). This has significance due to other studies that have provided evidence that staff members can facilitate consumer engagement through their interactions with the consumers (Anderson et al., 1997; Bartlett & Bunning; Chan & Yau; Parsons et al., 1990, 2004; Reynolds, 2002; Wilson & Bartak, 1997). In addition, these studies demonstrated that the staff members are the primary initiators of interaction and there is limited documentation about consumer responsiveness (Bartlett & Bunning; Chan & Yau; Repp et al.). There may be a difference between what the staff members perceive and what researchers observe (Chan & Yau) which supports the need to investigate the staff members’ and consumers’ perspectives.

**Co-occupation**

Review of constructs related to the influence of staff-consumer interaction on participation in activities prompted an inquiry into the construct of co-occupation as a
phenomenon to better explain the person-environment influence on occupational engagement and as an explanation for how meaning may be derived from occupation engaged in by two persons reciprocally. Co-occupation involves two people engaging in an activity such that each person influences the other’s response (Pierce, 2003; Zemke & Clark, 1996). Although primarily described in the literature as the interaction of parents and young children (Dunlea, 1996; Olson, 2004; Zemke & Clark), this construct may explain how adults with moderate to severe developmental disabilities engage in occupation because they often require the assistance of another person to engage. The consumers may be engaging in co-occupation with a staff member or caregiver. Meaning and shared experience are essential parts of co-occupation (Pizur-Barnekow & Jacques, 2008), but shared meaning is not necessary; each participant may experience the meaning of the activity differently (personal communication, K. Pizur-Barnekow, December 3, 2007).

Pizur-Barnekow and Jacques (2008) defined aspects of co-occupation as shared physicality, emotionality, and intentionality. Shared physicality involves sharing physical space. Shared emotionality involves reciprocal emotional responses so that if one person engaging in the activity gets excited, the other person’s level of excitement increases. Shared intentionality involves having joint goals and understanding each other’s intentions and role. The level of each of these aspects of co-occupation may vary such that shared physicality and emotionality may be high and intentionality low, but all three aspects are necessary for an activity to be considered co-occupation.
**Occupational Engagement in Persons with Cognitive Disabilities Summary**

People with cognitive disabilities have decreased skills that can affect their ability to engage in occupation. However, research has shown that a supportive environment can compensate for their skills in order to facilitate occupational engagement (Anderson et al., 1997; Bartlett & Bunning, 1997; Chan & Yau, 2002; Hasselkus, 1992, 1998; Lee et al., 2006; Nygard & Borell, 1998; Parsons et al., 1990, 2004; Rebeiro, 2001; Rebeiro & Cook, 1999; Repp et al., 1987; Reynolds, 2002; Smith et al., 2002; Wilson et al., 2006). One of the most important aspects of the environment to support occupational engagement is caregiver or staff member support (Anderson et al.; Bartlett & Bunning; Chan & Yau; Hasselkus, 1992, 1998; Lee et al.; Parsons et al., 1990, 2004; Repp et al.; Reynolds; Smith et al.; Wilson et al.). When caregivers or staff members engage with the person with a cognitive disability, there is the possibility for engagement in co-occupation. Otherwise, there is more evidence to suggest the nature of participation of consumers is more directed by what is meaningful to the staff members than to the consumers.

**Implications of Limited Occupational Engagement**

According to occupational therapy philosophy and theoretical perspectives, there is an inextricable connection between survival, well-being, and occupational engagement. Humans require the doing of activities of purpose and meaning (i.e., occupation) to survive, and society calls for involved, occupied people in order to sustain itself (Wilcock, 1993; Yerxa, 1998). There is literature that supports the importance of occupation and its relationship to well-being in a variety of populations (Chugg & Craik,

The World Health Organization (2001) recognizes the rights of all people to engage in occupation and that environmental factors can facilitate or inhibit this engagement. Furthermore, the International Classification of Functioning, Disability and Health (ICF) recognizes participation in activities as related to health and functioning (World Health Organization, 2001).

Therefore, there are serious implications to well-being if a person is unable to engage in occupation. It is important to discern what activities people find meaningful to ensure that they have access to occupation. For people with disabilities, it is important that they have a supportive environment in order to facilitate occupational engagement. All people have the right to engage in occupation, which is known as occupational justice.

**Occupational Justice**

Occupational justice is a form of social justice that specifies access to and engagement in occupation is a basic human right. Occupational justice is a framework to understand the relationship between occupation, client-centered practice, and justice (Townsend & Wilcock, 2004). It builds on the ideas that humans are occupational beings.
(Wilcock, 1993), occupation can enable empowerment and well-being (Townsend, Ripley, & Langille, 2003; Wilcock, 2006), and all people have the right to engage in meaningful occupation.

**Occupational Injustice**

Occupational injustice occurs when people are unable to engage in meaningful occupation due to outside forces. This can occur if people are required to participate in activities that they find meaningless, are deprived of occupations, or are not permitted to choose their occupations (Townsend & Wilcock, 2004; Wilcock, 2006). These are all potential risks for people with disabilities attending a day program because the participants may be required by forces outside themselves to participate in activities without meaning, not given the opportunity or assistance to participate in activities, or not given choices about their activities (Townsend & Wilcock; Whiteford, 2000, 2003). This is an issue for occupational therapists because without access to meaning and occupation in one’s life, there can be a significant risk to one’s health and well-being.

People with developmental disabilities exhibit issues that may be the result of occupational injustice. These include increased risk of sedentary lifestyles leading to obesity and other health issues (Havercamp et al., 2004; Jones et al., 2006), inadequate emotional support (Havercamp et al.; Heller et al., 2007), and self-injurious or harmful behavior (Bailey et al., 2006; Dobson et al., 1999; Jahoda & Wanless, 2005). These issues present in people with developmental disabilities may be due, at least in part, to limited access to occupation.
Implications of Limited Occupational Engagement Summary

Occupational justice recognizes that all people have the right to occupational engagement because it is through occupational engagement that people experience well-being (Townsend & Wilcock, 2004; Wilcock, 2006). Occupational injustice occurs when outside forces prevent a person from engaging in occupation. For people with disabilities, this can occur when they are denied access to meaningful activities or necessary environmental support. People with developmental disabilities are at risk for occupational injustice, and this study attempted to address this risk by exploring what adults with developmental disabilities find meaningful within activities in a day program and how they exhibit occupational engagement within the program.

How Day Programs Support Occupational Engagement

The goal of day programs is to provide purposeful activities for adults with developmental disabilities and environmental support to facilitate skill development and participation in the activities (Reid et al., 2001). In order to support well-being and occupational justice, it is important for day programs to ensure that the activities offered are meaningful to the participants and that there is sufficient environmental support to enable occupational engagement. There is a variety of program supports for adults with developmental disabilities in order to facilitate their engagement in activities although there is a limited focus on whether or not these activities are occupation. These supports include staff training, visual supports, and occupational therapy. While such supports may be available to facilitate participation in day program activities, there is little evidence to substantiate how these supports increase actual occupational engagement.
Staff Training

As demonstrated earlier, staff members are one of the primary facilitators of occupational engagement for adults with moderate to severe developmental disabilities, and one of the most important resources in a day program. It is necessary to have well-trained staff members in order to facilitate occupational engagement and skill development in a day program. The following studies discuss staff training as a strategy to improve consumer performance or engagement (Bradley, Taylor, Mulkern, & Leff, 1996; Dychawy-Rosner, Eklund, & Isacsson, 2001; Dychawy-Rosner et al., 2000; McHugh, Storey, & Certo, 2002).

According to Bradley et al. (1996), there is a supposition in the developmental disabilities literature that staff members can have a direct impact on the well-being of people with developmental disabilities and more specifically that well-trained, competent staff members can increase the well-being of people with developmental disabilities. This recognition of staff members as an important part of a supportive environment for people with developmental disabilities concurs with the occupational therapy literature that discusses the importance of a supportive environment on occupational engagement (Law et al., 1996) and the relationship between occupational engagement and well-being (Wilcock, 2006). Bradley et al. discussed specific areas to include in training direct service providers including facilitating community participation, social connectedness, person-centered approaches, and choice and control for the consumers. Although not a research study, this discussion informed the following studies about how staff members perceive their work.
A set of occupational therapy researchers studied staff members’ lived experience of providing support for occupational engagement to adults with developmental disabilities (Dychawy-Rosner et al., 2000, 2001). This study focused on the staff perceptions of how they do their job. After developing a questionnaire of ordinal and nominal scales as well as open-ended questions on work history, perceptions of work, and support for work performance based on in-depth interviews with eight staff members, the researchers sent and received questionnaires from 81 staff members from a county in southern Sweden from 19 different programs including supported work, sheltered work, residential, and day programs. The researchers calculated descriptive statistics to analyze the information about the participants’ knowledge and supports and analyzed the open-ended questions by assigning the answers to predetermined categories. The findings demonstrated that the majority of staff members were confident about how to do their jobs but still wanted additional information. Most of the staff members discussed the need for more support related to facilitating consumers’ occupational engagement, compensating for consumers’ impairments, and more information about the consumers’ disabilities. These findings have implications for staff training and program development, important issues for day programs.

One set of researchers studied a way to train job coaches in supportive employment settings to use natural supports (McHugh et al., 2002). Natural supports are those that are naturally occurring in the environment that people would be likely to use regardless of whether or not they have a disability such as asking a supervisor if people have questions about their job performance. The researchers studied three consumers’ social integration at work using specific observational assessment tools completed by the
job coach, a survey for the consumers’ supervisors at work, and a researcher-developed checklist of natural supports. After collecting baseline data on how often consumers used natural supports and individually training the job coaches on the use of natural supports using the researcher-developed checklist as a guide, the researchers used a combination of job coach-completed natural support forms and 6 to 11 researcher observations to determine the effectiveness of the training. The researchers demonstrated that the job coaches increased the frequency and variety of natural supports to which they referred the consumers following training on natural supports. Although there are few supports in a day program that would also be available in other settings, the consumers do go on community outings once a week. If the staff members can facilitate the consumers’ use of natural supports in the community such as asking a librarian a question in the library, this would increase the consumers’ ability to engage in occupation more independently. The findings of this study have implications about how staff training can support occupational engagement and social integration in a work setting and potentially community settings.

In a study previously described, researchers demonstrated that staff training increased the amount of time that consumers spend participating in functional activities (Parsons et al., 2004). Staff training may be an important environmental support to enable the occupational engagement of adults with developmental disabilities.

*Visual Supports*

Visual supports consist of any picture, object, or written materials used to substitute for verbal or physical assistance (Dettmer, Simpson, Myles, & Ganz, 2000). People with developmental disabilities may use pictures and other visual supports as schedules for activities, a breakdown of the steps necessary to complete activities, and for
making choices. Staff members may use visual supports with this population as a way to supplement or substitute for verbal directions. This is a common intervention tool with people with autism (Dettmer et al.; Green et al., 2006; Johnston, Nelson, Evans, & Palazolo, 2003), and it is also used with people with other developmental disabilities (Anderson et al., 1997; Arvidsson & Jonsson, 2006; Bartlett & Bunning, 1997; Dodd & Brunker, 1999; Finlay & Lyons, 2001; Sigelman & Budd, 1986). Visual supports can facilitate occupational engagement by providing environmental structure and decreasing the amount of assistance that a staff member or caregiver may need to provide to enable participation in activities.

**Occupational Therapy**

There is a range of studies related to how occupational therapy can support a program for adults with developmental disabilities. The literature includes descriptions of occupational therapy interventions (Decker & Hull, 2005; Herge, 2003; Neistadt, 1987), effectiveness of interventions (Arvidsson & Jonsson, 2006; McInerney & McInerney, 1992; Nochajski & Gordon, 1987; Shaperman & Lewis, 1989), and the types of goals that occupational therapists write with this population (Llewellyn, 1991; Neistadt, 1986). There are studies on the development and psychometric properties of an occupational therapy evaluation tool for adults with developmental disabilities (Dychawy-Rosner & Eklund, 2003; Dychawy-Rosner & Isacsson, 1996), the use of adult dexterity assessments with this population (Transon et al., 1989), and the prevalence of sensory defensiveness in this population (Baranek, Foster, & Berkson, 1997). There is also literature consisting of recommendations about treatment for older people with developmental disabilities (Campbell & Herge, 2000; Hotaling, 1998). Although this literature does not directly
inform this study’s design or rationale, it provides information on another influence on the experience of consumers in day programs.

*How Day Programs Support Occupational Engagement Summary*

These studies demonstrate how staff training, visual supports, and occupational therapy can positively support the engagement of consumers in a day program. However, information from consumers about their perceptions of these supports and the day program activities is limited. Additional research on the consumers’ perceptions of the activities and assurances that the activities are meaningful to the consumers could inform how to use such supports more effectively to support consumer engagement.

*Studying Occupational Engagement*

In order to study occupational engagement, one first has to determine that the activities are occupation. Due to the individual nature of meaningfulness and occupation, most researchers use a qualitative design to study meaning and occupation. Meaning is a personal construct that can be described through narratives (Bruner, 1990; Coles, 1989; Mattingly, 1998; Mattingly & Fleming, 1994; Polkinghorne, 1988; Van Manen, 1990). Because people construct meaning through occupation and storytelling, narrative methods within ethnography or phenomenology have been the most commonly used to study meaning (Craik & Pieris, 2006; Goode, 1994; Hasselkus, 1989, 1992, 1998; Hvalsoe & Josephsson, 2003; Ivarsson et al., 2002; Lee et al., 2006; Nagle et al., 2002; Nygard & Borell, 1998; Ohman & Nygard, 2005; Rebeiro, 2001; Rebeiro & Cook, 1999; Spitzer, 2003a, 2003b).
There are also examples of quantitative methods to study meaning and occupation (Adelstein & Nelson, 1985; Baker, Jacobs, & Tickle-Degnen, 2003; Rocker & Nelson, 1987). These studies used written surveys with people without cognitive disabilities in order to determine the meaning of work and leisure occupations. A qualitative framework is most appropriate for a study on meaning and occupation for adults with moderate to severe developmental disabilities because they cannot complete written surveys and there are no valid self-report assessments that could be used in a quantitative study.

As demonstrated in the earlier section on meaning and occupation, researchers have studied occupation and meaning through in-depth interviews with participants and participant observation. It is difficult to elicit narratives from people with cognitive disabilities so researchers have developed supplemental methods including participant observation, modified interviews using pictures, caregiver interviews, and observation tools such as the VQ. As methods to study the lived experience of meaning and occupation, these methods lend themselves well to the qualitative approach of phenomenology.

**Phenomenology**

Phenomenology is a qualitative approach that studies the lived experience of individuals to gain a deeper understanding of the meaning of everyday experiences (Van Manen, 1990). The understanding of the meaning of everyday experiences is fundamental to occupational therapy and the study of occupation (Hasselkus, 2002). Phenomenology involves studying lived experience by eliciting and analyzing stories or narratives that involves remembering and re-living a specific experience and its associated meanings,
analyzing documents to determine meaning, or observing people within activities of interest to determine what they find meaningful (Van Manen).

The most common method to learn about lived experience is eliciting narratives (Van Manen, 1990). Humans organize thoughts and memories into stories (Bruner, 1990; Coles, 1989; Mattingly, 1998; Polkinghorne, 1988). People demonstrate what they find meaningful through the stories they tell and how the stories unfold (Bruner, 1990; Coles).

People also demonstrate what is meaningful in how they approach activities (de las Heras et al., 2007; Kielhofner, 2002; Van Manen, 1990). Phenomenology incorporates participant observation as a means of data collection to enable the researcher to share in the experience to better understand and to capture its essence from research participants (Patton, 2002; Van Manen).

**Studying Occupational Engagement with Persons with Cognitive Disabilities**

Earlier in this literature review, examples in the occupational therapy literature of how researchers have studied meaning and occupation with people with cognitive disabilities were presented (Craik & Pieris, 2006; Goode, 1994; Hasselkus, 1989, 1992, 1998; Hvalsoe & Josephsson, 2003; Ivarsson et al., 2002; Lee et al., 2006; Nagle et al., 2002; Nygard & Borell, 1998; Ohman & Nygard, 2005; Rebeiro, 2001; Rebeiro & Cook, 1999; Spitzer, 2003a, 2003b). The following sections review additional studies that informed the methodology used in the current study (Booth & Booth, 1996; Carnaby, 1997; Cascella, 2005; Chern et al., 1996; de las Heras, 1993; de las Heras et al., 2007; Hasselkus & Dickie, 1994; Heal & Sigelman, 1990, 1995; Kielhofner et al., 2002; Li & Kielhofner, 2004; Lloyd, Gatherer, & Kalsy, 2006; Mactavish, Mahon, & Lutfiya, 2000; March, 1992; McLean, Brady, & McLean, 1996; Sigelman et al., 1980; Sigelman &

**Phenomenological Interviews**

An important component of phenomenology is eliciting one’s stories through interviews. Researchers elicit stories by asking open-ended questions about specific experiences and providing probes that keep the person in the experience (Van Manen, 1990). A series of studies in the occupational therapy literature used specific questions to elicit descriptions of especially satisfying and dissatisfying experiences (Hasselkus, 1992, 1998; Hasselkus & Dickie, 1994). The questions in those studies formed the basis for the interview questions in the current study. Due to the nature of the population in this study, there is a risk of response bias commonly found in people with developmental disabilities including non-response to questions, acquiescence (saying yes to all questions), nay-saying when the questions involve a taboo or negative subject (saying no to all questions), and recency (responding with last option given) (Heal & Sigelman, 1995; Sigelman et al., 1980; Sigelman et al., 1981; Sigelman, Budd, Winer, et al., 1982; Sigelman, Winer, et al., 1982; Stancliffe, 2000). In order to capture the perceptions of participants and compensate for these response biases, researchers use strategies such as proxy reports, interview supports, participant observation, or specific observational measures.

**Proxy reports.** Researchers have used a variety of techniques to compensate for the response biases of people with developmental disabilities. One of these techniques is to use a proxy report from a family member or staff member. Researchers consider proxy
reports ecologically valid, efficient, and effective for descriptions of typical communication and behavior of people with severe developmental disabilities (Cascella, 2005; McLean et al., 1996). However, communication and behavior are not dependant on personal interpretation unlike meaning.

Staff reports and self reports cannot necessarily be noted as equivalent (Stancliffe, 2000), and differences between the two reports does not necessarily indicate problems with either report (Stancliffe, 1995; Widaman et al., 1992). Staff members and consumers have different perspectives that may warrant different answers to similar questions (Widaman et al.). When exploring a personal construct such as the meaning of activities, it is expected that different people would view the meaning differently. This supported the use of both staff member and consumer perspectives in the current study. However, this left the issue of how to elicit stories and meaning from people with moderate to severe developmental disabilities.

Interview supports. Another strategy researchers have used when eliciting information from people with developmental disabilities are various interview supports (Carnaby, 1997; Heal & Sigelman, 1990; Mactavish et al., 2000; March, 1992; Sigelman & Budd, 1986). Visual supports are an environmental strategy that can enable occupational engagement, but they can also be useful in enabling participation in research for people with moderate to severe developmental disabilities. This section reviews literature on using pictures to enable people with developmental disabilities to answer interview questions. Overall, results suggest that providing two to four picture choices with multiple-choice questions can decrease the risk of response bias in adults with
developmental disabilities (Heal & Sigelman, 1990; March; Sigelman & Budd; Sigelman, Budd, Winer, et al., 1982; Sigelman, Winer, et al., 1982).

There are examples in the literature of qualitative research with individuals who need modifications and support in order to participate in interviews. These modifications have included picture support and/or photographs as reminders of the questions, choices for answers to the questions, and reminders of previous related experiences (Carnaby, 1997; Heal & Sigelman, 1990; Mactavish et al., 2000; March, 1992; Sigelman & Budd, 1986). One research group used photographs as a way to present themes during member checks (Mactavish et al.).

One study of interview supports by Sigelman and Budd (1986) investigated if accompanying verbal questions with drawings led to increased ability for children and adults with developmental disabilities to answer the questions meaningfully. The authors asked each participant a series of yes/no questions, multiple-choice questions, and either/or questions with and without picture support (drawings or photographs) based on activities appropriate to their age (child or adult) and living situation (community setting or institution). The visual supports included pictures about what the question was about, faces representing a range of emotion, and choices of the different activity answers. The researchers found that pictures did not compensate for response bias for yes/no questions. However, participants responded more frequently when given picture choices for multiple-choice and either/or questions ($p < .05$) compensating for non-response. Pictures significantly decreased the likelihood that the participants chose the last option given ($p < .05$) compensating for recency response bias. The authors concluded that pictures did not assist with yes/no questions, but they did compensate for response biases for multiple-
choice and either/or questions. Although this study included a large number of participants (n = 196), each group of participants had a different set of questions, there were many variables in the study, and there was inadequate description of the pictures used. However, it did suggest using pictures when questioning people with developmental disabilities and using multiple-choice or either/or questions can be helpful in decreasing response bias. The following study was more specific in determining the usefulness of pictures when questioning people with developmental disabilities.

March (1992) investigated the effects of presenting photographs on the abilities of adults with developmental disabilities to respond more frequently, respond more intelligibly, have less recency response bias, and increase answer validity. He interviewed 15 adults with developmental disabilities including significant expressive language disabilities using two sets of eight questions. One set of questions involved either/or individual preferences with two photographs as choices, and the other set of questions were factual either/or questions with photographs for the answers. The researcher conducted interviews one to two weeks apart such that all of the participants were asked all of the questions with and without photographs. The participants answered the preference and factual questions more frequently with photographs (p < .05) and with greater intelligibility (p < .05). There was a decrease in response bias toward the last option presented when using photographs for factual and preference questions (p < .05). The participants answered the factual questions correctly more often with the photographs (p < .01). The author also reported that the participants appeared more engaged in the interview when the photographs were presented as evidenced by their posture, attention, and spontaneous communication. These results have implications for
this study in justifying the use of photographs during the interviews with the consumers in order to increase the consumers’ abilities to respond, increase the intelligibility of their answers, and decrease recency response bias.

Researchers have discussed the importance of interpreting a person’s silence during a qualitative interview and have demonstrated how it is possible to gain narrative information from people with limited verbal communication (Booth & Booth, 1996). Researchers can use phenomenology to study experiences of people with moderate to severe disabilities who cannot share their life narratives through in-depth interview by using participant observation and other methods such as interviews with visual supports to ascertain the meaning and essence of experience (Lloyd et al., 2006; Van Manen, 1990).

In addition to compensating for possible response bias, including the consumers in the current study was important in order to understand their perspective of occupational engagement. Excluding the consumers would increase the risk of disempowerment in a group whose members often experiences low levels of empowerment (Balcazar et al., 1994; Holosko et al., 2001; Kosciulek, 1999; Renblad, 2000, 2002, 2003). The current study used pictures as interview supports, interpreted the consumers’ silence during the interviews, and supplemented the interviews with participant observation in order to ascertain what the consumers found meaningful.

Participant Observation

Several researchers have used extended participant observation combined with family and/or staff interviews to study occupation and meaning with people with significant cognitive disabilities (Goode, 1994; Spitzer, 2003a, 2003b). Spitzer (2003a,
2003b) used participant observation and family interview to study the meaning of occupation for young children with autism. Goode used participant observation and family or staff interview to study meaning in two children with rubella syndrome and associated cognitive disability, visual impairment, and hearing impairment. Using some of the principles of participant observation from these studies (personal communication, S. Spitzer, April 26, 2007), the current study involved participant observation but also included a tool, the Volitional Questionnaire (VQ), to assist in structuring the observations.

Volitional Questionnaire

*Volition.* As mentioned earlier when defining occupational engagement, volition plays an important part in a person’s occupational engagement as the motivation a person has to engage. Volition, the construct measured by the Volitional Questionnaire (VQ), is how a person feels, thinks, and decides about the activities in which he or she engages and is inextricably linked to how a person ascribes meaning to an activity (de las Heras et al., 2007).

Volition was the primary aspect of the “person” in the PEO model targeted in this study on occupational engagement and meaning. Volition is how a person ascribes meaning to an activity. People find meaning in things they are good at (personal causation), things that they think are important (values), and things that they enjoy (interests).

*Description of the Volitional Questionnaire.* The Volitional Questionnaire (VQ) explores the meaning of occupation with people who are unable to verbally express themselves. The VQ is an observation tool used to rate the volition/motivation of people
who are unable to participate in interviews or written questionnaires (Chern et al., 1996; de las Heras et al., 2007). It has also been used with people with less severe disabilities as a self-monitoring tool (de las Heras et al.).

The VQ allows an observer to assess how a person engages in occupation in a specific environment. The observer assesses the person through observing behavioral manifestations of volition and its components of personal causation, values, and interest (de las Heras et al., 2007; Kielhofner, 2002). Even when people are unable to verbally express their motivation, they demonstrate it through their actions (Kielhofner). The observer uses the VQ Environmental Characteristics Form to note aspects of the occupation and environment. Therefore, although based on the Model of Human Occupation, the VQ addresses all aspects of the PEO model.

The VQ consists of 14 observation items with a four point scale: passive, hesitant, involved, and spontaneous and an Environmental Characteristics Form (de las Heras et al., 2007). The items are arranged in a hierarchical manner according to the levels of volitional development: exploration, competency, and achievement (de las Heras et al.). The first five items are the easiest and correspond to the exploration level of volitional development, the next five items make up the competency level of volitional development, and the final four items relate to the achievement level of volitional development and are the most difficult (de las Heras et al.). The Environmental Characteristics Form covers information about the physical environment, social environment, objects used for the activity, and the activity itself. These forms are included in Appendix B. The authors recommend observing the client during typical activities or therapy sessions and completing the assessment in different contexts to
examine how the person’s motivation changes in different environments and with different activities (de las Heras et al.).

The VQ was developed with people with developmental disabilities and/or mental illness (de las Heras et al., 2007). Researcher have used the VQ with people with developmental disabilities, mental illness, HIV/AIDS, and dementia (de las Heras et al.; Kielhofner et al., 2002; Li & Kielhofner, 2004; Raber, 2007). The majority of these studies were testing the psychometric properties of the instrument.

**Psychometric properties.** The VQ has good content validity as demonstrated by a panel of experts (de las Heras, 1993; Kielhofner et al., 2002). The VQ’s authors tested its validity through Rasch analysis to determine if it tests a single concept (i.e., volition) thereby demonstrating construct validity (Chern et al., 1996). The VQ is able to discriminate between people with differing levels of volition which supports its construct validity (Li & Kielhofner, 2004). The authors have also shown good inter-rater reliability among occupational therapists (Chern et al.; de las Heras et al., 2007). Details about these studies appear below.

Researchers have completed various studies on the reliability and validity of the VQ. During development of the assessment, de las Heras (1993) reported content validity on the assessment items through the expert opinion of 30 occupational therapists familiar with the Model of Human Occupation on which the VQ is based. She also tested the instrument’s inter-rater reliability by having 29 raters score the VQ on three videotapes. This earlier version of the VQ used slightly different items than the current version used in this study. The rating scale has also changed; at that time, it was a frequency rating
based on how often the person demonstrated the behavior. She found that all 14 items had inter-rater reliability exceeding .75, and 10 items exceeded .90.

Chern et al. (1996) studied the construct validity of the VQ by measuring if the items loaded onto one construct using Rasch analysis. They completed a secondary analysis of the data collected by de las Heras (1993) during development and refinement of the VQ with 17 occupational therapists who completed the VQ with a total of 43 people in long-term psychiatric facilities with mental illness, mental retardation, or both. Chern et al.’s analysis revealed that the VQ did not adequately represent the volition of people with higher levels of volition because of a ceiling effect. In addition, all but one test item had mean square statistics between 0.7 and 1.3, sufficiently loading with the others for the goodness of fit test. These results met the predetermined criteria to determine if the VQ measures one construct.

Based on this information, the VQ was revised so that the scoring changed from a frequency scale to a support scale and three items were reworded to increase clarification (Chern et al., 1996). The authors retested the construct validity after these revisions. Eight occupational therapists trained in using the VQ rated 18 people with mental illness and/or developmental disability in psychiatric hospitals between one and three times. The researchers reported that the instrument with the revised rating scale continued to have good construct validity even though two items fell outside the predetermined range for goodness of fit (mean squares between 0.7 and 1.3). They reported improvement in the revised rating scale’s ability to report higher levels of volition although there continued to be a slight ceiling effect.
Researchers conducted another study of the psychometric properties of the VQ to determine construct validity (Li & Kielhofner, 2004). The researchers revised the VQ to create version four based on previous results about the psychometric properties. Five raters used the VQ with 36 participants, 28 with psychiatric disabilities receiving inpatient care and eight people with disabilities, primarily HIV/AIDS, living in the community. Each rater completed the VQ on a videotape and at least one person for a total of 44 assessments. The researchers used Rasch analysis to test the construct validity of the VQ scores and found that the mean square statistics for all items was between 0.6 and 1.3 which is close to the ideal score of 1.0 and within the acceptable level for the items loading onto a single construct. The analysis demonstrated that the score calibration represented the ranges of scores demonstrated by the participants and that the raters completed the VQ in a valid manner. However, the rater separation ratio was 4.08, was significantly higher than the recommended 2.0 or less, and demonstrated that there can be a difference in the raters’ severity in assigning scores and this should be taken into account if multiple raters are used. The scores lent support to the hierarchy of volitional development because they grouped according to the three levels of volition: exploration, competency, and achievement.

These studies show that there is evidence for the use of the VQ as a reliable and valid instrument of volition with adults with developmental disabilities (Chern et al., 1996; de las Heras, 1993; de las Heras et al., 2007; Kielhofner, 2002; Li & Kielhofner, 2004).
Studying Occupational Engagement Summary

Based on previous studies investigating occupational engagement, the current study used phenomenology to explore the meaning and understand the lived experience of occupation in a day program with staff members and consumers. This approach was a sound way to study phenomena that are difficult to observe or measure (Dychawy-Rosner et al., 2001; Wilding & Whiteford, 2005). Based on the previous literature on meaning and occupation and the range of abilities the consumers exhibited, this study used a combination of staff interviews, consumer interviews with appropriate modifications, and consumer observations using the VQ, an instrument designed with this population with good reliability and validity. Moderate to severe developmental disabilities involve a wide range of abilities and support needs. The methodology accounted for this range and was appropriate for people with all levels of developmental disabilities from mild to severe or profound. It provided opportunities for consumers to share experiences verbally, through picture choices, and through behavioral responses to activities in the program. As a significant contributor to occupational engagement, staff members were also important to include in this study.

Relevant Contexts

In qualitative research, the researcher is the primary data collection instrument. It is important for the researcher to explore his or her biases, research experience, clinical experience, and other relevant contexts that may affect the validity of the study (Patton, 2002). The following sections detail how the researcher’s biases and experiences may have affected the study.
Reflexivity

Reflexivity is an exploration of one's biases that may affect a qualitative study. For this study on meaning and occupation with adults with developmental disabilities, the researcher explored her biases around day programs and developmental disabilities. The following sections are presented in the first person.

I am a strong proponent of inclusion and community supports so I have difficulty with the concept behind day programs. I believe that adults with developmental disabilities should have access and supports to enable participation in work, leisure, and activities of daily living in community settings. I recognize that day programs provide a choice to consumers and families along the continuum of services. I strongly believe that if day programs continue to exist, they should offer training, support for participation in occupation, and opportunities for work and community integration.

I am a strong proponent of consumer empowerment and self-determination. I believe that all consumers, even those with the most severe disabilities, can participate in directing their lives. Because this study focuses on the meaning of consumer occupation, it felt counter-intuitive to concentrate on staff members’ perspectives as previous researchers have done. Therefore, I attempted to get the consumer perspective through a combination of interviews with picture support and structured observations using the VQ.

I have a bias that there is always room for improvement in a program. I feel that ways to improve a program include offering consumer choice about as much as possible, ensuring that activities are purposeful and meaningful, and facilitating as much consumer participation as possible. However, I highly value participatory means of program evaluation in which the participants decide how to improve it. I see the current study as
an introduction to participatory evaluation for this program in determining ways to get the consumers’ perspectives.

The primary goal around making one’s biases explicit is to ensure that the researcher is aware of how they may influence interpretations and to appropriately compensate for them by seeking out alternate explanations and assure that the data and participants substantiate conclusions. I addressed my biases by asking open-ended, general questions that did not deal with program improvement. I completed member checks to ensure that I represented the participants’ views and experiences rather than my own. I kept a reflexivity journal to account for my bias during data collection and analysis. I questioned my analysis of the data to see how my bias affects the analysis. Additional strategies to address my bias and increase the credibility of the study are discussed further in the trustworthiness section of Chapter 3.

**Clinical Experience**

Another issue that affects qualitative research is the background of the researcher. This is especially important for this study that includes participants with communication disabilities.

I have been an occupational therapist for eight years working with children and adults with developmental disabilities. I have worked part-time at the day program where this study took place for approximately one and a half years. I had a casual working relationship with several of the staff member participants prior to the study, and I had previously completed an occupational therapy evaluation with one of the consumer participants. The consumers and staff members may have viewed me as an authority figure, which may have affected what they chose to share. Because I was aware of this
during the study, I noted how this may have affected data collection and subsequent analysis.

I previously worked part-time in a day program for adults with developmental disabilities and an organization that offered community based services to adults with developmental disabilities for four years. I have limited experience as a qualitative researcher. I have completed one small qualitative study that involved interviews with two staff members.

Contribution of This Study to the Literature and Field

This study addressed a gap in the literature regarding occupational engagement in adults with moderate to severe developmental disabilities. First, the study determined the meaning of the activities in the day program according to staff members and consumers to determine if the activities are occupation. Then, this study described how adults with moderate to severe developmental disabilities engage in occupation. The prevention of occupational injustice and the recognition of the rights of all individuals to engage in occupation due to the link between occupation and well-being prompted this study. This study may inform occupational therapy practice with adults with moderate to severe developmental disabilities and program development by showing ways to facilitate occupational engagement for this population.

Summary

This chapter reviewed the literature important to this study on occupational engagement in a day program for adults with developmental disabilities. This included
description of the construct of occupational engagement and information about adults with developmental disabilities. The literature about how people with cognitive disabilities engage in occupation was reviewed in terms of the PEO model that guided the study. Implications for limited occupational engagement and how day programs for adults with developmental disabilities address these implications were reviewed. There was also a review of literature related to the chosen methodology and subsequent justification for the methodology. Because this was a qualitative study, the researcher discussed relevant contexts and how to control for bias. The subsequent chapter reviews the methodology of the study in detail.
CHAPTER 3: METHODOLOGY

Introduction

This was a phenomenological study designed to explore the meaning of the activities in the day program from the perspective of the staff members and consumers through the use of interviews with staff members, observations of consumers, and interviews with consumers. It also explored occupational engagement of adults with moderate to severe developmental disabilities.

Research Design and Rationale

This was a qualitative, phenomenological study because such a design allowed for in-depth exploration into a specific topic, was the way to learn about the lived experience of individuals, and was able to be used to ascertain meaning (Patton, 2002; Van Manen, 1990). People with moderate to severe developmental disabilities have a wide range of abilities and support needs. Based on the previous literature on studying meaning and occupation and the range of communication abilities exhibited by the consumers, this study collected data from staff members and consumers and used varied data collection strategies aimed at capturing participants' authentic perceptions.
Specific Procedures

The day program’s agency Human Rights Committee and agency Chief Clinical Officer approved this study on September 27, 2007. The Nova Southeastern University Institutional Review Board approved this study on November 6, 2007 under approval number HPD-ALL10310712Exp. The approval letters are included in Appendix I.

The researcher collected data through two semi-structured qualitative interviews with each staff member in the study, four observations in activity groups using the Volitional Questionnaire (VQ) with each participating consumer, two semi-structured interviews with consumers conducted with consumer-centered communication modifications, and researcher-generated field notes and reflexive journal. This resulted in the generation of themes about the perceived meaning of the day program activities according to the staff members and consumers and themes regarding perceptions of how the consumers demonstrate engagement in occupation. The researcher used procedures to increase the trustworthiness of the study. This included specific ways to address the credibility, transferability, dependability, and confirmability of the data and analysis (Lincoln & Guba, 1985).

Participants

Staff Member Participants

Number and How Determined

The staff members were a relatively homogeneous group of people who worked in the same agency in similar positions. While there are no specific rules for the number of participants in a qualitative study, data collection should continue until data saturation
or redundancy occurs or until no additional themes emerge (Patton, 2002). In a homogeneous group redundancy often occurs with six to eight participants (Kuzel, 1999). Therefore, this study planned to include a minimum of six staff participants, and the researcher planned to continue recruiting participants until no additional themes emerged or all the staff members had agreed or refused to participate. The researcher did not want to exclude any staff members who wanted to participate and was willing to keep recruitment open beyond the point of data saturation. The researcher reached data saturation after eight staff members had participated, and two additional staff members participated after this point.

**Inclusion Criteria**

Criteria for inclusion of staff participants required staff members to be employed in the program full time for at least six months. This ensured that the staff members had been at the agency long enough to be sufficiently oriented to the program and the consumers.

**Exclusion Criteria**

This study excluded staff members who spend less than 30 hours per week at the specific agency. This was to prevent difficulties scheduling meeting times for the interviews.

**Recruitment Procedure**

To recruit the staff members, the researcher sent a memorandum to full-time day program employees via e-mail and posting in the staff break room. The recruitment memo is included as Appendix D. At two staff meetings, the researcher made announcements about the general purpose of the study and invited participation from the
staff members. The researcher left copies of the informed consent form (Appendix E) on a table in the staff meeting room during and after the staff meetings. Approximately one week after distributing the memorandums, the researcher asked individual staff members if they had seen the memorandum, had any questions about the study, and were interested in participating. If the person showed interest in participating, the researcher gave him or her a copy of the informed consent form, answered any questions about the study, and attempted to set up a time to complete the interview. All but one of the initial staff interviews occurred during the staff members’ regular working hours. Two staff members asked the researcher to talk to a day program supervisor about making time available in their schedule for the interview; the researcher honored their requests.

Informed Consent

The researcher followed the requirements for ethical research by obtaining informed consent from all participants. For the staff members, the risks involved with this study included loss of confidentiality with study participation, loss of time, and negative emotional reactions about one’s job or program, especially when discussing the more dissatisfying aspects of one’s position. There was limited confidentiality regarding whether someone participated in the study. It was likely that other staff members knew which staff members were participating in the study because the participants spent individual time with the researcher. The researcher took every precaution to ensure that the content of the interviews and observations were kept confidential including keeping the audiotapes locked when not in use, transcribing the interviews by listening to the audiotapes through headphones, and de-identifying information in the transcripts.
The researcher gave a copy of the informed consent form to potential staff member participants when they expressed interest in the study. When the staff member met with the researcher, she first asked if the staff member had reviewed the informed consent form. If so, she asked if they had any questions. After answering any questions and ensuring that the staff member wanted to participate, the researcher instructed the staff member to sign the informed consent form and witnessed the signature. If the staff member had not previously reviewed the form, the researcher gave the staff member an opportunity to read it and asked if he or she had any questions. After the researcher answered the questions, the staff member signed the form and the researcher witnessed the signature. When setting up the second interviews, the researcher asked the staff members if they would like to meet with her again. One staff member no longer worked with the agency and did not participate in the second interview. The researcher was unable to contact another staff member for the second interview after an e-mail message, a note, and a phone message. Because the staff member did not reply to any of these communication attempts, the researcher interpreted this to mean that she no longer wished to participate in the study.

**Characteristics**

The following is a description of the characteristics of the staff member participants. The staff members who participated were women. The staff members were proficient in reading and writing English and had at least a high school diploma or equivalency as required by their job description. The researcher did not collect specific demographic information from the staff member participants beyond years of experience working with this population and at the targeted agency presented in Table 1. They had
an average of 5.8 years of experience working with people with developmental disabilities (range 1-13 years) and 4.3 years of experience working at the targeted agency (range 1-13 years).

Table 1

Staff Member Participant Characteristics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Years experience with DD</th>
<th>Years experience at agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>

Consumer Participants

Number and How Determined

Each participating staff member recommended several consumers who he or she believed would provide a good example to illustrate the points raised in the individual interview. The researcher attempted to have the same number of consumers participate as there were staff member participants so ten consumers were recruited. The consumers constituted a less homogeneous group in their ability to communicate, understand questions, and participate in activities. Ensuring that the staff participants did not significantly outnumber the consumer participants increased the diversity of the consumer responses and avoided putting more importance on the staff member perspective, which would have disempowered the consumers’ perspectives.
Inclusion Criteria

Inclusion criteria required consumers to meet the criteria for the day program which included having a diagnosed developmental disability as defined by the state of Illinois, live within a specified area or provide their own transportation, not require continuous one-on-one assistance or continuous medical care, and have funding or means to pay for services. The consumers who participated attended the targeted agency’s day program full time (6 hours a day, 5 days a week) for at least one year in order to participate in the study. This ensured that the consumer would likely be present at the day program during observation times. It also demonstrated that the consumer had acclimated to the day program environment and was less likely to leave the program during the study because he or she remained beyond an introductory period. The participants had to be able to provide informed consent or have a guardian who consented for them to participate for ethical research practice.

Exclusion Criteria

This study excluded consumers who spent less than 30 hours a week at the targeted agency due to potential difficulty scheduling observations and interviews. The study excluded any consumers whose family had limited English proficiency, because this could also be the case for the consumer, and it may not have been possible to obtain informed consent.

Recruitment Procedure

Recruitment of consumer participants was based on Patton’s (2002) principles of purposeful, intensity sampling which involves recruiting “information-rich cases that manifest the phenomenon intensely” (Patton, p. 243). To adhere to this concept, staff
members who participated in the interviews were asked for suggestions about consumers to invite to participate. Each staff member recommended two to ten consumers to invite to participate in the study. There was some overlap between the staff member suggestions. The researcher tried to include the consumers whom multiple staff members recommended. The researcher ensured that the list of consumers to recruit included a recommendation from each staff member participant. If the case manager did not provide contact information or the guardian refused to allow their wards to participate, the researcher recruited a different consumer from the list of staff members’ recommendations in order to recruit ten consumer participants. In addition, several staff members discussed the challenges of working with three of the consumer groups, which consisted of the consumers with the most significant disabilities in the agency. The researcher tried to include more consumers from those three groups for several reasons. Although the inclusion criteria for the consumers were broad, the researcher wanted to target consumers with moderate to severe developmental disabilities. The information from these consumers would be of maximal use to the staff members and would address their specific area of concern (i.e., how to engage the consumers in these specific groups). Moreover, focus on these groups of consumers met the researcher’s purpose of targeting people with moderate to severe developmental disabilities.

**Informed Consent**

The researcher obtained informed consent from guardians and assent or informed consent from the consumer participants as applicable. The consumer participants experienced similar risks for participation as the staff member participants. There was also a risk of repercussions to the consumers when the researcher shared information
from their interviews and observations with the staff in the second interview. This risk was minimized by not including any identifying information in the discussions of the themes, referring to the themes in general terms rather than according to specific examples, and discussing the staff member’s impression of the information. Because the consumers were meeting individually with the researcher, staff members and other consumers may have known which consumers were participating in the study. The researcher followed the same procedures as with the staff member participants to keep information confidential.

The researcher contacted the case managers assigned to the consumers initially identified as potential participants in order to determine if the consumers had guardians and if so, to obtain contact information for them. For the consumers with guardians, the researcher called the guardians to discuss the study and answer questions that the guardians had about the study. At that point, all the guardians were interested in his or her ward participating in the study, and the researcher sent the letter to guardians (Appendix F) and a guardian informed consent form (Appendix G) through the mail. One guardian asked the researcher to e-mail the information. The researcher honored this request and also mailed a copy of the official informed consent form. After one week if she had not received the signed consent, the researcher called the guardians to determine if they received the informed consent form and to answer any additional questions. Two guardians decided not to allow their wards to participate. Two alternate consumers were then invited to participate. The researcher repeated the process of procuring guardian consent as just described. One guardian asked to meet with the researcher when she visited the agency. After discussing the guardian’s questions, she consented for her ward
to participate and signed the informed consent form. The researcher made up to two follow-up phone calls to guardians. At the request of one guardian, she sent another copy of the informed consent form through the mail.

Once the guardian provided informed consent for a consumer to participate, the researcher obtained assent from the consumer (Appendix G). The researcher asked the consumer’s case manager to set up a meeting in which the researcher, consumer, and case manager would be present. During the meeting, the researcher explained the study in basic terms to the consumer, and the case manager asked the consumer if he or she wanted to participate in the study. If the consumers agreed, they gave their assent by signing the appropriate form. The case manager signed the form as a witness, and the researcher signed the form as the person explaining the study.

If the case manager initially informed the researcher that the consumer was his or her own guardian, the researcher asked the case manager to set up a meeting with the consumer, the researcher, and the case manager in order to explain the study. During the meeting, the researcher read through the informed consent form (Appendix G) and answered any questions that the consumer or case manager asked. The consumers signed the consent form and the case managers witnessed the signatures.

Informed consent is an ongoing process especially with people with cognitive disabilities (Burke et al., 2003; Dye, Hendy, Hare, & Burton, 2004; Lloyd et al., 2006; Yan & Munir, 2004). It is important that people understand that signing a consent form does not mean that they have to continue participating in the study. The researcher wanted to ensure that the consumers had the opportunity to withdraw from the study whenever they wished even if they were not able to clearly communicate that intent. The
researcher had several procedures in place to ensure that consumers had multiple opportunities to express their decision to continue participation in the study. During observations, the researcher watched for signs that the consumer did not want the researcher to be present and planned to discontinue observations if the consumer did not appear to want the researcher to be present. If the researcher had to discontinue observation on more than one occasion, the researcher would consider that the participant wished to withdraw from the study and would not collect any further data from that consumer. The researcher also watched for signs that the consumer wished to withdraw when she set up interviews with the consumers. In order to participate in the interview, the consumer had to leave an activity group with the researcher and go into a private room. If the consumer refused or showed distress about leaving the group, the researcher respected that desire. If that happened on more than one occasion, the researcher interpreted that as an indication that the consumer no longer wished to participate in the study.

Although these procedures were put in place to ensure that the consumers were able to demonstrate their desire to continue their participation in the study, no one expressed a desire to withdraw during the observations. However, three consumers withdrew prior to participating in the interviews. Two consumers withdrew from the study after the first observation by refusing to go with the researcher for the first interview. One consumer clearly said, “Not now, later.” when asked by the researcher for the second time to go for the first interview. Because he had clearly said, “later”, the researcher took this to mean that he did want to participate in the study but did not wish to do the interview at that time. When the researcher approached him later in a different
activity group and asked if he wanted to go with her to do the interview, he readily stood up and went with her. That consumer did withdraw from the study prior to the second interview (after all four observations and the first interview). When asked for the second time if he wanted to go with the researcher, he said, “not now”. Because he had not said, “later”, the researcher asked some questions to clarify. When the researcher asked him if he wanted her to meet with her anymore, he said, “no”. The researcher took this to mean that he no longer wished to participate in the study.

**Characteristics**

The following is a description of the characteristics of the consumer participants.

The consumers had developmental disabilities of sufficient severity to warrant day services as determined by the consumer’s family, service agency, and funding agency. The consumers who participate in the day program had mild to profound mental retardation and possibly other diagnoses such as cerebral palsy, epilepsy, autism, Down syndrome, or bipolar disorder. The consumers in the day program had a wide range of abilities. All of the consumers in the day program lived with their families or in an assisted living facility for people with developmental disabilities. The consumers required assistance with instrumental activities of daily living including money use and community safety. The consumers required supervision and assistance ranging from indirect supervision to total assistance for activities of daily living. Some of the consumers in the day program participated part-time in a sheltered workshop setting and were paid according to the number of items assembled or completed. Because of their cognitive disabilities, the consumers had difficulty understanding complex or abstract concepts. Their communication abilities ranged from the capacity to easily answer
questions with full sentences and engage in social conversation to lack of verbal language and only body language and facial expressions to communicate. Several consumers communicated between these extremes by using single words, simple phrases, pictures, or communication devices.

Information about the ten consumer participants is included in Table 2. The researcher did not review the consumers’ files so the information provided was based on self-report, guardian or case manager report, or researcher observation. It includes the consumer participants’ gender, approximate age, the staff member participants who referred them to the study, diagnosis if revealed, communication abilities, mobility, living arrangement, work arrangement, and assistance needed with self-care and daily living tasks. The staff members who recommended the consumers are identified in the table according to letters linked to their randomly assigned participant number.

Setting

This study occurred at a day program for adults with developmental disabilities in a suburban town in the Midwestern United States. The observations occurred during the typical programming within various activity groups. The interviews occurred in a private room at the facility with the door closed.

Program Description

Consumer Groups

The day program offered six hours of programming daily. The consumers participated in up to four activities per day in groups of eight to twelve consumers with a lunch break during midday. The activity groups range in length from one to two hours.
<table>
<thead>
<tr>
<th>Consumer</th>
<th>Gender</th>
<th>Staff who referred</th>
<th>Approx. Age</th>
<th>Diagnosis if known</th>
<th>Communication</th>
<th>Mobility</th>
<th>Living Arrangement</th>
<th>Work Arrangement</th>
<th>Assist with self-care</th>
<th>Assist with daily living</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>F</td>
<td>B, D, G</td>
<td>30s</td>
<td></td>
<td>Facial expressions, gestures</td>
<td>Wheelchair, physical assist</td>
<td>Family</td>
<td>None</td>
<td>Full physical</td>
<td>Total</td>
</tr>
<tr>
<td>2</td>
<td>F</td>
<td>I, A, C</td>
<td>51</td>
<td></td>
<td>Complete sentences</td>
<td>Independent walking</td>
<td>24 hour staff</td>
<td>Off-site sheltered workshop</td>
<td>None</td>
<td>Assist with higher level DL</td>
</tr>
<tr>
<td>3</td>
<td>F</td>
<td>C</td>
<td>50s</td>
<td>Down synd.</td>
<td>Single words, short familiar phrases</td>
<td>Independent walking</td>
<td>24 hour staff</td>
<td>None</td>
<td>Physical</td>
<td>Total</td>
</tr>
<tr>
<td>4</td>
<td>F</td>
<td>E</td>
<td>20s</td>
<td></td>
<td>Facial expressions, Device</td>
<td>Wheelchair, physical assist</td>
<td>24 hour staff</td>
<td>None</td>
<td>Full physical</td>
<td>Total</td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>H, B</td>
<td>20s</td>
<td>Autism</td>
<td>Gestures, movements</td>
<td>Independent walking</td>
<td>Family</td>
<td>None</td>
<td>Unknown</td>
<td>Total</td>
</tr>
<tr>
<td>6</td>
<td>M</td>
<td>G, D</td>
<td>40s</td>
<td>Down synd.</td>
<td>Complete sentences, difficult to understand</td>
<td>Independent walking</td>
<td>Unknown</td>
<td>On-site sheltered workshop</td>
<td>Unknown</td>
<td>Some assistance</td>
</tr>
<tr>
<td>7</td>
<td>F</td>
<td>A, E</td>
<td>30s</td>
<td></td>
<td>Single words, short phrases</td>
<td>Independent walking</td>
<td>Family</td>
<td>None</td>
<td>Physical</td>
<td>Total</td>
</tr>
<tr>
<td>8</td>
<td>M</td>
<td>D</td>
<td>30s</td>
<td>Down synd.</td>
<td>Complete sentences, difficult to understand</td>
<td>Independent walking</td>
<td>Family</td>
<td>On-site sheltered workshop</td>
<td>Unknown</td>
<td>Some assistance</td>
</tr>
<tr>
<td>9</td>
<td>M</td>
<td>F, J</td>
<td>50s</td>
<td></td>
<td>Short sentences</td>
<td>Independent walking</td>
<td>24 hour staff</td>
<td>On-site sheltered workshop</td>
<td>Unknown</td>
<td>Some assistance</td>
</tr>
<tr>
<td>10</td>
<td>M</td>
<td>J, A, F, H</td>
<td>40s</td>
<td></td>
<td>Single words, short phrases</td>
<td>Independent walking</td>
<td>Unknown</td>
<td>None</td>
<td>Unknown</td>
<td>Total</td>
</tr>
</tbody>
</table>
There were usually one to two staff members working with a group depending on the support needs of the consumers in the group.

There were nine different types of activities offered at the day program in this study. They included Computer group, Library group, Arts and Crafts, Recreation, Training, Cooking, Music, Sheltered Workshop, and community outings. In Computer group, the consumers surfed the internet or completed educational software programs such as basic money concepts. The consumers with significant physical disabilities had access to a single switch to activate a choice in the computer program. In Library group, the consumers looked at or read magazines, listened to books on tape, or listened to someone reading the newspaper. In Arts and Crafts, the consumers completed an assigned craft. In Recreation, the consumers participated in group or individual games or identified flash cards. In Training, the consumers worked on activities of daily living and instrumental activities of daily living including cleaning, money management, nutrition, or self care. The clients with significant disabilities may participate in sensory activities during the training group. In Cooking group, the consumers took turns adding ingredients, stirring, or measuring to make one item. In Music, the consumers sang songs, listened to live music, identified songs, and played instruments. In the Sheltered Workshop, the consumers completed basic assembly tasks. There were usually several groups of consumers in the workshop at the same time. There was also an off-site Sheltered Workshop where some of the consumers worked for half a day. The community outings included trips to the local library, bowling alley, bingo, or special activities such as boating. The consumers generally participated in one community outing each week. They participated in the other group activities several times a week with each
group participating in two to four activities per day depending on if they worked in the Sheltered Workshop.

**Staff Responsibilities**

The staff members in this program were responsible for implementing consumers’ goals from their Individualized Service Plans, providing activities related to different groups, and providing assistance to facilitate consumer participation in the group activities. The staff members were trained in CPR, First Aid, and Direct Service Provider training as required by the state of Illinois. The Direct Service Provider training consisted of Introduction to Developmental Disabilities; Abuse and Neglect; Individual Service Plans; Human Interaction and Communication; Human Rights; Adult Living Skills; Human Growth; and Basic Health, Wellness, and Safety.

There were team leaders for some of the activity areas including the sheltered workshop, cooking, recreation, music, and arts and crafts. The team leaders were responsible for planning for their respective group activities although other staff members may actually implement the activities.

**Physical Space**

The physical space of the day program consisted of multiple rooms, one for each activity area. A schematic of the physical space is included in Appendix H. The furniture and equipment varied in each activity room. At the beginning of the day, the consumers entered the building from the bus drop-off area in the back of the building and waited in the lunch room area for staff members to gather the group for the first activity.
Equipment

This study involved minimal use of equipment. All interviews were tape recorded with a cassette tape recorder. The consumer interviews used printed pictures from a digital camera or Boardmaker software.

Instruments

This study used two semi-structured interview guides: one for the staff interviews and one for the consumer interviews. The interview guides are included in Appendixes A and C.

The researcher used the VQ to structure the observations of the consumers. The observation form and environmental characteristics form are included in Appendix B.

Data Collection Procedures

Staff Member Interviews

The purpose of the interviews with staff members was to determine what the meaning of the activities in the day program was from the perspective of the staff members and to determine which consumers to recruit. The researcher interviewed and audiotaped the ten staff members using the interview guide in Appendix A. The researcher recorded and transcribed each interview verbatim with the exception of names, which the researcher transcribed as pseudonyms. The researcher gave the staff participants an opportunity to review their own interview transcript for accuracy (Van Manen, 1990). One staff member did not review her interview transcript due to withdrawing from the study. From this information, the researcher determined what the
staff members find meaningful about the activities that they do with the consumers. Because staff interviews were taped and to assure that the interview session was as natural as possible, the researcher did not take notes about what the staff members said with the exception of information related to consumer participant recruitment suggestions; rather she took notes to record nonverbal communication such as use of an expression or gesture to supplement comments.

**Consumer Observations**

The consumer observations occurred during the regular activities in the day program. By virtue of the group activities, the researcher observed all the consumers and staff members in the group but only collected data/observation notes for the consumers who consented to participate in the study. The researcher took field notes using the VQ observation form and environmental characteristics form to structure the observation. During data collection through participant observations with the consumers, the researcher used the PEO model by noting aspects of the person, environment, and occupation that facilitated or inhibited engagement. These forms are included in Appendix B.

**Participation During Observations**

While observing consumers for data collection, the researcher’s participation ranged from being an onlooker to being an involved participant (Patton, 2002). As often as possible, the researcher maintained an onlooker role to minimize any effect her presence had upon the lived experience of the observed group. As recommended by Patton (2002), the researcher adjusted the amount of involvement in participant
observation based on what would yield the most useful information about the program activities.

The researcher did not try to take the role of the detached observer because she did generally sit next to other consumers within the activity area. She participated in ongoing conversations and answered questions from the consumers (most often, “What’s your name?”). After the consumers who were not participating in the study knew who the researcher was, several would greet her when she joined a group. She attempted to limit her involvement that would affect the scoring of the VQ.

The researcher’s participation changed to involvement during some instances when she complimented the consumers’ work and noted their reactions if they had not spontaneously expressed pride or a staff member had not commented on their performance. This interaction did not appear to change the group dynamics and is permitted within the administration instructions in the VQ manual (de las Heras et al., 2007). On one occasion in the computer lab, the researcher worked with the consumer being observed after the staff member moved on to work with a different consumer in order to see how she reacted to different things with the computer and give her an opportunity to demonstrate the following items from the VQ: *Tries new things* and *Seeks challenges*. The researcher noted when a consumer’s response was based on her intervention or interaction instead of the group participants. During another observation, the consumer that the researcher was observing was not engaged in an activity in the training group and the staff member did not attempt to engage her. When the activity changed to a group discussion about nutrition, and the staff member did not include the consumer being observed, the researcher asked, “What about C--?” in order to see any
how the consumer would react to the group activity. The staff member expressed surprise and then asked the consumer about which food she preferred. During the majority of the observations, the researcher limited her participation in the groups in order to capture the essence of the activity groups.

**Pre-observation**

Based on the staff members’ recommendations, the principal researcher recruited the ten consumers. The researcher generated a list of what the staff members reported as the consumer participants’ preferred and un-preferred groups. The researcher observed the consumer in his or her first available preferred group after obtaining consent and assent. For subsequent observations, the researcher generated a list of activity groups to observe based on information from the consumer in the first interviews.

**Observation**

At the beginning of each observation, the researcher generated a field note. She noted the time, date, group setting, number of consumers and staff members in the room, the specific activity for the session, as well as draw a simple sketch of the room including the locations of the consumers and staff, specifically marking the locations of the consumer being observed and the researcher.

*Use of Volitional Questionnaire.* The researcher observed the consumer and the group activities in order to complete the VQ. The researcher noted aspects of the environment and task on the form. She wrote down what the consumer participant was doing and what was happening at that time. She wrote down examples for the majority of the items on the VQ as well as assigning a score. If there was a question about which score to assign, the researcher wrote down examples observed and checked the VQ.
manual following the observation to clarify which score would be more appropriate. The researcher ended the observation, noted the time, and completed scoring the VQ when she felt that she had sufficiently captured the consumer’s participation in the activity or group. Details about the length of each observation are included in the consumer data audit trail in Appendix M.

*Field notes.* In addition to the VQ, the researcher took field notes during the observation. The field notes included the general sequence of events that happened during the group, the consumer participant’s reactions, any direct quotes from the consumer participant or staff members that affected the consumer participant’s engagement, and anything unexpected or unusual that happened during the group.

*Post-observation*

The researcher typed the field notes and summary of the VQ on the same day as the observation with the exception of four field notes, which were completed the following day. In this field note, the researcher noted her own perceptions about the observation as a source of possible bias (Patton, 2002). The researcher used the format in Table 3 for the typed field notes. She reviewed several of the field notes with one of the dissertation committee members in order to check the amount of detail included and discuss initial analysis.

Table 3

*Typed Field Note Format*

<table>
<thead>
<tr>
<th>Participant #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td>Time observation started-time ended</td>
</tr>
<tr>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Activity group</td>
</tr>
<tr>
<td>Observation # (out of 4 for each consumer) preferred or un-preferred activity</td>
</tr>
<tr>
<td>• General information about number of people in room, activity, materials, and physical set up of room</td>
</tr>
<tr>
<td>• More detailed information about the activity sequence of events, what staff did, and general reactions from the consumers including quotes when possible</td>
</tr>
<tr>
<td>• Detailed information about what the consumer participant was doing in response to the activity, staff members, and other consumers including quotes when possible</td>
</tr>
<tr>
<td>• Information about the researcher’s participation especially if she did something to elicit a response from the consumer participant</td>
</tr>
<tr>
<td>• Summary of the VQ results, examples of how the consumer participant exhibited the behaviors, and notes about items that were difficult to rate</td>
</tr>
<tr>
<td>• The researcher’s feelings about the observation if they may have affected interpretation to account for researcher bias (e.g., One observation frustrated the researcher because the consumer participant had very minimal interaction from staff members during the observation, she had no materials in front of her, and the activity involved a nutrition discussion with a group with consumers who do not eat orally. Another observation was fun for the researcher as she smiled with the consumers dancing and singing and laughed with the music instructor changing the lyrics to songs.)</td>
</tr>
</tbody>
</table>
Consumer Interviews

The interviews with the consumers served multiple purposes. One was to find out what the consumers indicated were preferred and less preferred activity groups. The researcher used this information to determine which groups in which to observe the consumers. The researcher believed that she would observe differing levels of engagement by observing the consumers in preferred and less preferred activities. The consumer interviews also allowed the consumers to express themselves through a variety of means such as choosing pictures, reactions to pictures and comments, and the consumers’ own words.

Pre-interview

Prior to interviewing the consumers, the researcher took photos of each of the activity groups from the perspective of the consumer. These photos consisted of the materials used in the activity and potentially, the group leader of the activity. Black and white versions of these photos that did not include the group leader are included in Appendix J. The researcher used color photos with the consumers in the interviews. The researcher used photos of the activity groups to serve as visual prompts of choices for the interview questions (Carnaby, 1997; Mactavish et al., 2000). There is evidence in the literature that providing pictures can compensate for response biases common in people with developmental disabilities (Heal & Sigelman, 1990; Sigelman & Budd, 1986; Sigelman, Budd, Winer, et al., 1982; Sigelman, Winer, et al., 1982).

The researcher also prepared the pictures included in Figure 1 using Boardmaker software. These pictures were used as a visual cue for the question the researcher asked (Sigelman & Budd, 1986; Sigelman, Winer, et al., 1982).
Interview

After the first observation, the principal researcher interviewed the consumers using the interview guide in Appendix C. The researcher audiotaped the consumer interviews, and she took steps to ensure that the consumers’ communication was recorded on the tape. The researcher accomplished this by commenting when the consumer expressed something with an expression or body movement so that there was a record of it on the tape. The researcher was unable to take notes during the majority of the interviews with the consumers due to presenting the pictures. The researcher attempted to verbally say things that she may have noted so that there would be a record of it in the transcript. If the consumer used gestures or expressions to answer yes/no questions, the researcher would verbally express the answer she understood the consumer to give and ask if she understood it correctly. An example of this from a consumer interview transcript appears below:
Researcher (R): Over here is computers; over here is recreation. Show me with your hand which one is more fun.

Consumer (C): (lifts hand for computers)

R: Ok, you look like you’re lifting up computers. The side for computer. Is computer more fun than recreation?

C: (shows yes)

The researcher’s comments during the interview included observations about the consumer picking up, looking at, or pointing to a specific picture. If the researcher had difficulty understanding the consumer, she repeated what she understood the consumer to say to check if she was correct. This also aided in transcription accuracy.

The researcher started the interview by reminding the consumer that she wanted to learn more about what the consumer liked about the groups. The researcher presented the happy face symbol in Figure 1 and said that she wanted to find out which groups were “fun”. The happy face symbol and subsequent yucky face symbol served as visual cues to help the consumer remember the question (Sigelman & Budd, 1986; Sigelman, Winer, et al., 1982). If the consumer used verbal language, the researcher asked the consumer to identify the group in the photograph by holding it up and asking, “What group is this?” If the consumer answered correctly, the researcher asked about the next picture. If the consumer answered incorrectly or did not answer, the researcher told him or her which group it was. This ensured that the consumers understood what was pictured. As a result of this check, the researcher took additional photographs to clarify and differentiate the recreation and training groups after the fifth interview. If the consumer did not use verbal
language to communicate, the researcher presented the photographs one at a time and named them for the consumer.

There is evidence in the literature that presenting two to four picture choices aids in the ability of people with developmental disabilities to accurately answer questions (Heal & Sigelman, 1990; March, 1992). The researcher put two photographs on the table below the happy face symbol and asked, “Which one is fun?” In two instances with nonverbal consumers, the researcher held up the two photographs and asked the consumer to indicate which one was fun. The researcher said which photograph the consumer chose through eye gaze or arm movement so there was a record of it on the audiotape. The researcher repeated this until she had asked about each of the activity groups. She then represented the photographs that the consumer had indicated were fun to narrow down the most preferred groups.

The researcher was aware of whether the consumer consistently picked the photograph in a specific location, e.g., the photograph on the left. When the researcher noticed this happening, she deliberately placed a photograph of a group that the researcher thought the consumer preferred in a different location based on staff member reports or researcher observation. After the researcher had narrowed down the consumer’s favorite groups, she asked what was fun about the favorite groups.

The researcher changed the happy face picture to the yucky face picture shown in Figure 1 and told the consumers that now the researcher wanted to find out about which groups were yucky. The researcher used the same procedure as with the preferred pictures except she did not ask the consumers to name the pictures again and she did not include the groups that the consumer had indicated were favorites. The researcher did
include the pictures that the consumer had previously indicated were fun but grouped them with a different activity choice. This was an attempt to compensate for the limitation of asking the consumer to name a favorite between a series of two photographs. When the consumer had narrowed down their least favorite groups, the researcher asked what was yucky about those groups.

After completing an interview with the consumer, the researcher conducted three more observations of the consumer—one in a preferred activity group and two in a less preferred or non-preferred activity group as reported by the consumer in the interview. The researcher completed the VQ for each observation and wrote the field notes as described previously.

Procedure Variations

There was one consumer who did not understand the concept of “yucky”. The researcher tried to explain it in a different way, but the consumer continued to choose the pictures that he had previously indicated were fun and that staff members had noted that he enjoyed. Other than noting which groups the consumer did not choose when talking about fun groups, the researcher did not have information about un-preferred activities from this consumer. Interestingly, this is the same consumer that recommending staff members had difficulty naming groups that the group did not like; the staff member reported that the consumer would find something to do to enjoy all the groups.

Two of the consumer participants did not use the photographs. One of the consumers kept her eyes closed during most of the interview as she did most of the time. The researcher presented the pictures on her right side and left side with verbal and tactile cues (e.g., touching the knee on the side corresponding to that picture), and the consumer
responded by moving her respective arm to indicate which group she was choosing in answer to the question. Another consumer had more advanced cognitive skills than any of the other participants. When the researcher started the interview, the consumer spontaneously started talking about which groups she preferred. The researcher still asked about all of the groups but in a less structured way in order to accommodate for this consumer’s preferred method of communication.

During the analysis phase and after discussion with one dissertation committee member and another researcher familiar with the VQ, the researcher rescored the VQ for some of the observations. During the observations, the researcher completed the VQ based on whatever the consumer was engaged in whether it was the group activity or a self-selected activity that they were allowed to complete within the group. In order to further distinguish engagement in program activities and engagement in self-selected activities, the researcher first noted which observations involved self-selected activities. For the ten observations with five different consumers in which the consumers were involved with a self-selected instead of the group activity, the researcher used the observation notes to rescore the VQ based on the consumer’s engagement in the group activity.

Post-observation

The researcher transcribed the interviews and researcher’s verbal notes from the interview audiotapes. During transcription, the researcher noted whether the consumer was answering or showing the action by putting it in parentheses. In this way, it was easy to determine what the consumer actually said versus what the researcher interpreted based on the consumer’s actions. The researcher transcribed any names mentioned as
pseudonyms. During one interview, the consumer participant talked about a recent doctor’s appointment. The researcher did not include this personal health information in the transcript due to its potential identifying nature and because it did not relate to a question that the researcher asked.

Second Consumer Interviews

Pre-interview

The researcher completed the wholistic and selective levels of data analysis described later in this chapter about the meaning of the day program activities from the perspective of the consumers prior to these interviews. The researcher attempted to conceptualize and name the themes in such a way so that they were relatively concrete and could be understood through pictures.

The researcher prepared one page with photographs downloaded from the internet and line drawings from Boardmaker software to represent each initial theme. These initial themes reviewed with the consumers included interacting with people, making choices, having something to look at/hold in hand, making money, being invited to participate, knowing the routine, and that it’s yucky when there’s nothing to do. Black and white versions of the pictures are included in Appendix K. The researcher used color pictures with the consumers.

Interview

After all of the observations were completed, the researcher interviewed each consumer again using the interview guide in Appendix C. The researcher followed a similar procedure as the first interview and asked again about preferred groups. The researcher asked about the groups in a different order than for the first interview so that
the consumer had an opportunity to choose between a series of two different picture combinations. The researcher did not specifically ask about non-preferred groups during the second interview.

The researcher told the consumers about the initial themes that she had developed based on the consumer observations and interviews. The researcher presented the pages one at a time and explained what each one meant. The researcher asked the consumer about which of these was important to him or her either through a series of yes/no questions if that was the consumer’s preferred method of communication or by giving choices. The researcher did not want to bias the consumer’s ability to indicate the themes important to him or her by forcing a choice between two of the themes. Therefore, the researcher put the pages on the table and encouraged the consumer to show or tell what was important to him or her. This is a potential limitation because there were eight choices instead of the recommended two to four (Heal & Sigelman, 1990). This served as a member check with the consumers (Denzin & Lincoln, 2005) and has been previously done with photographs as a member check with adults with mild to severe developmental disabilities (Mactavish et al., 2000).

The researcher audiotaped and transcribed these interviews using the same procedure described earlier to capture the consumers’ nonverbal communication. The researcher transcribed names mentioned as pseudonyms.

Second Staff Member Interviews

Pre-interview

The researcher completed the wholistic and selective levels of data analysis described later in this chapter about the meaning of the day program activities from the
perspective of the staff members prior to these interviews. The researcher presented the themes discussed later in the selective analysis section with the staff members.

**Interview**

Once the consumer observations and interviews were completed, the researcher completed the second interview with staff participants using the interview guide in Appendix A. This second staff member interview reviewed the preliminary analysis of the data and served as a member check (Denzin & Lincoln, 2005; Dickie, 2003). It was also an opportunity for the staff member to add information after hearing the consumer perspective and share another experience that may have been prompted by seeing the researcher observing the groups and the time that had passed since the first interview. The researcher shared the themes about meaning of the day program activities from the perspectives of the staff members and consumers during the second interviews with the staff members. The researcher shared the pictures she had used during the second consumer interviews with the staff member participants.

The researcher audiotaped the interviews and transcribed them verbatim with the exception of names, which were converted to pseudonyms. The researcher wrote minimal notes about the staff members’ nonverbal communication and important points during the interviews. These notes were incorporated into the transcripts.

**Treatment of Data**

The researcher followed accepted practices in qualitative research to maintain confidentiality and to control for the risks associated with the study. The researcher de-identified all written data. All names included in transcripts, field notes, and this
document were pseudonyms. The participants were given random assignment numbers so that all data ascribed to each participant were tracked by number. The number was associated with the participant’s name only on the original informed consent forms that the researcher kept in a locked box in her home office. The researcher kept all notes and transcripts de-identified by using pseudonyms and labeling the notes only with the participant number. All data with identifying information about the participants were kept in a locked box in the researcher’s home except when it was first collected at which time it was kept in a locked box in the researcher’s office in the agency.

The researcher transcribed all audiotapes verbatim with the exception of names which were transcribed as pseudonyms and the health information one consumer shared during an interview as stated earlier. There were technical difficulties with two audiotapes of staff interviews, one during a first interview and one during a second interview. The researcher wrote copious notes about these interviews when she realized that there were problems with the audiotapes and included as many direct quotes as she could from the interview. The researcher listened to the tapes through headphones in an area other than the agency where the study took place and where no other agency employees were present. When the researcher was not listening to the tapes, they were kept in a locked box to which only the researcher had access. The tapes were in a locked box in the researcher’s home except on the day of the interview when they were locked in a box in the researcher’s office at the agency or when being transcribed. The researcher will destroy all audiotapes by manually cutting the tape three years after the study.
Specific Data Analysis Procedure

The researcher analyzed the data using thematic analysis primarily using principles described by Van Manen (1990). Data analysis occurred throughout the collection, transcription, and subsequent reading of all data (Patton, 2002). During analysis, the researcher did not specify themes according to person, environment, and occupation factors as in other studies guided by the PEO model (McGuire et al., 2004; Murray et al., 2007), but the PEO model guided the researcher’s understanding of the interactions between phenomena that informed the development of the themes. Van Manen described three levels of data analysis: wholistic, selective, and detailed. In the wholistic approach, the researcher attends to the information from an interview transcript or observation field note as a whole to determine what the overall message is. During the selective approach, a researcher conducts repeated readings and chooses phrases or statements that represent the experience related to the overall message previously noted during wholistic analysis. In the detailed approach, the researcher looks at each line and determines what it says about the experience. The results of this hierarchical analysis are themes that represent the lived experience of the participants. Throughout the data analysis process, the researcher kept a data analysis journal describing initial and subsequent codes, descriptions of the codes, analytic decisions, ideas that emerged related to the analysis, and the evolution of the codes as data collection continues. The researcher created a matrix to demonstrate the evolution of the themes. Tables from that matrix are included in the following sections to demonstrate the development of the themes. The following sections are detailed information about how the researcher completed these
levels of analysis in order to answer each of the research questions and are organized according to the research questions.

*Meaning of Day Program Activities: Staff Members’ Perspective*

*Wholistic Approach*

The researcher used the wholistic approach to data analysis during transcription. The researcher listened to each tape for the first staff interviews once prior to transcribing it to get an overall feel for the information and check for any technical problems with the tape. The researcher listened to each tape at least three times during transcription including once after the transcript was complete to check again for accuracy. Listening to the tapes multiple times helped the researcher immerse herself into the data so that when she read the transcripts multiple times, she could recall the staff members’ inflection, emphasis, and pace.

After listening to the staff interview audiotapes multiple times and reading through the transcript, the researcher wrote a phrase or two to capture the essence of the interview. As an example, the researcher wrote “getting consumers engaged in activity and difficulty engaging consumers with more significant disabilities” as the focus of what one staff member discussed in her interview.

*Selective Approach*

Building on the wholistic analysis of the overall meaning expressed, the researcher sought more information about what the participants found meaningful in the program activities through the selective approach to data analysis resulting in the emergence of initial themes to describe the meaning of the activities in the day program according to the staff members. The researcher conducted repeated readings of each
transcript to further immerse herself in the data. After reading a transcript multiple times, the researcher underlined statements in which the participant was describing or demonstrating something related to the wholistic message of meaning. The researcher reviewed the underlined passages and used a phrase to name what the passage demonstrated about what was meaningful to the participant. The researcher described the overall point from each source in a short phrase or code. The researcher listed each of these phrases on the transcript and grouped them by positive and negative aspects of the activity for each of the participants.

The researcher created a document with these codes from the staff members. She went through them to determine commonalities across staff members, grouped similar codes together, and named themes. The researcher determined how many staff members talked about each of these themes and decided what codes to combine under the themes. The information with these initial themes and the number of staff members who talked about them is included in Table 4 to demonstrate the progression of data analysis.

Table 4

Initial Themes from Staff Member Participants

<table>
<thead>
<tr>
<th>Initial Theme</th>
<th>Number of staff member participants who discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers engaged/excited/enjoying activity</td>
<td>10</td>
</tr>
<tr>
<td>Relationship with consumers</td>
<td>9</td>
</tr>
<tr>
<td>Building skills/seeing progress in consumers</td>
<td>8</td>
</tr>
<tr>
<td>Difficulty with understanding consumer communication</td>
<td>6</td>
</tr>
<tr>
<td>Difficulty dealing with consumer behavior</td>
<td>6</td>
</tr>
<tr>
<td>Lack of structure in activities</td>
<td>5</td>
</tr>
<tr>
<td>Difficulty compensating for consumer physical skills</td>
<td>4</td>
</tr>
<tr>
<td>Staff feeling like they’re making a difference</td>
<td>4</td>
</tr>
<tr>
<td>Limited materials in activity groups</td>
<td>4</td>
</tr>
<tr>
<td>Not enough staff coverage</td>
<td>4</td>
</tr>
</tbody>
</table>
The researcher included all the themes that at least two staff member participants talked about. Following Van Manen’s (1990) procedure, the researcher wrote about the themes to determine how to organize them. Four main categories were identified: a) relationship between staff members and consumers, b) aspects of the consumers, c) aspects of the activities, and d) aspects of the environment. All of the initial themes were organized into these categories. The researcher presented the initial themes to the staff members during the second interviews as a member check.

**Detailed Approach**

In order to complete the detailed data analysis approach and further define and consolidate the themes, the researcher went back through the original transcripts to color code statements according to the initial themes. The researcher determined line by line how the statement contributed to how the participant experienced meaning in the activities. The researcher grouped the color-coded statements under each of the initial categories about what the staff find meaningful in the activities.

The researcher recognized that the themes developed so far were not distinct and overlap was evident between the themes. The researcher continued re-reading each
transcript with the goal of revising the initial themes so that all data could be categorized into themes with minimal overlap between the themes (Patton, 2002).

The researcher had a series of discussions with dissertation committee members and continued writing about the themes to determine how to organize and collapse the themes in order to represent the participants’ lived experience of meaning in the day program activities. The four categories that the researcher made during the selective analysis were not distinct or descriptive enough to represent the staff members’ experiences of meaning, so she continued working with the initial themes without regard for the four categories. The researcher provided committee members with evidence from the original transcripts to support the initial themes. The researcher re-read related literature to assist with theme organization. As the researcher developed an idea about how to collapse the themes, she created graphic representations of how the themes may fit together. The researcher wrote about the developing themes and their relationship to the data and literature in order to organize and collapse the themes (Van Manen, 1990).

When the researcher was deciding on the term to use to name the theme, she completed etymological analysis on possible terms in order to determine which one best represented the phenomenon in accordance with Van Manen. For example, the researcher studied the definitions and history of the terms engagement, participation, and involvement to determine which term best fit with the staff members’ experience of meaning in the program activities. The researcher wrote and developed these ideas, continued sharing these ideas with dissertation committee members and other researchers, and read and reflected on the transcripts and field notes; subsequently themes emerged that represented staff perceptions and experiences. When she had collapsed the themes, she re-read the
transcripts to ensure that the themes were represented in the original data. The organization of these initial themes into the findings is included in Table 9 in Chapter 4.

**Meaning of Day Program Activities: Consumers’ Perspective**

There is a challenge inherent in ascertaining meaning in a population with cognitive disabilities and limited communication. The consumers were often unable to communicate what was meaningful about the activities during their interviews. However, when the consumers chose pictures to tell the researcher which groups were fun, they were also telling her what they find meaningful. When the consumers indicated which groups were “yucky”, they were telling the researcher which groups were not meaningful to them. This corresponded to how the staff indicated what was meaningful to them through narratives about satisfying and dissatisfying experiences. Although the consumers were not able to expand their information to narrative form or verbalize what aspects of the activities were important or meaningful, the researcher was able to discern this information. The researcher accomplished this by observing the consumers in preferred and non-preferred activity groups and noting the differences in the activities, environment, and consumer responses in these activities.

The Volitional Questionnaire (VQ) was especially helpful in noting what these differences were. The VQ breaks down engagement into distinct observable behaviors that demonstrate one’s motivation for an activity, which directly relates to what one finds meaningful about the activity. The Environmental Characteristics Form includes aspects of the environment and activity that can affect motivation and engagement. By comparing the consumers’ responses, the activities, and the environment with the VQ in different groups, the researcher was able to determine in what aspects of the groups the
consumers found meaning and how they demonstrated engagement in activities that were meaningful.

Wholistic Approach

The researcher triangulated interview and observation data from the consumers to determine what they find meaningful in the day program activities. The researcher started the wholistic analysis while transcribing the interviews with the consumers. During the wholistic analysis, the researcher noted which groups the consumers indicated as fun or yucky. The consumers’ reports of preferred and un-preferred groups are included in Table 5. This information determined in which groups the researcher completed the remainder of the observations of the consumers. The information about how many observations the researcher made in each activity group is included in Table 6.

The researcher continued the wholistic approach to data analysis when reviewing, expanding, and transcribing the observation field notes with the consumers. The researcher used information gleaned during the transcription process to make decisions about future observations. For example, the researcher specifically sought to observe a consumer in an afternoon preferred group after observing her sleeping in an afternoon un-preferred group. She was looking for information to support the idea that sleeping was a way that this consumer demonstrated lack of interest rather than as a result of being tired at the end of the day.
Table 5

Consumers’ Preferred and Un-preferred Activity Groups

<table>
<thead>
<tr>
<th>Consumer</th>
<th>Fun groups</th>
<th>Yucky groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arts/Crafts, Computer*, Music*</td>
<td>Recreation*, Library, Training*</td>
</tr>
<tr>
<td>2</td>
<td>Arts/Crafts*, Outings, Music</td>
<td>Training*, Library*</td>
</tr>
<tr>
<td>3</td>
<td>Music*</td>
<td>Training*</td>
</tr>
<tr>
<td>4</td>
<td>Music*</td>
<td>Library*</td>
</tr>
<tr>
<td>5</td>
<td>Recreation*, Music*</td>
<td>Computer*, Library*</td>
</tr>
<tr>
<td>6</td>
<td>Recreation*, Work, Cooking*</td>
<td>(Did not understand concept of “yucky”)</td>
</tr>
<tr>
<td>7</td>
<td>Computer, Cooking*</td>
<td>Training, Library*, Arts/Crafts* (staff member had reported as preferred)</td>
</tr>
<tr>
<td>8</td>
<td>Library*, Music</td>
<td>Training*, Computers*</td>
</tr>
</tbody>
</table>

Note. Observations occurred in groups marked with an asterisk.

Table 6

Observations by Group

<table>
<thead>
<tr>
<th>Activity Groups</th>
<th>Number of Observations</th>
<th>Number of consumers with observation(s) in this group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Music</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Training</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Arts and Crafts</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Recreation</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Computer</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Cooking</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Workshop</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
After one observation, the researcher noted, “Patricia seems to get more involved with activities once she has had a turn and is really invited to participate in the activity. It has happened several times when observing her that she becomes more engaged after having her turn.” There were some consumer interviews that led to more in-depth analysis beyond preferred and un-preferred groups including this note the researcher wrote after one interview which appeared to sum up the consumer’s perspective: “I’m a do-er, not a sitter.”

Selective Approach

The researcher completed a similar process as previously described with the staff member interviews to complete the selective level of analysis with the consumer observations and interviews. This selective level of data analysis resulted in initial themes to describe the meaning of the day program activities from the perspective of the consumers.

The researcher read the field notes and interview transcript for each consumer. The researcher read each note individually and grouped by consumer. In this way, the researcher could compare and question how the consumers approached different activities. The researcher compared when the consumers were more engaged in an activity and approached it in a more positive fashion with observations where the consumers were not engaged in an activity or were demonstrating negative affect as established by the scores on the VQ. The researcher considered environmental and activity factors that were different in groups that the consumers reported as fun or yucky to determine which aspects of the activities were meaningful. The researcher underlined phrases in the note or transcript that demonstrated how the consumer approached or
engaged in the activity and the environmental or activity factors that affected meaning. The researcher named these initial themes of what these underlined sections represented.

The researcher also analyzed the observation notes and VQ scores according to the group in which the observation took place. The researcher looked for similarities across the scores to determine what the consumers found meaningful in the different activity groups. The researcher also compared the frequency of the use of VQ scores in the groups that the researcher had observed at least four consumers to look for patterns among these different groups to determine what was meaningful in these commonly liked and disliked groups. This information is included in Table 11 and Figure 2 in Chapter 4.

As with the staff members’ data, the researcher created a document with the themes from each of the consumers. She compared the themes across all of the consumers and determined commonalities represented by at least two consumers and that demonstrated the difference in VQ scores in music, library, and training groups. The researcher attempted to name these common categories something relatively concrete so that they could be represented by pictures and understood by the consumers. These themes are shown in Table 7 to demonstrate the data analysis progression. The researcher presented these themes to the consumers in the second interviews as a member check. The researcher also presented this information to the staff members during their second interviews as another form of data checking to determine if the staff members agreed that these may represent factors important to the consumers.
Table 7

*Initial Themes from Consumer Participants*

<table>
<thead>
<tr>
<th>Initial Theme</th>
<th>Number of consumer participants who discussed or demonstrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interacting with people</td>
<td>10</td>
</tr>
<tr>
<td>Having objects to manipulate</td>
<td>9</td>
</tr>
<tr>
<td>Yucky when there’s nothing to do</td>
<td>8</td>
</tr>
<tr>
<td>Making choices</td>
<td>7</td>
</tr>
<tr>
<td>Knowing the routine and expectations</td>
<td>7</td>
</tr>
<tr>
<td>Activity having a purpose</td>
<td>6</td>
</tr>
<tr>
<td>Invited to participate</td>
<td>4</td>
</tr>
<tr>
<td>Making money</td>
<td>3</td>
</tr>
</tbody>
</table>

*Detailed Approach*

The researcher further defined and consolidated these themes through the detailed approach to data analysis. As described in the previous section of data analysis for staff member meaning, the researcher color-coded the original transcripts and observation notes according to the themes from the selective level of analysis, determined what each line said about the consumer’s experience, and grouped similar items together. The researcher arranged the themes graphically in order to better understand the relationships between them and wrote about her understanding of the themes and their relationships in order to further develop and consolidate the themes (Van Manen, 1990). The researcher engaged in peer de-briefing and discussion of themes with committee members and other researchers. The researcher engaged in a variety of other activities described in the previous section about staff member meaning including relating emerging ideas back to the original data in order to develop themes about the meaning that consumers find in the day program activities. The researcher organized the initial themes according to the themes in Table 10 in Chapter 4.
Occupational Engagement

Wholistic Approach

In order to answer the research question about how the consumers exhibit occupational engagement, the researcher analyzed the transcripts from staff member interviews, consumer observation notes, and the VQ forms. The staff members provided examples of how the consumers exhibited engagement, which were more helpful during the selective approach of data analysis. For the wholistic data analysis, the researcher transferred the VQ scores from observation sessions onto the VQ Form C--Multiple Observations (Appendix L). She included an overall statement about the consumer’s engagement in the group such as “engaged in dancing with encouragement and individual invitation” and “sleeping or refusing majority of activity, problem solved not related to activity”.

Selective Approach

The researcher further analyzed the data with the selective approach to determine themes about how the consumers exhibited occupational engagement. The researcher underlined examples from transcripts and observation notes of how the consumers exhibited engagement. The researcher compiled these underlined sections from staff members and consumers, keeping these two sources of data separate. The researcher named what these underlined statements demonstrated about how the consumers exhibit occupational engagement.

The researcher also analyzed the VQ forms to determine how the consumers exhibited engagement. The researcher compared the items on the VQ across observation sessions when the consumers were engaged versus less engaged to determine if there
were specific VQ items that demonstrated this difference. The researcher was able to do this for only eight of the consumer participants because two withdrew from the study after the first observation. During this analysis, the researcher used the original VQ scores in which the consumer may have been engaged in a self-selected activity within the group or in the program activity.

The researcher marked the items for each consumer where there was a difference in the scores when a consumer was engaged in an activity versus less engaged or not engaged. The researcher considered the VQ scores of not observed and passive together because there were several observation sessions in which the environmental support was not present to enable the consumer to exhibit a specified behavior so it was not clear if the consumer did not exhibit the behavior (passive) or there was no opportunity to observe it. The results of this analysis are presented in Figure 3 in Chapter 4.

The researcher compared the marked items across consumers to determine if there were commonalities. The researcher determined that for the majority of the consumers, two items from the VQ had different scores across sessions when the consumers were engaged versus not engaged. The results of this analysis are included in Table 12 in Chapter 4.

After rescoring the VQ as described earlier in the Observations Procedure Variations section to represent engagement in the program activities, the researcher completed analysis with the additional data. The researcher compared VQ scores between engaging and not engaging in program activities to determine differences. The results of this analysis are included in Table 13 in Chapter 4. The researcher also compared the VQ scores for the consumers who engaged in self-selected activities within the groups rather
than the group activity as compared to when they engaged in program activities. The results of this analysis are included in Chapter 4.

The researcher compiled the statements about consumer engagement from the interview data, looked for commonalities among the statements, and compared the statements to the items on the VQ found to indicate when a consumer was engaged to determine initial themes. The list of the initial themes about how the consumers exhibited occupational engagement is included in Table 8 to demonstrate the data analysis progression.

Table 8

*Initial Themes about Consumer Engagement*

<table>
<thead>
<tr>
<th>Initial Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands doing activity</td>
</tr>
<tr>
<td>Smiling, Laughing</td>
</tr>
<tr>
<td>Expressing satisfaction</td>
</tr>
<tr>
<td>Follow directions/ respond to request/question</td>
</tr>
<tr>
<td>Movement/sounds/discussion related to activity</td>
</tr>
<tr>
<td>Cheering others on</td>
</tr>
<tr>
<td>Eye contact/gaze</td>
</tr>
<tr>
<td>Reacting to what staff do</td>
</tr>
<tr>
<td>Volunteering</td>
</tr>
<tr>
<td>Changing behavior when change in activity</td>
</tr>
<tr>
<td>Decreased chatter</td>
</tr>
<tr>
<td>Body language of attention (leaning forward, lifting head up)</td>
</tr>
<tr>
<td>Eyes on activity or person</td>
</tr>
<tr>
<td>Finding something to do</td>
</tr>
<tr>
<td>Giving information</td>
</tr>
<tr>
<td>Reacting to what staff do</td>
</tr>
<tr>
<td>Staying in designated area</td>
</tr>
<tr>
<td>Offering suggestions/ Giving information</td>
</tr>
<tr>
<td>Moving toward activity</td>
</tr>
<tr>
<td>Reciprocal use of objects/movement</td>
</tr>
</tbody>
</table>
**Detailed Approach**

As described in the previous sections about detailed analysis, the researcher re-read transcripts and interview notes for evidence to support or refute the initial themes, wrote and rewrote about the initial themes regarding engagement, reread literature related to the themes, and discussed them with dissertation members. During this writing stage, the researcher realized that some of the initial themes fit into a theme of responding to the staff members. While the staff members felt this was an important component of engagement, it was not essential for the consumers to engage. Therefore, the researcher moved this information into support for the theme of consumer engagement under what the staff find meaningful about the program activities. The initial themes were organized and collapsed into the findings as demonstrated in Table 14 in Chapter 4.

**Trustworthiness**

There are four dimensions of trustworthiness: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). It is important for qualitative researchers to address each of these issues in order to increase the trustworthiness, rigor, and validity of the study.

**Credibility**

Credibility involves ensuring that the phenomena and experiences described are representative of the true experiences of the participants (Johnson & Waterfield, 2004; Krefting, 1991). The researcher increased credibility through multiple strategies including data triangulation, member checks, compensation for limited qualitative research experience, modified peer review, and reflexive journaling.
Triangulation involves using information from multiple sources to compensate for possible sources of error and increase trustworthiness (Patton, 2002). There are four types of triangulation: obtaining data from a variety of sources, use of multiple investigators, use of different theories to interpret the data, and use of different methods (Patton). In this study, the researcher triangulated the data by collecting it from multiple sources and through multiple methods (Patton). The researcher triangulated the interview data from the staff regarding the consumers’ reactions, demonstration of engagement, and preferred activities with the consumer interviews and observations. The researcher used interview and observation in order to obtain information from the consumers. The observation notes across each of the four sessions were triangulated for each consumer so that the researcher observed the consumer in different groups and at different times of the day. The researcher noted one consumer was sleeping during an un-preferred activity in the afternoon. She specifically sought out the following observation of a preferred activity during the afternoon to help determine whether it was the time of day versus the activity which prompted the consumer’s response. The researcher interviewed the staff members and consumers twice and conducted four observations of the consumers using the VQ and field notes over the course of four months. This process ensured data triangulation as the phenomena were described and data were analyzed from different perspectives, within different activities, and at different times.

The researcher conducted member checks with the participants to determine if the initial analysis rang true and reflected the lived experience of the participants. The researcher presented the initial themes from the selected analysis to the consumers and staff members during the second interviews. This served as member checks and as an
opportunity for staff members or consumers to provide additional examples under the
themes or propose different or additional themes (Denzin & Lincoln, 2005). The
researcher presented the themes about consumer meaning to the consumers. Black and
white versions of the pictures used to represent the themes for what the consumers find
meaningful in the activities are included in Appendix K. The researcher reviewed the
themes related to staff member meaning and consumer meaning with the staff members.
The researcher presented the consumer themes to the staff members to check if the
researcher’s observations were consistent with the staff members’ perceptions. This also
served to share with the staff members what the consumers found important and
meaningful about the activities in order to assist the staff members in facilitating the
consumers’ engagement.

The staff members and consumers agreed with the initial themes that the
researcher developed. Several staff members provided examples of the themes through
additional narrative. One staff member brought up an additional idea not represented by
the themes, but which related to communication between different departments rather
than specifically what she found meaningful in the activity groups. There was no need to
reconcile the initial data analysis with the suggestions or perceptions of the participants.

Examples of comments from the staff member participants regarding the initial
themes about what the staff members find meaningful about the activities in the day
program included, “Gee, once again (laughs) you have this one down pat. I don’t who
you talked to but you probably got the sentiment of just about everyone that works here.”
and “Yeah, like right on the money, I’m telling you, Wanda. That’s very true.” The staff
member participants also learned about the initial themes the researcher developed from
the consumer participants’ interviews and observations. The researcher used this as a member check to determine if her observations were consistent with what the staff members observed about the consumers. The staff member participants made comments about the initial themes from the consumers including, “I believe you’re 100% right on all of this. This is what you evaluated just talking with them? And in their opinion?” and “Well, I totally agree with these things. And I think I see it the way the clients would see it too and putting myself in their shoes so excellent.”

The consumers indicated themes that were important to them by choosing a specific page representing a theme, laughing or having another clear reaction to the pictures and what the researcher said, or by verbally expressing their agreement. Two examples from the consumer interviews appear below:

Researcher (R): Being able to make choices

Consumer 1 (C1): (laughs)

R: Are you laughing at those pictures?

C1: (smiles) nnnnggggg

R: Wow, big reaction. Being able to make choices.

C1: (moves arms, big smile)

R: Ok.

C1: Vocalizes in-ga

R: Cool. Ok, I’ll know that that one is really important to you.

C1: Vocalizes
R: So which one of these is important for you?

C2: Money, checks.

The researcher used several strategies to increase the credibility and overall trustworthiness of the study. The observation and interview data were collected in ways that ensured the accuracy of the data collected. Specifically, observations were guided by the use of the VQ to focus the observations in preferred and un-preferred activities. The VQ structured the observations of the consumers and provided an established tool to determine aspects of the program activities that were meaningful to the consumers. The interviews with the consumers were enhanced through the use of photographs and illustrations to compensate for consumers’ skills and communication disabilities.

The researcher worked with one of the dissertation committee members, a more experienced qualitative researcher, during the study development, implementation, and analysis. She reviewed a practice interview the researcher completed prior to data collection in order to critique and improve her interview style. As the researcher collected data, the committee member reviewed interview observations and field notes to make suggestions about how to improve them. She made suggestions about recruitment issues as they happened, and she assisted the researcher to reach the decision about data saturation and to stop recruiting staff members. She co-coded one interview transcript with the researcher. They discussed the data analysis, and these discussions aided in further analyzing and collapsing the initial themes.
The researcher also used a modified peer review through discussion of data analysis and reference back to original quotes with the researcher’s dissertation committee. The researcher maintained a reflexive journal to document bias, evaluate data collection and analysis in terms of researcher bias, and discuss the researcher’s bias in any reports about this research.

Transferability

Transferability involves the appropriateness of applying the study results to other settings (Johnson & Waterfield, 2004; Krefting, 1991). The researcher addressed this issue by providing a dense description of the participants, program, methods, and analysis. The researcher clearly differentiated themes that were directly related to the data from theoretical interpretations of the relationships between the themes (Patton, 2002). In this way, there will be enough information for others to determine if there are sufficient similarities with their population and program to warrant using the study results in another setting.

Dependability

Dependability involves accounting for variation or changes in the methods of the study (Johnson & Waterfield, 2004; Krefting, 1991). Qualitative research is an iterative, emergent process so researchers may alter methods and other aspects of the study during the course of the study to accommodate additional information or unexpected events (Patton, 2002). The researcher addressed this issue of trustworthiness by reporting any changes that occurred during the study and keeping a decision log to track changes in methods and analysis. As an example of something that changed during the process of data collection, the researcher noted earlier in this report that different photographs for
the recreation and training groups were used after the fifth consumer interview due to some consumers being confused by the previous photographs.

**Confirmability**

Confirmability is the ability of others to interpret the data in similar ways as the original researcher (Johnson & Waterfield, 2004; Krefting, 1991). This study used detailed reports of methods, member checks, discussion with dissertation committee members and other researchers, and a reflexive journal that the researcher used to analyze her bias to account for confirmability.

**Strengths and Weaknesses of Design**

There were several strengths to this design. The qualitative design allowed for individuals to express their perspectives without imposed structure such as would occur with a survey with a rating scale. The qualitative, exploratory nature of the study allowed for investigation into the consumer perspective, and the use of the VQ was a way to ascertain the consumer’s motivation to participate in activities even if they were not able to verbalize it. It is often difficult to obtain information from people with significant disabilities due to communication difficulties and cognitive limitations, and there are few examples of this in the literature. However, when research involves the experience of individuals with disabilities, many authors have discussed the importance of including the consumers’ input in order to validate the findings (Balcazar, Keys, Kaplan, & Suarez-Balcazar, 1998; Bruyere, 1993; French & Swain, 1997; Jason, Keys, Suarez-Balcazar, Taylor, & Davis, 2004; Krogh, 1996, 1998; Krogh & Lindsay, 1999; White, 2002; Whitney-Thomas, 1996; Winter & Munn-Giddings, 2001). Although people with
significant disabilities cannot usually participate in traditional qualitative interviews, this study used a combination of methods in order to get as much information as possible on the meaning of the activities in a day program for consumers.

The design of this study attempted to minimize the limitations, however, there was one main weakness associated with this study design. Due to the nature of qualitative research, any information from this study cannot be generalized beyond the participants in this study. However, readers can determine the applicability of this study to other settings based on the principles of transferability discussed in the trustworthiness section in this chapter.

Summary

This qualitative, phenomenological study explored the nature of occupation in adults with moderate to severe developmental disabilities who attend a day program. It involved staff member interviews, observations of consumers in preferred and less preferred activities using the VQ, and consumer interviews. The study will add to the occupational therapy literature on occupation in an infrequently studied population and may assist with future program development.
CHAPTER 4: RESULTS

Introduction

This study set out to answer three research questions. These questions were 1) What is the meaning of the activities in a day program to staff members?, 2) What is the meaning of the activities in a day program to consumers?, and 3) In what ways do consumers participating in a day program demonstrate occupational engagement? This chapter will present the findings from the data that answer these questions from the thematic analysis described in the previous chapter.

Findings

 Meaning of Day Program Activities: Staff Members’ Perspective

Two main themes emerged from the staff members about the meaning they perceived in the activities in the day program: Consumer Engagement in Program Activities and Reciprocal Interaction. For the staff members, the activities were meaningful when the consumers engaged in the program activities and there was reciprocal interaction between the consumers and staff members. Table 9 below demonstrates how the initial themes from the selective analysis of the staff members’ interview transcripts described in Chapter 3 were organized into the findings about what the staff members find meaningful in the program activities.
Table 9

*Organization of Initial Themes from Staff Members into Findings*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of staff member participants who discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Engagement in Program Activities</td>
<td>10</td>
</tr>
<tr>
<td>Consumers engaged/excited/enjoying activity</td>
<td>10</td>
</tr>
<tr>
<td>Building skills/seeing progress in consumers</td>
<td>8</td>
</tr>
<tr>
<td>Lack of structure in activities</td>
<td>5</td>
</tr>
<tr>
<td>Difficulty compensating for consumer physical skills</td>
<td>4</td>
</tr>
<tr>
<td>Activities boring</td>
<td>4</td>
</tr>
<tr>
<td>Limited materials in activity groups</td>
<td>4</td>
</tr>
<tr>
<td>Not enough staff coverage</td>
<td>4</td>
</tr>
<tr>
<td>Trying new things</td>
<td>3</td>
</tr>
<tr>
<td>Consumers being proud of themselves</td>
<td>3</td>
</tr>
<tr>
<td>Having finished product</td>
<td>3</td>
</tr>
<tr>
<td>Some groups are too long</td>
<td>3</td>
</tr>
<tr>
<td>Community outings</td>
<td>2</td>
</tr>
<tr>
<td>Reciprocal Interaction</td>
<td>10</td>
</tr>
<tr>
<td>Relationship with consumers</td>
<td>9</td>
</tr>
<tr>
<td>Difficulty understanding consumer communication</td>
<td>6</td>
</tr>
<tr>
<td>Difficulty dealing with consumer behavior</td>
<td>6</td>
</tr>
<tr>
<td>Staff feeling like they’re making a difference</td>
<td>4</td>
</tr>
<tr>
<td>Strategies not working with consumers</td>
<td>4</td>
</tr>
<tr>
<td>Respect for consumers</td>
<td>4</td>
</tr>
<tr>
<td>Connection with consumers’ families</td>
<td>3</td>
</tr>
<tr>
<td>Supervisor support</td>
<td>2</td>
</tr>
<tr>
<td>Finding what works</td>
<td>2</td>
</tr>
<tr>
<td>Positive feedback from consumers</td>
<td>2</td>
</tr>
</tbody>
</table>

*Consumer Engagement in Program Activities*

The theme *Consumer Engagement in Program Activities* reflects the staff members’ perception that the activities were meaningful when the consumers were actively engaged in the activity. The staff members interpreted consumer participation in the program activities as an indication that their efforts were positive and/or worthwhile.

The following excerpts from staff members’ descriptions of satisfying experiences illustrate that consumer engagement suggested to them a fulfilling experience for
consumers, and thus a fulfilling experience for the staff members. Below is one example from a staff member’s interview:

So Jenny and I were in there doing the time study on making consecutive sandwiches—like how many, five, how long it would take for Rose to make 5 sub sandwiches. She blew it out. She was phenomenal. We had all the containers numbered so she could follow the sequence for the ingredients and I walked her through ahead of time and showed her the quantities to use and everything. And she was just right on top of it and everybody was around like cheering her on. And then we let everybody else have the turn and I knew Rose had, had good dexterity and everything like that but the fact that she could remember all the steps and the amounts and everything and did it so well really just blew me away. So that was really cool.

In the previous example, the staff member found meaning in the activity because the consumer engaged in the activity, performed the task well, and engaged the other consumers in cheering her on. Another staff member described how satisfying it is when the consumers fully engage in an activity:

The way they (pause), the way they, I want to say dig into the activity. You know, when they first start, they start but then you see them really into the activity….Their eyes get to staring and their hands just don’t want to quit, you know. And you kinda talk to them and they won’t budge, you know. And that’s
when I say, “ok, let me leave that person alone”. You know, cuz they into it
(melodic tone). When you think they’re not but they are, you know. I don’t know,
it’s (pause)….you have to see it, you know. To actually see what I’m talking
about, you have to see it.

The staff members specified that in order for them to find meaning, the consumers
needed to be engaged in the program activity rather than something else. It was not
sufficient for the consumers to “dig into” an activity not related to the group activity. The
example below demonstrates how the staff member found it meaningful when the
consumer engaged in the program activity of looking at books at the library rather than
“wandering”:

Like for instance, one of our consumers doesn’t really go on our outings. And
people are like, “oh he wanders too much”. It’s kinda like really risky to send him
out. And then I noticed that he always wears a cap on and it says Chicago Cubs.
And I said to the staff, “well, let me try. Let me talk to him.” You know, we’ll just
try him on this one outing and see how he does. And come to find out he really
enjoys the Cubs, he enjoys the Sox….Because before he left I said to him, “you’re
going to go to library. You like sports, don’t you?” He said, “yes”….So I said,
“you like the Sox, you like the Cubs, you’re going to the library. You know what?
The staff is going to get you magazines and books on all this stuff.” “Yeah?
Yeah?”….And they said, “he got there, Carrie, and he sat down and he did not
wander, not once.” Was so intrigued like on the magazines and the books on
sports. I’m like, you know, “just put it all out there and have him show you what he likes. Read it to him, talk to him about it, you know.” And this is a consumer who’s rough. He just wants to wander….At least now we have somewhere where he can go and enjoy himself and he’s doing something and it’s out in the community.

Another staff member gave an example of a consumer engaging in the group activity and how that facilitated her finding meaning with a consumer group that she often had difficulty engaging:

And I think sometimes that’s, that gets lost with like group (name) because I don’t know, they can’t express it or I can’t tell in their body language if they really--. Like one day, Peter, we were stapling something and he got, he was smiling, he was hitting the stapler cuz we had to staple around something. He was just hitting that stapler. It’s hard to engage Peter so he just really. I thought, “Oh, you like stapling.” So something like that. Did he appreciate the finished product? I don’t know. But he sure liked that stapling (laughs).

The staff members discussed examples of when the consumers were not engaged in the program activities as dissatisfying experiences demonstrating the importance of Consumer Engagement in Program Activities to meaning for the staff members. The staff members had difficulty finding meaning in the activity when the consumers refused to physically go to group, refused to engage in the group activity, fell asleep, or sought out
an unrelated activity. Examples of such cases from staff members’ interviews where the lack of consumer engagement led to lack of meaning for the staff members appear below:

Jason is one of them. You know, I don’t know what it is but he just won’t engage with the others, at least when I’m in group with him, he won’t engage with the others. Like you saw me in the activities room and he was sitting in the way back and he was holding a ball, he was holding onto a ball in the way back of the room and I was trying to get him engaged in a puzzle but he wouldn’t do it.

Cuz he really only likes computers and he sleeps [in other groups]. He’ll go to sleep and he will not budge. You try to wake him up, it’s really hard. Very difficult to work with. Very difficult because he can be (pause) a rough one.

I think Bobby is the biggest challenge in my cooking group….just the constant battle of trying to keep him out of the cabinet, you know because there’s no lock on that door. So you really need one on one with him to stand guard. I’m just so afraid he’s going to get, he’s indiscriminate, he’ll just, “please don’t eat the Dawn dish soap” (laughter) You know. And not to mention all the stuff where he ripped open a bag of marshmallows and swallowed the plastic. And I’m worried about him choking on the plastic. Cuz we couldn’t get it out of his mouth. Luckily he didn’t. Um, he’s done that with marshmallows, and chopped coconut and flour and sugar.
Staff members interpreted several of the consumer’s responses to them as active engagement in the activity. Consumer responses valued by the staff members included answering questions, following directions, staying in a designated area, and reacting to what the staff members do. Although not an essential component of consumer engagement in occupation, which is discussed in the answer to the third research question, it was one of the ways that staff members determined if the consumers were engaged in the program activity.

The staff members valued consumer engagement when the consumers responded to staff members by following directions such as in the following example from a consumer in computer group:

The staff member comes back over and tries to get him to come back to the computer. He sits down for a moment at the computer and runs his fingers across the keyboard. The staff member says, “Show me the cat” referring to the computer program. Bobby gets up and touches the screen and moves back to his chair. Each time the staff member asks him where something is, he gets up and comes over to the computer and points to the screen. He does not point specifically to the item she named. This happens multiple times. Bobby gets up, walks to the computer, touches the screen, and moves back to his chair against the wall. The staff member says, “come on, Bobby.” He goes to the computer, points to the screen.
In the previous example, the staff member may have said that the consumer was engaged in the activity because he was following directions. However, the consumer showed in a variety of ways that he was not interested in the computer program; it was not meaningful to him. This was an example of how an activity may be meaningful to a staff member but not necessarily be meaningful to the consumer.

Reciprocal Interaction

In addition to the consumers engaging in the program activity, the staff members found meaning when there was reciprocal interaction between themselves and the consumers. *Reciprocal Interaction* reflects the perceived value and significance staff members place on opportunities to get to know the consumers, communicate successfully with them, and receive responses from the consumers. The staff members perceived interacting with the consumers as a source of enjoyment for themselves as well as a way to engage the consumers in the program activity. The staff members valued when reciprocal interaction was woven throughout the activity. The staff members viewed reciprocal interaction as a way to initiate consumer engagement, facilitate continued engagement, demonstrate what the consumers enjoyed after an activity, and was recognized by the staff members as valuable in and of itself. In defining what was meaningful to them, the staff members gave examples of reciprocal interaction that demonstrated the different ways that the staff members used interaction with the consumers. Reciprocal interaction was part of the process to facilitate engagement and important as a way to get to know the consumers and facilitate a relationship. In the following example, the staff member referred to how having discussions, i.e., reciprocally
interacting with the consumers about their lives, can facilitate initial engagement in the program activity.

She would prefer to sit there and talk and tell me what’s new, what’s going on in her life. And it’s nothing wrong with that and I’ve just turned, because I’ve noticed a lot of the guys like to do that, tell you what’s been going on. So if you do 15 minutes of discussion, free discussion as long as it’s appropriate, you have a better chance of actually getting them to do something.

In the previous example, the consumers were able to engage in free discussion without adaptations for their communication. Another staff member gave an example of how she interacted with and facilitated responses during the activity with a consumer who has difficulty communicating.

Kathy—she and I, we have like a special communication type thing going. So I kept trying to tell the music teacher, “Hey, you’re off beat” and she’s like, “Penny, I’m never off beat.” And I said, you know what, “We’re going to ask Kathy.” I said, “Kathy, if Cindy’s not playing that song right, I want you to raise your left foot. If she’s playing it right, then you raise your right foot.” So Cindy turned around and said, “Ok, Kathy, you tell me.” So I said, “Watch the foot, watch the foot.” Kathy lifted up her left foot and we all just fell out laughing. She was like “How did you get her to do that?” I said, “Me and Kathy have an understanding. We have our own communication thing going.” I said, “you guys
relate with the hand (gestures); I always talk to her through the foot.” When she doesn’t want to be bothered with me, she’ll kick me. Then like if she’s not having a good day, I say, “Well, Kathy, if you don’t want to be bothered when I’m getting too close, I want you to kick me.” And she’ll kick me every now and then when she doesn’t want to be bothered.

The staff members enjoyed interacting with the consumers and found meaning in the activities through their reciprocal interactions. This was apparent when the consumers were able to verbally express their feelings after an activity as in the following example from a staff member’s interview transcript.

So it was just “thank you, Dora”, when you hear that, it’s like my hairs pop up because the fact that something little that we take advantage, they get to do, for them it’s like the world. So that day we went to the [Museum of] Science and Industry, we took that group, they were just like awesome, like grateful for it, all of them, not just one, all of them. Like the whole time, “Ok, guys, it’s ok. This is like what we’re supposed to be doing.” I tried to explain to them it’s not like I’m your hero. It made me feel like happy that day, they got to go out and do something like that, to see things like that.

The staff members also enjoyed interacting and relating to consumers who had more difficulty expressing themselves although they had more difficulty doing so. One staff member discussed her enjoyment when interacting with the consumers for the sake
of interaction and relationship development. During the course of her interview, she realized that the interaction with consumers with more significant disabilities was how they engage in the activities.

But we have our little moments in the classroom where we’d talk. Not like it is with Kelly where Kelly will let me know by the turn of her head and the, the signs that she makes with her lips, you know. Carol, she’ll look at me and give me the eye sign, you know, and give me a smile….And I didn’t look at that as a way of, of getting them involved. You know what I’m saying?....I didn’t look at that as a way of getting them involved. I just looked at that as (pause) I don’t know. I just didn’t, I didn’t look at that as a way of getting them involved. I was looking for something else, I guess, not that, you know.

Summary of Staff Members’ Perspective

The staff members found meaning in the day program activities when the consumers were engaged in the program activities and when they had reciprocal interaction with the consumers. This overlaps somewhat with what the consumers found meaningful in the program activities.

Meaning of Day Program Activities: Consumers’ Perspective

Based on the analysis of the consumer interviews and VQs, two themes emerged from the data about the meaning of the program activities for the consumers. The findings about what the consumers found meaningful about the day program activities and how the initial themes informed them are included in Table 10.
The consumers perceived meaning when they were able to actively engage in the activity or do something. They also found meaning in the program activities when there was respectful interaction between the consumers and staff members.

Table 10

*Organization of Initial Themes from Consumers into Findings*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of consumer participants who discussed or demonstrated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Doing/Active Engagement</strong></td>
<td></td>
</tr>
<tr>
<td>Having objects to manipulate</td>
<td>9</td>
</tr>
<tr>
<td>Yucky when there’s nothing to do</td>
<td>8</td>
</tr>
<tr>
<td>Knowing the routine and expectations</td>
<td>7</td>
</tr>
<tr>
<td>Activity having a purpose</td>
<td>6</td>
</tr>
<tr>
<td><strong>Respectful Interaction</strong></td>
<td></td>
</tr>
<tr>
<td>Interacting with people</td>
<td>10</td>
</tr>
<tr>
<td>Making choices</td>
<td>7</td>
</tr>
<tr>
<td>Invited to participate</td>
<td>4</td>
</tr>
<tr>
<td>Making money</td>
<td>3</td>
</tr>
</tbody>
</table>

*Doing/Active Engagement*

The theme *Doing/Active Engagement* reflects that when the consumers were able to do, they found meaning. Some of the activity groups in the day program, such as Library, did not involve active doing, rather there tended to be long periods of waiting and/or passive listening to a staff person talk. The consumers expressed difficulty finding meaning and engaging in an activity that did not have an active component, a *doing* aspect, to it. The consumer interviews and the results of the VQ supported this theme as demonstrated below.

As demonstrated in Table 5 in Chapter 3, the majority of the consumers conveyed their perspectives about three groups during their interviews: music as a fun group (6/8
consumers), library as a yucky group (5/8 consumers, 1 reported as preferred), and training as a yucky group (5/8 consumers). The library and training groups are the ones that often lack a *doing* component. One consumer reported in her interview, “And another thing I don’t like, computer, library, and training. I really don’t need training….So I’m just bored”. Another less verbal consumer answered “Nothing” when the researcher asked her, “What’s fun about training?” The one consumer who reported library as a preferred group was different because his favorite activity was looking at magazines, something he could consistently do in the library group. The VQ scores in these respective groups as demonstrated in Table 11 and graphically in Figure 2 confirmed the reports from the interviews that *doing* created meaning for consumers. The consumers had more spontaneous and involved scores in music groups (44% and 15%) and more passive and not observed scores in library group (52% and 16%). The scores in the training group depended on the activity; when the activity involved *doing* something, the scores were higher.
Table 11

*Frequency of VQ Scores in Most Commonly Observed Activity Groups*

<table>
<thead>
<tr>
<th>VQ item</th>
<th>Library</th>
<th>Music</th>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S I H P N</td>
<td>S I H P N</td>
<td>S I H P N</td>
</tr>
<tr>
<td>Shows curiosity</td>
<td>8 0 0 1 0</td>
<td>7 0 0 0 0</td>
<td>5 0 0 0 0</td>
</tr>
<tr>
<td>Initiates actions/tasks</td>
<td>5 1 1 2 0</td>
<td>6 1 0 0 0</td>
<td>3 2 0 0 0</td>
</tr>
<tr>
<td>Tries new things</td>
<td>0 0 0 1 8</td>
<td>0 2 0 1 4</td>
<td>0 0 0 0 5</td>
</tr>
<tr>
<td>Shows preferences</td>
<td>5 1 0 3 0</td>
<td>5 1 0 0 1</td>
<td>3 1 0 0 1</td>
</tr>
<tr>
<td>Shows activity special or significant</td>
<td>2 0 1 6 0</td>
<td>6 1 0 0 0</td>
<td>2 1 1 1 0</td>
</tr>
<tr>
<td>Indicates goals</td>
<td>2 0 0 7 0</td>
<td>1 3 0 2 1</td>
<td>2 1 0 0 2</td>
</tr>
<tr>
<td>Stays engaged</td>
<td>1 1 1 6 0</td>
<td>5 0 0 2 0</td>
<td>1 3 0 0 1</td>
</tr>
<tr>
<td>Shows pride</td>
<td>1 1 0 5 2</td>
<td>2 2 1 2 0</td>
<td>1 0 0 3 1</td>
</tr>
<tr>
<td>Tries to solve problems</td>
<td>4 0 0 4 1</td>
<td>4 0 0 2 1</td>
<td>3 0 0 2 0</td>
</tr>
<tr>
<td>Tries to correct mistakes</td>
<td>2 0 0 4 3</td>
<td>0 0 0 3 4</td>
<td>1 1 0 1 2</td>
</tr>
<tr>
<td>Pursues activity to completion/accomplishment</td>
<td>1 1 0 6 1</td>
<td>2 2 1 1 1</td>
<td>1 1 0 2 0</td>
</tr>
<tr>
<td>Invests additional energy/emotion/attention</td>
<td>1 1 0 6 1</td>
<td>3 2 0 2 0</td>
<td>1 1 0 2 0</td>
</tr>
<tr>
<td>Seeks additional responsibilities</td>
<td>0 0 0 7 2</td>
<td>1 1 2 1 2</td>
<td>1 0 0 3 1</td>
</tr>
<tr>
<td>Seeks challenges</td>
<td>0 0 0 7 2</td>
<td>1 0 2 2 2</td>
<td>0 0 1 2 2</td>
</tr>
<tr>
<td>Number of times each score used</td>
<td>32 6 3 65 20</td>
<td>43 15 6 18 16</td>
<td>24 11 2 16 15</td>
</tr>
<tr>
<td>Frequency of score use (%)</td>
<td>25 5 2 52 16</td>
<td>44 15 6 18 16</td>
<td>34 16 3 23 21</td>
</tr>
<tr>
<td>Number of observations in group</td>
<td>9</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Number of consumers observed in group</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
The researcher explored the environmental and activity features of the groups in depth to determine initial themes that described what the consumers found meaningful in the activities. For instance, the music group had a consistent structure that the consumers could anticipate: greeting song individualized for each person, consumers choosing songs to sing either by verbally choosing or by choosing between picture cards representing the song, playing instruments, and an activity related to a weekly theme. There were dances or movements associated with different songs, and the consumers understood what they were expected to do. The activities varied with different consumer groups, and the activities were adapted for the consumers’ ability levels. The same two staff members ran the music groups so there was also consistency there.
In contrast, the library group did not offer the same opportunities for doing. The library group was led by all staff members on a weekly rotation as opposed to the music group which had the same staff members running it regularly. As a result of this changing leadership, the expectations in library group changed based on who was running it and the defined activity that day. For example, during one observation the consumers were encouraged to talk about the story and engage in conversation. On a different day, a staff member told a consumer, “What are the rules in a library? You’re supposed to be quiet in library so we can listen to the tape.” when he tried to get a conversation started. During observations, the researcher observed listening to an audiobook; listening to a staff member read a book, magazine, or newspaper article; discussion related to what was read; and consumers looking through or reading books or magazines on their own in Library group. The most common activity was listening to a staff member reading. There was nothing for the consumers to do during this time.

When the activity in the day program enabled active participation, the consumers usually engaged in the group activity and approached it in such a way that demonstrated that they found it meaningful. When the group activity involved more passivity, some of the consumers sought out doing an activity, which may or may not have been acceptable in the group setting. Aspects of the activity that facilitated more active engagement included having objects to manipulate, understanding the purpose of the activity, and knowing the routine and expectations for an activity. In addition, the consumers clearly demonstrated that it was “yucky” when there was nothing to do.
One of the most articulate participants in the study revealed how she did not like the activity groups that were more passive, as noted in the following statement from her interview.

Library. I’m not into the reading type stuff. Computer class. I’m not into that. I can’t—computers so many years before. Doing computer stuff. I just sit there and do nothing. I just don’t like it. I like me do (emphasis on do) like more arts and crafts and stuff.

The other consumer participants demonstrated similar sentiments through their actions such as by sleeping. One observation note included, “Kate had her head all the way to her right side and appeared to be sleeping….She falls asleep without interaction.” Another consumer demonstrated his disinterest in another way as seen in the following excerpt from his observation note.

John turned the pages more slowly after he had looked at the magazine several times. As time passed, he spent less time looking at the magazine and more time looking around the room….The activity did not have a point of accomplishment, it was repetitive until the group was over.

Some of the consumers sought out their own activities as a way to engage when there was nothing active in the group activity. Examples of this from the observation notes of two different consumers appear below.
Evan was intent on his drawing and stayed engaged with that. All the behaviors he demonstrated were related to his drawing with the exception of his interaction with his peer. He wasn’t referred away from drawing, but it was clearly not the group activity. There are so few behavioral expectations for the consumers in this library group—basically just sit there (and generally be quiet).

Larry pulled the bowl in front of him and put his knife in the bowl and started to cut the potatoes more. He asked the staff member where the regular group leader was, and the staff member told me that she wasn’t here today. The staff member said, “Can you stop now? Pick up the knife. We’re good there.” The staff member took the knife and put it on the table. Larry picked it back up and cut the potatoes more. The staff member said, “Put the knife down please. We don’t want to smash them, we want pieces.”

The consumers found meaning in the activities when they understood the purpose of the activity. This may have taken the form of a finished product or it may have been that there was a clear reason for the activity. In a recreation group where they played bingo, this consumer clearly understood the reason for the activity as demonstrated in this excerpt from his observation note, “Evan immediately said, ‘Oh, I got B1.’ and he covered it with a chip….Evan talked about almost having bingo.” Another consumer talked in his interview about how he used his time on the computer to type or download music.
The music I put in the computer. I got (pulls out small portable MP3 player from pocket) right here. I got this on Christmas, on New Years Eve….I got this, I putting in the music, putting in music, and the charger. (shows USB port on MP3 player)

Another issue related to active engagement was the consumers’ understanding of what the expectations or routine was in the group. When the consumers understood what they were supposed to do in order to participate in the activity, they were more likely to engage and find the activity meaningful. An example of knowing what was expected leading to signs that the activity was meaningful is included below from an observation note in a music group.

The staff member helping her said that she was talking and singing over here. The group leader came over in front of here and encouraged her to do more. Both staff members praised her and she smiled. The group leader paused with the chorus of the song and Kate vocalized each time during pauses.

The consumers found meaning in the activities when they were able to actively engage in them. When there was nothing to do in the groups, the consumers expressed their dissatisfaction through various means. This included waiting unhappily, sleeping, or finding something else to do that may or may not be acceptable to the staff members within the group activity.
Respectful Interaction

As with the staff members, the consumers also found meaning in their interactions with others. However, for the consumers, this theme has more to do with how others treated and respected them within these interactions. The theme, Respectful Interaction, reflects consumers’ value for being able to make choices, having the opportunity to earn money, and being individually invited to participate in an activity.

Observations and interviews supported that consumers valued and wanted others to interact with them and respond to their attempts to interact. Such interactions and responses appeared to be a sign of respect toward the consumers. The following excerpts from observation notes exhibited how the consumers found meaning in interaction with staff members and other consumers.

While I was writing notes, she was looking at me. I asked her if she wanted to do more on the computer. She showed yes….The staff member came over and teased her about dropping it (the computer switch). Kate smiled. He asked her (teasingly) if she could go 5 minutes without smiling. She smiled bigger.

A staff member walked by and waved. Greg said something to her and she walked over and talked with him. When she walked away, Greg started working at a faster pace but he slowed to his previous rate by the third clip assembly.

She starts singing again and one of the consumers who was sitting next to Carol gets up and starts dancing. Carol watches her dance. The consumer sits back
down after a short time. She takes Carol’s hand and swings their hands as if still
dancing. Carol has little reaction. The consumer stops holding her arm, leans in,
and looks at Carol. Carol looks at the consumer and moves her opposite arm in a
similar motion to how the peer was moving her arm dancing. Carol opens her
mouth and looks at staff member. She opens her mouth wide, looks at the staff
member, and vocalizes.

The consumers demonstrated meaning when there was an emotional connection
with staff members. For example, in Library group, some staff members tried to make the
activities more engaging by periodically stopping and asking questions about what was
read. When the staff members became animated and were excited about the activity, it
showed in their interactions with the consumers and subsequently, the consumers became
more animated and interested, thus further supporting the elements of active engagement
and interaction as valuable for consumers. This phenomenon is demonstrated in the
following example from an observation note in a library group.

After the tape was stopped the next time, the staff member talked about a ribbon
cutting ceremony. The staff member used big gestures and an animated voice
when talking about the story. Larry talked about the ribbon cutting ceremony with
his hands open by his head moving them a little and smiling.

The consumers found meaning in an activity when they were able to make
choices, a sign of respectful interaction. They engaged more readily in an activity when
they made a choice around it, and the consumers showed more positive affect while making a choice. Examples of this from observation note excerpts appear below.

She walked up to him with 2 cards (1 in each hand) for picture choices for the next song. Bobby pointed to one of the cards right away. Julie names the choices holding her hand up to indicate which is which. Bobby points to the same one. Susie tells him to take it, and Bobby takes it from her hand.

He pulled over a different magazine and started looking through it. The new magazine had very few pictures. The staff member asked him, “Do you want a different book?” John replied, “yeah”. John reached for a different magazine and turned the pages.

The consumers found meaning when staff members invited them to participate in the activity individually, another sign of respectful interaction. This invitation was observed as explicit when the staff members asked each consumer what he or she wanted to discuss in the training or library group. It was implicit when the consumer who progressed from non-engagement to continued engagement after having her turn to individually do the activity such as in the example below from an observation note from a music group.

Patricia keeps moving after she sits down and her turn is over. When she first sits down, she moves her arm like she had been moving it while dancing (raising arm
and waving it). She pats her hands on lap both hands together or alternating hands, makes sounds and appears to be saying words.

Several of the consumers talked about the importance of earning money, a commonly held belief among adults as a sign of respect. A value within the culture of the United States is that one is paid for working, and many of the consumers viewed their participation in the day program as their work although they are only paid for the products they complete in the workshop. One consumer summed this up in her interview by saying, “I like getting a paycheck; everybody likes paychecks.” This was also an important theme to several consumers during the member check.

Summary of Consumers’ Perspective

The consumers demonstrated what they found meaningful in the day program activities through their statements, choices of activity groups during the interviews, and in how they approached and engaged in the activities. The consumers found meaning in the activities when they were able to actively engage and when there was respectful interaction between themselves and staff members. Most of the consumers enjoyed Music group and did not like the Library and Training groups.

Both the staff members and consumers found meaning in the activities when the consumers were actively engaged. The following section answers the question about how consumers demonstrate engagement in occupation.

Occupational Engagement for Consumers

Occupational engagement occurs when the activities in which one engages are personally meaningful. In this way, the findings from research question two about the
meaning of the activities to consumers informed research question three about how the consumers exhibit occupational engagement. When the consumers approached the activity in such a way that they demonstrated it was meaningful, they were engaging in occupation. Research question three asked about ways in which consumers demonstrate occupational engagement, so findings consisted of the consumers’ observable behaviors when engaged in occupation. These findings were drawn from analysis of interviews with staff members, the VQ results, and observation notes. The VQ was helpful in discerning specific behaviors that the consumers exhibited when they were engaged in an activity.

The researcher analyzed the VQ scores during engagement in program activities to determine the distribution of the scores across all the observations. As demonstrated in Figure 3, there was limited usage of the middle scores of involved or hesitant; if the consumers did not spontaneously demonstrate the skill, there were limited supports from the staff members or environment to facilitate it so the consumers either did not demonstrate the skill or there was no opportunity to observe it.
There were two items on the VQ that were different when the consumers were engaged versus not engaged in an activity. As demonstrated in Table 12, these items were *Pursues activity to completion/accomplishment* and *Invests additional energy/emotion/attention*. Six of the eight consumers with multiple observations had scores at least two points higher on the item *Invests additional energy/emotion/attention* when they were engaged in an activity versus when they were not engaged. Five of the consumers had scores at least two points higher on the item *Pursues activity to completion/accomplishment* when they were engaged in the activity.
Table 12

Selective Analysis with the VQ in Any Activities

<table>
<thead>
<tr>
<th>VQ item</th>
<th># w/ activity</th>
<th>VQ score when engaged</th>
<th>VQ score when less engaged</th>
<th>VQ score when not engaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows curiosity</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiates actions/tasks</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries new things</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shows preferences</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shows activity special or significant</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicates goals</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stays engaged</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shows pride</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries to solve problems</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries to correct mistakes</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pursues activity to completion/ accomplishment</td>
<td>5</td>
<td>S I P</td>
<td>P P P P P P P P</td>
<td></td>
</tr>
<tr>
<td>Invests additional energy/ emotion/ attention</td>
<td>6</td>
<td>I I S I S S S S S</td>
<td>P P P P P P P P</td>
<td></td>
</tr>
<tr>
<td>Seeks additional responsibilities</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeks challenges</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of participants with difference</td>
<td>6</td>
<td>1 2 3 4 5 6 7 8</td>
<td>1 2 3 4 5 6 7 8</td>
<td>1 2 3 4 5 6 7 8</td>
</tr>
</tbody>
</table>
When the consumers were engaged in the assigned program activities, they demonstrated different scores on the VQ than when they were not engaged in the program activities. The majority of consumers demonstrated a score difference on the following items: Shows activity special or significant, Indicates goals, Stays engaged, Pursues activity to completion/accomplishment, and Invests additional energy/emotion/attention as shown in Table 13.

The information from Table 13 is presented graphically in Figure 4 below. It is the VQ scores for the eight consumers with multiple observations participating in the program activities. The consumers had more spontaneous scores for these five items when they were engaged in the program activities. When they were engaged for part of the activity, they had more passive scores, although for some of the easier items such as Shows an activity is special or significant and Indicates goals, some of the consumers had spontaneous scores. When the consumers were not engaged in the activities, their scores were primarily passive or no opportunity to observe.
Table 13

Selective Analysis with the VQ in Program Activities

<table>
<thead>
<tr>
<th>VQ item</th>
<th># w/ program activity score difference</th>
<th>VQ score when engaged</th>
<th>VQ score when less engaged</th>
<th>VQ score when not engaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows curiosity</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiates actions/tasks</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries new things</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shows preferences</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shows activity special or significant</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicates goals</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stays engaged</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shows pride</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries to solve problems</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tries to correct mistakes</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pursues activity to completion/ accomplishment</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invests additional energy/ emotion/ attention</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeks additional responsibilities</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeks challenges</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of participants</td>
<td>8</td>
<td>1 2 3 4 5 6 7 8</td>
<td>1 2 3 4 5 6 7 8</td>
<td>1 2 3 4 5 6 7 8</td>
</tr>
</tbody>
</table>
Figure 4. VQ Scores in Program Activities When Engaged, Less Engaged, and Not Engaged

Only two of the five consumers had at least two points of difference between their scores on VQ items when engaged in self-selected activities versus program activities. The items that were different were *Shows pride* and *Tries to solve problems*. One consumer spontaneously tried to solve problems within self-selected activities but had passive scores during engagement in program activities. The other consumer spontaneously demonstrated pride within his self-selected activity and did not demonstrate pride while engaged in program activities.

The analysis of these VQ item scores that were different when the consumers were engaged versus not engaged, observation notes, and staff member interview
notes led to initial themes about how the consumers exhibited occupational engagement. The researcher further analyzed and collapsed these initial themes listed in Table 8 in Chapter 3 into three themes to describe how the consumers demonstrated occupational engagement as demonstrated in Table 14. There were three themes around how consumers exhibit occupational engagement including

*Doing activity/Initiating Action, Positive Affect, and Focused Attention.*

Table 14

*Organization of Initial Themes about Engagement into Findings*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive affect</strong></td>
<td>Smiling, Laughing</td>
</tr>
<tr>
<td></td>
<td>Expressing satisfaction</td>
</tr>
<tr>
<td></td>
<td>Eye contact/gaze</td>
</tr>
<tr>
<td></td>
<td>Cheering others on</td>
</tr>
<tr>
<td><strong>Doing activity/Initiating action</strong></td>
<td>Hands doing activity</td>
</tr>
<tr>
<td></td>
<td>Movement/sounds/discussion related to activity</td>
</tr>
<tr>
<td></td>
<td>Changing behavior when change in activity</td>
</tr>
<tr>
<td></td>
<td>Reciprocal use of objects/movement</td>
</tr>
<tr>
<td></td>
<td>Volunteering</td>
</tr>
<tr>
<td></td>
<td>Finding something to do</td>
</tr>
<tr>
<td></td>
<td>Offering suggestions</td>
</tr>
<tr>
<td></td>
<td>Giving information</td>
</tr>
<tr>
<td></td>
<td>Moving toward activity</td>
</tr>
<tr>
<td><strong>Attention focused</strong></td>
<td>Eyes on activity or person</td>
</tr>
<tr>
<td></td>
<td>Decreased chatter</td>
</tr>
<tr>
<td></td>
<td>Body language of attention (-leaning forward, lifting head up)</td>
</tr>
<tr>
<td></td>
<td>Turning toward person</td>
</tr>
<tr>
<td><strong>Responding to staff members</strong></td>
<td>(<strong>Important for staff members, not essential to engagement</strong></td>
</tr>
<tr>
<td></td>
<td>Follow directions/ respond to request/ question</td>
</tr>
<tr>
<td></td>
<td>Staying in designated area</td>
</tr>
<tr>
<td></td>
<td>Reacting to what staff do</td>
</tr>
</tbody>
</table>
**Doing Activity/Initiating Action**

Both the staff members and consumers demonstrated that they find meaning when the consumers actively engage in the program activities. The theme, *Doing Activity/Initiating Action*, reflected that doing or initiating action was a manner through which consumers in this study demonstrated engagement in what was meaningful to them.

Consumers demonstrated actively doing an activity through a variety of ways. These ways included making movement, sounds, or verbalizations/vocalizations related to the activity such as in the following examples:

Patricia shook the maraca and banged it against her opposite hand. She sang along with the song and kept going throughout the song.

During the next song, Carol opens her mouth and vocalizes with the song. The group leader says, “You singing with me, Carol?” Carol keeps vocalizing.

They also demonstrated actively doing by changing their behavior when there was a change in the activity such as in the following examples:

A staff member called out that she was going to collect their work. Greg stopped working.
While still helping him cut the potato, the group leader asks another consumer if he’s ready to cut a potato. Alex says, “No, me.”

Another way the consumers demonstrated actively doing was by initiating actions. A staff member gave an example of this in her interview: “They’ll just, they’ll help me with the dishes, they’ll grab a washcloth and wipe the tables off. I don’t have to ask them, they want to do it, you know.” In another example from a consumer observation note, the consumer demonstrated engagement by initiating an activity, “He independently went in the kitchen area to the sink and washed his hands. He asked staff where the paper towels are when he finished washing his hands because they were not on the roll.”

This theme of Doing Activity/Initiating Action encompasses two of the items on the VQ that differentiated when the consumers were engaged versus not engaged: Indicates goals and Pursues activity to completion/accomplishment. Five of the eight participants with multiple observations indicated goals when they were engaged in the program activities and did not do so when they were not engaged in the program activities. All eight consumers pursued the activity to completion or accomplishment when they were engaged in the program activity and did not do so when they were not engaged.

Positive Affect

Another important illustration of engagement was positive affect. The theme Positive Affect was demonstrated when the consumers engaged in the activity by smiling, laughing, or expressing satisfaction.
The consumers frequently demonstrated engagement through their affect such as in the following excerpt from an observation note, “When she smiled with music again, the staff member said, ‘You laughing at me again over there?’ Kate smiled really big at that point.” The staff members talked about how the consumers’ expressions demonstrated if they were engaged in the activity or not. An example of this appears below when a staff member discussed how it was disappointing when she was unable to get the same positive response when she tried a previously successful activity on a different occasion.

He gets this smile on his face and he just, his eyes’ll sparkle, and that smile’ll come, and you know, he’ll throw the ball, you know. And when you go back to see those eyes flash again, that smile come again, you don’t get it, you know.

Several staff members mentioned how difficult it is to engage consumers who rarely demonstrate positive affect. One example from an interview with a staff member is below.

And Brian, I’m not quite sure what he enjoys because he doesn’t smile, he doesn’t you know. The only thing you can tell is if he has an all-around bad day, his hands will be real you know or he’ll hit his ears or hit his something. And sometimes that means he doesn’t feel well but he doesn’t you know, his expression is always the same.
The theme Positive Affect corresponded to the VQ item Shows that an activity is special or significant that resulted in different scores when the consumers were engaged versus not engaged. Seven of the eight consumers showed a program activity was special when they were engaged, but did not do so when they were not engaged in the activity.

Focused Attention

The theme Focused Attention of occupational engagement occurred when the consumers focused their attention on the activity or people in the group. They demonstrated this through eye contact, focusing on the activity to the exclusion of other things, or demonstrating attention through their body language such as by leaning forward, lifting their heads up, or turning toward a person.

The consumers exhibited focused attention in different ways. One consumer changed her behavior and posture during a nutrition discussion in a training group as shown here, “Sharon stops playing her game, leans forward, turns around in her chair to look at the food pyramid on the wall, and raises her hand.” Another consumer moved to a different location around the table and showed his attention through body language in the following observation note excerpt:

John stood up and moved his chair down further to get closer to the staff member with the flash cards. He tried to squeeze between 2 consumers in wheelchairs across the table from the staff member. He reached for the table
and leaned forward. He named the picture when the staff member asked, “you ready, John?”

Other consumers were more subtle in their demonstrations of focused attention such as in the following examples where consumers show attention through eye gaze and head movement. “One of the consumers who was sitting next to Carol gets up and starts dancing. Carol watches her dance.” “She raises her head and looks between the group leader and a consumer saying some of the verses of the song.”

The staff members also commented on how the consumers focused their attention when they were engaged in an activity, sometimes to the exclusion of other things. “I have the one group (name), I get them started on an art project and it is quiet in here because they are concentrating on their art project.” Another staff member noted the differences between the engagement of two groups especially in the noise level.

Staff member: Just very distracted. Like if you have a group like group (name) in there, they’re just all over the place. Nobody wants to like sit down and work as one. Everyone’s doing their own different thing and it’s really hard to get everyone together and it’ll probably be really loud. It’s usually really loud when it’s like that, when everything’s unstructured so.

Researcher: And what about in a group that does work well, like that seems to flow better and you can get them engaged, what does that look like?
Staff member: Like recreation, I’ve notice with John running the recreation program, everyone seems to be focused on one task like and they seem a lot happier like they’re engaged and they’re doing stuff. And everyone for the most part, usually you can’t get everyone to, usually there’s someone who doesn’t want to do it, but they’re, they just seem happier, quieter, engaged, and doing stuff. I don’t know, it’s better.

Several staff members talked about what happened when the consumers were not attending to the activity. In the following example from a staff member interview, the consumers were sleeping:

Well, with (group name), I think some of them fall asleep actually. Like if I’m in the library reading them a story, they’ll fall asleep (laughs) then I can tell they’re not interested in it anymore. I didn’t keep their, I didn’t really keep their what do you call it, I didn’t really keep their interest in what I was talking about so.

The VQ item that corresponded to the theme of Focused Attention was Invests additional energy/emotion/attention. This VQ item overlaps between the themes of focused attention and positive affect. Seven of the eight consumers invested additional energy, emotion, or attention when they were engaged in the program activity and did not do so when they were not engaged. This VQ item was the one that consistently differentiated whether or not the consumer was engaged.
comparing engagement in all activities rather than only program activities, six of the
six consumers with different levels of engagement in activities invested additional
energy, emotion, or attention in the activity they engaged in but did not do so for an
activity that they were not engaged in.

Summary of Occupational Engagement

The consumers engaged in occupation by doing an activity or initiating action,
having positive affect during the activity, and focusing their attention on the activity
and/or people involved in the activity. The VQ items that most consistently
demonstrated a difference between a consumer being engaged versus not engaged
were Shows that an activity is special or significant, Indicates goals, Stays engaged,
Pursues activity to completion/accomplishment, and Invests additional
energy/emotion/attention.

Summary

This study set out to answer three research questions. The data showed that
staff members found meaning in the day program activities when the consumers were
engaged and when they had reciprocal interactions with the consumers. The
consumers found meaning in the day program activities when they could actively
engage and when they were given respectful interaction. The consumers
demonstrated engagement in occupation by doing the activity or initiating action,
showing positive affect, and focusing their attention on the activity or other people
within the activity. These themes will be discussed further and related to relevant
literature in the following chapter.
CHAPTER 5: DISCUSSION

Introduction

This study sought to understand occupational engagement in a group of adults with moderate to severe developmental disabilities attending a day program by examining the perceptions of the meaning of the program activities from staff members and consumers and by capturing the consumers’ displays of occupational engagement. Specifically, this study addressed the following research questions: 1) What is the meaning of the activities in a day program to staff members?, 2) What is the meaning of the activities in a day program to consumers?, and 3) In what ways do consumers participating in a day program demonstrate occupational engagement?

This study was prompted by a desire to understand the risk of occupational injustice for a group of adults with developmental disabilities attending a day program. The findings offer evidence to understand the influence of self-determination and co-occupation on occupational engagement for such persons. In addition, results illustrate support for occupational therapy’s Person-Environment-Occupation (PEO) model that highlights the relationship between the person, occupation, and environment and their influence on the occupational performance of humans (Law et al., 1996). This chapter includes a discussion of the answers to the research questions and contributions of the results to related literature, theory, and the problem under investigation. This chapter also offers implications for occupational
therapy practice and programming for adults with developmental disabilities, the limitations of this study, and recommendations for further study.

Discussion of Results

**Meaning of Day Program Activities: Staff Members’ Perspective**

There were two themes identified of what the staff members found meaningful in the activities in the day program for adults with developmental disabilities: *Consumer Engagement in Program Activities* and *Reciprocal Interaction*. The staff members in this study experienced the activities in the day program as meaningful activities or occupation when the consumers were engaged in the activities and the staff members and consumers were interacting with each other in a reciprocal manner.

The staff members had a level of control over the activities offered in the day program, although the activities were constrained by the available materials (occupation factor), external expectations about what the activities should be (environment factor), and the staff members’ own knowledge and creativity in developing activities (person factor). These person, environment, and occupation factors (Law et al., 1996) for the staff members designing program activities affected the activities offered as well as the associated meaning for the staff members. The main issues that had significant impact on what the staff members in this study found meaningful were the consumers’ reactions and engagement, an environmental factor for the staff members. The consumers were part of the social environment for the staff members just as the staff members were part of the social environment for the
consumers. When the consumers were engaged in the program activities, i.e., actively participating and attending to the activity, the staff members found the activities meaningful. In addition, the staff members perceived the activities as meaningful when the staff members and consumers interacted in such a way that both contributed to the interaction. This reciprocal interaction involved the staff members’ abilities to recognize and understand the consumers’ communication attempts as well as facilitate the consumers’ communication.

In terms of the PEO model (Law et al., 1996), findings suggest that the staff members found the activities meaningful when the consumers had a good person-environment-occupation fit so that they could engage in the program activities and interact with the staff members. When the staff members had a good person-environment-occupation fit (Law et al., 1996), they were able to facilitate a good fit for the consumers. Staff members found meaning in activity groups when they personally perceived a positive experience from the consumers, which seemed to imply that the staff members positively influenced the consumers’ experience. The staff members valued their role as part of the consumers’ environmental support even if they did not explicitly recognize it as such. As an essential part of a supportive environment and the provider of activities, the staff members played an integral role in the consumers’ person-environment-occupation fit (Law et al., 1996).

**Meaning of Day Program Activities: Consumers’ Perspective**

There were two themes describing what the consumers in this study found meaningful in the activities in the day program: Doing/Active Engagement and Respectful Interaction. When the consumers engaged in activities that were
meaningful, they were engaging in occupation. This occurred when there was an active component to the activity and the other people in the environment interacted respectfully with the consumers.

The consumers demonstrated that an activity was meaningful when they could do. When the consumers understood the purpose of the activity, they knew why they were participating and this facilitated engagement. When the expectations of the activity were clear, the consumers knew what they were supposed to do, and they could do it. When there were objects to manipulate for the activity, the consumers understood how to engage in the activity, which facilitated the meaningfulness of the activity for them.

Moreover, the consumers found activities meaningful when others interacted with them respectfully as demonstrated by the theme Respectful Interaction. The thematic analysis demonstrated that the consumers in this study wanted others to interact with them as adults and with respect. The codes that contributed to this theme included giving the consumers an opportunity to make choices, recognizing them as individuals and inviting them to participate in an activity, and paying them for the work that they did. When the consumers made choices, were individually invited to participate, and were paid for work, the day program activities were meaningful to the consumers and thus met the definition of occupation. When these factors did not occur, the consumers had difficulty finding meaning in the activities and were not engaged in occupation. In addition, when the consumers had respectful interaction, they had to opportunity to practice self-determination. Wehmeyer (2005) defined self-determination as acting as a causal agent to impact one’s quality of life, and the
consumers in this study demonstrated how they could do that by making choices and engaging in occupation when given the opportunity and environmental supports. The consumers in this study appeared to place importance on the opportunity to practice self-determination and have their voices heard.

These themes of Doing/Active Engagement and Respectful Interaction correspond to the doing and belonging aspects of occupation discussed in the later section on related literature and correlate with the components of occupational engagement: meaning, self-choice, and motivation (American Occupational Therapy Association, 2002). People are motivated to engage when they are interested in the activity, their skills match the activity demands, and they see the value or meaning in the activity (Kielhofner, 2002), and the findings of this study support this. When the consumers knew what to do and were able to do it as demonstrated by the theme Doing/Active Engagement, they were exhibiting the connection between personal causation, motivation, and occupational engagement. Another aspect of meaning and source of motivation for the consumers was the theme Respectful Interaction. The consumers found the activities meaningful and were more motivated to engage when the other people in the environment interacted with them with respect. An important component of Respectful Interaction was being given choices about and within the activity; when the consumers were given choices, they were allowed to self-choose their occupation, a component of occupational engagement.

Meaning of Day Program Activities: Combined Perspectives

In order for the staff members to experience the program activities as occupation, the results suggest that the staff members valued and were motivated by
the fit between the activity and their support or interaction with the consumers such that when there was a good fit, the consumers engaged in the program activities. This finding supports the value of a quality person-environment-occupation fit (Law et al., 1996) for the consumer. Likewise, the consumers expressed a value for times when a good person-environment-occupation fit (Law et al., 1996) was present. This expression of value for a type of participation that met both parties’ needs and purposes reflects the value for, by definition, occupational performance, and subsequently illustrates occupational engagement. This also demonstrates that the staff members and consumers valued active engagement and participation (World Health Organization, 2001), phenomena related to health, well-being, and occupational justice. In addition, both groups of participants valued consumer engagement and interaction, and each of these factors depended on the person-environment association between the staff members and consumers. This phenomenon suggests co-occupation was occurring when staff members and consumers perceived the activities as meaningful.

Co-occupation

This person-environment association necessary for consumer engagement valued by the staff members and consumers can be viewed in terms of co-occupation. The three components of co-occupation are shared physicality, intentionality, and emotionality (Pizur-Barnekow & Jacques, 2008). In the day program, the staff members and consumers shared physicality; they were in the same space. The activity became co-occupation with the addition of shared intentionality and shared emotionality. Shared intentionality corresponds to the themes Consumer Engagement
in Program Activities for the staff members and Doing/Active Engagement for the consumers. Shared intentionality involves mutual work toward a common goal (Pizur-Barnekow & Jacques). This occurred when the staff members and consumers were engaged in the activities together such as when the staff members successfully facilitated consumer engagement. Shared emotionality relates to the themes Reciprocal Interaction for the staff members and Respectful Interaction for the consumers. This occurred when the staff members and consumers interacted with each other and shared excitement or feeling for the activity. The consumers demonstrated shared intentionality by actively engaging in the group activity, and they exhibited shared emotionality by interacting and relating to the staff members.

Examples of a poor person-environment-occupation fit (Law et al., 1996) further exemplified the benefit of co-occupation between staff members and consumers. Such an example tended to occur in activity groups that were missing elements of co-occupation or meaning such as in a library or training group. When a consumer refused to participate in the activity or engaged in a solitary activity such as a word search during Library group, there was not shared intentionality. In the same manner, when a staff member lectured on nutrition or read a story without getting input and participation from the consumers, they were potentially engaged in a solitary activity and did not have shared intentionality with the consumers. Consequently, the circumstances present for consumer engagement facilitated shared intentionality, and results illustrate how staff members could enable consumer engagement as part of the consumers’ supportive environment and the provider or director of activities.
Similarly, when the emotional connection was missing from the interaction during an activity, there was not shared emotionality. This absence of co-occupation or lack of meaning for a consumer or staff member happened when a consumer engaged in the task “mechanically” but did not seem to enjoy it or when staff members were bored in the group and demonstrated low levels of energy and affect. When a staff member was bored in a group, her low energy level could negatively affect the consumers’ energy level and engagement. An example from a staff member’s interview to illustrate this connection between the emotionality between staff members and consumers is included below:

Because my energy level was just so low. And I wasn’t my normal self, what they’re used to seeing, you know. Me acting silly and goofy and all over the place. And I was just having a bad day. And it was very dissatisfying for me because I know that’s not me. And when she said to me, “I don’t want to work with you. You have an attitude. I don’t want to talk to you. You’re being mean today.” And I’m like, “Oh, ok”.

Although the staff member and consumer may share emotionality in their disdain for the activity, the staff members found meaning in shared positive emotionality. Respectful and reciprocal interaction between the staff members and consumers facilitated shared emotionality.

Overall, when the consumers were engaged in the activity, they were sharing intentionality with the staff member. When the consumers were relating to the staff
member, they were sharing emotionality. When both of these aspects were present, the staff member and consumer were engaging in co-occupation because there was already shared physicality, the third necessary component. Further, when the consumers had a good person-environment-occupation fit (Law et al., 1996), they had meaningful activities and a supportive environment to facilitate their engagement.

The staff members were an essential part of this supportive environment. In order to be effective, the staff members needed to have a good person-environment-occupation fit (Law et al., 1996) such that their skills (person factor), environmental supports (environment factor), and activities (occupation factor) enabled the staff members’ occupation of facilitating consumer engagement. When both the staff members and consumers had a good person-environment-occupation fit (Law et al., 1996) and they had mutual engagement, co-occupation was the result.

**Engagement**

Beyond the absence of shared intentionality or shared emotionality contributing to a lack of co-occupation and meaning for each group, another issue that affected the meaning of the activities for the consumers and staff members were differing views of what constituted consumer engagement. The staff members in this study included responding to staff members as an important component of consumer engagement, although the findings of the indicators of consumer occupational engagement in this study did not include it as an essential component. This perception by staff members of engagement corresponds to a study in children with autism in which engagement was defined as compliance with directions and congruence of behavior with peers (Ruble & Robson, 2007). This need for compliance as an
indicator of engagement may be appropriate for children in a school setting where Ruble and Robson’s study took place, but it may be problematic in a setting for adults with developmental disabilities. If the staff members view the consumers as children or as adults with child-like qualities, they may have difficulty interacting with them as adults, an important component of meaning for the consumers as demonstrated by the theme *Respectful Interaction*.

**Combined Perspectives Summary**

There was significant overlap between what the consumers and staff members found meaningful in the day program activities; both groups valued active participation and interaction. However, there were subtle differences in the way indicators of engagement and interaction were displayed and interpreted by the different groups. These findings and the fact that perceptions were different between the two groups illustrates the importance of investigating both perspectives and the role of co-occupation in the optimal treatment of consumers in this study. In addition, the findings support a good person-environment-occupation fit (Law et al., 1996) for the consumers facilitating occupational engagement. The answer to the third research question adds additional information to guide practice and further facilitate the consumers’ person-environment-occupation fit (Law et al., 1996).

**Occupational Engagement for Consumers**

As mentioned in Chapter 4, the answer to research question two about what consumers found meaningful contributed to the answer to research question three about how the consumers exhibited occupational engagement. Because of the assistance that adults with developmental disabilities require in order to engage in
occupation, the researcher explored the staff members’ perspectives on the meaning of the activities as the provider of that assistance in research question one. The exploration of the staff members’ perspective led to an important finding about how consumers and staff members engage in co-occupation, one manifestation of consumer engagement in occupation. When both the staff members and consumers found an activity meaningful, they engaged in co-occupation. While the consumers may have engaged in self-selected activities in a solitary manner, when they found the assigned program activities meaningful and engaged, it was often in co-occupation with the staff members. In this way, the answers to research questions one and two contributed to the answer to research question three about how the expression of occupational engagement was illustrated or communicated by consumers to others.

Results indicated that consumers illustrated occupational engagement through Doing Activity/Initiating Action, Positive Affect, and Focused Attention. These themes corresponded to the following items on the VQ on which positive scores indicated engagement: Shows that an activity is special or significant, Indicates goals, Stays engaged, Pursues activity to completion/accomplishment, and Invests additional energy/emotion/attention. For the consumers in this study, the scores on these five items on the VQ indicated if the consumers were engaged in the program activity.

These findings correspond to the definitions of engagement encompassing doing and attention components (McWilliam & Bailey, 1992; National Research Council, 2001; The New Oxford American Dictionary, 2005). The findings also support the American Occupational Therapy Association’s (2002) definition of occupational engagement in terms of objective (doing activity and focused attention)
and subjective (*positive affect*) components. The self-choice, motivation, and meaning aspects of the definition of occupational engagement (American Occupational Therapy Association) were included in the discussion of the consumers’ perspective of meaning.

Occupational engagement occurs when there is good occupational performance, the dynamic interaction of the person, environment, and occupation. An adult with developmental disability, as the person engaging in occupation, may have decreased abilities in communication, physical skills, and information processing (person factors). To compensate for these abilities, adults with developmental disabilities may need a supportive environment and adapted occupations in order to enable occupational performance. The staff members are an essential part of this supportive environment for adults with developmental disabilities in a day program. Staff members are part of the social environment in terms of how they interact with the consumers (environment factor), they affect the physical environment in terms of how they set up the room (environment factor), and they provide the activity and materials (occupation factor). The staff members are a vital support for the consumers’ occupational engagement in a day program.

Discussion Related to Theoretical Background

*Person-Environment-Occupation Model*

The findings of this study support the PEO model’s view of occupational performance as the interaction of the person, environment, and occupation (Law et al., 1996). The person in this study was the consumers and their respective
capabilities, limits, and volition as expressed by their perceptions of meaning and occupational engagement. The environment was multi-faceted and included social aspects of other consumers as well as staff members, institutional aspects of the agency, and the physical environment. Other aspects of the environment such as cultural and socio-economic were recognized but not measured in this study. The occupations in this study were the activities in the program groups as well as self-selected activities that the consumers did in the groups. From this PEO model view, the environment supported the participation of the consumers; they were more engaged when the environment was supportive. The nature of the activity, or potential occupation, also affected the experience of the consumers. The consumers were more engaged when the activities required manipulation of objects and/or some task in which to actively engage. The consumers’ capabilities for and personal interests in particular activities contributed to this interactive phenomenon of occupational performance as well. The product of a sound interaction of each of the elements of the person, occupation, and environment was occupational performance leading to occupational engagement.

Although the focus of this study was on the consumer as the person, the findings also supported discussion of the staff members’ occupational performance. The staff members were a vital part of the consumers’ supportive environment in terms of enabling occupational engagement. The staff members’ person-environment-occupation fit (Law et al., 1996) depended on the staff members’ skills (person factor), available materials (occupation-environment factor), and administrative support (environment factor). The staff members needed the skills to interpret the
consumers’ communication (person factor) and may have needed supplemental materials such as objects or pictures in order to provide choices to the consumers (occupation-environment factor). The person-environment-occupation fit (Law et al., 1996) for the staff members included having the knowledge and skills (person factor) to adapt the activities in simple ways to accommodate for the consumers’ skills, providing materials that the consumers can interact with and use (occupation-environment factor), encouraging the consumers in respectful ways (occupation-environment factor), and providing appropriate physical assistance if needed (occupation-environment factor). The staff members’ skills and available materials were aspects of the person and environment of the staff members who were in turn part of the environment for the consumers. When the staff members experienced a good person-environment-occupation fit (Law et al., 1996) themselves, their increased occupational performance led to more effective support for the consumers.

Discussion Related to Literature Review

The following sections review the findings of this study as they relate to previously reviewed literature on occupation and meaning, engagement in adults with developmental disabilities, and self-determination. This study builds on previous literature, addresses gaps in the literature, and illuminates how adults with moderate to severe developmental disabilities engage in occupation.

Occupation and Meaning

Occupation is defined in terms of being, doing, belonging, and becoming (Rebeiro et al., 2001; Wilcock, 2006). The findings of this study support the doing
and belonging aspects of occupation. The consumers clearly found meaning in activities requiring or inspiring the *doing* element of occupation as demonstrated by the theme *Doing/Active Engagement*. This is comparable to the majority of the studies reviewed on occupation and meaning that found that participants valued *doing* occupation (Craik & Pieris, 2006; Hasselkus, 1989, 1992, 1998; Hvalsoe & Josephsson, 2003; Ivarsson et al., 2002; Lee et al., 2006; Nagle et al., 2002; Nygard & Borell, 1998; Ohman & Nygard, 2005; Rebeiro & Cook, 1999; Spitzer, 2003a).

Another important component of occupation for the staff members and consumers was belonging. Both groups wanted meaningful interaction with each other as demonstrated by the themes of *Reciprocal Interaction* from the staff members and *Respectful Interaction* from the consumers. The importance of belonging was evident in studies with adults with mental illness (Rebeiro, 2001; Rebeiro & Cook, 1999). In those studies, the social environment facilitated occupational engagement by providing a safe place in which to challenge oneself. In the current study, the social environment facilitated engagement through respect for the consumers that provided a supportive environment for self-determination, social interaction as a form of occupational engagement, and support or assistance in order to engage in occupation. This social interaction as occupation and support to engage experienced as co-occupation illustrate the consumers’ need for belonging.

Hasselkus’s (1998) model of occupational engagement between staff members and people with dementia, “Occupation as the Gateway to Relative Well-Being”, informed an explanation of what occurred in the current study. In the model, a meeting of minds between staff members and program participants led to
occupational engagement on the part of the program participants in that study, and occupational engagement led to what Hasselkus (1998) interpreted as indicators of well-being for the program participants. The themes of *Reciprocal Interaction* and *Respectful Interaction* generated from the findings in this study may have resulted in what Hasselkus (1998) referred to as meeting of the minds. In Hasselkus’s (1998) study, a meeting of the minds occurred when there was a good fit between the activity and the person such that there was a match between the person’s skills and the activity challenges. This correlates with the consumers’ need for *Doing/Active Engagement* in the current study, which was facilitated through aspects of the activity (occupation), expectations (environment), and consumers’ abilities (person). In Hasselkus’s (1998) study, meeting of the minds led to occupational engagement, defined in her study as the doing of the program activities. This is similar to the use of co-occupation in this study in that shared intentionality and shared emotionality led to consumer occupational engagement with staff members, i.e., co-occupation. The staff members in Hasselkus’s (1998) study noted the following behavioral indictors of well-being: smiling, showing affection, socializing, enthusiastically participating in activities, attending to a task, remembering the past, and independently doing an activity. These indicators are similar to the themes *Doing Activity/Initiating Action*, *Positive Affect*, and *Focused Attention* in the current study that indicated that the consumers were engaged in occupation.

It is possible that Rebeiro and Cook’s (1999) model of occupational spin-off also explains how the consumers engaged in occupation. In the model of occupational spin-off, an affirming social environment led to occupational engagement which led
to a feeling of competence through doing and interacting with others. The interaction of the environment and occupation facilitated actualization and anticipation in the individual; the anticipation of continued occupation engagement led to increased occupational engagement, hence occupational spin-off. The consumers in this study were unable to communicate actualization or anticipation through the methods utilized, so it is not known whether the model can be directly applied to this population. However, the consumers did engage in occupation when there was a supportive social environment, and they appeared to demonstrate competence through doing and interacting with others. As this facilitated further engagement in occupation, it is possible that the process of occupational spin-off occurred even though the consumers were unable to communicate each of the levels.

Although the consumers in this study were unable to communicate specific reasons why they engage in occupation, there are similarities between the findings of this study and other studies on meaning and occupation with participants who were able to further explain their experiences. For example, like the participants in Ivarsson et al.’s (2002) study, the consumers in this study demonstrated positive affect when engaged in occupation and communicated preferences for engaging in occupation rather than having nothing to do. Nagle et al. (2002) provided evidence that individuals with schizophrenia chose their occupations to meet health, doing, or social connection needs. The findings of this study demonstrate that this group of adults with moderate to severe developmental disabilities chose their occupations to meet their doing (Doing/Active Engagement) and social connection (Respectful Interaction) needs. The consumers in this study did not communicate health as a
source of meaning for their occupations, but this could be due to the consumers not recognizing the abstract nature of health or the researcher not interpreting the consumers’ communication of health as a source of meaning for their activities in addition to the possibility that health was not a reason for occupational engagement for these consumers.

Spitzer (2003a, 2003b) described three aspects of occupation for young children with autism: intentionality, meaning-making, and framing. Intentionality corresponds to how the consumers demonstrated occupational engagement through *Doing Activity/Initiating Action*. The consumers in this study engaged in meaning-making by perceiving the day program activities as meaningful when they could actively engage and others respectfully interacted with them. Framing was important in Spitzer’s (2003a, 2003b) study because it was through framing that the researcher understood which actions were part of the child’s occupation. Because this study investigated the day program activities, the activities were fairly well defined and there was a limited need to frame the occupations in terms of a collection of actions.

Hvalsoe and Josephsson (2003) found that participants with mental illness valued being productive, contributing to society, having goals, and socializing within their occupations. Similarly, the consumers in this study wanted to earn money (productivity) and interact with others (socialize). The consumers indicated goals through their preferences to be actively engaged in program activities. Unlike the participants with mental illness in Hvalsoe and Josephsson’s study, the consumers in this study did not demonstrate contributions to society as a source of meaning for occupation. Like Ohman and Nygard’s (2005) study, the current study indicated the
importance of the social and self-choice aspects of occupational engagement through the theme of *Respectful Interaction.* Lee et al. (2006) provided evidence that adults with dementia engage with caregivers in occupation as an adaptive strategy to compensate for difficulty initiating tasks. This is similar to how the consumers in this study engaged in co-occupation with staff members through shared intentionality and emotionality. Craik and Pieris (2006) described how participants with mental illness ascribed importance to self-determination, positive affect, and meaning when engaging in leisure occupations. These aspects were also important to the consumers in this study when engaging in day program activities such that they engaged more readily and to a greater extent when the activities were meaningful and when they made choices around the activities. In addition, like the participants in Craik and Pieris’s study, the consumers in this study demonstrated *positive affect* when they were engaged in occupation.

The findings in this study build on the understanding of meaning and occupation in the occupational therapy literature through study with adults with moderate to severe developmental disabilities. As demonstrated in the following section, it also builds on previous literature with adults with developmental disabilities by adding a distinctive occupational therapy view to literature on engagement.

*Engagement in Adults with Developmental Disabilities*

Studies on engagement with adults with developmental disabilities have primarily focused on the types of activities consumers engage in, the frequency of engagement and interaction with staff members, and ways to increase engagement
Few of these studies investigated whether the activities in which the consumers engaged were personally meaningful (Parsons et al., 1990; Siporin & Lysack; Wilson et al.). By first answering the research question about what is the meaning of the activities in a day program for adults with developmental disabilities, this study determined when the consumers were exhibiting occupational engagement, i.e., engaging in meaningful activities, occupation, versus engaging in any activities. Such information is important because of the theorized relationship between occupation and well-being in the occupational therapy literature.

One finding of this study was that Respectful Interaction, an aspect of which is giving choices, facilitates meaning and subsequent engagement in an activity for the consumers. This supports the studies that demonstrated providing choices and activities known to be preferred to the consumers resulted in more on-task work behavior and decreased problem behavior (Parsons et al., 1990) and that staff members offering choices increased consumer engagement in leisure activities (Wilson et al., 2006). The findings of this study build on previous research on what is meaningful to adults with developmental disabilities in work settings and a residential setting (Parsons et al., 1990; Siporin & Lysack, 2004; Wilson et al.) by demonstrating what a group of adults with moderate to severe developmental disabilities found meaningful in day program activities.
Previous studies with day treatment programs for adults with developmental disabilities have focused on the activities offered, whether they were functional and/or age-appropriate (Parsons et al., 2004; Reid et al., 2001). This study did not specifically address these issues, but the researcher found examples of the problems noted in these previous studies. Functional activities have been defined in the developmental disabilities literature as using real objects to do an activity that anyone without a disability would do (Reid et al.). Some of the activity groups in this study were more conducive to the inclusion of functional activities such as Cooking and Arts and Crafts. The Training group had the potential to consist of functional activities because it involved daily living skills training, but it used artificial objects such as plastic food and play money and was one of the least preferred groups in this study. The consumers in this study often preferred activity groups that included functional activities with real objects such as Music, Arts and Crafts, and Cooking.

In addition, this study reinforced the findings of others that demonstrated that staff members can support engagement (Anderson et al., 1997; Dychawy-Rosner et al., 2001; McHugh et al., 2002; Parsons et al., 2004; Smith et al., 2002; Wilson et al., 2006) by demonstrating how the staff members’ occupational performance, i.e., good fit between person, environment, and occupation factors, can facilitate the consumers’ occupational performance and subsequent occupational engagement. The findings of this study also reinforce evidence of the supposition in the developmental disabilities literature that interactions between staff members and consumers facilitate consumer engagement (Bartlett & Bunning, 1997; Chan & Yau, 2002; Repp et al., 1987).
because *Respectful Interaction* was a source of meaning within program activities for this group of consumers.

**Self-Determination**

The importance of *Respectful Interaction* for the consumers also relates to how the consumers practice self-determination within a supportive environment. Self-choice is one of the vital components of occupational engagement (American Occupational Therapy Association, 2002) and is related to self-determination in terms of how the consumers make choices. The ecology of self-determination reflects that environmental modifications can facilitate self-determination (Abery, 1994; Abery & Stancliffe, 1996), and this was illustrated by the findings in this study. Self-determination involves making choices in order to act as a causal agent in one’s life (Wehmeyer, 2005). The environmental support for self-determination for the consumers in this study came from staff members, such that when there was a supportive environment, the consumers were able to exhibit self-determination and make choices. Environmental supports included staff members acknowledging the preferences and choices of the consumers, providing pictures or objects to illustrate choices, or asking questions in a way that consumers could understand and answer them. When provided with such environmental support, consumers demonstrated their preferences, engaged more readily in activities, and practiced self-determination. Self-determination is important in the developmental disabilities literature and programming for people with developmental disabilities (Stancliffe, 1995). This study supports the importance of self-determination in the lives of people with
moderate to severe developmental disabilities and demonstrates how a group of adults
with moderate to severe developmental disabilities can practice self-determination.

Summary of Discussion Related to Literature Review

The current study builds on previous studies on occupation and meaning, engagement in adults with developmental disabilities, and self-determination. This study helps to fill gaps in the literature regarding this population in the occupational therapy literature and ensuring activities are meaningful, i.e., occupation, in the developmental disabilities literature.

Discussion Related to Problem Statement

Occupational justice proposes that all people have the right to engage in occupation; when outside forces prevent this from happening, occupational injustice is the result (Townsend & Wilcock, 2004; Whiteford, 2003). The World Health Organization (2001) supports this concept through their recognition of participation in activities and life situations as essential to health and well-being. In addition, the World Health Organization (2001) includes the environment as a facilitator or inhibitor of participation thereby recognizing how the environment can influence one’s participation and well-being. Adults with moderate to severe developmental disabilities are at risk for occupational injustice because they often require the assistance of another person or other environmental supports, i.e., outside resources, in order to engage in occupation. If these outside resources are unavailable, insufficient, or do not take into account what the consumers find meaningful, occupational injustice is the result. For adults with moderate to severe developmental
disabilities in a day program, staff members provide activities and assistance or accommodations to enable participation in those activities. When the staff members and consumers found the activities meaningful, they engaged in co-occupation, an occupationally just circumstance for the consumers. If the staff members do not provide activities that are meaningful to the consumers and create opportunities for the consumers to practice self-determination, the consumers are at risk for occupational injustice. If the staff members do not provide appropriate assistance or accommodations for the consumers to participate, the consumers are at risk for occupational injustice.

In this study, in order for the activities in the day program to be meaningful to the consumers, participants expressed that there had to be Doing/Active Engagement and Respectful Interaction. The staff members needed to provide the consumers with choices, understand the consumers’ attempts at communication, treat the consumers as individuals, and provide activities that have an active doing component in order to create occupationally just circumstances for the consumers. When this does not happen, the consumers do not engage in occupation and thus, are at risk for occupational injustice.

The staff members in this study discussed difficulty knowing how to engage consumers with more significant disabilities. This is discussed further in the implications section of this chapter, but it has significance for a discussion of occupational justice. If the staff members do not know how to make accommodations, create a supportive environment necessary for the consumers to engage in occupation, or plan activities that the consumers can do, there is a risk of occupational injustice.
Occupational injustice is a serious concern because of its implications on the relationship between occupational engagement and well-being. Occupational therapy philosophy stipulates that participation in occupation facilitates health and well-being (Clark, 1997; Hasselkus, 2002; Meyer, 1922; Reilly, 1962; Whiteford, 2000; Wilcock, 2006). There is evidence to support this premise with several populations including healthy older people, people with Alzheimer’s disease, people living with HIV/AIDS, people with spinal cord injuries, and people with mental illness (Clark et al., 1997; Horowitz & Chang, 2004; Law et al., 1998). If a person is unable to engage in occupation, there is the risk of occupational injustice and subsequently a risk to the person’s well-being and health (Townsend & Wilcock, 2004; Wilcock, 2006). This study supports the existence of this risk in adults with moderate to severe developmental disabilities and informs implications for addressing this risk.

Conclusions

When the staff members and consumers in this study found the activities of the day program meaningful and there was a good fit between the person, environment, and occupation factors (Law et al., 1996) for each group, the staff members and consumers engaged with each other in co-occupation. The staff members found the day program activities meaningful when there was Consumer Engagement in Program Activities and Reciprocal Interaction with the consumers. The consumers found the day program activities meaningful when there was Doing/Active Engagement and Respectful Interaction. The consumers exhibited occupational engagement through Doing Activity/Initiating Action, Focused
Attention, and Positive Affect. These findings build on previous literature on meaning and occupation with other populations with cognitive disabilities and engagement in adults with developmental disabilities. The findings support the existence of occupational injustice with this population and suggest ways to address such injustice.

Implications for Practice

Day Programming for Adults with Developmental Disabilities

Day programs for adults with developmental disabilities exist to provide engagement in activities and increase the independence and well-being of adults with developmental disabilities. In addition, day programs indirectly recognize the premise of occupational justice that all people have the right to engage in occupation. According to occupational therapy philosophy, in order for day programs to meet these objectives, they need to provide meaningful activities, i.e., occupation, and a supportive environment for the adults with developmental disabilities.

Staff members are the most valuable resource that day programs have because staff members facilitate the consumers’ occupational engagement through their interactions with consumers as part of the social environment and through the adaptations they make to the environment and activities. There is literature demonstrating the effectiveness of staff training in increasing consumer engagement (Anderson et al., 1997; Parsons et al., 2004; Smith et al., 2002; Wilson et al., 2006). The importance of staff members on consumer engagement and the effectiveness of staff training in improving engagement supports staff training as one of the primary ways that day programs can improve their effectiveness. Staff members need training
in how to facilitate occupational engagement of consumers through an understanding of the aspects of occupational engagement: meaning, self-choice, and motivation (American Occupational Therapy Association., 2002). Because of the importance of co-occupation between the staff members and consumers when the consumers engaged in the program activities, it is important for the staff members to understand how to facilitate co-occupation. This study provides insight into each of these aspects and could be used as a guideline for training development.

The findings of this study provide indirect support for one study on using picture schedules to increase engagement for adults with developmental disabilities (Anderson et al., 1997). Although the current study did not use pictures as a strategy for increasing engagement, staff members used pictures to facilitate choice making in the Music group in this study, which the researcher observed to be an effective strategy to facilitate engagement. In addition, the use of pictures during the consumer interviews verified their usefulness in facilitating choice making and communication.

It is essential that staff members understand how to respectfully interact with the consumers. This includes entering into mutual relationships with the consumers in order to facilitate communication and reciprocal interaction. In addition, staff members need to recognize the consumers’ attempts at self-determination through their communication, which the staff members in this study admitted they have difficulty interpreting with nonverbal consumers. The staff members also need to know how to facilitate choice making with the consumers. This includes asking questions that the consumers understand and can answer and providing pictures, objects, or another way for nonverbal consumers to indicate their answers.
In order to meet the purpose of day treatment programs, it is necessary for the staff members to understand how to facilitate consumer engagement. The staff members in the day program in this study had difficulty providing support to enable engagement as demonstrated by the infrequency of the use of the hesitant and involved scores on the VQ. The involved and hesitant scores are assigned when the consumer exhibits the behavior with minimal or maximum adaptation respectively. In this study, there was a preponderance of spontaneous scores (independent performance) and passive scores (does not perform) indicating that the staff members may not know how to facilitate these behaviors in the consumers. This has significant implications for training for staff members who work with people with moderate to severe developmental disabilities. The staff members recognized independent performance, but the staff members in this agency had difficulty providing a hierarchy of assistance; they primarily used verbal cues or hand over hand physical assistance. There was also limited use of visual supports, which this study and another (Anderson et al., 1997) demonstrated could be a useful tool to enable more independent engagement for the consumers.

The primary way to apply the implications of this study for day treatment programs is to incorporate this information into staff training to facilitate increased consumer occupational engagement. Training could focus on adapting the environment and activities in simple ways to foster active engagement, providing the consumers with choices, interpreting the consumers’ communication especially in the case of nonverbal consumers, providing a hierarchy of assistance to facilitate engagement, and using pictures as a strategy for choice making and enabling
engagement. This training could address the purpose of day programs to provide activities, enhance independence and engagement, and positively affect the well-being of adults with developmental disabilities.

**Occupational Therapy**

This study has implications for occupational therapy, in general, because it adds to the body of knowledge about occupation on which occupational therapy is based. Adults with moderate to severe developmental disabilities appear to engage in occupation versus activity and do value occupational engagement. To experience occupation and occupational engagement, they often need adaptations. Teaching staff and caregivers how to provide these adaptations is an appropriate role for occupational therapists with this population. This study also demonstrated the usefulness of the VQ with this population. The VQ structures an observation and can be used as a tool to teach staff how to recognize signs of occupational engagement.

**Volitional Questionnaire**

The VQ results in this study supported the hierarchy of volitional development discussed in the VQ manual (de las Heras et al., 2007). The easiest items on the VQ correspond to the exploration level of volitional development, which is followed by the competency level. The final items of the VQ are the most difficult and correspond to the achievement level of volitional development. In this study, when a consumer was partially engaged in the activity, he had spontaneous scores on some of the initial VQ items and passive scores for the final items demonstrating an exploration or competency level of volitional development. The consumers had spontaneous scores during almost every observation for the first two items: Shows
curiosity and *Initiates actions/tasks*. These findings support the ordering of the VQ items in a hierarchy of volitional development.

**Occupation and Well-being**

This study did not directly address the relationship between occupation and well-being in this population, but there does appear to be support for such a relationship. The World Health Organization defines well-being as satisfaction with physical, mental, and social aspects of life (World Health Organization, 2001). The consumers in this study expressed satisfaction and meaning when they were actively engaged in activities and interacted with respectfully demonstrating the benefit of occupational justice. They clearly showed the researcher that it was “yucky” when there was nothing to do, i.e., when they experienced occupational injustice, and they were more satisfied when they are involved in a meaningful activity. These findings from this study reflect the consumers’ satisfaction with mental and social aspects of their lives when they were engaged in occupation. As discussed earlier, the indicators of occupational engagement for the consumers in this study, *Doing Activity/Initiating Action, Positive Affect, and Focused Attention*, were similar to the indicators of well-being that staff members noted for persons with dementia in Hasselkus’s (1998) study. When the consumers in this study experienced the benefit of occupational justice, they exhibited indicators of occupational engagement and well-being.

**Role of Occupational Therapy in Day Programs**

Occupational therapists adapt the environment and activity to enable occupational engagement (American Occupational Therapy Association, 2002; Law et al., 1996). They could be valuable resources for training staff members on how to
facilitate occupational justice through occupational engagement for adults with developmental disabilities. Occupational therapists could also be valuable consultants for day programs for adults with developmental disabilities when there are consumers who need more specialized or individualized adaptations than staff members have been trained to provide. In addition, occupational therapists can influence how regulatory and state agencies understand and implement occupational justice in day programs through education and advocacy.

Implications for Further Research

This study provided initial evidence for how a group of adults with moderate to severe developmental disabilities engage in occupation in a day program. This information has implications for future research. Future studies could build on these findings in order to increase the level of evidence informing occupational engagement in this population through the use of experimental methods to increase occupational engagement. The findings could inform hypotheses in quantitative studies and assist in intervention designs. Future research questions could address how specific methods such as staff training on adapting activities, providing varying levels of assistance, or providing choices affects the occupational engagement of consumers, what factors facilitate optimal occupational performance among consumers, or how providing pictures or objects increases occupational engagement in consumers with moderate to severe developmental disabilities.

The findings of this study lead to additional research questions about the role of social interaction as a source of meaning and occupation. It is possible that adults
with developmental disabilities and staff members value social interaction due to the assistance that adults with developmental disabilities require in order to engage in occupation. Future research could test this hypothesis with people with moderate to severe developmental disabilities, mild disabilities, and typically developing individuals. Additional research could specifically investigate factors associated with a lack of interaction between adults with developmental disabilities and staff members and whether a lack of interaction with others is associated with inability to engage in occupation for adults with developmental disabilities. Additional research is needed about the phenomenon of co-occupation with adults with developmental disabilities and other populations in terms of how much what occupational therapists define as occupation is actually co-occupation and how co-occupation may be necessary for occupational engagement for some populations.

In addition, the findings of this study could be tested with other groups of adults with moderate to severe developmental disabilities to determine if these sources of meaning and indicators of occupational engagement also occur with other groups and in other settings such as home, community, and work environments. This would increase the transferability of the findings.

This study verified that a group of adults with moderate to severe developmental disabilities could meaningfully participate in a qualitative study about their experiences through modifications including visual supports and participant observation. This has implications for needs assessments, program evaluation, and other research with this population. Every effort should be made to ensure the consumers’ perspectives are explored and considered. This study lends itself to a
subsequent participatory action research project with the participants and others at the same agency to implement changes stemming from the findings and recommendations of this study in order to ensure the program activities are meaningful to consumers and staff members and to increase consumer engagement in the program activities. Such a study would address the goal of participatory action research to create change and solve problems based on stakeholders’ views (Stringer, 1996).

There is now literature to support the belief that adults with moderate to severe developmental disabilities do engage in occupation. Future studies could specifically study indicators of well-being in adults with moderate to severe developmental disabilities and the relationship between occupational engagement and these indicators of well-being using qualitative or quantitative methods. This would build the literature on the relationship between occupation and well-being in another population.

Limitations and Delimitations

Participants

The findings of this study must be interpreted and applied with caution. Some data were not collected due to recruitment methods. There were four consumers who were recommended by staff members who did not participate due to various reasons including a case manager thinking this was not a good time for one, one who did not have a guardian and was unable to understand the study and provide informed
consent, and others for whom guardians did not provide consent. The researcher has no way of knowing what information different participants would have provided.

Methods

There were limitations with the methods used in this study especially those involving the consumers. During the consumer interviews, the researcher used pictures to ask about “fun” and “yucky” groups. The researcher presented these pictures two at a time the majority of the time and ensured that during the second interview, the pictures were paired differently than in the first interview. While these measures minimized this limitation, the consumers still had to choose between two groups to tell the researcher which was “fun” or “yucky.” One of their most preferred groups may not have been acknowledged by the researcher because it was initially paired with a group that was more preferred. The same could also be true for their least preferred groups. There were instances when the consumers did not make a choice between the two groups, and the researcher tried various methods to prompt a response such as pairing the pictures with different groups, asking if both were “yucky” or “fun,” or accepting that the consumer may not be sure how he or she felt about the group.

Another limitation of the methods in this study was with the member check with the consumers. The researcher attempted to name the themes something concrete that the consumers could understand, a potential limitation in itself. In an attempt to represent the theme in different ways, each theme had multiple pictures associated with it. This was a potential source of confusion or visual distraction for the consumers. In addition, the researcher did not want to force a choice between themes
that may not be important to the consumer, so after describing each one individually, the researcher presented all eight themes at the same time, another source of potential visual confusion, in order to determine what was important to the consumer.

Summary of Limitations and Delimitations

As a qualitative study, the findings related to occupational engagement in adults with moderate to severe developmental disabilities constitute a Level V level of evidence, the lowest level of evidence (Holm, 2000). In order to ensure the highest level of evidence for the chosen qualitative research design, this study used a variety of strategies to control for bias and ensure the trustworthiness of the data and interpretation. Strategies to address credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985) included data triangulation, member checks, modified peer review, dense description, and reflexive journaling. While the researcher controlled for the limitations as much as possible, this was a small, exploratory study into the occupational engagement of adults with moderate to severe developmental disabilities and caution must be used in applying these findings to other groups of consumers or staff members.

Recommendations

The following is a discussion of recommendations for other researchers wishing to study the experiences of adults with moderate to severe developmental disabilities. The methods and findings of this study support recommendations for researchers studying occupational engagement in persons with moderate to severe developmental disabilities to include the consumer perspective. This study illustrated
the use and value of strategies to facilitate consumer participation such as the use of visual supports, facilitating member checking, the amount of researcher participation in participant observation, and the use of the VQ.

The strongest recommendation is to include the perspective of the consumer; other researchers have also made this recommendation (Balcazar et al., 1998; Bruyere, 1993; Burke et al., 2003; French & Swain, 1997; Krogh, 1998; Krogh & Lindsay, 1999; Lloyd et al., 2006; White, 2002; Zarb, 1992), and this study showed some strategies to facilitate this with consumers with moderate to severe developmental disabilities. The most helpful strategies consisted of photographs of familiar places and objects when asking questions, asking questions that could be answered in a variety of manners, e.g., verbal response, choosing a picture, or silence, and supplementing interviews with participant observation. As recommended by other authors (Booth & Booth, 1996), the researcher interpreted the consumers’ silence as meaningful as well; depending on the context, silence may have meant that the consumer did not favor one group over the other, did not like either group, or was unsure about one of the groups.

This study supported the use of pictures as an interview support to enable the participation of people with cognitive and communication disabilities. To facilitate responses from the consumers during the interviews, the researcher built on information from previous studies using visual supports with people with developmental disabilities (Finlay & Lyons, 2001; Mactavish et al., 2000; March, 1992; Sigelman & Budd, 1986). The researcher used photographs of familiar places, objects, and people to identify the groups that the consumers were “talking about”
during the interviews. This study provides evidence that this is a viable method of obtaining information from people with moderate to severe cognitive disabilities to increase responsiveness and decrease the risk of response bias. The researcher remained aware of potential response biases during the interviews and used strategies to compensate for these issues previously discussed in the methodology chapter.

One area that could benefit from improvement for future studies was the use of pictures of initial themes during the member check due to the difficulty of converting somewhat abstract themes into understandable pictures. While there were difficulties with making the themes concrete and finding pictures to represent the themes, this method validated the consumers’ voices and reiterated the value of their input. There is discussion in the literature about how pictures are more useful for concrete choices (Finlay & Lyons, 2001). It is important for the details of this methodology to be continually refined in future studies. Although this researcher consulted with other professionals including two speech language pathologists who were experts in using visual supports with people with developmental disabilities, the researcher would recommend that other studies take additional steps. These steps could include asking verbal consumers what they see with the pictures and modifying them accordingly, perhaps using photographs of the individual consumer doing something representative of the theme although this may be prohibitively time consuming and difficult to capture, or completing the member check in a group setting or through repeated interviews to discuss each theme.

Another recommendation relates to how much participation a researcher should have during participant observations. Because this study focused on
occupational engagement in a day program, the researcher had minimal participation during the observations in order to capture the true experience in the program. This strategy worked well to determine aspects of the environment that affected occupational performance. It is important for other researchers to determine whether the focus of their studies is to study occupational engagement that naturally occurs in specific settings as in this study, how to facilitate occupational engagement, when optimal occupational engagement occurs, or other issues as each of these purposes prompts a different level of participation during observations on the part of the researcher. The combination of participant observations and interviews worked well in this study, and this researcher would recommend this combination in future studies.

The researcher recommends the use of the VQ in future studies on occupational engagement. The researcher did not find any studies that used the VQ as a participant observation tool to determine what people with significant disabilities find meaningful. The VQ structured the observations in such a way that the researcher always noted specific behaviors demonstrating motivation, and it aided in consistency across observations. It was helpful during analysis in order to compare observations for the same consumer and across participants. It also provided useful information about the nature of the activities and the type of support that the consumers received. This tool may be helpful in future studies about motivation or meaning with populations who cannot describe what is meaningful to them through narratives. If using an assessment such as the VQ or another in a future study, it is imperative that the administrators become familiar with the tool and practice its administration and scoring, as the researcher in this study did.
In addition, the researcher recommends obtaining information from staff members or caregivers as well as consumers when studying occupational engagement in populations that require assistance to engage in occupation. While it is vital to get the consumers’ perspective, the emergence of the construct of co-occupation in this study also validates gathering the perspectives of caregivers, staff members, or others who may be engaging in co-occupation with the person with a disability. A study focusing on only the staff members’ perspective is missing a major issue: the consumers’ perspective. However, when the population requires assistance in order to engage in occupation, it may also be missing an important component to study only the consumers’ perspective unless that is the expressed focus of the study.

This study reiterated the usefulness of a specific interview procedure as a way to determine what staff members find meaningful about activities. Several studies have asked staff members or other groups to describe a satisfying and dissatisfying experience in order to determine what they find meaningful (Hasselkus, 1998; Hasselkus & Dickie, 1994; Hasselkus & Murray, 2007). This method yielded rich information about the lived experience and meaning of the staff members after a few initial questions to build rapport and assisted with narrowing the discussion to experiences related to working with the consumers. An adaptation of this methodology was useful in determining what was meaningful to the consumers who had significant cognitive and communication disabilities. Asking about fun and yucky groups was a concrete way of asking about satisfying and dissatisfying experiences. Participant observation was useful in expanding on the data from the interviews to get information that was more detailed.
Summary

This study on occupational engagement in adults with moderate to severe developmental disabilities demonstrated that when there was a good person-environment-occupation fit (Law et al., 1996), staff members and consumers engaged in co-occupation. This happened for the consumers when they can actively do and they have respectful interactions with others in the environment. For the staff members, this happens when the consumers are engaged in the program activities and they can reciprocally interact with the consumers. The consumers exhibit occupational engagement by doing the activity or initiating action, having focused attention to the activity or people involved, and demonstrating positive affect. The interrelation of the staff members and consumers has significant implications for occupational justice because consumers require a supportive environment in order to engage in occupation. This study has implications for future research, the practice of occupational therapy, and programming for adults with developmental disabilities.
REFERENCES


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Appendix A

Interview guide for first staff member interviews

1. How long have you worked with people with developmental disabilities?

2. How long have you worked at Helping Hand?

3. Some general questions to get staff member thinking about their experiences in the program such as the following: Do you have a favorite activity group? If so, what makes it your favorite? Are there consumers that you find easier to work with? If so, why? Are there consumers that you find harder to work with? What makes it harder? These questions may vary with different staff members and how comfortable they appear talking with the researcher and sharing stories.

4. What is an especially memorable experience that you have had working with the consumers?

5. Think back on your experience working with the consumers/clients in the day treatment program. Tell me about an especially dissatisfying experience.

6. Still thinking about your work with the consumers/clients in the day treatment program, tell me about an especially satisfying experience.

Potential probing questions:

Specifically, what happened on this occasion that you mentioned?

How did things get started?

How did you decide to do that activity?

How did the consumers react when that happened?/What did the consumers do?

How did you know that the consumers were enjoying (or not enjoying) the activity?
What did you do then?
What did the consumers do then?
What else was happening in the room?
What did that mean to you?
How did you feel when that happened?
What were you thinking when that happened?
How did things end?

Interview guide for second staff member interviews

The researcher will review the initial data analysis from the staff member interviews.

1. Does this make sense for you?

The researcher will review the initial data analysis from the consumer interviews and observations.

2. What is your impression about this?
3. How have you experienced something similar to this?
4. How have you experienced something different from this? (Using similar potential probing questions as first interview for questions 4 and 5)
5. Would you like to add anything else?
Appendix B

Volitional Questionnaire Observation Forms with Copyright Permission

### Volitional Questionnaire (Form A: Single Observation)

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<tr>
<th>Setting</th>
<th>Ratings</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>Shows curiosity</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Initiates actions/tasks</td>
<td>P H 1 2</td>
<td>N/O</td>
</tr>
<tr>
<td>Tries new things</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Shows preferences</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Shows that an activity is special or significant</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Indicates goals</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Stays engaged</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Shows pride</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Tries to solve problems</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Tries to correct mistakes</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Pursues activity to completion/accomplishment</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Invests additional energy/attention</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Seeks additional responsibilities</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
<tr>
<td>Seeks challenges</td>
<td>P H 1 5</td>
<td>N/O</td>
</tr>
</tbody>
</table>

Key:  P = Passive    H = Hesitant    I = Involved    S = Spontaneous    N/O = No opportunity to observe
### Environmental Characteristics Form

Name: __________________________  Session: __________________________

Date: __________________________  Day and Time of Evaluation: __________

Type of Environment (circle one): Daily Living  Productive/Work  Leisure

Comments:

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### Spaces

Setting in which the client was observed: ____________________

Check all boxes that apply for this observation:
- Location: □ Indoors □ Outdoors
- Lighting: □ Natural □ Artificial
- Sound: □ Quiet □ Noisy
- Space for movement: □ Small □ Adequate

Additional Factors Influencing Valuation: ____________________

### Objects

Check all boxes that apply for this observation:
- Familiar □ Unfamiliar
- Natural □ Fabricated
- Similar □ Dissimilar
- Simple □ Complex
- Few □ Many

Additional Factors Influencing Valuation: ____________________

### Social Environment

Check all boxes that apply for this observation:
- Individual □ One-on-One
- Group (Number of individuals): ____________________
- Chosen by client □ Preselected
- Familiar people □ Unfamiliar people
- Peer □ Supervised/Supervising Professionals

Additional Factors Influencing Valuation: ____________________

### Occupational Forms/Tasks

Activity in which the client was engaged:

Check all boxes that apply for this observation:
- Familiar □ Unfamiliar
- Chosen by client □ Preselected
- Structured □ Unstructured
- Adequate Challenge □ Inadequate Challenge

Additional Factors Influencing Valuation: ____________________
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Wanda Mahoney
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September 5, 2008

MOHO Clearinghouse

To whom it may concern:

I am completing a doctoral dissertation at Nova Southeastern University entitled "Meaning and Occupational Engagement in Adults with Developmental Disabilities in a Day Program". I used the Volitional Questionnaire as a structured observation instrument and would like to include the forms I used as appendices in my dissertation. I previously received emailed permission to use the Volitional Questionnaire forms in my dissertation from Dr. Jessica Kramer. However, I would like to confirm that permission in writing. I would like your permission to reprint in my dissertation excerpts from the following:


The excerpts to be reproduced are: Form A-Single Observation, Environmental Characteristics Form, and Form C-Multiple Observations.

The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by UMI. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that your company owns the copyright to the above-described material.

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me in the enclosed return envelope. Thank you very much.

Sincerely,

Wanda Mahoney, PhD, OTR/L

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

MOHO Clearinghouse

[Signature]

By: __________________________

Date: __9/17/08______________
Appendix C

Interview guide for first consumer interviews

1. Which of these groups do you like the best? (Photos shown 2-4 at a time)

2. Which group is your favorite? / Which of these groups do you like best? (Showing photos of rooms/activities chosen in previous questions.)

3. What is good/fun about (favorite group)?

4. What do you like best about (favorite group)?

5. Which one of these groups is yucky? (Photos shown 2-4 at a time.)

6. Which of these is the worst? (Showing photos of previous chosen yucky activities.)

7. What is bad/yucky about (worst group)?

Interview guide for second consumer interviews

1. Same questions as first interview guide.

The researcher will review themes from staff member interviews and consumer observations in simple terms and use computer drawings of the themes.

2. What do you think about this?
Appendix D

Recruitment Memo for Staff Member Participants

To: DT staff
From: Wanda Mahoney
Date:
Re: Your help requested

I am doing a research study for school. I am studying the meaning behind the activities in the day program. I plan to do this study by interviewing staff members about experiences that they have had working with the clients in the DT program, observing activity groups, and interviewing some consumers. The first set of interview questions for staff members have to do with describing experiences that might have been especially memorable, dissatisfying, or satisfying. The second set of interview questions would have to do with reviewing information I collect from all the participants. I would like you to participate in this study to help us all learn how we are helping consumers and perhaps learn how we could help them better.

If you agreed to participate, we would talk for about an hour at two different times. I will do everything that I can to keep anything you say confidential; however, other staff might know you are participating in this study. If you are interested, I can talk to you more about how I will keep things confidential, about how the two interviews would go, and how you can add more information as I go along. Overall, participating in this study would take you about 2 hours over the next few months.

If you are interested or want to find out more information, please call me at x427 or email me at wmahoney@hhrehab.org. I hope to hear from you soon. Thank you for thinking about participating.
Appendix E

Staff member participants’ informed consent form

Consent form for Participation in the Research Study Entitled: Meaning and Occupation in a Day Treatment Program for Adults with Developmental Disabilities for Staff Members

Funding Source: None.

IRB approval #: HPD-ALL10310712Exp.

Principal Investigator
Wanda Mahoney, MS, OTR/L
9649 W. 55th St.
Countryside, IL 60525
(708) 352-3690 ext. 427

Co-investigator
Elysse Roberts, PhD, OTR/L
3300 College Ave.
Ft. Lauderdale, FL 33328
(954) 356-0026 ext. 1228

Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-5369/IRB@nsu.nova.edu

Helping Hand Rehabilitation Center
9649 W. 55th St.
Countryside, IL 60525

What is the study about?
This study involves research about the meaning of the activities of a day treatment program for adults with developmental disabilities. This study will include 6 to 20 staff members and 6 to 20 clients in the Helping Hand day program.

Why are you asking me?
You are a full time staff member in the day program.

What will I be doing if I agree to be in the study?
You would meet with the researcher (Wanda) for about an hour two times. The first time, she will ask you about memorable, satisfying, and dissatisfying experiences in your work with the clients in the day program. She will ask you to recommend clients from the day program who would be good examples to observe and what their favorite and least favorite activity groups are. She will tape the interviews and write down exactly what you say except for names. You will be able to review the transcripts of what you said and

Initials: ________ Date: ________
make changes if you want. When she has looked at all the interview transcripts and observed and talked with the clients, she will meet with you again for about one hour. She will tell you about what she figured out to see if you think it makes sense. She will ask you again about your experience working with the clients.

Is there any audio recording?
Yes. This research project will include audio recording of your interviews with the researcher. This audio tape will be available to be heard by the researcher, the university's human research oversight board (the Institutional Review Board or IRB), and the following: Kimberly Brye, dissertation committee member. The tape will be transcribed by Wanda Mahoney. She will listen to the tapes away from Helping Hand and use headphones. She will write down everything in the tape except for names mentioned. The tape will be kept securely in a locked box. The tape will be kept for 3 years after the end of the study and destroyed after that time by cutting up the tape. Because your voice will be potentially identifiable by anyone who hears the tape, your confidentiality for things you say on the tape cannot be guaranteed although the researcher will try to limit access to the tape as described above.

Is there any video recording?
No

What are the dangers to me?
People at Helping Hand may know that you are participating in the study. There is a small danger that people will hear what you say in the interview. You could get upset by talking about a dissatisfying experience with your work with the clients. You will not be able to complete your work during the interview. If you have any concerns about the risks or benefits of participating in this study, you can contact Wanda Mahoney, Elysa Roberts, or the IRB (Institutional Review Board) office at the numbers on the first page of this form.

Are there any benefits to me for taking part in this research study?
There are no direct benefits for taking part in this study. However, you will have someone listening to you talk about your experiences at work.

Initials: _______ Date: _______
Will I get paid for being in the study? Will it cost me anything?
There are no costs to you or payments made for participating in this study.
The day program supervisors will allow you to complete your interview during
work time if possible. You will lose up to two hours by participating in this
study.

How will you keep my information private?
Your consent form will be kept in a locked box. The tapes from your interview
will also be kept in a locked box in Wanda Mahoney's home or office that only
she will have a key for. The transcript from your interview will not have your
name on it or any names that you mention in the interview. All information
obtained in this study is strictly confidential unless disclosure is required by
law. The IRB (Institutional Review Board) and regulatory agencies may
review research records.

What if I want to leave the study?
You have the right to refuse to participate or to withdraw at any time, without
penalty. If you choose to withdraw, the researcher will still use your interview
information and your tape will be destroyed at the same time as the others.

Other Considerations:
If significant new information relating to the study becomes available which
may affect your willingness to continue to participate, Wanda will share this
information with you.

Voluntary Consent by Participant:

I have read the preceding consent form, or it has been read to me, and I
fully understand the contents of this document and voluntarily consent
to participate. All of my questions concerning the research have been
answered. I hereby agree to participate in the research study entitled
"Meaning and Occupation in a Day Treatment Program for Adults with
Developmental Disabilities". If I have any questions in the future about
this study they will be answered by Wanda Mahoney. A copy of this
form has been given to me. This consent ends at the conclusion of this
study.

Participant's Signature: __________________________ Date: __________

Witness's Signature: __________________________ Date: __________
Appendix F

Consumer Participants’ recruitment letter for guardians

Date

Dear ________,

As we discussed on the phone, I am an occupational therapist at Helping Hand who is doing a study on the meaning of the activities (name)’s day program.

I would like to observe (name) participate in the regular activities in the day program to see what he/she likes to do, how he/she participates in the activities, and what reactions he/she has during the activities. I would also like to talk with (name) about his/her activity groups. I would take photographs of the activities in the groups to help him/her understand and answer the questions. I would also use other pictures (photographs of the activity rooms and line drawings) to help (name) understand and answer the questions. I would record our conversation and write down what (name) said or did during our conversation.

I will not put (name)’s name on the tape or on any notes. I will keep the tapes and anything with (name)’s name on it in a locked box in my office or home. People at Helping Hand may know if (name) is participating in this study because he/she would be meeting with me. I will do everything I can to make sure that what (name) says will stay confidential.

If you agree to let (name) participate, I will also talk with (name) to make sure that he/she wants to participate.

If you agree to (name) participating in this study, please sign the enclosed consent form, have someone witness your signature, and mail it back to me in the enclosed envelope. I will call you in about a week to see if you received this and answer any more questions you may have.

Please call me at (708) 352-3580 ext. 427 if you have any questions or concerns about this study. Thank you for considering having (name) participate.

Sincerely,

Wanda Mahoney
Appendix G

Consumer Participants’ Informed Consent and Assent Forms

Consent form for Participation in the Research Study Entitled: Meaning and Occupation in a Day Treatment Program for Adults with Developmental Disabilities for Consumers

Funding Source: None.

IRB approval #: HPD-ALL10310712Exp.

Principal Investigator
Wanda Mahoney, MS, OTR/L
9649 W. 55th St.
Countryside, IL 60525
(708) 352-3980 ext. 427

Co-investigator
Elysa Roberts, PhD, OTR/L
3300 College Ave.
Fl. Lauderdale, FL 33328
(800) 356-0026 ext. 1228

Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-5369/IRB@nsu.nova.edu

Helping Hand Rehabilitation Center
9649 W. 55th St.
Countryside, IL 60525

What is the study about?
A research study is a way to learn more about what people think and do. Wanda Mahoney is doing this study to learn about the activities in the groups at Helping Hand. She wants to learn what you like about the groups. She also wants to learn what you do not like about the groups. She will be asking 6 to 20 staff members and consumers to be in the study.

Why are you asking me?
You attend the day program at Helping Hand. A staff member thought that you might be a good example to watch and listen to.

What will I be doing if I agree to be in the study?
Wanda Mahoney is an occupational therapist at Helping Hand. She will watch you two times in one of your favorite groups. She will watch you two times in a group you do not like much. She will write down the things you do during group. She will take pictures of what you do in your groups. You will not be in the pictures.

Initials: ________ Date: ________

College of Osteopathic Medicine • College of Pharmacy • College of Optometry
College of Allied Health and Nursing • College of Medical Sciences • College of Dental Medicine
3220 South University Drive • Fort Lauderdale, Florida 33328-2018
(954) 262-1242 • Fax: (954) 262-2290
Wanda will ask you about the groups and activities that you like. She will ask you about the groups and activities that you do not like. She will use pictures to help you answer. She will talk to you about your groups two times. The first time will be after she watches you in what a staff member says is one of your favorite groups. The second time will be after she watches you four times.

Is there any audio recording?
Yes. Wanda will record your interviews on a cassette. These people can listen to your tape: Wanda Mahoney, Kimberly Bryze, and the university's research review board. Kimberly Bryze works with Wanda on this research for her dissertation. Wanda will listen to the tapes away from Helping Hand and use headphones. She will write down everything in the tape except for names you say. She will keep the tape locked up in a box. She will keep the tape for 3 years after the study is over. Then she will destroy it by cutting up the tape. People could recognize your voice if they hear the tape. This means that people could find out what you said during the interviews. Wanda will try to make sure this does not happen by protecting the tapes.

Is there any video recording?
No

What are the dangers to me?
People at Helping Hand may know that you are in the study. Wanda will talk with the staff members about the things that all the consumers tell and show her. Wanda will not say your name when talking with the staff members. There is a small danger that people will hear what you say in the interview. Wanda will ask you some questions about your groups that might be hard to answer. You could get upset talking about groups you do not like. You will not be able to attend your groups during the time you talk with Wanda. If you have any concerns about the risks or benefits of being in this study, you can contact these people: Wanda Mahoney, Elysa Roberts, or the IRB (Institutional Review Board) office. Their phone numbers are on the first page of this form.

Are there any benefits to me for taking part in this research study?
There are no direct benefits for being in this study. You will get to talk to someone about the things you like and do not like in your groups.

Initials: ________ Date: ________
Will I get paid for being in the study? Will it cost me anything?
You will not get paid for being in the study. It will not cost you anything to be in the study.

How will you keep my information private?
Wanda Mahoney will keep your consent form in a locked box in her home. She will be the only person with a key. She will also keep the tapes from your interview in a locked box. Your name will not be on the transcript from your interview. Your name will not be on the notes from your observation. You will not be in any of the photographs.

This information from this study is confidential (private). The only time that anyone can share your information is if the law requires it. The IRB (Institutional Review Board) and regulatory agencies may review research records.

What if I want to leave the study?
You can leave the study whenever you want. No one will be mad or upset if you decide to stop being in the study. If you choose to stop being in the study, Wanda will still use the information that you already gave. Your tape will be cut up at the same time as the others.

Other Considerations:
If Wanda finds out something that could change your mind about the study, she will let you know.

Voluntary Consent by Participant:

I have read this consent form or someone read it to me. I fully understand this document. I voluntarily consent (agree) to participate. Someone answered all of my questions about the research. I agree to participate in the research study "Meaning and Occupation in a Day Treatment Program for Adults with Developmental Disabilities". If I have any questions in the future about this study, I can ask Wanda Mahoney. I got a copy of this form. This consent ends when this study is over.

Participant's Signature: __________________________ Date: ____________
Witness's Signature: __________________________ Date: ____________
Consent for Participation in the Research Study Entitled Meaning and Occupation in a Day Treatment Program for Adults with Developmental Disabilities for Guardians

Funding Source: None.

IRB approval #: IRP-ALL10310712Exp.

Principal Investigator
Wanda Mahoney, MS, OTR/L
9649 W. 55th St.
Countryside, IL 60525
(708) 352-3580 ext. 427

Co-Investigator
Elysa Roberts, PhD, OTR/L
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Ft. Lauderdale, FL 33328
(800) 356-0026 ext. 1228

Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-6363/IRB@nsu.nova.edu

What is the research about?
You are being asked to let your ward participate in a research study. This study is to learn more about the meaning of the activities in a day treatment program. Your ward was selected as a possible participant because he/she attends the day treatment program at Helping Hand and a staff member felt that he/she would be a good example of activity participation in the day program. This study will include 6 to 20 staff members and 6 to 20 consumers in the Helping Hand day program.

What will my ward be doing?
Wanda Mahoney, an occupational therapist at Helping Hand, will observe your ward during the regular activities in the day program. First, she will observe him/her in what a staff member says is his/her favorite group. She will take notes about the activities your ward participates in, his/her reactions to the activities, and things going on in the environment. She will take pictures of the activities in the day program groups. Your ward will not be in the photographs. The observation will last 20 to 40 minutes. Wanda Mahoney will ask your ward questions about what activities he/she likes and does not like. She will use the photographs and other pictures to make the questions easier to answer. Wanda will observe your ward 3 more times: once more in a favorite group and twice in a least favorite group. She will do the observations over 2 to 4 weeks and take notes like in the first observation. Once the observations are finished, Wanda will interview your ward again about his/her activities and what Wanda found out from the interviews and observations.

Initials: __________ Date: __________
Will there be audio recording?
Yes. This research project will include audio recording of the interviews with your ward. This audio tape will be available to be heard by the researcher, the university’s human research oversight board (the Institutional Review Board or IRB), and the following: Kimberly Bryze, dissertation committee member. The tape will be transcribed by Wanda Mahoney. She will listen to the tapes away from Helping Hand and use headphones. She will write down everything in the tape except for names mentioned. The tape will be kept securely in a locked box. The tape will be kept for 3 years after the end of the study and destroyed after that time by cutting it up. Because your ward’s voice will be potentially identifiable by anyone who hears the tape, his/her confidentiality for things he/she says on the tape cannot be guaranteed. The researcher will try to limit access to the tape as described above.

Will there be video recording?
No.

What dangers are there for my ward?
People at Helping Hand will probably know that your ward is participating in the study. Wanda Mahoney will share general information about what your ward and other participants tell and show her with the staff members. Wanda will not mention any names or specific examples when talking about experiences with staff members. Your ward could become upset about someone watching them. If he/she becomes upset because of the observation, Wanda Mahoney will stop the observation. Your ward could become upset during the interviews. If your ward becomes upset because the questions are too hard, Wanda will stop the interview. If your ward becomes upset because of talking about the group he/she does not like, Wanda will ask about the favorite groups and stop the interview. If you have questions or concerns about the study, you can contact Wanda Mahoney, Elysa Roberts, or the IRB (Institutional Review Board) at the numbers on the first page of this form.

What good things might come about for my ward?
There are no direct benefit for being in this study. However, your ward will have one-on-one attention during the interviews. Your ward will have the chance to talk about what their favorite and least favorite activities are in the day program.

Do I have to pay for anything?
No. There are no costs for participation in this study.

Will I or my child get paid?
No. There are no payments made for participating in this study.

Initials: ______ Date: ______
How will my ward's information be kept private and confidential?
This consent form and your ward's assent form will be kept in a locked box. Your
ward's name will not be on the interview transcript or any notes written during or after
the observations. Your ward will not be in the photographs taken. All information
obtained in this study is strictly confidential unless disclosure is required by law. The
IRB (Institutional Review Board) and regulatory agencies may review research
records.

Use of Protected Health Information (PHI):
This study does not require the disclosure of any Protected Health Information.

What if I don't want my ward to be in the study or my ward doesn't want to be
in the study?
You have the right to refuse for your ward to participate or withdraw your ward at any
time. If you choose to withdraw your ward, any data (observation notes, interview
transcripts) already collected will still be used in the study and not be destroyed. The
audiotape will be destroyed with any others from the study 3 years after the end of
the study.

Other Considerations:
If significant new information relating to the study becomes available which may
relate to your willingness to have your ward continue to participate, this information
will be provided to you by the investigators.

Voluntary Consent by Participant:
I have read the preceding consent form, or it has been read to me, and I fully
understand the contents of this document and voluntarily give consent for my
ward to participate in the research study entitled "Meaning and Occupation in a
Day Treatment Program for Adults with Developmental Disabilities". All of my
questions concerning the research have been answered. I hereby agree to
have my ward participate in this research study. If I have any questions in the
future about this study they will be answered by Wanda Mahoney. A copy of
this form has been given to me. This consent ends at the conclusion of this
study.

Ward's Name: __________________________________________

Parent's/Guardian Signature: ______________________________ Date __________________

Witness's Signature: ______________________________ Date: ___________________
Assent for Participation in the Research Study Entitled Meaning and Occupation in a Day Treatment Program for Adults with Developmental Disabilities

Funding Source: None.

IRB approval # IRPO-ALL10310712Esp.

Principal Investigator
Wanda Mahoney, MS, OTR/L
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Countryside, IL 60525
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Co-investigator
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(800) 356-0025 ext. 1228

Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-5369/IRB@nsu.nova.edu

What is a research study?
A research study is a way to learn more about what people think and do.

Why is this study being done?
Wanda Mahoney is doing this study to learn about the activities in the groups at Helping Hand. She wants to know what you like about the groups. She also wants to know what you do not like about the groups. She will ask 6 to 20 people to be in the study.

What will happen to me?
Wanda Mahoney works at Helping Hand. She will watch you four times during your groups. She will write down the things you do during group. She will take pictures of what you do in your groups. She will talk to you two times about the groups that you like and do not like. She will use pictures to help you answer the questions. These talks will take 30 minutes to one hour each.

What are the good things about being in the study?
There are no direct benefits to being in the study. You will get to talk to someone about the things you like and do not like in your groups.

Will being in the study hurt me?
We do not think you will be hurt by helping with this study. Wanda will ask you some

Initials: __________  Date: __________
questions about your groups that might be hard to answer. She will ask you about things you do not like in your groups. She will talk to the staff about what everyone said.

How long will I be in the study?
The study will last for about one month.

Do I have other choices?
You can say no about being in the study. You can stop being in the study whenever you want.

Will people know that I am in the study?
Your case manager and guardian will know that you are in the study. People at Helping Hand might know that you are in the study. This is because Wanda will be watching you during some of your groups and talking to you by yourself. Other people could find out what you say during the study. Wanda will do what she can so that other people do not find out what you say.

Who can I ask questions?
You can ask Wanda, your case manager, or your guardian about questions you have about this study.

Is it OK if I say “No, I don’t want to be in the study”?
Yes, it is ok. You do not have to be a part of this study if you do not want to. No one will be mad or upset. If you change your mind, you can stop being in the study.

Do you understand and do you want to be in the study?
I understand. All my questions were answered.
☐ I want to be in the study.
☐ I don’t want to be in the study.

Your name: ____________________________________________

Your signature ___________________________ Date __________

Signature of person explaining the study __________________________ Date __________

Signature of witness __________________________ Date __________
Appendix H

Floor Plan

First Floor
1" = 30'-0"
Appendix I

Research Review Board Approval Letters

NOVA SOUTHEASTERN UNIVERSITY
Office of Grants and Contracts
Institutional Review Board

MEMORANDUM

To: Wanda Mahoney, MS, OTR/L
Health Professions Division – College of Allied Health and Nursing
S643 N. Kenmore Avenue, #G
Chicago, IL 60660

From: Josephine Shallo-Hoffmann, Ph.D.
Chair, Institutional Review Board

Date: November 6, 2007

Re: Meaning and Occupation in a Day Treatment Program for Adults with Developmental Disabilities – Research Protocol No. HPD-ALL10310712Exp.

I have reviewed the revisions requested during the initial review of the above-referenced research protocol by an expedited procedure. On behalf of the Institutional Review Board of Nova Southeastern University, "Meaning and Occupation in a Day Treatment Program for Adults with Developmental Disabilities" is approved. Your study is approved on November 6, 2007 and is approved until November 5, 2008. You are required to submit your Renewal Application by August 5, 2008. As principal investigator, you must adhere to the following requirements:

1) CONSENT: The consent forms must indicate the approval and its date. The forms must be administered in such a manner that they are clearly understood by the subjects. The subjects must be given a copy of the signed consent document, and a copy must be placed with the subjects' confidential chart/file.

2) ADVERSE EVENTS REACTIONS: The principal investigator is required to notify the IRB chair of any adverse reactions that may develop as a result of this study. Approval may be withdrawn if the problem is serious.

3) AMENDMENTS: Any changes in the study (e.g., procedures, consent forms, investigators, etc.) must be approved by the IRB prior to implementation.

4) CONTINUING REVIEWS: A continuing review (progress report) must be submitted at least once each year.

5) FINAL REPORT: The Principal Investigator is required to notify the IRB Office 30 days after the conclusion of the study that the study has ended via final report.


Cc: Dr. Teri Humill
   Dr. Patrick Hardigan (email only)
   Jaime Arango
   Dr. Elysa Roberts (email only)
Dear Ms. Mahoney:

Your proposed study titled: *Meaning and Occupation in a Day Treatment Program for Adults with Developmental Disabilities.* Is approved to be carried out as detailed in your submission.

Should there be any changes in the implementation of the study they will be required to be reviewed and approved prior to implementation.

I will be happy to assist you in scheduling time and meeting place with both clients and staff. Please contact me when you are ready to proceed.

Sincerely,

Stephen Lydon
Chief Clinical Officer
Helping Hand Rehabilitation center
Appendix J

Visual Cues for Initial Consumer Interviews (Black/white versions; color in interviews)

Recreation Group (Two photos side by side)
Workshop

Computer Group
Library Group (Two photos side by side)
Training Group
Cooking Group

Music Group

(Photo included group leader)

Arts and Crafts Group

(Photo included group leader)
Appendix K

Visual Support for Member Check with Consumers (Black and white versions)

**Interacting with people**

![Interacting with people images]

-I want to talk to you-
Yucky when nothing to do
Making choices
Having something to look at or hold
Making money

paycheck

[Image of a paycheck]

[Image of money]
Invited to participate

come here

invitation

You're invited
Where _____
When _____
RSVP
Activity has a purpose
People know routine

1.

2.

3.
Appendix L

Volitional Questionnaire Multiple Observations Form Used in Analysis

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<th>Facility:</th>
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<td>Therapist:</td>
</tr>
<tr>
<td>Gender:</td>
<td>Diagnosis:</td>
</tr>
</tbody>
</table>

<table>
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<th>H</th>
<th>I</th>
<th>S</th>
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<td>P</td>
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<td>S</td>
</tr>
<tr>
<td>Shows that an activity is special or significant</td>
<td>P</td>
<td>H</td>
<td>I</td>
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<td>Pursues activity to completion/achievement</td>
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Key: P = Passive  H = Hesitant  I = Involved  S = Spontaneous

Comments


### Appendix M

Consumer Interviews and Observations Data Audit Trail

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<th>Consent</th>
<th>Assent</th>
<th>Observation 1</th>
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<td>1/17/08 30 min Training (u)</td>
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Appendix N

Staff Member Interview Data Audit Trail

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