

THE EFFECTS OF MULTICULTURAL DANCE ON  
SELF-DETERMINATION OF ADULTS WITH  
INTELLECTUAL DISABILITIES

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A Thesis

Presented

To the Faculty of

California State University, Chico

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In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Kinesiology

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by

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Spring 2010

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## ACKNOWLEDGMENTS

First and foremost, I would like to thank all the participants for without whom none of this would have been possible. I also would like to thank my committee members for all their encouragement and wisdom during my educational explorations. Lastly, I would like to express my thanks and gratitude to my fiancé Nathan and the rest of my wonderful family for their unwavering support during my studies. I have such adoration for everyone who was involved in bringing this study to fruition and you all have my deepest gratitude. Thank you.

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## ABSTRACT

### THE EFFECTS OF MULTICULTURAL DANCE ON SELF-DETERMINATION OF ADULTS WITH INTELLECTUAL DISABILITIES

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The purpose of this study was to investigate the effects of a multicultural dance program on the self-determination of Hispanic/Latino adults with intellectual disabilities. An alternating treatments design was employed in this study; an inventory that examined six subcategories of self-determination measured before, midway, and after the program. The DANCE program was designed to foster self-determination through emphasis on cultural tailoring to increase the subcategory of relatedness. The results did not show a change in overall self-determination scores. However, the category of relatedness decreased while participants participated in the non-Hispanic/Latino dance portion, followed by a subsequent increase during the Hispanic/Latino portion of the program. The conclusion was that relatedness can be changed through a culturally tailored dance program, but further research is needed to increase self-determination.

## CHAPTER I

### INTRODUCTION

This study investigated the effect of a program which provided dance experiences related to the Hispanic/Latino culture for people with intellectual disabilities.

#### Background

An estimated 7.2 million people in the U.S. have a diagnosis of intellectual disability (ID) (Harris, 2006). That means as many as 3 out of every 100 people in the nation have ID (National Information Center for Children and Youth with Disabilities [NICHCY], 2009). People with ID are considered predominantly sedentary and at elevated risk for health problems associated with inactivity (Rimmer & Braddock, 2002).

Although disabilities can and do occur in all cultural groups, national studies of service provisions indicate that persons of diverse cultures with developmental disabilities, which include those with intellectual disability, are under-represented among those enrolled for services with state agencies (Grant-Griffin, 1995). This can be found in northern California, where 13% of the total population is Hispanic/Latino (U.S. Census Bureau, 2008). Northern California reports showed that of the 5,780 people with developmental disabilities served, only 8% were Hispanic/Latino (Far Northern Regional Center [FNRC], 2008). In addition, physical activity rates in the Hispanic/Latino population are troubling, demonstrating less physical activity than their Anglo counterparts (Taylor,

Baranowski, & Young, 1998). Couple a less physically active minority group with a disability, such as intellectual disability (ID), and you have a population at heightened risk for inactivity. For this reason, it is important that inviting and accessible physical activity related settings be provided to increase physical activity in high risk populations (Powell, Slater, & Chaloupka, 2004).

### Problem

People of the Hispanic/Latino culture are at high-risk for leading sedentary lifestyles, along with people diagnosed with ID (Taylor, Baranowski, & Young 1998). Lack of physical activity can cause adverse health conditions. This study explored one way to encourage the high-risk population of Hispanic/Latino individuals with ID to participate in physical activities.

### Purpose

The purpose of this study was to determine the effects of a multicultural dance program on the self-determination of adults with intellectual disabilities. Specifically, it was hypothesized that self-determination scores would increase from their baseline measurement after the first three weeks, then, after the cultural portion of the program, the scores for the Hispanic/Latino participants would increase even more, due to an increase in scores for the subcategory of relatedness.

### Limitations

The limitations of this study include not having access to participants' files for diagnosis information and having a limited number of participants, especially those of the

Hispanic/Latino culture. Not being able to conduct a follow-up to check for sustained changes in SD was also limiting.

### Delimitations

Delimitations of this study included that the population was one of convenience and the participants were male and female adults with ID currently receiving services from a local adult day support center in northern California. Another delimitation was the use of a simplified version of the Intrinsic Motivation Inventory (IMI), which was used with three possible responses on a Likert scale. The short duration of the program, which was only six weeks, was also a delimitation. In addition, dance was the only physical activity offered.

### Definition of Terms

*Anglos:* (from Anglo-Saxon) Refers to “White” English speakers in areas of the United States with a large Hispanic or Mexican American population (National Museum of American History, 2009).

*DANCE:* Dance Activities for a New Cultural Experience is a dance program that was designed to foster self-determination through emphasis on cultural tailoring to increase the SD subcategory of relatedness.

*Developmental disability:* A term used to describe disability that is attributable to intellectual disability, cerebral palsy, epilepsy, autism, Down syndrome, and other genetic conditions such as fragile X syndrome. The term describes a range of conditions

including, but not limited to, those attributed to intellectual disability (Sutherland, Couch, & Iacono, 2002).

*Hispanic*: Refers to many people with origins in the Spanish-speaking Americas (National Museum of American History, 2009).

*Hispanic/Latino culture*: The culture of people who classify themselves as one of the specific Spanish, Hispanic, or Latino categories: “Mexican, Mexican American, Chicano,” “Puerto Rican,” or “Cuban.” In addition to those with origins that are from Spain, the Spanish-speaking countries of Central or South America, the Dominican Republic, or people identifying themselves generally as Spanish, Spanish-American, Hispanic, Hispano, Latino, and the like (U.S. Census Bureau, 2008).

*Intellectual disability*: Having a significantly below average score on a test of mental ability and limitations in the ability of daily functioning (The Center of Disease Control, 2005).

*Latino*: People with roots in the Spanish- and Portuguese-speaking Americas. This broader term, mostly used in the United States, is sometimes used as a replacement for Hispanic (National Museum of American History, 2009).

*Multiculturalism*: An attitude of tolerance toward others, a friendly and supportive behavior toward immigrants (Heckmann, 1993). Modernly, “multiculturalism is also relating to social educational theory that encourages interest in many cultures within a society rather than in only a mainstream culture” (dictionary.com, 2008).

*Physical activity*: “Any body movement produced by skeletal muscles that results in caloric expenditure” (Caspersen, Powell, & Christensen, 1985, p. 126). This definition

includes all forms of movement or activity that results in energy expenditure above resting level (Welk, 2002).

*Self-determination*: “The capacity to choose and to have those choices, rather than reinforcement contingencies, drives, or any other forces or pressures, be the determinants of one’s actions” (Deci & Ryan, 1992 p. 38).

*Self-determination theory*: A metatheory that emerged from centuries of discussion over ideas of free will and determinism which posits that events in human behavior and actions are the effects of preceding causes, it is, however, more than the capacity to choose and to have choices; it is also an innate need leading humans to engage in interesting behaviors (Deci & Ryan, 2000a; Wehmeyer, Abery, Mithaug, & Stancliffe, 2003).

*White*: A person having origins in Europe, the Middle East, or North Africa. People who report origins such as Irish, German, Italian, Lebanese, Near Easterner, Arab, or Polish are also included in this term (U.S. Census Bureau, 2008).

## CHAPTER II

### REVIEW OF RELATED LITERATURE

This study investigated the effects of a multicultural dance program on the self-determination of adults with intellectual disabilities, in particular the subcategory of relatedness in the Hispanic/Latino participants. Following the introduction, relevant literature was reviewed under the following general headings: History of Self-determination; Self-determination, Disability, and Empowerment; Self-determination and Motivation; Role of Environment in Self-determination; Self-determination in Physical Activity; Health Considerations for People with Intellectual Disabilities; Health Considerations in the Latino/ Hispanic Culture; Multiculturalism; Physical Activity for Individuals of Culture with Intellectual Disability; and Implications for This Study.

#### Introduction

The prevalence of sedentary lifestyles is well documented in today's society (USDHHS, 2008). It is important to explore appropriate physical activity programming for high-risk populations to increase adherence to regular physical activity. Taylor and colleagues (1998) found that despite the documented benefits, approximately 25% of American adults do not engage in any leisure time physical activity and only 22% engage in regular, sustained physical activity. According to the USDHHS (2008), these statistics have remained relatively stable over the past eight years. Certain populations are of

particular concern because they were shown to be more likely to be sedentary than the general public. These include those of low income, ethnic minority groups, and people with disabilities (USDHHS, 2000).

Recognition of the relevance of self-determination (SD) for people with a disability has increased in the special education literature since 1990 (Wehmeyer et al., 2003). Promotion of SD has been explored in people of different ages and disabilities, including intellectual disability (ID) (Wehmeyer et al., 2003). Recent research has focused on the roles of physical activity and culture on promoting SD (Chirkov, Ryan, Kim, & Kaplan, 2003; Chirkov, Ryan, & Willness, 2005; Lachapelle et al., 2005; Nitoumanis, 2001; Standage, Duda, & Ntoumanis, 2003; Vlachopoulou et al. & Michailidou, 2006). When SD is increased, participants will invest their attention, experience more enjoyment, and have increased involvement in the program, ultimately leading to increased adherence. Therefore, if physical activity programming can be designed to bolster SD, adherence rates may increase and, ultimately, the risk of inactivity decrease. In reviewing the literature available on promoting SD, significant gaps in information are apparent. One such gap is related to current information on the promotion of SD in individuals with ID through cultural physical activities.

### History of Self-determination

The concept of SD is not new. In fact, the *Shorter Oxford English Dictionary on Historical Perspectives* from 1683 defined SD as “Determination of one’s mind or will by oneself or itself” (as cited in Wehmeyer et al., 2003, p. 6). Historically, two forms of determinism were recognized, hard and soft. Hard determinism theory posited that



causal laws induced human actions and accounted for every action (Wehmeyer et al., 2003). According to soft determinism, human action could be both caused and free, thus every action had a cause but one was not always compelled to act (Wehmeyer et al., 2003). Along with hard and soft determinism, there was the idea of indeterminism that posited there was no cause for human actions, that human actions emanated from free will (Wehmeyer et al., 2003). Investigating the determination of one's mind or will eventually led to the development of a theory of SD by Deci and Ryan (1985) which posits that human behavior and actions are the effects of preceding causes.

Before self-determination theory (SDT), concepts related to SD had appeared in a variety of psychological writings. Essentially SD is an issue of choice and relies heavily on concepts such as volition, intention, or will (Wehmeyer et al., 2003). John Locke (1690), a soft-determinist in the late 1600s, theorized that human action resulted from thought and thought came from sensation and reflection. Locke described freedom or liberty as “the power to act on our volition, whatever it may be, without any external compulsion or restraint” (Ch. 2, XXI). Locke dealt with the notion of free will by stating that it had no relevance to the cause of volition because it was the agent, not the will, that was free. He defined power as the ability to create or accept change and the existence of power was volition or will. The importance of Locke's theory to SD was the proposal that human action was the result of both cause and volition. Currently we acknowledge the existence of many determinants of behavior that influence action, such as physiological, structural, environmental, and/or organismic factors (Wehmeyer et al., 2003).

In 1890, James was one of the first psychologists to discuss the importance of volition and present a theory of will (Deci & Ryan, 1985). However, non-volition theorists dominated psychology at this time and his concepts were quickly dismissed. Two important developments occurred in the mid 1890s (Deci & Ryan, 1985). First, several theorists posited the determination of behavior to be autonomous rather than heteronomous. Heteronomy, the opposite of autonomy, is the understanding that one's actions are experienced as controlled by forces that are phenomenally alien to the self or that compel one to behave in specific ways regardless of one's values or interests (Deci & Ryan, 1985). Second, the central concept in directionality of behavior shifted from focusing on associative bonds between drive stimulation and an object or a response to decisions entailing conscious processes such as future outcomes (Deci & Ryan, 1985).

The concept of SD evolved throughout the 20<sup>th</sup> century from its use in other disciplines, such as biology, psychology, and anthropology (Wehmeyer et al., 2003). The free will problem that had dominated philosophy for centuries was temporarily laid aside as the focus shifted to issues dealing with the causes of human behavior, thus establishing the discipline of personality psychology in 1930 (Wehmeyer et al., 2003). Within the discipline of personal psychology, psychologists took systematic approaches to SD. The problem of SD in psychology was still predominately dominated by hard determinism, with the likes of Freud and Skinner who believed that behavior was due to causal factors up until the mid 20<sup>th</sup> century (Wehmeyer et al., 2003).

In 1941, Angyal (1941) stated that the science of personality was the study of two determinants to human behavior, autonomous determination, and heteronomous

determination. Autonomous determination was caused by self, and heteronomous determination was caused by other factors such as environment. Angyal said, “In the realm of organismic happenings we find neither entirely autonomous nor entirely heteronomous determinants” (p. 33). It was this use of Angyal’s construct that typified the soft deterministic viewpoint and characterized a SD perspective similar to Locke’s idea of the person being free to act, but not the action itself being free of causality (Angyal, 1941; Locke, 1690; Wehmeyer et al., 2003). This trend in thinking, which was opposite that of the hard deterministic view that had previously dominated the field of psychology for several decades, continued throughout the remainder of the 20<sup>th</sup> century (Wehmeyer et al., 2003). Researchers such as Bandura (1997) attempted to explain human action during the 1980s and 1990s. Bandura discussed determinism and human agency in a “sociocognitive perspective” (p. 7). With the development of personal psychology, SD diverged into two separate paths. Deci and Ryan developed SDT dealing with motivational psychology, while Wehmeyer et al. (2003) concentrated on the development of human agency through SD actions.

Deci and Ryan (2002) defined SD as a basic need consisting of three factors: autonomy, competence, and relatedness. Autonomy is described as having volition or being able to act based on one’s sense of self, relating to experiences of integration and freedom. Competence is defined as demonstrating understanding, feeling skilled, and perceiving one’s skills to be comparable in ability to one’s peers. Finally, relatedness is the desire to feel connected to others, expressing and receiving love and caring (Deci & Ryan, 2002).

Deci (1992) describes SD as

the capacity to choose and to have those choices, rather than reinforcement contingencies, drives, or any other forces of pressures, be the determinants of one's actions. But self-determination is more than a capacity, it is also a need. We have posited a basic, innate propensity to be self-determining that leads organisms to engage in interesting behaviors. (p. 38)

Like Deci and Ryan, Wehmeyer et al. (2003) studied the concept of SD, however, Wehmeyer et al. looked at SD from a different perspective: he studied characteristics of SD and the skills required to act in a self-determined manner. Wehmeyer et al. published a career development model promoting SD for people with ID, empowering people with disabilities through the vocational rehabilitation process. Wehmeyer et al. posit that SD is comprised of four components—autonomy, self-regulation, empowerment, and self-realization—which are developed through acquisition of skills. Wehmeyer, Kelcher, and Richards (1996) evaluated their model of SD by asking participants with intellectual disabilities to complete various instruments that measured SD. Their results showed that autonomy was the primary predictor of differences between groups with higher SD scores (more self-determined) and those with lower SD scores (less self-determined).

Wehmeyer et al.'s (2003) work has always focused in the field of special populations specifically ID, and has been referred to as “the fourth paradigm shift in the history of service for individuals having disabilities” (Reid, Vallerand, & Poulin, 2001, p. 4). Wehmeyer's work has reformed the field of special education through increased emphasis on providing supports, which enable SD, ultimately providing choices and increasing the quality of life of people with special needs. He identified skills which

increase the ability to act in a SD manner: choice-making skills; decision-making skills; problem-solving skills; goal-setting and attainment skills; independence, risk-taking, and safety skills; self-observation, evaluation and reinforcement skills; self-instruction skills; self-advocacy and leadership skills; internal locus of control; positive attributions of efficacy and outcome expectancy; self-awareness; and self-knowledge.

While the conceptualizations of SD vary between the works of Wehmeyer et al. (2003) and Deci and Ryan (1985), the present study took an approach that utilized concepts from both perspectives. Each have similarities in their understanding of SD. Both conceptualizations recognize the importance of autonomy in achieving SD, as well as the importance of feeling competent or having self-realization. The current study's foundation relied heavily on Deci and Ryan's (1985) SD theory, while referencing Wehmeyer et al.'s (2003) work for its implications in the ID population.

#### Self-determination, Disability, and Empowerment

Nirje's (as cited in Wolfensberger, 1972) essay on the right to self-determination on the principle of normalization was one of the first uses of the term SD within disability literature. In this essay, Nirje called for personal SD or self-governance for people with disabilities. His appeal outlined a wide range of actions that people with disabilities needed to be able to control their lives and destinies. These actions included choice over personal activities, control over education, independence, participation in decisions, information upon which to make decisions, and the opportunity to solve problems. Perske (as cited in Wolfesberger, 1972) called for the opportunity for people with

ID to experience the “dignity of risk” in the same text. The dignity of risk is a call to action for SD—people with ID deserve the right to act autonomously making decisions that give them some control over their lives. In his essay, Perske (as cited in Wolfesberger, 1972, 199) stated, “To deny any person their fair share of risk experiences is to further cripple them for healthy living.”

The diversity of SD within disability literature has been embodied with these two calls to action illustrating the universal desire for everyone to be able to control their own life through decisions and choices that may affect their quality of life. These essays on normalization illustrate an important link between SD, persons with disabilities, and empowerment. The term empowerment is most commonly associated with social movements and used in reference to action that will “enhance the possibilities for people to control their lives” (Rappaport, 1981, p. 15). Individuals with disabilities have been explicit in their expressions of SD as a form of empowerment and demanded the right to be treated as people with needs just like everyone else (Wehmeyer et al., 2003).

It is a well-known fact that people with ID have lower SD scores than their typically developing peers (Wehmeyer et al., 1996). Scores have been gathered by inventories designed to measure SD in a variety of contexts. People commonly misconstrue the reasons people with disabilities have low SD. It is falsely believed that people with disabilities have lower SD than those who are typically developing due to their diagnosis, when, rather, it is due to a lack of being empowered and not having the opportunity, education, or information to make their own choices and direction for their lives (Wehmeyer et al., 2003). There is a need to focus on SD in people with ID because

they have few opportunities to act in autonomous ways and exert control over their own lives (Wehmeyer et al., 2003).

Lower SD scores of people with ID shows the lack of ability to be self-determining, which may hinder their empowerment (Robertson et al., 2001; Stancliffe et al., 2000; Wehmeyer & Bolding, 2001; Wehmeyer & Garner, 2003). Wehmeyer and Garner (2003) stated that the

differences in self-determination between persons with highly developed personal capacities and those without are, more often than not, a matter of the lack of availability of environmental supports the latter group requires to exercise control over their lives. (p. 29)

Wehmeyer and Garner (2003) identified two primary contributors to SD levels: problem-solving and decision-making skills, and the degree to which a person's environment allows opportunities to act in a self-determined way.

Most people in life do not act completely autonomously regardless of ability. There is a need for interdependence, because being autonomous does not necessarily mean being completely independent. Instead, interdependence involves supporting people with disabilities to gain more autonomy through the "contexts of interdependence" (Pumpian, 1996). Few individuals meet all of their living needs independently, they rely on assistance and support from others. Therefore, the focus needs to be on supporting people with disabilities to become more autonomous through interdependence. Supportive services are essential for people with disabilities and provide an optimal environment for exposing them to physical activity programs. However, individuals with a disability often find that society considers them inferior and not able to take care of themselves. Their needs for SD are often dismissed or overlooked (Pensgaard & Sorensen, 2002).

## Self-determination and Motivation

Using several SD concepts, Deci and Ryan (1985) published the theory of intrinsic motivation, which was later expanded and called the self-determination theory (SDT) (Deci & Ryan 1985). The conceptualization of intrinsic motivation asserts that human organisms have the same three needs of SD. These needs

relate to the experience of being competent and self-determining and to the emotions of interests and enjoyment; and they motivate an ongoing interaction with the environment of seeking and conquering challenges that are optimal for one's capacities. (Deci & Ryan, 1985, p. 39)

SDT also states that goal-directed behavior, psychological development, and well-being cannot be achieved without addressing the three psychological needs of autonomy, competence, and relatedness. Each of the needs plays an important role in optimal development and if any are inhibited negative consequences result (Deci & Ryan, 2000b). Deci (1992) summarized SDT as

distinguishing between the motivational dynamics underlying activities that people do freely and those that they feel coerced or pressured to do. To be self-determining means to engage in an activity with a full sense of wanting, choosing, and personal endorsement. (p. 44)

SDT's framework is categorized by types of motivation broken into six orientations based upon the degree of autonomous internalization. The six orientations are non-regulation, with the least degree of autonomous internalization; external regulation; introjected regulation; identified regulation; integrated regulation; and intrinsic regulation, with the most degree of autonomous internalization.



Emotions are also linked to intrinsic motivation. Interest is an emotion that plays an important role in intrinsically motivated behavior, along with emotions of enjoyment and excitement (Deci & Ryan, 1985). Deci and Ryan (1985) stated,

When people are intrinsically motivated, they experience interest and enjoyment, they feel competent and self-determining, they perceive the locus of causality for their behavior to be internal, and in some instances they experience flow (p. 34).

Intrinsic motivation is observed when a person chooses to engage fully in an activity without reward or contingency.

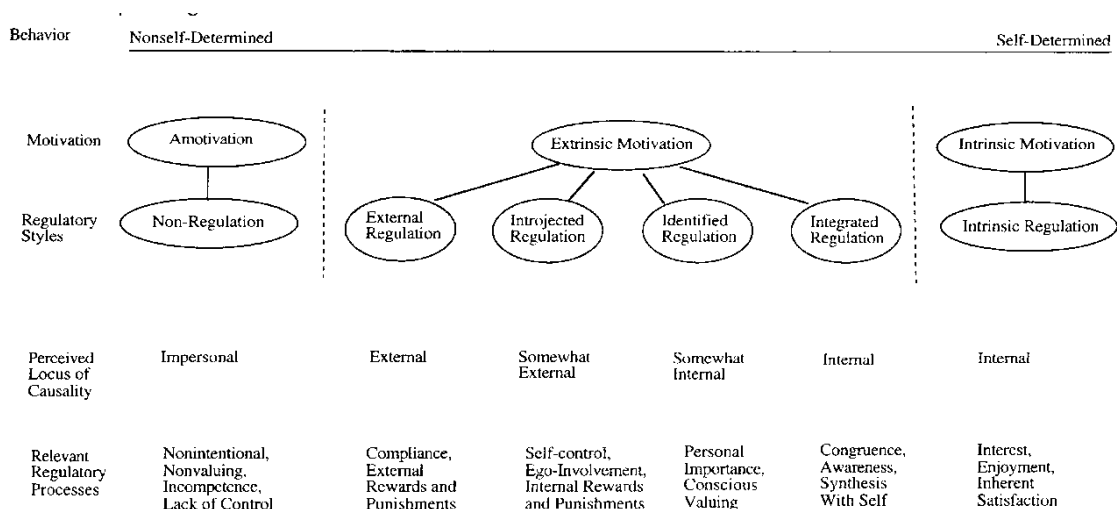
Extrinsically motivated behaviors are opposite; they are driven by concerns that are external to the person's self-identity. Coercion and external rewards elicit the behavior, the individual does not freely endorse it; therefore, they derive little satisfaction from the behavior itself (Deci, Eghrani, Patrick, & Leone, 1994; Deci & Ryan, 2000a). Commonly, the extrinsically motivated person feels pressure, tension, or anxiety in relation to that activity.

There is also amotivation, which describes behaviors that are initiated and regulated by forces that are out of the intentional control of the person. These behaviors are neither intrinsically nor extrinsically motivated in that they are not intentional. Examples of amotivation are personal helplessness, which results from environmental factors, or a person can be overwhelmed by internal forces such as being overcome by rage or jealousy. Amotivation caused by internal forces means that the person does not have adequate structures to regulate those drives or emotions (Deci & Ryan, 2000a, 2000b).

Ryan and Deci (2000a, 2000b) discussed the nature of intrinsic/autonomous motivation as being highly valued due to its positive outcomes. Autonomous motivation

has been linked to productivity and therefore is of interest to a variety of people who want to compel people to take action such as teachers, religious leaders, coaches, and health care providers (Ryan & Deci, 2000a).

Motivation can be caused by valuing an activity and/or by strong external coercion as previously stated. Ryan and Deci (2000a) used the constructs of SDT to examine the type of motivation being exhibited at any given time. They developed a continuum showing different types of motivation with the regulatory styles for each, loci of causality, and corresponding processes. This sub theory was called organismic integration theory (OTI). Deci and Ryan introduced OTI to delineate the different forms of motivation and factors that either promote or hinder SD. The taxonomy of motivational types is illustrated in Figure 1.



*Figure 1.* Self-determination continuum showing types of motivation with their regulatory styles, loci of causality, and corresponding processes. Permission to reprint from Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.

The framework looks at behavior on a continuum: at one end is non-self-determined and the other is self-determined. Under that continuum, the three types of motivation fall with amotivation under non-self-determined behavior, extrinsic motivation falling in the middle of the continuum, and intrinsic motivation under self-determined behavior. Each type of motivation then has regulatory styles, perceived locus of causality, and regulatory processes. As shown in Figure 1, intrinsic motivation is the best identifier of SD behavior. However, true intrinsic motivation is rare, (while) integrated regulation is more common and is also a good indicator of motivation and high SD. The most extensive use of SD construct in psychology occurred in the second part of the 20<sup>th</sup> century with Deci and Ryan's (1985) work regarding meeting the needs of autonomy, competence, and relatedness (Wehmeyer et al., 2003). During this same time, however, many disciplines were applying the SD construct to their own fields. In the field of recreation for individuals with disabilities, Williams and Datillo (1997) were studying SD as it applied to leisure activities:

Intrinsic motivation energizes behavior and increases autonomy. Performance of the behavior does not require external rewards or control. The experiences of interest, enjoyment, and excitement provide reinforcement for such behaviors. (p. 196)

Williams and Datillo believed that intrinsically motivated people would seek out challenges where they could display their competencies and avoid tasks that were perceived to be too easy or too challenging.

### Role of Environment in Self-determination

Understanding the complex process of SD and individuals with disabilities has increased and expanded (Wehmeyer et al., 2003). During the 1980s and early 1990s, the focus of SD research lay almost entirely on the individual, thus overlooking the role of environment in the SD process. It is important to remember, as Wehmeyer et al. (2003) pointed out, that SD does not occur within a vacuum. Autonomy, self-regulation, empowerment, and self-realization, which support the exercise of SD are acquired, refined, and utilized within a variety of environmental contexts. Environments are likely to have a profound influence on SD—some may facilitate it while others will serve as barriers. Environments that provide opportunity, support, and foster the possibility for individuals to possess some control over their lives increase SD (Wehmeyer et al., 2003). Dattilo (2002) believes that “by creating environments that are option-rich, responsive, and informative, we can increase the likelihood of participants becoming self-determined” (p. 198).

Deci and Ryan’s (2000a) research, guided by SDT, examined environmental factors such as social contexts and developmental environments that decreased or prevented self-motivation, social functioning, and personal well-being. They recognized that these and other deterrents to motivation and SD could all be connected to hindering the three basic psychological needs. Therefore, by creating an environment that fosters those needs, it would be possible to increase motivation and SD.

Many researchers have studied enhancement of SD in persons with ID and found environment to play a significant role (Stancliffe, 2001; Wehmeyer & Bolding,

2001). Wehmeyer and Bolding (2001) examined the self-determination, autonomy, and life choices of 31 adults with ID in different environments. The self-determination of adults with ID was measured, using the Arc's SD Scale and the Autonomous Functioning Check List, for an average of six months before and after a move from a more restrictive living or working environment to a community-based setting. Results indicated that there were significant positive changes in self-determination, autonomous functioning, and life choices, following a move to a less restrictive environment. Stancliffe (2001) also studied residential and work environments and found similar results:

Opportunities to exercise self-determination are influenced by one's living, working, and educational environments and the actions of significant others in these environments. It seems likely that similar environmental factors influence *acquisition* of self-determination. (p. 96)

The findings of these two studies support the statement that the self-determination of individuals with ID is negatively affected by living or work settings that limit opportunities for choice and decision-making, whereas community-based environments support and enhance self-determination.

Abrey and Rudrud (1995) evaluated the effectiveness of a multi-component educational and support program that sought to enhance SD in a population of 18 young adults with ID. The study viewed SD from an ecological perspective that posits SD is a by-product of an ongoing interaction between individuals and the environment in which they live and develop, including their families, schools, peer groups, and communities. Abrey and Rudrud evaluated an educational program in the upper-Midwest U.S. that focused on what they perceived to be the most important two environments; family and school:

In order to facilitate youth with disabilities taking greater control over their lives, it is essential to consider the contributions of the environments in which individuals develop and live. . . . The family plays an important role in the acquisition of skills, knowledge, and attitudes from infancy through adulthood, including those involved in self-determination. (§ 9)

In the study, participants took part in classroom-based competency building sessions over the course of seven months. These competency building sessions provided the participants with the opportunity to learn, practice, and refine skills that enhance SD. Instructional sessions helped identify skills to increase SD and helped the participants have a better understanding of their rights, services, and responsibilities. The participants' families took part in the study by attending family education and support programs where the concepts of SD were explained. They were informed about the importance of SD and were provided strategies to support the development and practice of SD. The participants and their families completed two self-report measures pre- and post-intervention. The results showed that the students with ID who took part in classroom-based competency building sessions demonstrated enhanced choice-making, interpersonal problem-solving, self-regulation, and personal advocacy skills. These skills have been identified by a number of researchers as critical to the exercise of self-determination. The provision of education and instruction to families in order that they might better support their children's self-determination was another key component of the program evaluated in this study. Students with ID from families who participated in the intervention program were shown to have more opportunities to exercise control over their lives within the context of the family and were more likely to take advantage of these opportunities after their family's exposure to the education and support curriculum (Abrey & Rudrud, 1995).

Abrey and Rudrud's findings support the value of providing instruction to persons with ID in an effort to enhance the extent to which they are able to function as self-determined individuals and exercise control over their lives.

### Self-determination and Physical Activity

There has been growing concern over the increasing amount of health concerns and issues due to sedentary lifestyles (Vallerand & Reid, 1990). SD has become a major focus in the field of physical activity due to the potential to influence adherence to physical activity programs for the general population by understanding the diverse motivational processes (Ryan, 1995; Vallerand & Reid, 1990). Motivation can be increased through the basic psychological needs for autonomy, competence, and relatedness, resulting in higher SD (Ryan, 1995).

Standage, Duda, and Ntoumanis (2003) studied motivation in physical education. In particular, the concept of self-determination was used to predict intentions of participation in physical activity outside of physical education class. They assessed the motivational responses of 328 English secondary students, with the purpose of examining a model of student motivation in physical education. Standage et al. aimed to provide greater insight into the motivational processes that account for varying levels of student motivation and to examine the degree to which motivation predicts students' intention. The model incorporated constructs from achievement goal and self-determination theories, and focused on the prediction of students' intention to participate in physical activity outside of physical education.

Standage et al. (2003) found support for a model in which autonomy was supported. The model had perceptions of mastery, positively impacted autonomy, competence, and relatedness to foster self-determined motivation. Their results showed self-determined motivation positively predicted leisure-time physical activity intentions (LPAI), whereas amotivation negatively predicted LPAI. Specific findings suggested that the ways the students perceived situational cues were important to their interest and participation in physical education. The results from this study showed that students reported higher levels of autonomy when they perceived the environment to support elements of personal progress and learning.

As basic needs are satisfied, it has been found that self-determined motivation increases, in turn, leading to enhanced psychological functioning (Deci, 1980). According to Ryan (1995) and supported by Vallerand's (2001) Hierarchical Model of Intrinsic and Extrinsic Motivation (HMIEM), the support of need will promote psychological well-being, satisfaction, and the experience of multiple positive motivational outcomes. Research has shown that need fulfillment systematically leads to enhanced motivation and psychological well-being within several domains, such as in education, sport, and exercise (Valopoulosetal & Michailidou, 2006).

By implementing physical activity programs that support the basic needs of autonomy, competence, and relatedness, SD can be increased. An increase in SD related to the program will, in turn, increase motivation to participate in physical activity programs. Increased motivation should increase adherence rates to physical activity programs that support individual needs.



## Health Considerations for People with Intellectual Disabilities

The Center for Disease Control and Prevention (CDC) (2005) defined intellectual disability as

characterized both by a significantly below-average score on a test of mental ability or intelligence and by limitations in the ability to function in areas of daily life, such as communication, self-care, and getting along in social situations and school activities. (§ 1)

People with ID are considered predominantly sedentary and at elevated risk for health problems associated with inactivity, including obesity (Rimmer & Braddock, 2002; Rimmer et. al., 2002). In the United States, the number of obese individuals has more than doubled from 13.4% in 1960 to 30.9% in 2000 (Flegal, Carroll, Ogden, & Johnson, 2002), resulting in a declaration by the U.S. Surgeon General that obesity had reached epidemic proportions. Obesity is recognized as a significant health issue for people with ID as well as the general population (Flegal et al., 2002). Obesity rates in persons with ID have been reported as similar or greater than populations without disabilities (Rimmer & Yamaki, 2006). Poor eating habits and sedentary lifestyles are common factors associated with obesity for all people, including persons with ID (Podorski, Kessler, Cacia, Peterson, & Henderson, 2004; Rimmer & Yamaki, 2006).

Rimmer and Wang (2005) measured body mass index (BMI) in 306 adults with disabilities from Chicago and the surrounding area. Within the population, there was a cluster of individuals with ID, 30% with mental retardation and 64% with Down syndrome. The results showed that the obesity rate in persons with ID was 60.6%, twice as high as the general population, at 30.5% (Rimmer & Wang, 2005). The prevalence of

obesity ( $BMI \geq 30$ ) and extreme obesity ( $BMI \geq 40$ ) in adults with ID was also remarkably high (Rimmer & Wang, 2005). These statistics are of considerable consequence because extreme obesity is strongly associated with increased rates of mortality, various health complications (heart disease, type II diabetes, and hypertension), and reduced quality of life (Podorski et al., 2004; Rimmer & Wang, 2005; Sutherland et al., 2002).

SD and choice should be central in efforts to promote healthy lifestyles for adults with ID. An essential part of SD is for individuals to have control of their own lives, but the individual needs to be informed enough to make decisions based on their preferred outcomes (Rimmer & Yamaki, 2006). By offering community physical activity programs that promote SD, healthy choices can be encouraged and motivation to participate in physical activity may be increased. Increasing motivation may ultimately affect adherence to life-long physical activity. Living longer healthier lives and being part of a community is a typical goal for many individuals, including people with disabilities.

Stanish & Draheim's (2007) study on ID and physical activity acknowledged the importance of the environment. They researched the influence of living arrangements on participation in physical activities for individuals with ID. Stanish and Draheim compared the PA of individuals with ID by measuring accumulated steps per day. Participants that lived at home, with family, or in institutions engaged in more activity than those living in group homes (Stanish & Draheim, 2007). Walking is the most commonly reported physical activity by people with ID, but there have been many researchers looking into new physical activity opportunities for this population (Podgorski et al., 2004). For example, Podgorski et al. (2004) implemented a physical activity intervention for a

population of 12 older adults with severe ID and physical disabilities. The group engaged in warm-up activities, physical movement, strength training, and closing/cool down activities. The physical movement activities included dancing, parachute games, and balance activities. Podorski et al. found that each participant experienced improvement in some aspect of physical function. These results were favorable for introducing physical activity to individuals with intellectual disability at any age.

Dance is another physical activity that is just recently being explored for people with ID. Dance has been described as a holistic experience integrating mind, body, and soul, and is believed to “enhance creativity, provide an outlet to inner feelings, and encourage freedom of expression and communication” (Jay, 1991, p. 305). Hicky-Moody (2006) explored ways to rethink ID through dance. She explained,

Through embodied relations, sensory exchanges, and the craft of dance theatre, it is possible to fracture and redesign mappings of intellectual disability in which bodies and beliefs are stitched together. Integrated dance theatre is a context in which bodies with intellectual disability are engaged in creative, physical ways. (pp. 192-193)

Hicky-Moody also discussed how the impact of atmosphere or space could alter one’s experiences of embodiment and how dance brings that to the forefront.

As stated, people diagnosed with ID are at high-risk for inactivity and could benefit from special physical activity programming, but they are not alone. People of low income and minorities are also at high risk for adverse health problems associated with sedentary lifestyles. To thwart these adverse health problems, interesting physical activity programs need to be available to entice sedentary populations to participate. People with

compounding risk factors such as those diagnosed with ID and of a minority group are at more risk than those with only one risk factor.

### Health Considerations in the Latino/Hispanic Culture

The Latino/Hispanic population is the largest fastest growing segment of the United States of America's population (Gordon-Larsen, Harris, Ward, & Popkin, 2003; Hovell et al., 1991). Language barriers, low socioeconomic status, cultural differences, and limited health care access place immigrants at a huge risk of reduced health and well being (Frenn et al., 2005; Gordon-Larsen et al., 2003; Hovell et al., 1991; Powell et al., 2004). In the Latino population there are higher rates of diabetes, serum cholesterol levels, and obesity than in the Anglo population, however, mortality rates are slightly lower (Hovell et al., 1991).

Gordon-Larsen et al.'s (2003) research showed that first and second generation U.S. Hispanic immigrants are assimilating to unhealthy lifestyles in proportions that are drastically increasing in this nation. They also point out that Hispanic adolescent obesity has health, social, and economic consequences and is an antecedent of adult obesity. Increased rates of obesity will lead to higher incidence of related chronic illness. The increase in the number of people seeking treatment for these illnesses at earlier ages has been adding millions to national health care costs. Gordon-Larsen et al.'s research suggested several ways for prevention of obesity through dietary and physical activity patterns—essentially increasing physical activity levels and decreasing caloric intake.

Physical activity levels vary by ethnicity (Hovell et al., 1991; Kumanyika, 2002). It has been shown that ethnic minorities in the U.S. are less physically active than Anglos (Hovell et al., 1991). The CDC's National Center for Health Statistics (2009) reported that 39% of non-Hispanic whites and 53% of Hispanics engage in no leisure-time physical activity. Given the alarmingly low levels of physical activity in minorities, it is important to identify strategies that facilitate physical activity in this population, as well as potential barriers. By identifying these factors, it may be possible to develop an intervention that will promote increases in physical activity in minority populations. Hovell et al. (1991) revealed three important variables associated with vigorous activity in the Hispanic/Latino population: self-efficacy, friend support, and physical activity as a child. Frenn et al. (2005) replicated those findings.

Research on determinants to physical activity among Latinos revealed that availability of environmental factors, such as parks, that are conducive to physical activity and socioeconomic status play a crucial role in levels of physical activity (Powell et al., 2004). Powell et al. (2004) found that communities made up of families with low socioeconomic status and higher proportions of minority groups are at more risk of being inactive and overweight, and have less access to physical activity related environments. However, Hispanic communities are associated with increased community physical activity settings but are less physically active than their non-Hispanic counterparts, illustrating the importance of the relationship between availability and usage (Powell et al., 2004). This finding suggests that if the park is available to the community, but is unsafe to use, it will not promote an active lifestyle. The research implies that safe

physical activity-related settings need to be provided to increase physical activity especially in high-risk communities such as those made up of Hispanic/Latino families.

Taylor, Baranowski, and Young (1998) analyzed literature pertaining to physical activity interventions that targeted high-risk populations such as people with low income, ethnic minorities, and people with disabilities. They reviewed literature that studied community advisory panels, community needs assessments, community members delivering intervention, theoretical framework guided interventions, and pre-post or quasi-experimental designs. This study acknowledged the lack of research on physical activity intervention studies for populations of low income, ethnic minority, and disability, resulting in little impact on the betterment of public health. With the current trend in U.S. population demographics, minority groups will soon be the majority (U.S. Census Bureau, 2008) and physical activity programs will be required to meet their needs. Taylor et al. recommend that future studies on physical activity in low income, ethnic minority, and disability groups include rigorous experimental designs, theoretically based interventions, and validated assessment instruments to detect physical activity change.

Taylor et al. (1998) point out that in the public health perspective the creation of physical activity interventions or programs that meet the needs of multiple ethnic groups at once would be extremely useful. Their study described the potential and complexity of “cultural tailoring” or culturally responsive pedagogy and concluded that physical activity interventions must be flexible to compensate for many factors such as cultural dimension differences. Ultimately, they concluded that culturally appropriate interventions include understanding the characteristics of participants, and considering all

dimensions of participants and culture, such as physical, mental, emotional, and spiritual. This directly relates to people with ID because not only are they a minority, ID is also prevalent in all cultures (Special Olympics, 2008). This study will expand on research into cultural tailoring for individuals with ID and of the Hispanic/Latino culture.

### Multiculturalism

The idea that culture shapes human behavior and can be instrumental in motivation has been key in multicultural education and the practice of culturally responsive teaching. Multicultural education has been described as

the process through which students are exposed to the diversity that exists in the United States. It is designed to meet the needs of a socially diverse, changing, global society by promoting the understanding and appreciation of the principles of social diversity and cultural pluralism. (Chepyator-Thomson, 1994, p. 33)

Within the practice of multicultural education, culturally responsive pedagogy (CRP) in physical education emerged. CRP integrated multicultural concepts in the realm of physical education by creating a knowledge base that expressed the desirability and value of diversity. Many educators believed that CRP in physical education would assist in eliminating discriminatory practices and promote multicultural understanding because of the strong social orientation of physical education (Chepyator-Thomson, 1994).

Schools are responsible for educating and nurturing the growth and development of children. To ensure proper growth and development, the school environment must promote caring, safety, and security for all its students (Bates, 1991). Demographic changes in the schools made multicultural education a necessity; it forced educators to reexamine their curricula, resources, techniques, and strategies. By providing a more

multiculturally-based education, increases in cultural harmony among school participants would be seen and that would translate into communities and then into society as a whole (Chepyator-Thomson, 1994). However, advantages of multicultural education are not limited just to schools—community programs should also make strides to be more culturally aware. Through multicultural education and CRP, participants can develop sensitivities and understandings that will enable them to function in the ever increasing diverse world in which we live (Chepyator-Thomson, 1994).

#### Implications for This Study

With an ever-growing minority population, it is imperative that physical activity programs meet their needs. One medium through which this can take place is dance. Dance is a physical activity that is engaged in by most cultures in the world in various forms, allowing for the consideration of the dimensions of multiple cultures. By introducing familiar cultural aspects into a physical activity setting, participants of the identifying culture may experience increases in their SD. Increased SD may, in turn, lead to greater intrinsic motivation, which will increase motivation to participate in physical activity programs.

This study is designed to provide a culturally tailored physical activity program for the Hispanic/Latino minority with ID. These individuals may not have the opportunity to experience or explore movement related to their specific culture. Incorporating physical activity into the participants' culture should increase relatedness, a component of SD. Research has shown that by supporting SD, increases in motivation may occur (Ryan, 1995); therefore, if physical activity programs can be created to



increase SD in this high-risk population, greater motivation to engage in physical activity will be experienced.

## CHAPTER III

### METHODS

The purpose of this study was to investigate the effects of a multicultural dance program on the self-determination of adults with intellectual disabilities, in particular the subcategory of relatedness in the Hispanic/Latino participants.

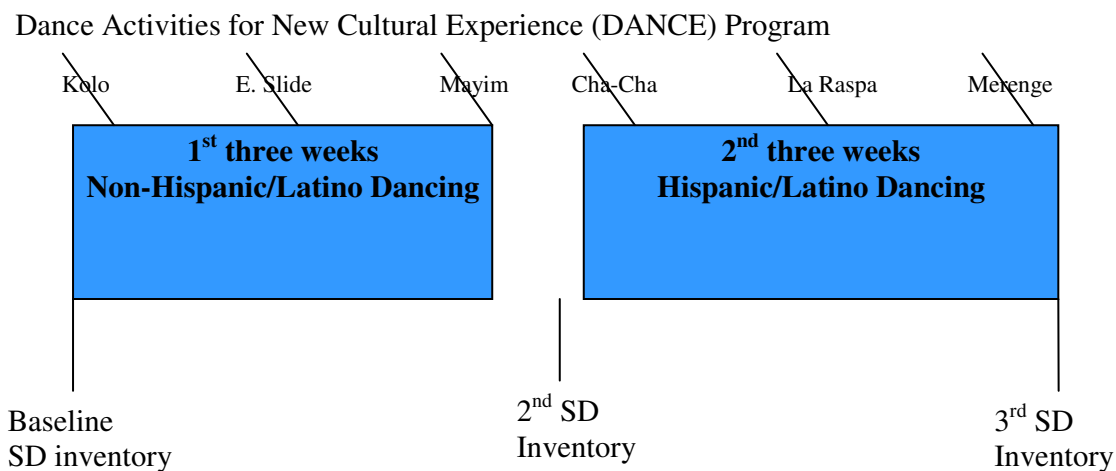
#### Design

An alternating treatments design with repeated measures was employed in this study. This design was chosen to compare two treatments, which called for baseline, mid-program, and end-of-program measurements to be taken (Figure 2). Results of the treatment phases were then compared to the baseline SD measurement (Kennedy, 2004).

#### Participants

Area demographic data were requested from the local regional center that provides services to people with developmental disabilities. The data listed the number and ethnicities of the people they serviced. The Hispanic/Latino minority group was the largest minority group represented in the area and, therefore, was chosen for this study.

The participants in this study were nine adults aged 22 to 62 years that lived in northern California. Four of the nine participants were male and five were female. One male and one female identified themselves as Hispanic/Latino, one female identified herself as Caucasian and African American, and six identified themselves as Caucasian. The



*Figure 2.* DANCE program model.

sample was a convenient sample, self-selected out of a population of approximately 20 individuals with ID receiving services from a local adult day support center. Participants were invited to participate in physical activity by the lead investigator following a brief presentation of the dance program. Twelve individuals originally joined the study, but due to irregular attendance, data were not used for three of the participants. Data were not used for participants missing more than three sessions.

### Activity

The DANCE (Dance Activities for New Cultural Experiences) program was conducted in a multipurpose room at a day program attended by the participants. The lead investigator and a local dance instructor planned the dance sessions. A dance text by Harris, Pittman, Weller, and Dark (2000) was used to find appropriate dances and accompanying music. The dance instructor had experience in Latin dancing, helped acquire appropriate music, and assisted with the selection of the dances.

Participants were taught six dances. The first three weeks of the DANCE program, the participants were taught three non-Hispanic/Latino dances: the Kolo, Electric Slide, and the Mayim (Appendix A). The second three weeks the participants were taught three Hispanic/Latino dances: the Cha-Cha, La Raspa, and the Merenge (Appendix A).

Dance was chosen due to multiple benefits, including health benefits, availability, and affordability for the participants. Dance is also enjoyable, culturally normative, and adaptable. Few other physical activities encompass as many attributes as dance; it can be adapted to groups, couples, or solo, as well as for performances or just for fun. Dance is also found in communities and every culture in the world (Harris et al., 2000).

The DANCE program was designed to increase SD by increasing the participants' relatedness to the activity by incorporating dances from their culture. Autonomy was also emphasized by providing choices to the participants. The participants had a choice whether to participate each day in warm-up music choices, and there was a time when, as a group, the participants could choose a dance to practice which had been taught during a previous lesson. There was, however, no choice in the new dance taught during a session. The DANCE program focused on competence with the selection of the dances. The dances chosen had a few basic steps and patterns that repeated throughout the dance. There were also varying levels of difficulty for each basic step in the dances, allowing for varying skill levels. The dances provided the participants with a challenge they could achieve with practice. Though autonomy and competence were emphasized, the focus laid heavily on relatedness.

### Instrumentation

A questionnaire designed to assess SD was adapted for this study using subscales from the Intrinsic Motivation Inventory (IMI) that were congruent with Deci and Ryan's (2002) SD concepts of autonomy, competence, and relatedness (Appendix B). The IMI is a multidimensional measurement device developed by Deci and Ryan (2002), intended to "assess participants' subjective experience related to a target activity in laboratory experiments" (p. 1). The IMI assesses participants' interest/enjoyment, perceived competence, effort, value/usefulness, felt pressure and tension, and perceived choice while performing an activity, yielding six subscale scores.

The subscale items used in the IMI have gone through factor analysis and remained stable throughout a variety of activities, settings, and conditions (Deci & Ryan, 2008). Past research on the IMI has shown that the order of questions and inclusion or exclusion of certain subscales has no impact on the results (Deci & Ryan, 2008). Typically, only the subscales that are relevant to the issues being explored are considered (Deci & Ryan, 2008). The IMI has been used multiple times in experiments associated with intrinsic motivation, SD, and self-regulation (e.g., Deci, 2004; Deci et al., 1994; Plant & Ryan, 1985; Ryan, 1982; Ryan, Connell, & Plant, 1990; Ryan, Koestner & Deci, 1991; Ryan, Mims, & Koestner, 1983). McAuley, Duncan, and Tammen (1989) carried out a study that examined the IMI and found strong support for its validity. McAuley, Wraith, and Duncan (1991) confirmed support for the factorial validity of a hierarchical model of intrinsic motivation. Recently there has been an addition of a seventh subscale of relatedness which has not been validated as of this time. The subscales of interest/

enjoyment, perceived competence, effort/importance, perceived choice, value/ usefulness, and relatedness were used in this study.

A three-point response format was used on 19 of the 22 questions. Three questions at the end of the interview were open-ended questions. In the original IMI, responses were on a scale of 1 through 7 (1="not at all true," 4="somewhat true," and 7="very true"). In an effort to simplify the response choices, to ensure that the study population understood the answer scale, Reid, Vallerand, and Poulin's (2001) Picture Motivation Scale (PMS) response choices were considered. In the PMS, the response choices were simplified to "like me," "a little bit like me," or "not like me." These responses were adopted for use with the IMI to make the tool feasible for the target population. On a typical question, "like me" was scored as 3 points, "a little bit like me" as 2, and "not like me" as 1 point. As in the IMI, reverse scoring was used on 4 of the 19 three-point response questions because the questions were posed negatively (e.g., "Dancing is boring"). Scores for each questionnaire could range from 19- 57.

The wording of the questionnaire was slightly different between the first, second, and third administration. The first time, the questionnaire referred to dance in general because it was administered prior to starting the dance program, while in the second and third administrations during the study, the wording referred specifically to dancing in the DANCE program.

Visual aids were added using Boardmaker (version 5) and Microsoft clip art software to assist in easy comprehension of the interview questions adapted from the IMI (Appendix B). Datillo, Hoge, and Malley (1996) reported on valid and reliable strategies for interviewing people with intellectual disability and found that questions should be

accompanied by pictures whenever possible. Reid et al. (2001) used the PMS when working with adolescents with ID. They stated that using pictures along with the interview style could yield responses from those who are unable to read or respond to typical questionnaires. The visual aids were pictures of characters dancing and icons that helped represent the interview question or statement. Open-ended questions were added to the inventories to allow the participants to express what they thought about dancing and to allow the researchers to look for common answers among participants.

### Procedures

The participants and/or their conservators filled out an informed consent waiver and an activity participation readiness questionnaire prior to participation. These forms explained the study, risks involved with physical activity, and identified any factors that could increase the participants' risk while engaging in physical activity. Each participant was read each form and was given the opportunity to ask questions prior to giving consent.

The dance program was held twice a week for six weeks, with a total of 12 sessions. Each session lasted approximately one hour. The structure of the session included a five-minute warm-up, learning the dance of the day for 25-30 minutes, performing the dance of the day for 15-20 minutes, and a review of concepts for the last five minutes (Appendix A).

Each participant was asked to complete a SD inventory at the beginning of the program. During the first three weeks, the participants were taught and given the opportunity to practice the Kolo, Electric Slide, and the Mayim. After the completion of three

weeks of the program, a second self-determination inventory was given. During the second three weeks of DANCE, the participants were taught and given the opportunity to practice three dances from the Latino/Hispanic culture: the Cha Cha, La Raspa, and the Merenge. The participants completed a third self-determination inventory upon completion of the program.

The self-determination inventories were given individually, immediately following the DANCE program. The interviews were videotaped; this captured any extra information given during the inventory for later transcription.

The interviews were held in a quiet place that was comfortable for the participants. The participants were seated at a table directly across from the interviewer. The possible responses (“like me,” “a little bit like me,” and “not like me”) were reviewed and explained. Each response was represented by a picture with the response printed on it in English and/or Spanish. The responses were shown and verbally explained to the participants. The participants were told that they could respond verbally but they also needed to respond by pointing at the picture responses that were on the table. It was explained that there were no wrong answers and the interest was in what they thought about dance and how the dance program made them feel. It was also explained that the answers would be recorded and all responses were confidential.

The lead investigator conducted the first interview and a skilled interviewer conducted the following interviews. This was done to eliminate any bias because the lead investigator was also the DANCE program instructor. It was explained that the interview would begin with two practice picture questions. The practice questions were designed to provide insight into the level of understanding of each participant. If it seemed the



participant did not understand the picture statements and responses, the interviewer explained the procedure again. After respondents answered the practice questions, they were asked if they had any questions, which were answered before beginning the interview. The interview proceeded with the 19 three-point response questions and statements. Responses were recorded on a data collection form (Appendix B). After the 19 three-point response questions, participants were asked three open-ended questions and their responses were logged. Each picture's statement or question was read aloud to the participant in English or Spanish (Appendix B).

#### Data Collection

The interview questions were scored on a scale of 1 through 3, yielding a SD score for each answer (“like me”=3 points , “a little bit like me”=2, “not like me”=point). Reverse scoring was used on negative items. If the participant did not respond to a question, he or she was prompted twice and if there was still no response, the interviewer moved to the next question, revisiting any unanswered questions one final time at the end of the interview. If the participant still did not respond to the question at the end of the interview, a “no response” answer was recorded. Any extra information given during the interviews was transcribed and used for a qualitative review at the end of the program. The scores for each question were added together for one score per administration. However, it was possible to divide out scores for the six subscales.

Each participant was randomly assigned a number matched to his or her name on a code sheet to keep identity confidential. The code sheet was only viewed by the lead investigator and was later destroyed. After each inventory was scored, the data were

logged on a spreadsheet by the lead investigator and kept until the end of the program for analysis. Each participant's data were listed under his or her number and analyzed. After transcription, each interview was reviewed for corroboration with the interviewer's notes taken during each of the inventories.

The first interview conducted prior to beginning the DANCE program served as a baseline measure of SD and was then used for comparison with the following two interview scores. Attendance was recorded and compared to the SD scores.

### Data Analysis

The SD point values from the three inventories were visually compared through the use of graphs. The means of each group and standard deviations were plotted for overall SD scores and each subcategory for both the Hispanic/Latino and non-Hispanic/Latino cultural groups. Due to the similarity of scores between the two cultural groups and small sample size, the groups were combined and the means of the SD scores from the three inventories were compared using graphs. The questions comprising the inventories were divided into six subcategories: interest/enjoyment, perceived competence, effort/importance, perceived choice, value/usefulness, and relatedness. Variants of the subcategories were also visually compared through the use of graphs. A one-way ANOVA with repeated measures (Vassar Stats, 2009) was run on the subcategory of relatedness, which was of particular interest.

Attendance data were studied to see if there were any differences between three-week clusters of the program with a paired  $t$  test. The paired  $t$  tests were run with Microsoft Excel 2003 software. The answers given to the three open-ended questions

were examined, looking for common answers. The answers were then grouped and ranked by most common answer given.

The answers to the three open-ended questions were examined, looking for the most common answers.

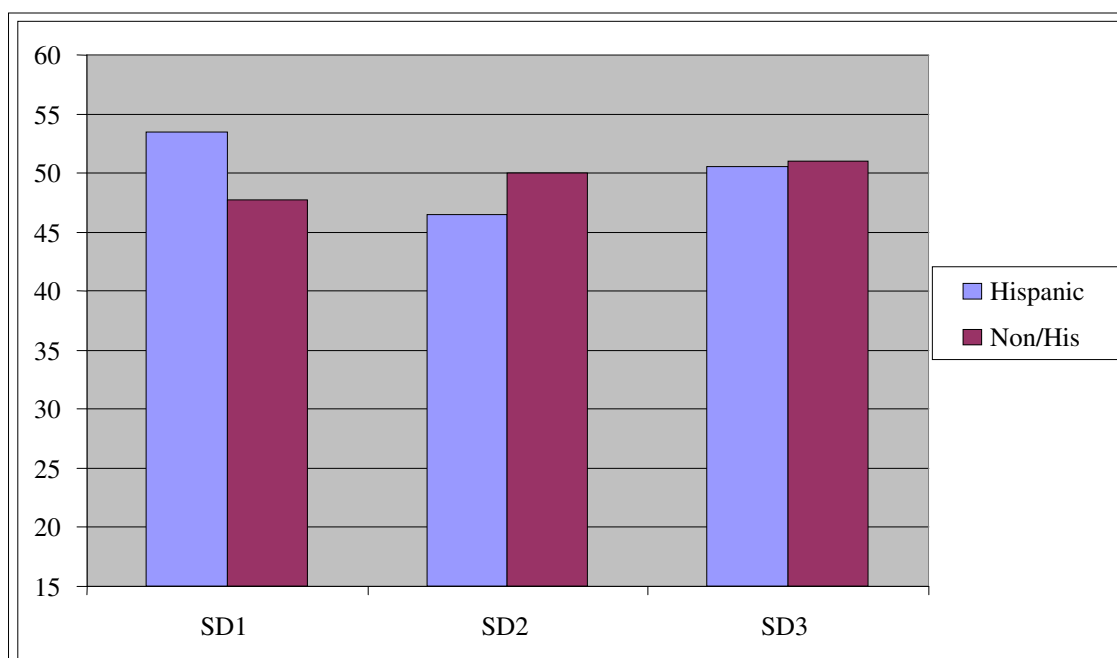
## CHAPTER IV

### RESULTS AND DISCUSSION

The purpose of this study was to investigate the effects of a multicultural dance program on the SD of adults with ID, specifically the subcategory of relatedness. The results of the study examined the differences between the scores obtained from three SD inventories throughout the course of the DANCE program. The inventory scores were evaluated and then subdivided into SD categories and compared for differences. Attendance data were also collected during the program and examined for significant differences between three-week clusters. The open-ended data were reviewed and ranked according to the most common answer given.

#### Self-determination Inventories Data

The SD point values from the three inventories were visually compared through the use of graphs for both the Hispanic/Latino ( $n=2$ ) and non-Hispanic/Latino ( $n=7$ ) cultural groups. The results reflected no change in SD scores between culture groups over the three SD inventories, with overlapping variances (Figure 3). Due to the similarity observed between the SD scores between the two cultural groups, the unevenness of the groups, and the small sample size of the study, it was decided that the Hispanic/Latino participants and non-Hispanic/Latino participants should be combined into one group for stronger further analysis. The results of the analysis on the combined



*Figure 3.* Self-determination scores for two cultural groups.

group of nine participants yielded SD inventory scores taken at Times 1, 2, and 3, shown in Figure 4. There was little difference between the three inventories with overlapping variance. These results show there was no change in overall SD scores over the course of the DANCE program.

The scores of the inventories were then broken down into six subcategories: interest/enjoyment, perceived competence, effort/importance, perceived choice, value/usefulness, and relatedness. The data sets were then compared using graphs depicting means and standard deviations for the three inventories and total points possible (PP) for each subcategory. Interest/enjoyment, perceived competence, effort/importance, perceived choice, and value/usefulness did not show much difference between the inventories at Times 1, 2, and 3.

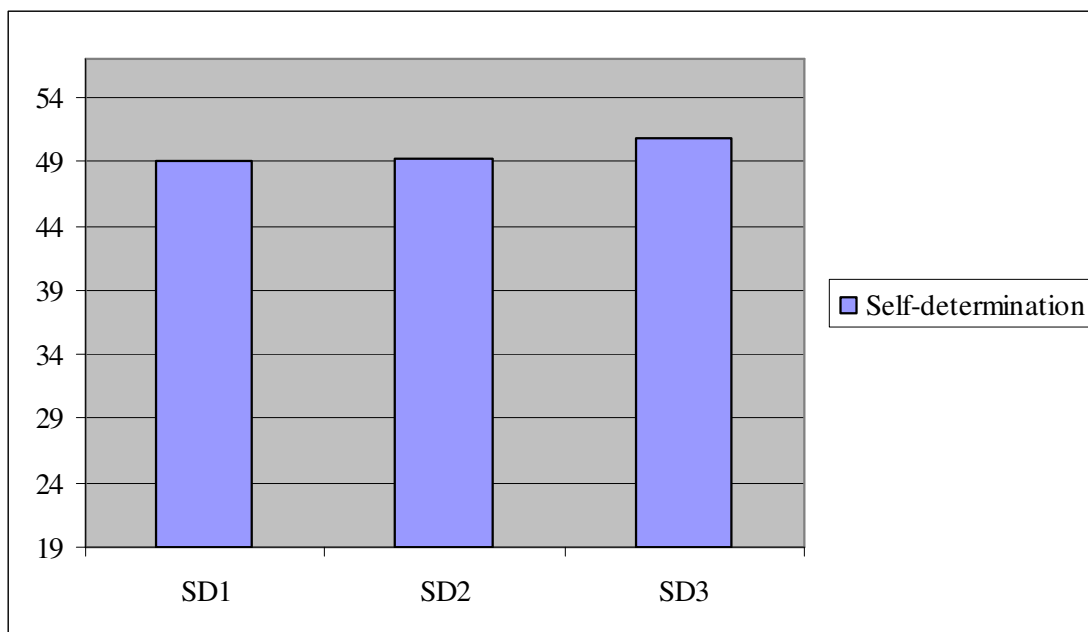


Figure 4. Combined self-determination scores.

The DANCE programs, main area of emphasis was relatedness in which a common trend was observed (Figure 5). A high score at Time 1, followed by a decrease at Time 2, with a subsequent increase at Time 3, was noticed in relatedness over the course of the program. The trend in relatedness showed a decrease following the non-Hispanic/Latino dancing with a subsequent increase, following the Hispanic/Latino dancing. The trend implies that Caucasian participants may not have strongly identified with their own culture but assimilated to the Hispanic/Latino culture that was common in the area. The Hispanic/Latino participants also may have experienced some assimilation to the Caucasian culture, which was the dominant and mainstream culture in the day program.

A one-way ANOVA with repeated measures (Table1) showed relatedness was significantly different between the three inventories with a  $p$  value of 0.020. A post hoc

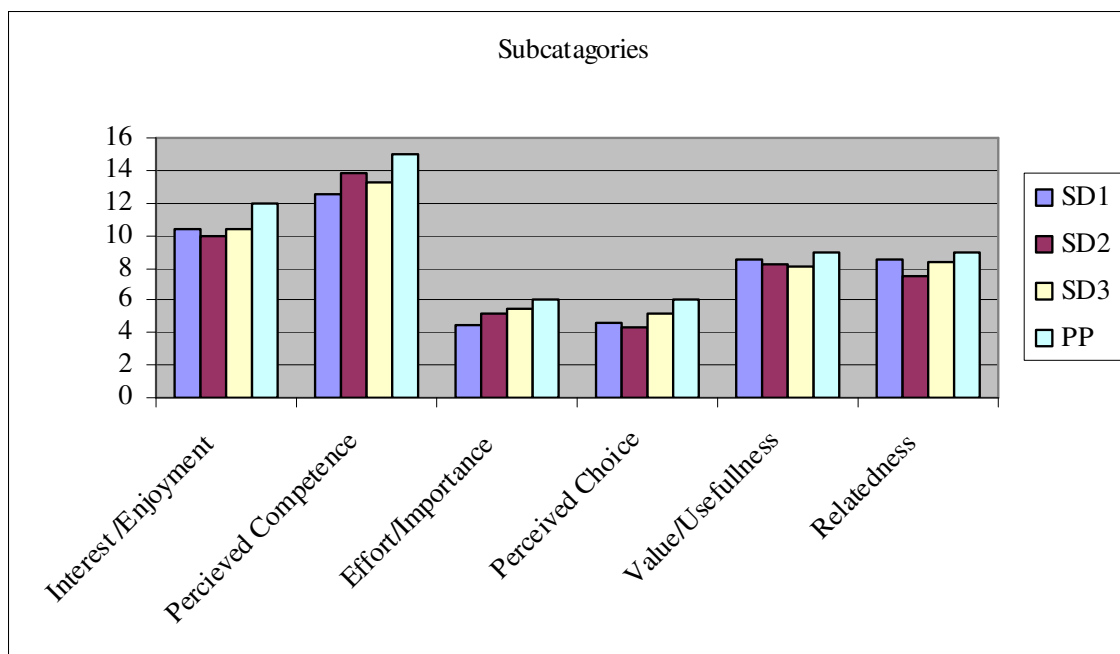


Figure 5. Combined subcategory scores.

Tukey test was then applied to the relatedness portion of the SD scores to identify which inventories were significantly different. The results yielded pair-wise comparisons that showed a significant difference in relatedness between inventories 1 and 2, but not between 2 and 3, nor 1 and 3. The results show (Table 1) that the relatedness scores started out high, at Time 1, and significantly decreased by Time 2.

The hypothesis of this study was that the participant's self-determination scores would increase from their baseline measurement after the first three weeks, then after the cultural portion of the program, the scores for the Hispanic/Latino participants would increase even more, due to an increase in scores for the subcategory of relatedness. The SD scores for all participants did not show an increase as hypothesized, in fact, there was a significant decrease in the subcategory of relatedness from the initial SD inventory

Table 1

*Relatedness Summary and ANOVA Values*

Values	X <sub>a</sub>	X <sub>b</sub>	X <sub>c</sub>	Total	
<i>N</i>	9	9	9	27	
Sum	76	67	75	218	
Mean	8.444	7.444	8.333	8.0741	
sumsq	652	509	631	1792	
<i>SS</i>	10.2222	12.2222	6	31.8519	
Variance	1.2778	1.2778	0.75	1.2251	
<i>SD</i>	1.1304	1.1304	0.866	1.1068	
Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Treatment	5.4074	2	2.704	5.03	0.020191
Ss/Bl	17.8519	8			
Error	8.5926	16	0.537		

to the second SD inventory. The results show relatedness scores for all participants were initially high, then after the non-Hispanic/Latino dancing portion of the program, the scores decreased significantly. This result was not expected for all the participants, but could be the result of unfamiliarity with the dances chosen or the small sample size. An additional reason could have been due to the very high scores on the first inventory. The participants scored high, with a mean of 8.444 out of 9 total points possible, leaving little room for improvement. The relatedness scores from Time 1 compared to Time 3 were similar (Table 1), with means of 8.444 and 8.333, illustrating that even if the participants felt more related to the Hispanic dances, there may not have been room in the scores to see a big increase in relatedness.



### Attendance Data

Attendance data were kept over the course of the six-week program. These data were compared for significant differences between three-week clusters using paired  $t$  tests (Table 2). The results in Table 2 showed there was no significant difference in attendance between three-week clusters. This proves that participants maintained a steady level of participation during both sections of the program.

Table 2

#### *Attendance Paired T Test for Two Sample Means*

Statistic	Variable 1	Variable 2
Mean	4.666667	5.333333
Variance	1.5	1
Observations	9	9
Pearson correlation	-0.40825	
Hypothesized mean difference	0	
$df$	8	
$t$ stat	-1.06904	
$P(T \leq t)$ one-tail	0.158121	
$t$ critical one-tail	1.859548	
$P(T \leq t)$ two-tail	0.316242	
$t$ critical two-tail	2.306004	

### Open-ended Question Data

Open-ended data were gathered for eight out of the nine participants; one participant was nonverbal and, therefore, unable to answer the questions. The other eight participants that did answer the open-ended questions had limited language and generally

gave brief and simple answers. Due to the brevity of the answers, a qualitative analysis was not possible, so a simplified analysis was used. Analysis on the open-ended questions given during the inventories was carried out by transcribing and comparing each answer. The information was reviewed and ranked according to the most common answer given. As shown in Table 3, when asked to fill in the blank of the statement “I like to dance because...” during the first inventory, participants’ most common responses were statements of fun or liking (75%). The other 25% of answers varied, including “cause I met you”, and “because its good exercise.” In the second interview (Table 3), the most common response to the open-ended question “I like these dances because...” were fun or liking (50%). The second most common answer given was fun and exercise/fun, exercise, and to teach others (25%) and varied answers for the remaining 25%, including wanting to and because they are different. The third interview yielded similar results (Table 3) to the first, with fun or liking at 75%. The remaining 25% of answers were varied, including liking the radio and for fun and exercise. Among all of the inventories, the most common answer for why the participants liked to dance or why they liked the dances they practiced was because they were fun and they liked them.

The next open-ended question from the inventories was “I think I will do the dances I learn again....” If the participant answered yes, they were then asked when. The second and third inventories asked, “I think I will do these dances again....” followed by when, if the participant said yes. The responses to this question (Table 3) in the first inventory were “I don’t know” (25%) and responses having to do with days consistent with the program (25%), with the remaining 50% being varied one-time answers of “no,”

Table 3

*Open-ended Data*

Inven- tory	Like dancing because	# <sup>a</sup>	Do dances again When	#	Dancing is mpor- tant because	#
<i>SD1</i>	Like it/fun	6	Yes don't know	2	Fun/like it	3
	Cause I met you	1	Days consistent with program	2	Exercise	2
	Its good exercise	1	No	1	I don't know	2
			At your school	1	To dance together with you	1
			Talent show	1		
			At home by self or teach cousins	1		
<i>SD2</i>	Fun/like it	4	Days/times consistent with program	4	Fun/like it	5
	Fun and exercise/ fun, exercise, and teach others	2	Halloween	1	Exercise	2
	Want to	1	Next year	1	Healthy just fun	1
	They are different	1	I don't know	1		
			At home	1		
<i>SD3</i>	Fun/like it	6	Days/times consistent with program	4	Fun/like it	5
	Like the radio	1	Don't know/ someday maybe	2	Exercise	1
	Fun and exercise	1	Next year	1	Being with others	1
			At home	1	Meeting friends and good exercise	1

<sup>a</sup>*n*=8

“at your school,” “at a talent show,” and “at home by myself or teaching my cousins.” As shown in Table 3, the second interview had an increase in answers to do with days or times consistent with the program (50%). The remaining 50% varied with one-time

answers of “Halloween,” “next year,” “I don’t know,” and “at home.” The third interview’s most common answer was once again dealing with days or times consistent with the program (50%). Twenty-five percent answered they didn’t know or someday, and the remaining 25% were varied one-time answers of “next year” and “at home.” The most common answer out of all the inventories to “I think I will do the dances I learn again” and “I think I will do these dances again” were days and or times consistent with the dance program, such as “On Tuesdays and Thursdays,” or “At 2 o’clock.”

The last open-ended statement the participants were asked to answer was “Dancing is important to do because. . . .” The first interview had 37% of participants responding (Table 3) with “because it was fun” or they “liked it.” Twenty-five percent answered it was important for exercise, 25% answered they did not know, and the last 13% responded “to dance together with you.” As shown in Table 3, the participants answered the same question with a most common response of fun or they liked it on the second and third inventories (62%). In the second inventory, the 25% answered exercise, and 13% answered “healthy and it is just fun.” In the third interview, 38% answered with one-time answers of exercise, being with others, and meeting friends and good exercise. The most common answer for why dancing was important was because it was fun and the participants liked it. Some of the other answers (Table 3) for why dancing was important were for exercise, they did not know, and to meet new people.

The results from the open-ended questions showed that the participants liked dancing in general and they found the dance program fun and they liked DANCE. The participants also stated that they did not know when they would do the new dances again before starting the program, and after beginning the program, they stated that they would

do these dances on days and times consistent with those of the dance program. The results also showed the participants felt dancing was important to do because it was fun or because they liked it. This information showed that the participants enjoyed the dance program. The results also showed that before the dance program, the participants could not think of when they would do the dances that they were going to learn again, and after the program began, the majority responded that they would do them on days and times consistent with the dance program. This could mean either they knew they would practice the dances that they had learned in the remaining days of the program or that they would continue to practice the dances we had learned after the program was finished at the same time of day.

The purpose of this study was to investigate the effects of a multicultural dance program on the SD of Hispanic/Latino adults with ID, specifically the subcategory of relatedness. The results showed that SD scores did not significantly increase over the course of the DANCE program. Relatedness as a subcategory of SD had a decrease between Time 1 and Time 2, with a subsequent increase from Time 2 to Time 3. The results of the open-ended questions were that the participants liked dancing because it was fun, and they liked the DANCE program and would continue doing the dances during the day program.

## CHAPTER V

### CONCLUSION

The results of this study showed SD scores did not significantly increase over the course of the DANCE program. Relatedness as a subcategory of SD had a decrease between Time 1 and Time 2, with a subsequent increase from Time 2 to Time 3. The results of the open-ended questions showed that the participants liked dancing because it was fun, and they liked the DANCE program and would continue doing the dances during the day program.

Increasing SD leads to increased motivation to participate in the activity (Deci & Ryan, 2000a). SD is comprised of three needs, autonomy, competence, and relatedness (Deci & Ryan, 1985). The DANCE program was designed to increase SD by increasing the participants' relatedness to the activity by incorporating dances from their culture. The DANCE program also emphasized autonomy by providing the participants with choices about their participation in the program, and about the dances they wanted to practice. However, overall SD in this population showed no significant increase or decrease, demonstrating that there is still a lot to be learned about changing SD.

The relationship between relatedness and SD is also an area that lends itself to further investigation. As suspected, the dances of non-Hispanic/Latino culture did not increase relatedness. Following the non-Hispanic/Latino dances, relatedness actually decreased. After the Hispanic dances, which were more common in the area, relatedness

scores increased almost to their initial levels. In addition, because participants scored so high on the initial inventory with a mean score of 8.444, there may not have been room to see an increase due to the increased identity to culture. Overall, the DANCE program did not increase the participants' relatedness subcategory scores over the course of the DANCE program. Further research is needed to see if changes in relatedness alone may increase or decrease SD, or if changes in autonomy and competence need to be present as well to provide significant changes in SD.

There are many specific deterrents to motivation and SD. Environmental factors, such as social contexts and developmental environments, that decrease or prevent self-motivation, social functioning, and personal well-being can be connected to hindering the three basic psychological needs of autonomy, competence, and relatedness (Deci & Ryan, 2000a). Research has shown that environments, which provide opportunity, support, and foster the possibility for individuals to poses some control over their lives, increase SD (Wehmeyer et al., 2003). The DANCE program was designed to foster relatedness, however, there were opportunities to act autonomously, and with competence, although it did not yield increased SD scores.

Possible reasons why the initial SD scores were high may have been due to the environment of the day program, initial excitement, or participants' prior affinity for dance. One possible reason for the initial SD scores being so high could have been due to the environment of the day program. The day program encouraged their clients to express themselves and allowed them to make decisions about their activities; they provided an environment that fostered SD behaviors, knowingly or not. The initial SD scores may also have been high due to participants' possible excitement about the first questionnaire

and the start of the program. All the subjects self selected to take part in the DANCE program so they possibly had an affinity for dance already that could have also been a factor in the uncharacteristically high initial SD scores.

One possibility as to why SD scores did not increase could be that the program emphasized heavily on relatedness through culture, focusing less on autonomy and competence. Autonomy was emphasized by providing choices to the participants. The participants had a choice whether to participate each day, and there was a time when, as a group, the participants could choose to practice a dance which was taught during a previous lesson. There was, however, no choice in the new dance taught during a session. The DANCE program focused on competence with the selection of the dances. The dances chosen had a few basic steps and patterns that repeated throughout the dance. There were also varying levels of difficulty for each basic step in the dances, allowing for varying skill levels. The dances were not too simple and not too difficult, providing the participants with a challenge they could achieve with practice. Though autonomy and competence were emphasized, the focus laid heavily on relatedness.

Another factor could have been the short duration of the program. The DANCE program was only held twice a week for six weeks. Given the short time span, the participants may not have had enough time to experience increases in their SD scores. A longer program also could have affected the participants' relatedness differently.

Other factors that may have affected the results of the study could have been the instrument and small sample size. The instrument was adapted from the IMI and simplified to meet the needs of the population being inventoried. The IMI inventories'



subcategories related to SD, and was formatted by Deci and Ryan (2008) to be adapted for use in all types of activities. The adaptations made to the IMI in this study were that pictures were added and the possible responses were limited to three out of the original seven. Changing the scale changed the range of scores, making the possibilities smaller and increasing the possibility for a ceiling effect. This was done consciously in an effort to ensure the inventory would be understood by the participants, thus yielding more reliable results. However, by changing the number of possible scores, it lessened the chances of having significantly different scores. This adjustment was made with on the premise that, on average, people diagnosed with ID have relatively low SD scores (Wehmeyer et al., 1996), making it unlikely that the participants would score high enough on the initial interview to hinder the subsequent scores from showing an increase. Seeing no increases in SD scores could also be due to the small sample size. Only having nine participants limited the data. More participants would also lead to more power.

The data gathered from the open-ended questions in the SD interviews helped understand if and why the participants liked dancing, if or when they would do the dances they learned again, and why dancing was important. The participants stated that they liked dancing and when asked why, a majority said it was because it was fun and they just liked it. This is important when you look at the relevant regulatory processes for intrinsic motivation of interest, enjoyment, and satisfaction (Deci & Ryan, 2000a, 2000b). Datillo (2002) found intrinsic motivation energizes behavior and increases autonomy. The enjoyment factor of intrinsic motivation is apparent in the statements made by the majority of participants as to why they like dancing, and intrinsic motivation is a strong indicator of SD.

When the participants were asked if they would do the dances that they learned again, the majority answered yes. In the first inventory, when the participants were asked when they would do the dances again, the majority responded that they did not know. When asked the same question in the second and third interviews, the majority of participants answered with times and days consistent with the DANCE program. This shows that the participants intended on doing the dances they learned again. However, before the DANCE program, they did not know when, but after the dance program, they were confident that they would do them again in times or days we had the dance program. This could mean one of two things: either they knew we would practice the dances that they had learned in the remaining days of the program or that they would continue to practice the dances we had learned after the program ended at the same time or on the same day.

Williams and Datillo (1997) believed that intrinsically motivated people would seek out challenges where they could display their competencies and avoid tasks that they perceived to be too easy or too challenging. Ntoumanis (2001) found that students who perceived themselves as highly competent were more intrinsically motivated which is a positive predictor for future intentions toward an activity. Findings of similar positive relationships between intrinsic motivation and future intentions toward an activity were reported by Biddle et al. (1995) in physical education, Pelletier et al. (1995) in sport, and Vallerand et al. (1993) in education. The participants stated that they would do the dances again after the program, suggesting they had some level of competence in the skill to be willing to do it again on their own. This provided an important link between competence, which is one of the three basic needs of SD, and intrinsic motivation.

The last open-ended question the participants were asked was why dancing was important and the majority answered because it was fun and or they liked it. Other answers included because it was healthy and or good exercise, they did not know, it was good for meeting new friends, and being with others. These aspects of enjoyment, health and or exercise, and socialization were why the participants thought dance was important. Socialization is a common reason to participate in physical activity. Many people participate in physical activity because they need to relate to, be friends with, and feel accepted by others (Weiss & Ebbeck, 1996). People also engage in physical activities for their health and for exercise, which were also reasons why dance was important to the participants. Participating in dance for socialization, health, or exercise are on the continuum leading to intrinsic motivation, however, they are not as strong as enjoyment. Enjoyment was most central to the participants' interest and participation in the DANCE program. Enjoyment is also an important role in intrinsic motivation, which is central to experiencing increased SD (Deci & Ryan, 2000a, 2000b).

The purpose of this study was to determine the effects of a multicultural dance program on the SD of adults with intellectual disabilities. The data from the open-ended questions showed the participants experienced enjoyment and competence as a result of participating in the dance program. Both enjoyment and competence are indicative of increased SD; the statements given in response to the open-ended questions show that the participants were exhibiting SD behaviors.

Certain conditions of this study limit generalization to a broader population. Since participants self selected to participate in the DANCE program, they may have had some interest or affinity for dance already. A random sample may have included

participants that did not have an interest or affinity for dance and results could have varied. The participants were a convenient sample from a local day support center in northern California. A pool of participants from several different areas, states, or even countries would allow generalization to more of the population. This study also looked at a very specific population, adults with ID, two of whom were Hispanic/Latino participants receiving day support services. The results of this study can, therefore, only be generalized to adults with ID receiving support services in areas similar to the northern California area that have an interest in or affinity for dance.

Recommendations for future studies in this area would be to focus on the role of relatedness in increasing SD. Physical activity programming that emphasizes the needs of autonomy, competence, and relatedness should be developed and tested. Research on the effects of increasing relatedness as a part of increasing SD requires further examination. Increasing the sample size of this study, focusing on a larger Hispanic/ Latino population, would also be recommended, as well as having a control group that would allow for a more robust research design, which could provide more insight into the effects of the DANCE program. It would also be interesting to study populations of Hispanic/ Latino participants in a Hispanic/Latino program, compared to Caucasians in a Caucasian-centered program. In this study it was unclear how strong participants' cultural identification was. The setting of this study provided an interesting and dynamic environment, with the strong concentration of the Hispanic/Latino culture in the area and the largely Caucasian mainstreamed day program. This study also found that there were high concentrations of Hispanic/Latino people in the area; however, they were underrepresented when it came to receiving services, which was similar to previous research.

While there were not strong statistical findings in this study, it is important to realize that the participants actively participated in a physical activity program for six weeks. This is important because people with ID and minorities, like the participants in the study, are at higher risk of inactivity (Taylor et al., 1998). Encouraging high-risk populations to participate in physical activities is important. The DANCE program was designed to foster autonomy, competence, and relatedness, however, it did not yield increased SD or relatedness scores. The DANCE program did show that a relatedness as a part of SD could be changed through a multicultural dance program. Research has shown that environments which provide opportunity, support, and foster the possibility for individuals to possess some control over their lives increase SD (Wehmeyer et al., 2003). Further research is warranted to show that through creating and implementing physical activity programs that foster SD, engagement in physical activities can be increased in people of minority groups with disabilities.

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




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## APPENDIX A





# CONSENT FORMS AND PAR-Q




## Informed Consent for Primary Participant





I would like to be part of the dance program  with Christie .




We will meet for one hour  twice a week  for six weeks    .



I know that Christie  will ask me questions  about the dance program  for her school . I know that





I am a volunteer  and it is ok  not to be part of the dance program  for Christie's 


school . I know I can stop  at any time if I want to and no one will be angry  with me. I know that I will




be videotaped  and this tape  will be used for Christie's  school , but my name will not be



used . I know that I may be sore, or tired from dancing , but that I may also have fun , meet new

people , and learn new dances .


YES , I want to be part of the dance program  with Christie , and answer questions  for her

school .

YES , I want to be part of the dance program , but I do not want to answer questions  for Christie's

 school .



NO 🙄, I DO NOT want to be part of the dance program 🕺 with Christie .

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date \_\_\_\_\_

## Information and Consent Form

### Research Participant's Guardian

This is an invitation for \_\_\_\_\_ to participate in a research study about dances' effects on self-determination and motivation. In addition to your permission, I will be asking each participant if they want to attend a cultural dance program.

**Title of the Study:** The Effects of Multicultural Dance on Self-determination of Adults with Intellectual Disabilities

#### **DESCRIPTION OF THE RESEARCH**

The purpose of this research study is to determine whether cultural dances' yield higher motivation for persons of that culture with intellectual disabilities.

The dance program will be held at \_\_\_\_\_ one hour twice a week for 6 weeks.

#### **WHAT WILL PARTICIPATION INVOLVE?**

Participants that choose to take part in this study will be given an interview while being videotaped. The questions will be related to feelings about motivation to participate in the activity. Interviews will be held three times: before, after, and during the dance program.

#### **ARE THERE ANY RISKS?**

Risks of dance exercise are minimal but as in physical activity there is a slight risk of injury. Risk will be minimized by asking participants to exercise within their comfort zone, ensuring a flat, non-slip surface, and by having emergency protocols in place. There may be increased risk for participants that already have a preexisting health condition such as heart disease or high blood pressure, if you know of any reason that extra precaution should be taken please inform the lead investigator prior to participation.

#### **ARE THERE ANY BENEFITS?**

The benefits of participating in this study are having the opportunity to learn new dances, meet new people, engage in physical activity twice a week, and learn about other cultures.

#### **HOW WILL CONFIDENTIALITY BE PROTECTED?**

While there will be presentations and publications at/in scientific conferences as a result of this study, names and places will not be used. Only group characteristics will be published. The video tapes recorded during the study will be kept locked in the lead investigators office and destroyed on May 1, 2009.

#### **WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?**

You may ask any questions about the research at any time. If you have questions about the research after you leave today you should contact the Principal Investigator Christie Thurman at (530) 898-4773.

Participation is completely voluntary. If you decide not to participate or to withdraw from the study it will have no effect on any services or treatment you are currently receiving.

Your signature indicates that you have read this consent form and consent to \_\_\_\_\_ participating in the study. You will receive a copy of this form for your records.

Guardian's Signature \_\_\_\_\_ Date \_\_\_\_\_

## Physical Activity Readiness Questionnaire (Par-Q)

Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

**Ethnic group you most identify with:**

\_\_\_ White \_\_\_ Hispanic/Latino \_\_\_ African American \_\_\_ Asian \_\_\_ Other

For most people physical activity is fine. The Par-Q has been designed to make sure physical activity is right for you. Please read the questions carefully and check **YES** or **NO**.

1. Has a doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?  YES  NO
2. Do you feel pain in your chest when you do physical activity?  YES  NO
3. In the past month, have you had chest pain when you were not doing physical activity?  YES  NO
4. Do you lose your balance because of dizziness or do you ever lose consciousness?  YES  NO
5. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?  YES  NO
6. Do you know of any other reason why you should not do physical activity?  YES  NO
7. Do you currently participate in any regular activity program?  YES  NO

## APPENDIX B

## DANCE LESSON PLANS

### Kolo Dance Lesson Plan (1)

Instructor: Christie Thurman  
 Class: Adult Dance Class  
 Date: 11/13/08  
 Class time: 1:00-2:00

1. Focus: To learn the basic steps of the Kolo.

2. Instructor standards to be met by this lesson:

- Consistently support student effort and successes of all students.
- Provide positive, descriptive feedback for all participants, including direct descriptive feedback on student work, and skill progress.

3. Student objectives:

- Participants will be able to perform the basic dance steps of the Kolo 60% of the time with consistent cuing.

4. Facilities and equipment needed:

- dance area
- CD player

5. Educational media:

- music: Dance a While “Pljeskavc Kolo”
- dance book
- Spanish book

6. Content development: Kolo

- Meter 2/4

Beats	Actions
1-2	Beginning right, take three steps (quick, quick, slow) pivoting one-half turn to the left (slow).
3-4	Beginning left, take three steps (quick, quick, slow) pivoting one-half turn to the right (slow).
1-4	Repeat action of measures 1-4
5-6	Face center. Beginning right, take two walking steps (slow, slow) toward center. Stamp three times right left, right (quick, quick, quick).

7-8	Beginning left, take two walking steps (slow, slow) backward, away from center. Stamp feet three times (quick, quick, quick).
5-8	Beginning right repeat action of measures 5-8.

Time (min.)	Learning activities	Class organization	Cues	Spanish cues
5	Warm-up (guided free dance) 2 songs 1 mid tempo followed by 1 faster tempo <ul style="list-style-type: none"> <li>○ Medium energy movements</li> <li>○ High energy movements</li> </ul>	In general space	Move your bodies to the music, what is your favorite dance move, travel around the room	Mover sus cuerpos a la musica.
15-25	Learn the basic steps of the dance of the day.	One large group in a circle.	Right 1 &2, Left 1&2, turn, (repeat) in for 2 & stomp stomp stomp out for 2 & stomp stomp stomp (repeat).	Derecho uno dose, Izquierdo uno dose, dar vuelta, (repeat) adentro con dose, parar parar parar afuera con dose parar parar parar (repeat).
15-20	Practice dance with music.	One large group in a circle.	Right 1 &2, Left 1&2, turn, (repeat) in for 2 & stomp stomp stomp out for 2 & stomp stomp stomp (repeat).	Derecho uno dose, Izquierdo uno dose, dar vuelta, (repeat) adentro con dose, parar parar parar afuera con dose parar parar parar (repeat).
5	Cool down (guided free dance) 2 songs 1 mid tempo followed by 1 slow tempo <ul style="list-style-type: none"> <li>○ Medium energy movements</li> <li>○ Low energy movements</li> </ul>	In general space	Move your bodies to the music, travel around the room	Mover sus cuerpos a la musica.
5	Review concepts meaning of movements	Group/individual questions	Name of dance? Favorite move? Go for 2 & __?	Bile muy rapido o despacio?

### 7. Overall reflection

Kolo Dance Lesson Plan (2)

Instructor: Christie Thurman  
 Class: Adult Dance Class  
 Date: 11/18/08  
 Class time: 1:00-2:00

1. Focus: To learn the Kolo.

2. Instructor standards to be met by this lesson:

- Consistently support student effort and successes of all students.
- Provide positive, descriptive feedback for all participants including direct descriptive feedback on student work, and skill progress.

3. Student objectives:

- Participants will be able to perform the basic dance steps of the Kolo 70% of the time with consistent cuing.

4. Facilities and equipment needed:

- dance area
- CD player

5. Educational media:

- music: Dance a While “Pljeskavc Kolo”
- dance book
- Spanish book

6. Content development: Kolo

- Meter 2/4

Beats	Actions
1-2	Beginning right, take three steps (quick, quick, slow) pivoting one-half turn to the left (slow).
3-4	Beginning left, take three steps (quick, quick, slow) pivoting one-half turn to the right (slow).
1-4	Repeat action of measures 1-4
5-6	Face center. Beginning right, take two walking steps (slow, slow) toward center. Stamp three times right left, right (quick, quick, quick).
7-8	Beginning left, take two walking steps (slow, slow) backward, away from center. Stamp feet three times (quick, quick, quick).
5-8	Beginning right repeat action of measures 5-8.

Time (min.)	Learning activities	Class organization	Cues	Spanish cues
5	Warm-up (guided free dance) 2 songs 1 mid tempo followed by 1 faster tempo <ul style="list-style-type: none"> <li>○ Medium energy movements</li> <li>○ High energy movements</li> </ul>	In general space	Move your bodies to the music, what is your favorite dance move, travel around the room <ul style="list-style-type: none"> <li>○ Soft flowing movements</li> <li>○ Faster strong movements</li> </ul>	Mover sus cuerpos a la musica.
15-25	Learn the basic steps of the dance of the day.	One large group in a circle.	Right 1 &2, Left 1&2, turn, (repeat) in for 2 & stomp stomp stomp out for 2 & stomp stomp stomp (repeat).	Derecho uno dose, Izquierdo uno dose, dar vuelta, (repeat) adentro con dose, parar parar parar afuera con dose parar parar parar (repeat).
15-20	Practice dance with music.	One large group in a circle.	Right 1 &2, Left 1&2, turn, (repeat) in for 2 & stomp stomp stomp out for 2 & stomp stomp stomp (repeat).	Derecho uno dose, Izquierdo uno dose, dar vuelta, (repeat) adentro con dose, parar parar parar afuera con dose parar parar parar (repeat).
5	Cool down (guided free dance) 2 songs 1 mid tempo followed by 1 slow tempo <ul style="list-style-type: none"> <li>○ Medium energy movements</li> <li>○ Low energy movements</li> </ul>	In general space	Move your bodies to the music, travel around the room	Mover sus cuerpos a la musica.
5	Review concepts meaning of movements	Group/individual questions	Name of dance? Favorite move? Go for 2 & __?	Bile muy rapido o despacio?

### 7. Overall reflection

#### Electric Slide Dance Lesson Plan (1)

Instructor: Christie Thurman  
 Class: Adult Dance Class  
 Date: 11/20/08  
 Class time: 1:00-2:00

1. Focus: To learn the basic dance steps of the Electric Slide.



## 2. Instructor standards to be met by this lesson:

- Consistently support student effort and successes of all students.
- Provide positive, descriptive feedback for all participants including direct descriptive feedback on student work, and skill progress.

## 3. Student objectives:

- Participants will be able to perform the basic dance steps of the Electric Slide 60% of the time with consistent cuing.

## 4. Facilities and equipment needed:

- dance area
- CD player

## 5. Educational media:

- music: Electric Boogie
- dance book
- Spanish book

## 6. Content development: Electric Slide

- Meter 2/4

Beats	Actions
1-4	Beginning right, step sideward right, close left to right, step sideward right, close left to right, step touch.
5-8	Repeat same action to left
9-12	Moving backward, step right close left to right, step right and touch left heel to right foot.
13-14	Bend at waist and rock forward.
15-16	Straighten up and rock backward.
17-18	Step left (count one), pivoting on left one-quarter turn left.

Time (min.)	Learning activities	Class organization	Cues	Spanish cues
5	Warm-up (guided free dance) 2 songs 1 mid tempo followed by 1 faster tempo <ul style="list-style-type: none"> <li>○ Medium energy movements</li> <li>○ High energy movements</li> </ul>	In general space	Move your bodies to the music, what is your favorite dance move, travel around the room <ul style="list-style-type: none"> <li>○ Soft flowing movements</li> <li>○ Faster strong movements</li> </ul>	Mover sus cuerpos a la musica.

15-25	Review dance of the day.	One large group in lines staggered.	Right 1 &2, Left 1&2, Back for 2, bend and wiggle, small turn (repeat)	Derecho uno dose, Izquierdo uno dose, back uno dose, bend y wiggle small turn (repeat).
15-20	Practice dance of the day.	One large group in staggered out.	Right 1 &2, Left 1&2, turn, (repeat) in for 2 & stomp stomp stomp out for 2 & stomp stomp stomp (repeat).	Derecho uno dose, Izquierdo uno dose, dar vuelta, (repeat) adentro con dose, parar parar parar afuera con dose parar parar parar (repeat).
5	Cool down (guided free dance) 2 songs 1 mid tempo followed by 1 slow tempo <ul style="list-style-type: none"> <li>o Medium energy movements</li> <li>o Low energy movements</li> </ul>	In general space	Move your bodies to the music, travel around the room	Mover sus cuerpos a la musica.
5	Review concepts meaning of movements Group/individual questions.	Group/individual questions.	Name of dance? Start L or R?	Electric slide es muy rapido o despacio?

## 7. Overall reflection

### Mayim Dance Lesson Plan (1)

Instructor: Christie Thurman  
Class: Adult Dance Class  
Date: 11/20/08  
Class time: 1:00-2:00

1. Focus: To learn the basic dance steps of the Mayim.

2. Instructor standards to be met by this lesson:

- Consistently support student effort and successes of all students.
- Provide positive, descriptive feedback for all participants including direct descriptive feedback on student work, and skill progress.

3. Student objectives:

- Participants will be able to perform the basic dance steps of the Mayim 60% of the time with consistent cuing.

## 4. Facilities and equipment needed:

- dance area
- CD player

## 5. Educational media:

- music: Dance a While “Mayim”
- dance book
- Spanish book

## 6. Content development: Electric Slide

- Meter 2/4

Beats	Actions
1-2	Introduction: no action
1-4	<b>Grapevine</b> Moving clockwise, cross right in front of left (count 1), step left to side (count 2), cross right behind left (count 3), step left to side with a light springy step, accenting step (count 4). Repeat three times
5	<b>To Center and Back</b> Beginning right, move to center with four running steps. Lift joined hands gradually above heads as dancers move to center. Singing “Mayim, Mayim, Mayim, Mayim” while moving to center.
6	Beginning right repeat action of measure 5, moving away from center. Lower joined hands gradually down to sides.
7-8	Repeat action of measures 5-6
1-5	Leap on right and touch left across front to right side (count 1); hop on right, touch left to side (count 2); hop on right, touch left in front to right side (count 3); hop on right, touch left to side (count 4).
1-5	Repeat action of measures 1-5

Time (min.)	Learning activities	Class organization	Cues	Spanish cues
5	Warm-up (guided free dance) 2 songs 1 mid tempo followed by 1 faster tempo <ul style="list-style-type: none"> <li>o Medium energy movements</li> <li>o High energy movements</li> </ul>	In general space	Move your bodies to the music, travel around the room <ul style="list-style-type: none"> <li>o Show me some fancy footwork</li> <li>o Dancing arms</li> </ul>	Mover sus cuerpos a la musica.
15-25	Review dance of the day.	One large circle holding hands.	Right in front and open behind and open (3x) in	Derecho encime de izuquierdo abrir, izuquierdo abajo de derecho abrir (3x) adentro

			Mayim, Mayim, Mayim, Mayim out (2x), right left kicks.	canta Mayim,Mayim,Mayim,Mayim afuera (2x) derecho izuquierdo dar un puntapie.
15-20	Practice dance of the day and previous dances.	One large circle holding hands.	Right in front and open behind and open (3x) in Mayim, Mayim, Mayim, Mayim out (2x), right left kicks.	Derecho encime de izuquierdo abrir, izuquierdo abajo de derecho abrir (3x) adentro canta Mayim,Mayim,Mayim,Mayim afuera (2x) derecho izuquierdo dar un puntapie.
5	Cool down (guided free dance) 2 songs 1 mid tempo followed by 1 slow tempo ○ Medium energy movements ○ Low energy movements	In general space	Move your bodies to the music. ○ Glide around the room	Mover sus cuerpos a la musica.
5	Review concepts meaning of movements Group/individual questions.	Group/individual questions.	Name of dance? Favorite move?	Favrito Bile?

## 7. Overall reflection

### Mayim Dance Lesson Plan (2)

Instructor: Christie Thurman  
 Class: Adult Dance Class  
 Date: 11/25/08  
 Class time: 1:00-2:00

1. Focus: To learn the basic dance steps of the Mayim.

2. Instructor standards to be met by this lesson:

- Consistently support student effort and successes of all students.
- Provide positive, descriptive feedback for all participants including direct descriptive feedback on student work, and skill progress.

3. Student objectives:

- Participants will be able to perform the basic dance steps of the Mayim 70% of the time with consistent cuing.

## 4. Facilities and equipment needed:

- dance area
- CD player

## 5. Educational media:

- music: Dance a While “Mayim”
- dance book
- Spanish book

## 6. Content development: Mayim

- Meter 2/4

Beats	Actions
1-2	Introduction: no action
1-4	<b>Grapevine</b> Moving clockwise, cross right in front of left (count 1), step left to side (count 2), cross right behind left (count 3), step left to side with a light springy step, accenting step (count 4). Repeat three times
5	<b>To Center and Back</b> Beginning right, move to center with four running steps. Lift joined hands gradually above heads as dancers move to center. Singing “Mayim, Mayim, Mayim, Mayim” while moving to center.
6	Beginning right repeat action of measure 5, moving away from center. Lower joined hands gradually down to sides.
7-8	Repeat action of measures 5-6
1-5	Leap on right and touch left across front to right side (count 1); hop on right, touch left to side (count 2); hop on right, touch left in front to right side (count 3); hop on right, touch left to side (count 4).
1-5	Repeat action of measures 1-5

Time (min.)	Learning activities	Class organization	Cues	Spanish cues
5	Warm-up (guided free dance) 2 songs 1 mid tempo followed by 1 faster tempo <ul style="list-style-type: none"> <li>o Medium energy movements</li> <li>o High energy movements</li> </ul>	In general space	h Move your bodies to the music, travel around the room <ul style="list-style-type: none"> <li>o Show me some fancy footwork</li> <li>o Dancing arms</li> </ul>	Mover sus cuerpos a la musica.
15-20	Review dance of the day.	One large circle holding hands.	Right in front and open behind and open (3x) in Mayim, Mayim,	Derecho encime de izuquierdo abrir, izuquierdo abajo de derecho abrir (3x) adentro canta

			Mayim, Mayim out (2x), right left kicks.	Mayim,Mayim,Mayim,Mayim afuera (2x) derecho izuquierdo dar un puntapie.
15-25	Practice dance of the day and previous dances.	One large circle holding hands.	Right in front and open behind and open (3x) in Mayim, Mayim, Mayim, Mayim out (2x), right left kicks.	Derecho encime de izuquierdo abrir, izuquierdo abajo de derecho abrir (3x) adentro canta Mayim,Mayim,Mayim,Mayim afuera (2x) derecho izuquierdo dar un puntapie.
5	Cool down (guided free dance) 2 songs 1 mid tempo followed by 1 slow tempo <ul style="list-style-type: none"> <li>o Medium energy movements</li> <li>o Low energy movements</li> </ul>	In general space	Move your bodies to the music. <ul style="list-style-type: none"> <li>o Move like your feet are stuck in bubble gum</li> <li>o (slow stretching moves)</li> </ul>	Mover sus cuerpos a la musica.
5	Review concepts meaning of movements Group/individual questions.	Group/individual questions.	Name of dance? Favorite move?	Favrito Bile?

## 7. Overall reflection

### Group Cha Cha Dance Lesson Plan (1)

Instructor: Christie Thurman  
Class: Adult Dance Class  
Date: 12/2/08  
Class time: 1:00-2:00

1. Focus: To learn the basic dance steps of the Group Cha Cha.

2. Instructor standards to be met by this lesson:

- Consistently support student effort and successes of all students.
- Provide positive, descriptive feedback for all participants including direct descriptive feedback on student work, and skill progress.

3. Student objectives:

- Participants will be able to perform the basic dance steps of the Group Cha Cha 60% of the time with consistent cuing.

4. Facilities and equipment needed:

-dance area

-CD player

5. Educational media:

-music: The Best of Ballroom Shall We Dance “Obsession”

-dance book

-Spanish book

6. Content development:

-4 beats/measure; 26-34 meas/min

-Counts 4/4

Beats	Actions
2	<b>Forward-</b> Step forward with left
3	Step right in place
4 and 1	Left right left in place accenting hip movement-Cha (quick) cha (quick) cha (slow)
2	<b>Backward-</b> Step back with right
3	Step left in place
4 and 1	Right left right in place accenting hip movement- Cha (quick) cha (quick) cha (slow)

Pivot step: Step out with left (2) pivot ½ turn (3) cha cha cha (4 and 1) then step out left (2) pivot ½ turn (3) cha cha cha.(4 and 1)

Time (min.)	Learning activities	Class organization	Cues	Spanish cues
5	Warm-up (guided free dance) 2 songs 1 mid tempo followed by 1 faster tempo <ul style="list-style-type: none"> <li>o Medium energy movements</li> <li>o High energy movements</li> </ul>	In general space	h Move your bodies to the music, travel around the room <ul style="list-style-type: none"> <li>o Explore different levels</li> </ul>	Mover sus cuerpos a la musica.
15-25	Learn the dance of the day.	Two small groups in lines facing each other	Step left 1- right 2 and cha cha cha Back right 1 left 2 and cha cha cha	Izquierdo uno-derecho dos y cha cha cha
15-20	Practice dance of the day and previous dances.	Two small groups in lines facing each other	Pivot step left/r 1 pivot 2 and cha cha cha. Step left/r 1 pivot 2 and cha cha cha	Dar vuelta izquierdo/derecho uno Dar vuelta dos y cha cha cha repeat
5	Cool down (guided free dance)	In general space	Move your bodies around the room.	Mover sus cuerpos a la musica.

	2 songs 1 mid tempo followed by 1 slow tempo <ul style="list-style-type: none"> <li>○ Medium energy movements</li> <li>○ Low energy movements</li> </ul>		<ul style="list-style-type: none"> <li>○ Move your arms and legs.</li> <li>○ Sway your bodies</li> </ul>	
5	Review concepts meaning of movements	Group/individual questions.	Name of dance? Favorite part?	Favrito Bile?

XXXXX Line one Cha cha's as described above.

XXXXX Line two Cha cha's opposite foot position.

#### 7. Overall reflection

#### Group Cha Cha Dance Lesson Plan (2)

Instructor: Christie Thurman  
Class: Adult Dance Class  
Date: 12/4/08  
Class time: 1:00-2:00

1. Focus: To learn the basic dance steps of the Group Cha Cha.

2. Instructor standards to be met by this lesson:

- Consistently support student effort and successes of all students.
- Provide positive, descriptive feedback for all participants including direct descriptive feedback on student work, and skill progress.

3. Student objectives:

- Participants will be able to perform the basic dance steps of the Group Cha Cha 70% of the time with consistent cuing.

4. Facilities and equipment needed:

- dance area
- CD player

5. Educational media:

- music: The Best of Ballroom Shall We Dance "Obsession"
- dance book
- Spanish book

6. Content development:

- 4 beats/measure; 26-34 meas/min



-Counts 4/4

Beats	Actions
2	<b>Forward-</b> Step forward with left
3	Step right in place
4 and 1	Left right left in place accenting hip movement-Cha (quick) cha (quick) cha (slow)
2	<b>Backward-</b> Step back with right
3	Step left in place
4 and 1	Right left right in place accenting hip movement- Cha (quick) cha (quick) cha (slow)

Pivot step: Step out with left (2) pivot ½ turn (3) cha cha cha (4 and 1) then step out left (2) pivot ½ turn (3) cha cha cha.(4 and 1)

Time (min.)	Learning activities	Class organization	Cues	Spanish cues
5	Warm-up (guided free dance) 2 songs 1 mid tempo followed by 1 faster tempo <ul style="list-style-type: none"> <li>o Medium energy movements</li> <li>o High energy movements</li> </ul>	In general space	h Move your bodies to the music, travel around the room <ul style="list-style-type: none"> <li>o Explore different levels</li> </ul>	Mover sus cuerpos a la musica.
15-25	Practice the dance of the day.	Two small groups in lines facing each other	Step left 1- right 2 and cha cha cha Back right 1 left 2 and cha cha cha	Izquierdo uno-derecho dos y cha cha cha
15-20	Practice dance of the day and previous learned Hispanic dances	Two small groups in lines facing each other	Pivot step left/r 1 pivot 2 and cha cha cha. Step left/r 1 pivot 2 and cha cha cha	Dar vuelta izquierdo/derecho uno Dar vuelta dos y cha cha cha repeat
5	Cool down (guided free dance) 2 songs 1 mid tempo followed by 1 slow tempo <ul style="list-style-type: none"> <li>o Medium energy movements</li> <li>o Low energy movements</li> </ul>	In general space	Move to the music. <ul style="list-style-type: none"> <li>o Float around the room</li> <li>o Reaching arms</li> </ul>	Mover sus cuerpos a la musica.
5	Review concepts meaning of movements	Group/individual questions.	Name of dance? Favorite part?	Favrito Bile?

XXXXX Line one Cha cha's as described above.

XXXXX Line two Cha cha's opposite foot position.

#### 7. Overall reflection

#### La Raspa Dance Lesson Plan (1)

Instructor: Christie Thurman

Class: Adult Dance Class

Date: 12/11/08

Class time: 1:00-2:00

1. Focus: To learn the basic dance steps of the La Raspa.

2. Instructor standards to be met by this lesson:

- Consistently support student effort and successes of all students.
- Provide positive, descriptive feedback for all participants including direct descriptive feedback on student work, and skill progress.

3. Student objectives:

- Participants will be able to perform the basic dance steps of the La Raspa 70% of the time with consistent cuing.

4. Facilities and equipment needed:

- dance area
- CD player

5. Educational media:

- music: The Best of Ballroom Shall We Dance "Obsession"
- dance book
- Spanish book

6. Content development:

- 4 beats/measure; 26-34 meas/min
- Counts 4/4

Beats	Actions
2	<b>Forward-</b> Step forward with left
3	Step right in place
4 and 1	Left right left in place accenting hip movement-Cha (quick) cha (quick) cha (slow)
2	<b>Backward-</b> Step back with right

3	Step left in place
4 and 1	Right left right in place accenting hip movement- Cha (quick) cha (quick) cha (slow)

Pivot step      step out with left (2) pivot ½ turn (3) cha cha cha (4 and 1) then step out left (2) pivot ½ turn (3) cha cha cha.(4 and 1)

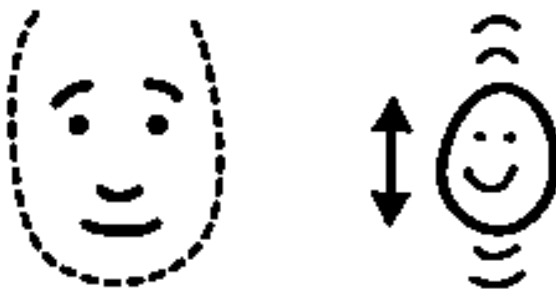
Time (min.)	Learning activities	Class organization	Cues	Spanish cues
5	Warm-up (guided free dance) 2 songs 1 mid tempo followed by 1 faster tempo <ul style="list-style-type: none"> <li>○ Medium energy movements</li> <li>○ High energy movements</li> </ul>	In general space	h Move your bodies to the music, travel around the room <ul style="list-style-type: none"> <li>○ Explore different levels</li> </ul>	Mover sus cuerpos a la musica.
15-25	Practice the dance of the day.	Two small groups in lines facing each other	Step left 1- right 2 and cha cha cha Back right 1 left 2 and cha cha cha	Izquierdo uno-derecho dos y cha cha cha
15-20	Practice dance of the day and previous learned Hispanic dances	Two small groups in lines facing each other	Pivot step left/r 1 pivot 2 and cha cha cha. Step left/r 1 pivot 2 and cha cha cha	Dar vuelta izquierdo/derecho uno Dar vuelta dos y cha cha cha repeat
5	Cool down (guided free dance) 2 songs 1 mid tempo followed by 1 slow tempo <ul style="list-style-type: none"> <li>○ Medium energy movements</li> <li>○ Low energy movements</li> </ul>	In general space	Move to the music. <ul style="list-style-type: none"> <li>○ Float around the room</li> <li>○ Reaching arms</li> </ul>	Mover sus cuerpos a la musica.
5	Review concepts meaning of movements	Group/individual questions.	Name of dance? Favorite part?	Favrito Bile?

## 7. Overall reflection

## APPENDIX C

SELF-DETERMINATION POST INVENTORY  
AND DATA COLLECTION FORMS

LIKE ME



A LITTLE BIT LIKE ME



NOT LIKE ME



I thought these dances were quite enjoyable.



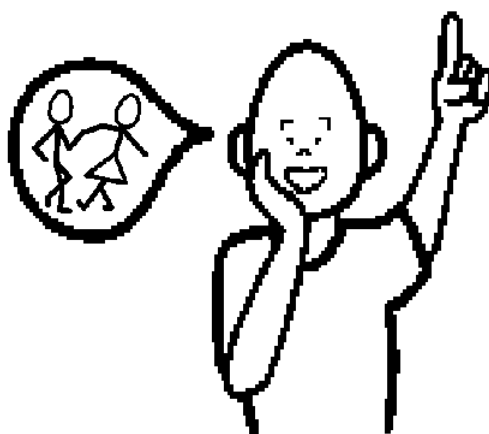
These dances were fun.



These dances were boring.



I did not like these dances



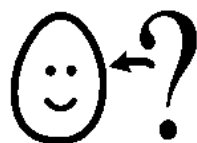
I think I am good at these dances.





I think I did well at these dances  
compared to my friends.





I would like to learn more about these kinds of dances.



I am satisfied with the way I danced.



I danced well.



I am good at many dances.



I did not try very hard to dance well.



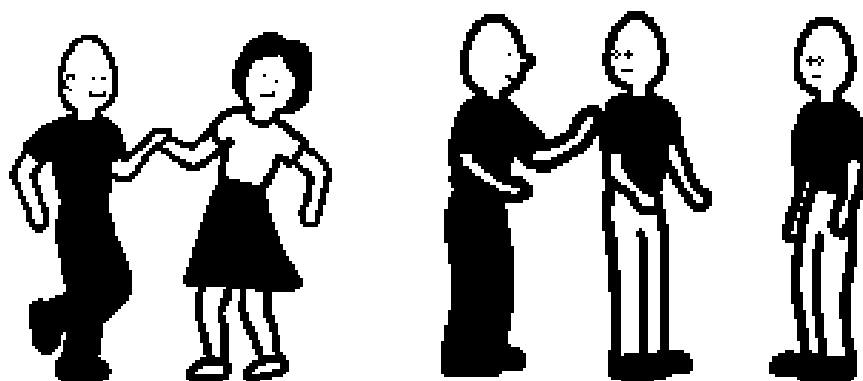
I put a lot of effort into dancing.



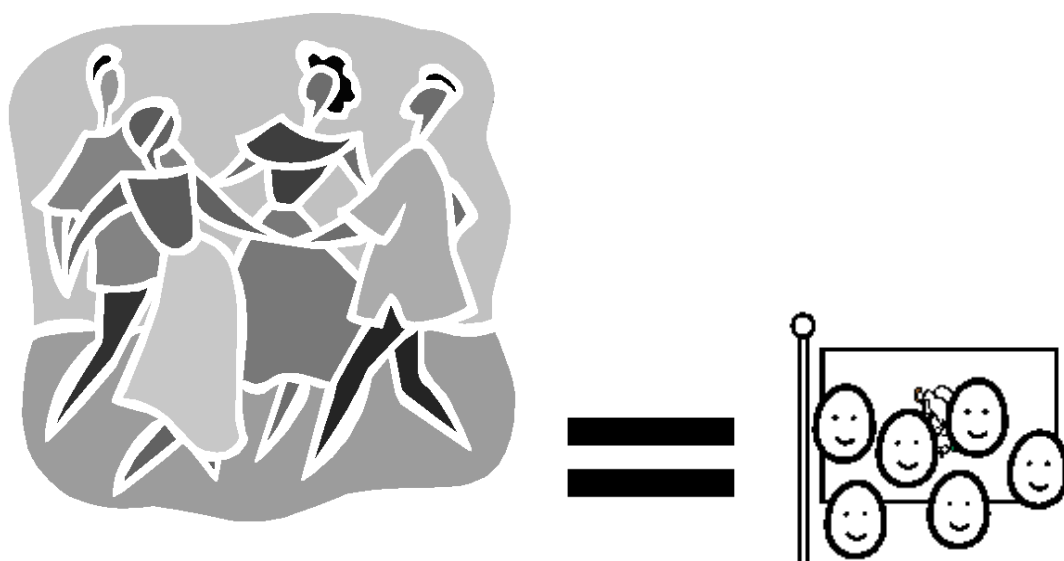
I danced because I wanted to.



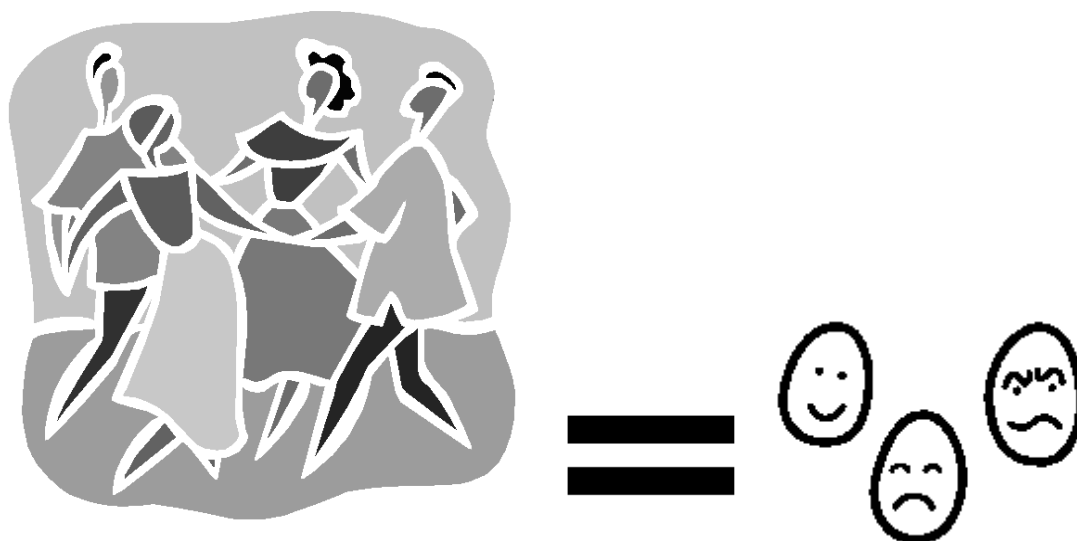
I danced because I had to.



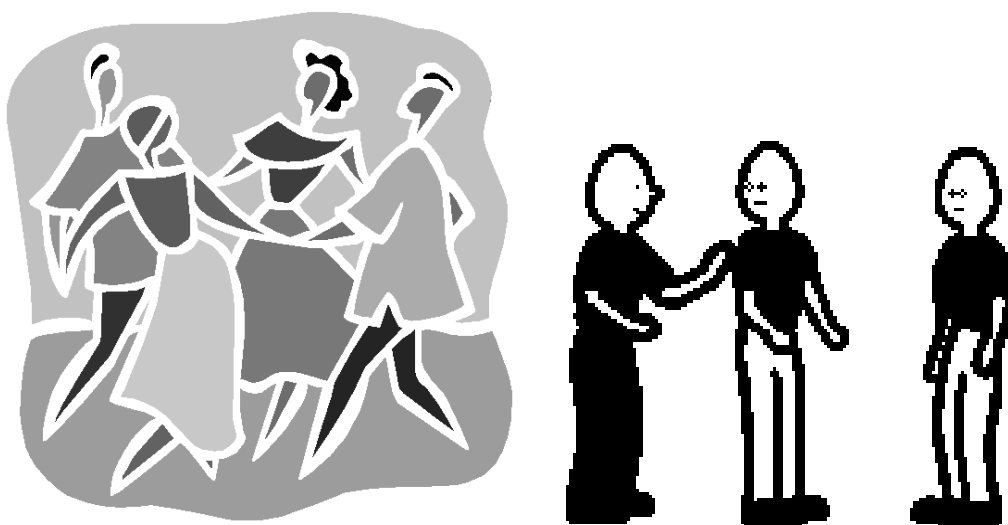
I think by learning these dances it helped me dance with my family and friends more.



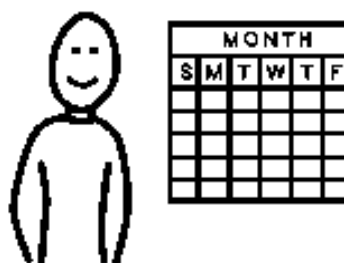
I learned about other cultures through learning these new dances.



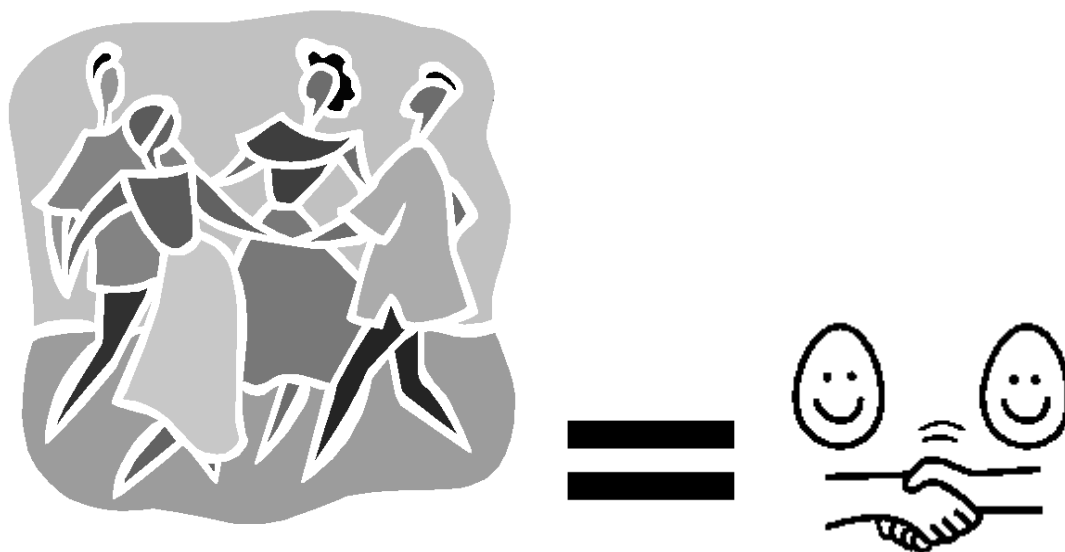
I expressed myself through dancing.



My family and friends dance like this.



The dances I learned, I would do again.



Learning to dance helped me make friends.





I like these dances because...



I think I will do the dances I learned  
again...

When?



= ?

Dancing is important to do because ...

## Post IMI Scale- Data Collection Form

NAME: \_\_\_\_\_

AGE: \_\_\_\_\_ GENDER: \_\_\_\_\_

OTHER

INFORMATION: \_\_\_\_\_

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Order of Presentation	Motivation Orientation	Like Me	A Little Bit Like Me	Not Like Me
I enjoyed doing these dances very much.	Interest/Enjoyment			
These dances were fun.	Interest/Enjoyment			
I thought these dances were boring. (R)	Interest/Enjoyment			
When I did these dances, I did not enjoy them. (R)	Interest/Enjoyment			
I was good at the dances we learned.	Perceived/Competence			
I think I did well at these dances compared to my friends.	Perceived/Competence			
After taking dance lessons, I feel like I dance better.	Perceived/Competence			
I am satisfied with my dancing.	Perceived/Competence			
I learned the dance well.	Perceived/Competence			
I am good at many dances.	Perceived/Competence			
I did not try hard to do these dances well. (R)	Effort/Importance			
I put a lot of effort into learning these dances.	Effort/Importance			
I did these dances because I wanted to.	Perceived Choice			
I did these dances because I had to. (R)	Perceived Choice			

I think learning to dance will help me dance with my family and friends more.	Value/Usefulness			
I learned about other cultures through learning new dances.	Value/Usefulness			
I learned to express myself through dancing.	Value/Usefulness			
My family and friends dance like this.	Relatedness			
I would do these dances another time.	Relatedness			
Doing these dances helped me make friends.	Relatedness			

### Open-ended questions

I like these dancing because...

I think I will dance like this again... When?

Dancing is important to do because...