

THESIS

GUATEMALAN AND NICARAGUAN CHILDREN AND THE TEST OF  
PLAYFULNESS

Submitted by

Heather Ann Phillips

Occupational Therapy Department

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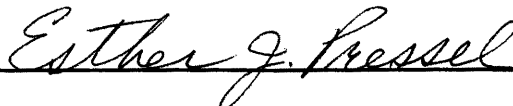
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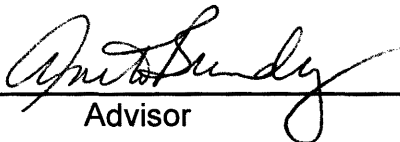
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WE HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER OUR SUPERVISION BY HEATHER ANN PHILLIPS ENTITLED GUATEMALAN AND NICARAGUAN CHILDREN AND THE TEST OF PLAYFULNESS BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE.

Committee on Graduate Work

  
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\_\_\_\_\_  
Advisor

  
\_\_\_\_\_  
Department Head

**ABSTRACT OF THESIS**  
**GUATEMALAN AND NICARAGUAN CHILDREN**  
**AND THE TEST OF PLAYFULNESS**

As play is influenced by culture, culture is influenced by play. Hence, it is important for professionals who work with children from different cultural backgrounds to evaluate play in their young clients. Objective evaluation demands reliable and valid instruments.

The purpose of this study was to (a) determine whether the Test of Playfulness (ToP) demonstrates preliminary interrater reliability for Spanish speaking children in Guatemala and Nicaragua; and (b) examine if the ToP demonstrates preliminary construct validity? Specifically, will data from all raters conform to the expectations of the Rasch model even though the raters represent a different socioethnic background? And, will data from at least 95% of the children reflect goodness of fit to the Rasch measurement model? In addition, characteristics of childrearing in Hispanic families, the relationship between play and culture, and the influence of resilience in "at-risk" children are reviewed.

Fifteen Guatemalan children with no known disabilities and 15 Nicaraguan children with and without known disabilities participated in this study (16 girls, 14 boys; age range 14 months to 17 years). Goodness of fit statistics generated with Rasch analysis revealed that data from 100% of raters and 97%

of participants conformed to the expectations of the Rasch measurement model. Thus, we concluded that the ToP is valid and reliable; that is, the ToP reflects a construct of playfulness that is cross-cultural and it can be given reliably by raters from different socioethnic backgrounds.

In addition, the findings revealed several things about Guatemalan and Nicaraguan children's play. (a) The high scores received by many of the children on the ToP suggested these are very playful children (12 of 30 received scores over 1.0). And (b) unexpected ratings on some items may reflect minor cultural variations in playfulness or the effect of raters from different socioethnic backgrounds. Implications and the need for further research are discussed.

Heather Ann Phillips  
Occupational Therapy Department  
Colorado State University  
Fort Collins, CO 80523  
Fall 1998

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## **CHAPTER ONE**

### **Introduction**

*There is not a single language for play.*

*-Sutton-Smith, 1981*

Play is the precursor to adult competency (Reilly, 1974) as well as the primary occupation of children (Kielhofner, 1995). Play allows the practice and mastery of activities that are later useful for more serious endeavors in adulthood (Schwartzman, 1978). By providing a vehicle for children to enter adult culture, play makes a socializing contribution to the culture at large (Sutton-Smith & Roberts, 1981).

Since play is a tool for cultural learning that is very much influenced by cultural norms, values, roles and behavior, it is viewed as both a cause and an effect of culture (Schwartzman, 1978). In fact, Sutton-Smith (1980) believed human collective behavior is established through play. Similarly, Bronowski (1973) referred to our childhoods as the "ascent of our species," implying that we have evolved culturally on account of our playfulness.

Although professionals from diverse disciplines have been unable to find a single definition of play, the idea of play appears to be a familiar folk concept in all cultures (Schwartzman, 1978). Unfortunately, the majority of available play literature has been based on observations and assessments conducted on North American and European children. Notably less has been written on children's



play in other cultures around the world. Considering that most children in the world live in developing countries, play literature is incomplete and may not represent the play experience of children of all other cultural backgrounds (Roopernarine, Johnson & Hooper, 1994).

As service providers working with children from different cultural backgrounds, and because the primary role of the infant and young child is that of a player (Heard, 1977), occupational therapists must understand different cultural values associated with play (Neville-Jan, Fazio, Kennedy & Snyder, 1997). Heard (1977) described the occupational role as the “activity in an individual’s life that contributes to society, and thereby, defines the person’s societal worth” (p.224). Being a player provides a child with the essential rules, skills and habits that are necessary for competence in later occupational roles; thus, being a “player” is deemed a legitimate role (Heard, 1977).

Since play is such a natural and important part of childhood, occupational therapists both promote the development of play and use play as the primary modality for intervention when working with children. In fact, half of OT services for children are delivered through the medium of play (Case-Smith, Pratt & Allen, 1997).

In order for occupational therapists to identify a child’s present play performance and define problems, assessment tools are used. However, few assessments frame play in ways useful to occupational therapists (Bundy, 1997a). As we approach the 21st century, occupational therapists will be forced to meet the challenges of decreased healthcare finances and a greater

demand to prove to third party payers and employers that they are providing effective and efficient services. Therapists must evaluate play in children and they no longer have the luxury of assessing it subjectively. Rather, they must use reliable and valid instruments to evaluate play (Burke & Schaaf, 1997).

Bundy (1997a), an occupational therapist, believed a playful disposition was more important than play activity itself, and hence developed the Test of Playfulness (ToP). The ToP makes it possible for occupational therapists to promote play by helping to define explicit goals for intervention (Bundy, 1993). A number of studies have examined the ToP and found it to have preliminary validity and reliability with North American children (Bundy, Metzger, Brooks, & Bingaman, in press).

The ToP operationally defines four elements of play: intrinsic motivation, internal control, the freedom to suspend reality and framing (Bundy, 1997b). The following is an expansion of these elements:

**“Intrinsic motivation”** refers to some (unnamed) aspect of the activity itself, rather than an external reward that provides the impetus for the individual’s involvement in the activity. **“Internal control”** suggests that the individual is largely “in charge” of his or her actions and at least some aspects of the activity’s outcome. **“Freedom to suspend reality”** means that the individual chooses how close to objective reality the transaction will be and, perhaps more importantly, is not bound by unnecessary constraints of reality. **Framing** refers to the ability of a player to give and read

social cues about to how to interact with one another (Bundy, 1997b, p. 3).

The primary purpose of this study is to determine if the ToP is a valid and reliable assessment for children from Central America. If the tool was found to be valid and reliable, a secondary purpose was to examine the playfulness of Nicaraguan and Guatemalan children, and, in so doing, broaden the awareness of occupational therapists regarding play as a multicultural phenomenon. Because play reflects culture, it is possible that the concept of playfulness may be different in Central America than it is in the United States.

Although Guatemala and Nicaragua are two separate countries in Central America, they share many cultural and historical elements that arise from their coexistence in the same geographical region. They also share numerous socio-economic problems such as increasing numbers of single mothers, poor prenatal care and child malnutrition, child labor, and unemployment (Norton & Whatmore, 1993). These factors have a direct impact on childrearing and daily life activities including play.

The available literature on Spanish speaking children and play is very limited. As in other cultures, work and play are not easily separated (Primeau, 1995). Liebel (1996) discussed how work on the street for young children in Nicaragua is not completely separate from play and other "free activities." Work helps children learn how to make friends and share with others (Liebel, 1996).

While the play of children in Central American has not been studied extensively, it would be possible to gain some understanding of related cultural

values by examining childrearing and social practices of Central American families. As with play, adult approval and disapproval help to guide a child's understanding of social and cultural values (Kielhofner, 1995). Whiting and Child (1953) proposed that the characteristic traits of people from different cultural backgrounds are inherently different as a result, in part, of differences in childrearing.

Unfortunately, also like play, childrearing patterns of the Hispanic population (people of Spanish or Latin American origin) has not been studied extensively. The few studies that do exist portray warm and affectionate families where obedience and self-reliance are valued and physical punishment is threatened, but inconsistently used (Escovar & Escovar, 1992). Hispanic parents place a great emphasis on a child's sense of family obligation, and are more protective and authoritarian than Anglo parents. Furthermore, they value exercising self-control, obeying, getting along with others and succeeding in athletics (Julian, McKenry, & McKelvey, 1994).

There is a significant amount of literature to support the idea that children from Guatemala and Nicaragua may be "at-risk" for decreased playfulness. To play well, children must have their basic needs met (Rubin, Fein & Vandenberg, 1983). Biological factors that help identify "at-risk" children are congenital defects, malnutrition, and low birth weight. Environmental factors that could put a child at risk include poverty, family discord, violence and abuse, numerous siblings, parental illness or parents with minimal education (Rak & Patterson, 1996). Given the socioeconomic difficulties facing much of the population in

Nicaragua and Guatemala, one can easily wonder if the play of their children is not at risk.

While the effects of risk factors cannot be minimized, only a small fraction of “at-risk” children experience serious difficulties in their personality development. Children who overcome negative biological and environmental factors are considered to be resilient (Hauser, Vierya, Jacobson & Wertreib, 1985).

Werner & Smith (1989), in Hawaii, conducted the most-well-known longitudinal study of resilient children. The study lasted 32 years and followed the progress of over 700 high-risk children from birth, one third of which had four or more risk factors during their childhood. “One of three of these high risk children grew into competent adults who loved well, worked well, and played well” (p. 262). In addition, by 32 years of age, two thirds of the participants were leading successful adult lives (Werner & Smith, 1992). Other researchers have identified several factors that promote resiliency and buffer the impact of negative environmental and biological factors (Rak & Patterson, 1996). Certain personality traits, family characteristics, and the development of self-confidence contribute to the development of resiliency in “at-risk” children and help them overcome the odds. Resilient children tend to have four attributes: social competence, problem-solving skills, autonomy, and a sense of purpose and future (Benard, 1993).

Resiliency has not been studied specifically in Central America. However, Armar (1996) found Latin American and Caribbean children seem able to

manage confidently in environments that outsiders perceive as limited or risky. Armar also described how children from developing countries develop necessary skills and strengths to deal with conflicts that arise in their environments.

The United States is comprised of a rich blend of ethnic diversity that is growing each day. There are 22 million Spanish speaking children in United States' schools (Reyes & Valencia, 1993) and the Hispanic population is expected to become the largest ethnic group by the year 2020 (Parrillo, 1997). All providers, need to be sensitive to cultural and intracultural variations (Ohmert, 1996). Effective practitioners do not impose their beliefs and values on children from different cultural backgrounds. Furthermore, at-risk children should not be stereotyped as unlikely to succeed because of negative biological and environmental factors. The current investigation is the only known research on this topic conducted by occupational therapists. The results may help occupational therapists gain a better understanding of play among children from different cultural backgrounds. Hopefully, the information attained will not only affect occupational therapists working abroad, but also children and therapists on these shores.

The objective of this study was to test the validity and reliability of the ToP. Two research questions were addressed: (a) Will the ToP demonstrate preliminary interrater reliability and validity for Spanish speaking children in Guatemala and Nicaragua? That is, will data from all raters conform to the expectations of the Rasch model even though the raters represent a different socioethnic background? And (b) Will the ToP demonstrate preliminary

construct validity? Specifically, will data from at least 95% of the children reflect goodness of fit to the Rasch measurement model?

## CHAPTER TWO

### Method

#### Participants

Thirty Spanish-speaking children participated in this study; 15 were Guatemalan and 15 Nicaraguan. The Guatemalan participants included 6 boys and 9 girls ranging in age from 14 months to 12 years 8 months. The mean age was 9 years 2 months. None of the Guatemalan children had a known disability. The Nicaraguan participants included 8 boys and 7 girls ranging in age from 5 years to 10 years 6 months. The mean age was 10 years 6 months. Three of the girls had disabilities. Their diagnoses included mental retardation and developmental delay with left hemiplegia. Six of the boys had disabilities and their diagnoses included cerebral palsy, Down syndrome, and mental retardation. (See Table 1.)

Two major cultural groups comprise the population of Guatemala, ladino and indigenous. It is not known which of the children who participated in this study were indigenous and which were ladino. All the Guatemalan children wore uniforms to school making it very difficult to identify their origins based on village dress variations. It is likely that children from both groups participated. In Panachel, one teacher indicated that a few of the children in the study were indigenous.



**Table 1**

Description of Participants

	Female w/out known disability	Male w/out known disability	Female w/ disability	Male w/ disability
Guatemalan Participants	9	6	0	0
Nicaraguan Participants	4	2	3	6

Notes:

1. Guatemalan participants' age range = 14 months to 12 yrs. 8 mos.; mean = 9yrs. 2 mos.
2. Nicaraguan participants' age range = 5 yrs. to 17 yrs.; mean = 10 yrs. 6 mos.

Nine of the Guatemalan children were observed in the city of Antigua, 40 miles southwest of Guatemala City; 6 children were observed in the village of Panachel, approximately 75 miles west of Guatemala City. All of the children from Panachel and 6 in Antigua were observed at school during free play (in the courtyard and classroom). The remaining 3 children from Antigua were observed playing in their own yards and houses. All observations were made at the end of July and the beginning of August 1997.

Antigua is a major tourist center as well as a commercial and education center in a rich coffee region. The population of the city was estimated to be 16, 357 in 1994. The elevation is 5,020' and the climate is warm during the days and cool at nights year round. The rainy season is from May to October. Panachel is similar to Antigua in elevation and weather. Its primary crops are coffee, vegetables, sugarcane and wheat. Also, it is a site for retirement and recreation for Europeans, North Americans and people from Guatemala City (Merrill, 1994).

The Nicaraguan children were observed in the Los Pipitos School for children with disabilities and a private Catholic school, both in Diramba. Diramba's population is 6,311. It is an agricultural center for grain, vegetables, tobacco, pottery, and ropemaking. It is not a tourist center (Merrill, 1994). The community is poor and the children did not have a lot of toys or resources available to them at either school.

The participants were recruited on a volunteer basis through personal and professional acquaintances of the raters. The average time invested by the participants was approximately 1 hour. The Human Research Committee of Colorado State University approved this study.

### Instrumentation

The ToP (Version 3) (Bundy, 1997b), is an observational assessment. It consists of 24 items scored on a 4-point (0-3) rating scale indicating extent (proportion of time observed), intensity (degree of presence) or skillfulness (ease of performance; based on overall impression). A description of ToP items is presented in Appendix B. These items are based on four elements previously defined: intrinsic motivation, internal control, suspension of reality, and framing. A number of studies support the validity and reliability of Versions 1 and 2 of the ToP (Bundy, Metzger, Brooks & Bingaman, in press). Although the reliability and validity of the ToP Version 3 has not yet been published, unpublished data support its validity and reliability (personal communication, April 20, 1998).

## Procedure

Four Anglo occupational therapy student raters (3 undergraduate and one professional masters) collected data for this study. Three raters understood and spoke basic Spanish and one rater was fluent. All raters were calibrated prior to the initiation of the investigation. Calibration involved scoring several videotapes scored previously by other raters, subjecting the data to Rasch Analysis, and examining its goodness of fit. (See Data Analysis below.)

Prior to participating, raters provided each participant with information regarding the study. In addition, all participants and caregivers (i.e., teachers, parents, principal) received an Informed Consent form in Spanish explaining the purpose of the research (See Appendix C.) Each rater observed one participant as he or she engaged in free-play for 15 to 20 minutes in an indoor environment and another 15 to 20 minutes in an outdoor environment. The children had very few basic toys available; in some cases there were no toys. For example, there were no jungle gyms or swings to play with outside, but there was ample space to run around. Some of the toys the children played with were basketballs, hula-hoops, marbles, and soccer balls. During the play sessions, little or no interaction occurred between the children and the raters. Immediately afterward, the children were scored on the ToP. Some of the Nicaraguan children were videotaped while playing; however, their scores were derived from the live observation.

## Data Analysis

Data were analyzed using Facets (Linacre, 1989 -1994), a computer program for Rasch analysis. Two components were relevant to this study (a) children and (b) raters.

In Rasch analysis, measurements are expected to result in predictable patterns indicating internal validity. To conform to the expectations of the Rasch measurement model, three assumptions must be met. (a) Easier test items are easier for all children. (b) A more playful child is more likely to receive higher scores on more difficult items than a less playful child. And (c) a lenient rater is more likely to award higher scores than a severe rater. Using Rasch analysis, one is able to examine whether the ToP is valid and reliable by examining how well the assumptions are met for rater and participant data. To determine whether or not data conform to the expectations of the Rasch model, two categories of statistics are evaluated – infit and outfit (Linacre, 1994). Infit is receptive to unanticipated behavior that influences responses to semi-difficult items close to the person's competence level. Outfit is receptive to unanticipated behavior that influences responses to items that are either very difficult or very easy. Two pairs of infit and outfit statistics are reported - a mean square and a standardized  $\underline{t}$ . The desired value of the MnSq statistic is 1.0 and the desired value for the  $\underline{t}$  statistic is 0 (Wright & Masters, 1982). Data fail to conform to the expectations of the model if *both* MnSq and  $\underline{t}$  values reflecting *either* infit or outfit deviate more than the  $\pm .4$  from the expected MnSq value of 1.0, and more than  $\pm .2$  from the expected  $\underline{t}$  value of 0 (Fisher, 1993).

Rasch analysis converts logarithmic data into an equal interval scale. The resulting measure scores are expressed in log odds probability units (logits). Measure scores reflect a child's relative playfulness; they fall along a single linear scale sequenced from most to least playful. The measure score indicating rater severity (whether the rater tends to give high or low scores) is placed along the same line. Similarly, the relative difficulty of the items appears on the same line. Thus, a participant's measure score is adjusted for rater severity and item difficulty.

## CHAPTER THREE

### Results

Two questions were addressed. (a) Can the ToP be given reliably by trained raters even when those raters represent a different socioethnic background? And (b) is the ToP a valid assessment tool for use with Nicaraguan and Guatemalan children?

Reliability: Data from all four of the raters met the expectations of the Rasch measurement model as demonstrated by goodness of fit statistics. That is, all the raters held a common understanding of the items and scoring criteria expected by the Rasch measurement model. Thus, we concluded that the ToP is a valid assessment tool for use with Nicaraguan and Guatemalan children.

Validity: In the current study, the ToP data of 97% (29 of 30) of the children conformed to the expectations of the Rasch model. Thus, we concluded that the ToP is a valid assessment tool for use with Nicaraguan and Guatemalan children. Table 2 contains Guatemalan and Nicaraguan participants' ToP measure scores and fit statistics.

The data from only one participant (#23; a 10-year-old Guatemalan female) failed to conform to the expectations of the Rasch model (infit MnSq = 0.5;  $\underline{t} = -3$ ). These fit statistics indicate that the child's patterns had less variability than expected by the model. Analysis of the raw data revealed that she received scores of "2" on almost all items regardless of difficulty.

Table 3 displays a comparison of the measure scores of Nicaraguan children with disabilities, typically developing Nicaraguan children and typically-developing Guatemalan children. As we see in Table 3, the Nicaraguan children with disabilities scores ranged from  $-.77$  to  $.95$  while the typically developing Nicaraguan children's scores ranged from  $1.08$  to  $2.99$ . The Guatemalan children's scores range from  $.28$  to  $1.83$ . Although one Nicaraguan child had the highest measure score (i.e., most playful child), another had the lowest measure score (i.e., least playful child).

To further investigate any differences in the playfulness of Central American children, we examined any unexpected rating received by the sample regardless of whether the children's overall ToP scores conformed to the expectation of the Rasch measurement model. Unexpected ratings occurred when item measurement scores had unpredictable patterns. Five percent of ratings were unexpected even though the participants' overall fit statistics were within the acceptable range. Although 95% of 1,440 ratings conformed to the expectations of the model, because this is a pilot study we wanted to see if certain items accounted for most of the unexpected ratings. If this were the case, a pattern of differences might emerge that would either help us to understand our own results better or serve as an impetus for future research.

Three items "Safe," "Clowning/Joking," and "Mischievous/Teasing" were of particular interest because they did account for most of the unexpected ratings. The number of unexpected ratings for each of these items is shown in Table 4. Their significance is discussed in the following chapter.

**Table 2****ToP Measures and Fit Statistics for Guatemalan and Nicaraguan Children**

Child #	Devel*	Gender	Measure	Infit Mnsq	Infit t	Outfit Mnsq	Outfit t	Age in Months
1	D	F	.59	0.8	0	0.9	0	204
2	N	M	2.99	0.6	-1	0.6	-1	114
3	N	M	2.21	0.6	-2	0.8	0	101
4	D	M	.95	0.5	-2	0.6	-2	144
5	D	M	-.07	1.5	2	1.4	1	144
6	D	M	.34	0.8	-1	0.9	0	144
7	D	F	-.77	1.0	0	1.0	0	156
8	D	M	.09	1.0	0	0.9	0	96
9	N	F	1.59	1.4	1	1.6	1	98
10	N	F	1.08	0.9	0	1.0	0	96
11	D	M	.48	1.0	0	1.2	0	192
12	N	F	2.91	0.6	-1	0.9	0	99
13	D	F	-.47	1.0	0	1.5	1	60
14	D	M	-.69	0.6	-2	1.4	1	121
15	N	F	2.32	1.4	1	1.8	1	125
16	N	F	.28	1.0	0	1.2	0	14
17	N	F	1.20	0.8	-1	0.8	0	103
18	N	F	1.42	1.0	0	1.0	0	141
19	N	F	.95	0.6	-2	0.6	-1	116
20	N	M	1.16	0.8	0	1.3	1	119
21	N	M	.55	0.9	0	1.6	1	103
22	N	F	.49	0.7	-1	0.7	-1	118
<b>23</b>	N	F	1.08	<b>0.5</b>	<b>-3</b>	0.5	-2	122**
24	N	M	1.83	0.8	0	0.7	-1	144
25	N	F	.31	0.6	-2	0.6	-2	92
26	N	F	.41	0.4	-2	0.4	-2	92
27	N	F	.81	1.1	0	1.6	2	115
28	N	M	.69	0.9	0	1.5	1	130
29	N	M	1.32	1.2	0	2.3	2	130
30	N	M	.63	1.1	0	1.6	2	111

**Key:**

\* D = Known disability; N = No known disability.

\*\* Participant's data did not conform to the expectations of the measurement model.

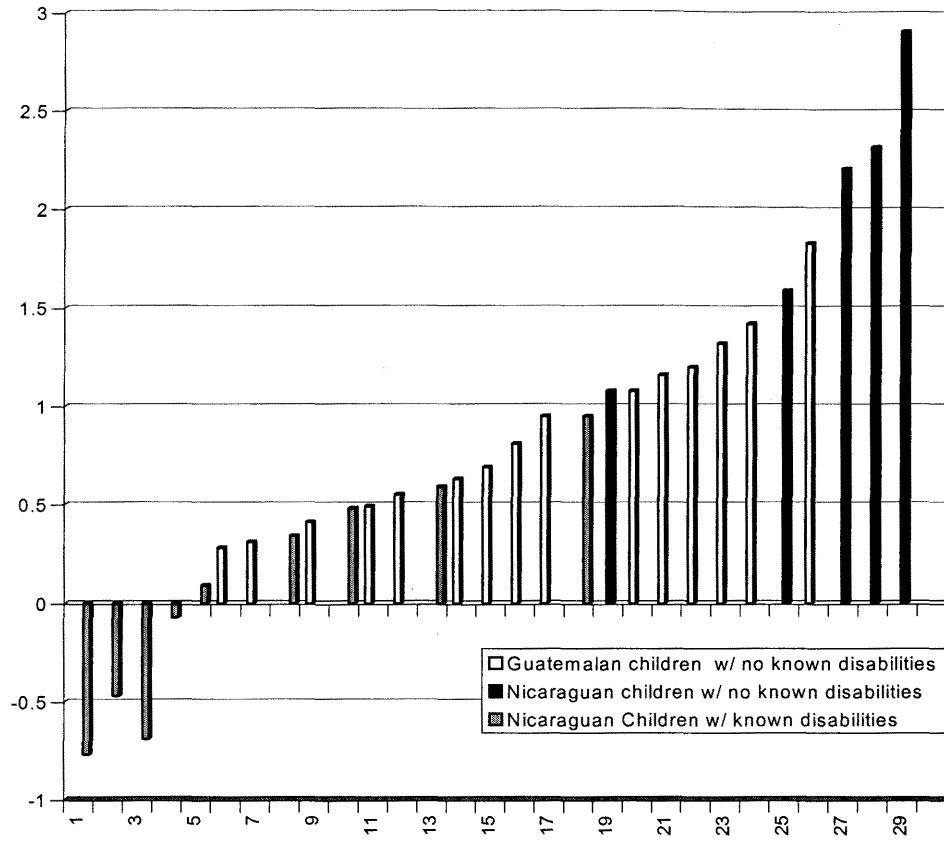
**Notes:**

1. Acceptable range for MnSq. 0.6 to 1.4: Acceptable range for t -2 to +2.
2. # 1 – #15 = Nicaraguan Children.
3. #16 -- #30 = Guatemalan Children.



**Table 3**

Guatemalan and Nicaraguan Children by Measure Score



**Table 4**

Most Common Unexpected Ratings

<b>Item</b>	<b># Ratings</b>	<b># of Subjects</b>
Safe extent	9	6
Clowns/Jokes extent	7	6
Mischief/Teasing extent	12	6

## CHAPTER FOUR

### Discussion

The purposes of this study were twofold: to (a) examine validity and reliability of the ToP for use with Central American children and to (b) expand our knowledge of playfulness among Guatemalan and Nicaraguan children. Results revealed that the ToP is valid and reliable; that is, the ToP reflects a construct of playfulness that is cross-cultural and it can be given reliably by raters from different socioethnic backgrounds. However, unexpected ratings on "Safe" and "Mischief/Teasing" suggest that the raters may have influenced the children's behavior in at least minor ways. We also were able to learn several things about Guatemalan and Nicaraguan children's play: (a) The high scores received by many of the children on the ToP suggested these are very playful children (12 of 30 received scores over 1.0). And (b) ratings on some items ("Clowning/Joking"; "Mischief/Teasing") may reflect minor cultural variations in playfulness.

Overall, the reason for the high playfulness scores among the Guatemalan and Nicaraguan children is unclear. Twelve children scored over 1.0 on the ToP-- 4 female and 2 male Nicaraguan children, 3 female and 3 male Guatemalan children. None of these very playful children had any known disabilities. Of these children, 2 male and 2 female Nicaraguan children scored over 2.0, and as high as 2.99, making them among the most playful children in the ToP data base. Of course, the possibility exists that Central Americans, as a

whole, are highly playful people. As no literature exists to support this possibility, further research clearly is needed.

In general, Guatemalan and Nicaraguan children may be considered at risk for negative outcomes due to the stress of poverty. The relationship between poverty and poor outcomes for children is well documented (Werner, 1989). The participants in this study were no exception. While these children *may* have been among the most affluent in the country, raters observed that schools lacked supplies and were in poor repair; the children wore torn clothes and shoes; area sanitation was poor; parents had numerous children. From this information, one could assume that a majority of the participants experienced one or more biological or environmental stressors, and therefore, could be considered at risk for negative outcomes.

However, high ToP scores suggest that many of the participants in this study are somehow resilient. “Resilience is a capacity that develops over time in the context of environmental support” (Egeland, Carlson, & Stoufe, 1993, p.19). Thus, in order to determine why these children are so playful and what fosters their resiliency, the environment must be considered (e.g., families, communities and schools).

Unfortunately, little background information could be collected on the children. All but 3 of the children were observed in school settings leaving no opportunity to observe their homes or see them interact with their families or in the community. However, the literature and the general observations of the raters are relevant.

Familialism is associated with large extended families and close kinship ties, often characteristic of Hispanic families (Goodenow, 1992). Familialism is a positive form of social organization (Sanchez, 1997) and a significant predictor of resilience. Because a family lives in poverty does not mean children are not provided with adequate parenting (Bradley & Caldwell, 1984). The fact that these children attended school suggests that their parents supported and valued education. Perhaps children from large families are resilient because they develop a sense of responsibility when forced to take care of younger family members or ailing parents (Bernard, 1993). It is likely that most of the participants in this study came from large families. High birth rates characterize the Hispanic population. Low socioeconomic status, low levels of education, and a strong affiliation with the Catholic Church are considered contributors to resiliency (Sanchez, 1997).

Werner and Smith (1989) also found caring friends to be a major factor in the development of resiliency. The majority of children observed played either with a small group (3 to 6 children) or one-on-one. Many of the girls held hands and combed one another's hair while boys patted one another on the back as if to say, "Hi Buddy," or "Good job," during play. Throughout the observation they smiled and laughed with one another and seemed to be having a good time.

Furthermore, it is possible that the community may provide a socially supportive climate. Children who have a sense of support and access to resources in their communities may be the ones who exhibit resilience (Gonzalez & Padilla, 1997). For instance, the participating children's communities

appeared to have adequate resources (e.g., numerous schools, schools for children with special needs, school buses, basic books and ample space to play).

Fifty to eighty percent of students with multiple risk factors in their lives do succeed, especially if they experience a caring school environment that conveys high expectations (Benard, 1993). According to Gonzalez & Padilla (1997), a supportive academic environment and a sense of belonging to school are significant predictors of resilience. Goodenow (1992) also noted that a sense of belonging at school might derive from the integral role of the family and community within the Hispanic population.

Furthermore, Gabrino (1992) found that despite negative environmental or biological factors, 75 to 80% of children use activities at school to support healthy adjustment and achievement. A nurturing school environment contributes to overcoming extraordinary risk factors in the lives of children and is a place for resilient children to use as a refuge from life's hardships (Benard, 1993).

Since all participants attended school, perhaps school offered an opportunity to experience a sense of belonging and a place to escape from problems at home or in the community. Moreover, schools provide a vehicle to develop certain personality traits that may foster resiliency (Bernard, 1993). Personality characteristics of resilient children include strong problem solving skills, the ability to attract positive attention from others, an optimistic view of life, autonomy, and a chance to experience novel situations. In addition, for children

who do not have a supportive family, school can offer structure and rules, opportunities to be around other young people and have confidantes. Furthermore, teachers may serve as role models and provide support (Werner & Smith, 1989). Resilient children often have mentors outside of the family, like teachers, who assist them and buffer potentially negative outcomes (Dugan & Coles, 1989). The participants in the present study clearly respected their teachers. They carefully listened and did what they were told. Perhaps the teachers were mentors to some children.

We were pleasantly surprised to find that not only did so many children have high playfulness scores, but also that the ToP reflects a cross-cultural construct and can be given reliably by raters of a different socioethnic background. Although the small number of unexpected ratings was not surprising, we wanted to investigate them as they might help us understand our own results better and serve as a springboard for future studies.

Three items, "Safe," "Mischievous/Teasing," and "Clowning/Joking" accounted for the majority of the unexpected ratings. These unexpected ratings may reflect the impact of raters from a culture different than that of the children they observed or they may suggest minor cultural differences in playfulness.

Of the 24 ToP items, the proportion of time a child feels safe enough to continue playing ("Safe") is the easiest. Therefore, we expected scores to be high -- especially for very playful children. However, the Guatemalan children's scores were primarily "2's" (on a 0-3 scale).

Any one of a number of factors may have influenced scores on "Safe." Although the children were playing in a familiar environment with their peers and volunteered to participate, perhaps they felt somewhat self-conscious about being observed. A white adult (a "gringo") whom they had not met before was observing them play. It was apparent that not only the children being observed were curious about the raters but also the other children watching were as well. All the children were friendly; some wanted to hold hands and even hug the raters. A small crowd of children gathered around the rater in Guatemala as she observed other children playing. As the situation was quite novel for the children, they may have felt they were missing out on interactions with the rater. Raters may have interpreted the resulting behaviors, correctly or incorrectly, as decreased feelings of safety.

Research (Tranky, 1983) supports the positive effects of therapeutic relationships when service providers are of similar culture and language. Our findings suggest that differences between raters and participants (i.e., ethnicity, language and age) effected our results in at least minor ways. If the raters had spent more time getting to know the children before observing their play or could have observed more unobtrusively, the children may have scored higher on "Safe."

In contrast with "Safe," "Clowning/Joking" and "Mischief/Teasing" are among the most difficult of items. Several children received unexpectedly high scores on these items. Again several points must be considered.



"Clowning/Joking" is a combined item reflecting both behaviors. Joking refers to "the proportion of time during which the child tells jokes or funny stories" while clowning is "engaging in exaggerated, swaggering behavior (usually for the purpose of gaining others' attention)" (Bundy, 1997a, p. 60). As with "Safe," scores on "Clowning/Joking" may have been influenced, in part, by the raters. If the children playing did feel they were missing out on interactions with the rater, perhaps they were "showing off" to gain the adult's attention. Or, since they were aware that they were helping the raters understand their play, they may have exaggerated their actions. On the other hand, perhaps their behavior was simply a method to get attention from their playmates. For example, raters observed a number of children being silly in front of their peers-- making faces, singing songs, and dancing. Given the number of unexpected ratings on "Safe" and "Mischief/Teasing" (also usually done for the purpose of gaining attention), these interpretations are not unlikely. However, whether the children were trying to attract the attention of their playmates or the rater is not known.

On the ToP, "Mischief/Teasing" also is a combined item reflecting both behaviors. According to the ToP scoring criteria, "mischief is behavior that probably would result in reprimand if the player were caught" (Bundy, 1997b, p.28).

There were no enforced rules on the playgrounds where the children were observed. Furthermore, the ratio of children to teachers was extremely high, making it difficult for a teacher to keep a close eye on the children during recess. When teachers did observe children "horsing around" (i.e., wrestling, playing

keep away, running fast, pushing), the children were not reprimanded. Since there were few rules, the children's behaviors likely were misconstrued as mischief by raters imposing their own standards on the situation. That is, children's behavior did not constitute infractions of the rules of *their* culture (and therefore not mischief), but rather of the *raters'* values and beliefs about "proper playground behavior."

Misinterpreting children's behavior is a "trap" that raters who come from cultural backgrounds different than those of the children they observe must avoid. Rather than differences in playfulness, some of the unexpected ratings on "Mischief/Teasing" may reflect differences between the Central and North American cultures at large in the number of rules they impose on children's play.

Teasing was observed when children poked fun at one another. It was sometimes verbal, as seen when one child sang a song over and over and pointed at another child. It was also non-verbal. For instance, on one occasion two children played keep away with a toy from another child. Another time a boy tugged at a girl's ponytail and pretended he had no idea who did it. In no case was the teasing construed as malicious and no one was hurt. The children being teased laughed and seemed to like the attention.

While some unexpected ratings on "Mischief/Teasing" and "Clowning/Joking" likely were artifacts of the raters' presence or beliefs, others may reflect *real* cultural differences in children's playfulness. Both teasing and clowning are done in an attempt to gain another's attention and to engage the other in some way. Some unexpectedly high scores on these items may be due to the fact that

these children tease and clown with one another often. Perhaps they are skilled at using clowning and teasing to gain attention from their peers. As Werner and Smith (1989) reported, the ability to gain positive attention from others is a personality trait that promotes resiliency.

### **Summary, Conclusions and Implications for Practice and Future Study**

Fifteen typically developing Guatemalan children and 15 Nicaraguan children with and without known disabilities participated in this study. The ToP was found to be a valid and reliable assessment tool for Guatemalan and Nicaraguan children. Results revealed that many Guatemalan and Nicaraguan children were very playful. Even though the ToP appears to reflect a cross-cultural construct, five percent of ratings were unexpected. The most common occurrences were among the items "Safe," "Mischief/Teasing," and "Clowning/Joking."

The sample in this study is small and not representative of all Guatemalan and Nicaraguan children. Clearly, there are differences within any ethnic group. However, in regards to the unexpected ratings, we concluded that scores on all the items may have been influenced by raters from different socioethnic backgrounds. In addition, it is possible that the high scores on "Mischief/Teasing" and "Clowning/Joking" reflect true cultural differences in play and playfulness. Future studies, particularly from an ethnographic perspective, are needed to investigate mischief, teasing, clowning, and joking. Ethnography would open an avenue of interpretation for researchers' observations by members of the culture. The length of time required for ethnographic

investigation also might minimize the problem of novel investigators.

Future research also might examine playfulness among Guatemalan and Nicaraguan adults. This could help explain the high playfulness scores of the children in our sample.

In order to effectively provide intervention, occupational therapists and other professionals working with children of socioethnic backgrounds different from their own need to be aware of imposing their own values and beliefs on the children's behavior. Even though we entered this research aware of potential pitfalls resulting from cultural differences, we still fell into the trap of misinterpreting behavior. Further, it is easy to form negative views of at-risk children, which may develop into self-fulfilling prophecy. Proper use of tools such as the ToP may increase the chances that professionals will be neutral when assessing children from different cultural and socioeconomic backgrounds.

A significant amount is yet to be learned about the ways in which cultural factors affect resilient qualities in children (Bushweller, 1995). As future studies investigate resilience and daily life activities of children from different cultural environments, additional research should examine their playfulness. More studies are encouraged for three primary reasons. They will (a) improve our understanding of the play of children from different cultural backgrounds; (b) demonstrate how risk factors such as poverty interact with play; and (c) assist with the development of prevention and intervention programs that address specific needs of at-risk children in their own cultural environments.

## REFERENCES

- Amar, J. J. A. (1996). Quality of life and child development. (Eric Document Reproduction Service No. ED 404023)
- Allardt, E. (1970). Basic approaches in comparative sociological research and the study of sport. In G. Luschen (Ed.), The cross-cultural analysis of sport and games. Champaign, IL: Stipes.
- Allessandrini, N. A. (1949). Play – a child's world. American Journal of Occupational Therapy, 3, 9-12.
- Babb, F. E. (1996). After the revolution: Neoliberal policy and gender in Nicaragua. Latin American Perspective, 23, 27-48.
- Benard, B. (1993). Fostering resiliency in kids. Educational Leadership, 11, 44-48.
- Bloch, M. N., & Pellegrini, A. D. (1989). The ecological context of children's play. Norwood, NJ: Ablex.
- Bloch, M. N. (1989). Young boys and girls play at home and in the community: A cultural-ecological framework. In M. N., Bloch & , A. D., Pellegrini (Eds.), The ecological context of children's play (pp. 120-154). Norwood, NJ: Ablex.
- Boyce, W. T., & Jemerin, J. M. (1990). Psycho-biological differences in childhood stress response: Patterns of illness and susceptibility. Developmental and Behavioral Pediatrics, 11, 86-93.

Bronfenbrenner, U. (1979). The ecology of human development, Cambridge, MA: Harvard University.

Bronfenbrenner, U., & Crouter, A. C. (1983). The evolution of environmental models in developmental research. In P. H. Mussen (Ed.), Handbook of child psychology (4th ed., Vol. 1). New York: Wiley.

Bronowski, J. (1973). The ascent of man. Boston: Little, Brown.

Bryze, K. (1997). Narrative contributions to the play history. In L. D., Parham & L. S., Fazio (Eds.), Play in occupational therapy for children (pp. 23 - 33). St. Louis: Mosby.

Bundy, A. C. (1993). Assessment of play and leisure: Delineation of the problem. American Journal of Occupational Therapy, 47, 217-222.

Bundy, A. C. (1997a). Play and playfulness: What to look for. In L. D. Parham & L. S. Fazio (Eds.), Play in occupational therapy for children. St. Louis: Mosby.

Bundy, A. C. (1997b). Test of Playfulness (ToP) (Version 3.3) Manual. Colorado State University.

Bundy, A. C., Metzger, M., Brooks, L., & Bingaman, K. (in press). Occupational Therapy Journal of Research.

Burke, J. P., & Schaaf, R. C. (1997). Family narratives and play assessment. In L. D. Parham, & L. S., Fazio (Eds.). Play in Occupational Therapy for Children. (pp. 67-84). St. Louis: Mosby.

Bushweller, K. (1995). What makes resilience? The American School Board Journal, 182, 18-23.

Case-Smith, Pratt P. N., & Allen, A.S. (1996). Occupational Therapy for Children. St. Louis: Mosby.

Csikzentmihalyi, M. (1974). Beyond boredom and anxiety. San Francisco: Jossey-Bass.

Dogan, T., & Coles, R. (1989). The child in our times: Studies in the development of resiliency. New York: Bruner/ Mazel.

Durrett, M. A., O'Bryant, S., & Pennebaker, J. W. (1975). Child-rearing reports of white, black, and Mexican-American families. Developmental Psychology, 11, 871.

Egeland, B., Carlson, E., & Sroufe, L. A. (1993). Resilience as process. Development and Psychopathology, 5, 517-528.

Erikson, E. H. (1971). Childhood and society. New York: Norton.

Escapma, S. K. (1982). Babies at double hazard: Early development of infants at biologic and social risk. Pediatrics, 70, 670-676.

Escovar, L., & Escovar, P. (1982). Comparison of childrearing practices of Anglos, Cuban-Americans, and Latin Americans. Miami: Florida International University Latin and Caribbean Center.

Field, T. (1990). Infancy. Cambridge, MA: Harvard University.

Fisher, W. P. (1993). Measurement related problems in functional assessment. American Journal of Occupational Therapy, 47, 331-338.

Fernandez-Poncela, A. M. (1996). The disruptions of adjustment: Women in Nicaragua. Latin American Perspectives, 23, 49-66.

Fredrickson, F. S. (1969). Sport and the cultures of man. In J. W. Loy & Kenyon (Eds.), Sport, culture, and society. New York: Macmillan.

Garbarino, J. (1989). An ecological perspective on the role of play in child development. In M. N., Bloch & , A. D. Pellegrini (Eds.), The ecological context of children's play. Norwood, NJ: Ablex.

Garbarino, J., Dubrow, N., Kotelny, K., & Pardo, C. (1992). Children in danger: Coping with the consequences of community violence. San Francisco: Jossey-Bass.

Gardner, H. (1982). Art, mind & brain: A cognitive approach to creativity. New York: Basic.

Glittenberg, J. (1994). To the mountain and back. Prospect Heights, IL: Waveland.

Goodenow, C. (1992). School motivation, engagement, and a sense of belonging among urban adolescent students. (ERIC Document Reproduction Service No. 349-364).

Gonzalez, R., & Padilla, A. M. (1997). The academic resilience of Mexican American high school students. Hispanic Journal of Behavioral Sciences, 19, 301-317.

Hauser, S. T., Vieyra, M. A., Jacobson, A. M., & Wertreib, D. (1985). Vulnerability and resilience in adolescence: Views from the family. Journal of Early Adolescence, 5, 81-100.



Hawkins, J. (1984). Inverse images. Albuquerque: University of New Mexico.

Heard, C. (1977). Occupational role acquisition: A perspective on the chronically disabled. American Journal of Occupational Therapy, 3, 243-247.

Hechinger, F. M. (1992). Fateful choices: Healthy youth for the 21st century. New York: Carnegie.

Hinojosa, J., & Kramer, P. (1997). Integrating children with disabilities into family play. In L. D. Parham & L. S. Fazio (Eds.), Play in occupational therapy for children. St. Louis: Mosby.

Honig, A. (1984). Research in review: Risk factors in infants and young children. Young Children, 38, 60-73.

Huizinga, J., (1950). Homo ludens. Boston: Beacon.

Johnston, F. E., Low, S. M., Baessa, Y., & MacVean, R. B. (1986). Interaction of nutritional and socioeconomic status as determinants of cognitive development in disadvantaged Guatemalan children. American Journal of Anthropology, 73, 502 - 506.

Julian, T. W., McKenry P. C., & McKelvey, M. W. (1994). Cultural variations in parenting. Family Relations, 43, 30-37.

Katz, E. G. (1995). Gender and trade within the household: Observations from rural Guatemala. World Development, 23, 327-342.

Kahne, H., & Giele, J. Z. (1992). Women's work & women's lives: The continuing struggle worldwide. Boulder, CO: Westview.

- Kielhofner, G. W. (1995). A model of human occupation: (2nd ed). Baltimore: Williams & Wilkins.
- Kooij, R. V., & Hurk, W. S. V., (1991). Relations between parental opinions and attitudes about childrearing and play. Play and culture, 4, 108-123.
- Lewin, K. (1935). A dynamic theory of personality. New York: McGraw-Hill.
- Li, W. (1993). Do Taiwanese adults value playfulness in children? Master's Thesis. University of Illinois at Chicago.
- Liebel, M. (1996). What do working children want? Child Development, 2, 33-37.
- Lieberman, J. N., (1978). Playfulness. New York: Academic.
- Linacre, J. M. (1989 -1994). Facets: Computer program for many faceted Rasch measurement. Chicago: MESA.
- Ogbu, J. U. (1981). Orgins of human competence: A cultural-ecological perspective. Child Development, 52, 413-429.
- Ohmert, M. S. (1996). Predictors of formal support utilization in Mexican and Anglo families. Masters thesis, Colorado State University, Ft. Collins.
- Marton, P., Golombeck, H., Stein, B., & Korenblum, M. (1988). The relation of personality functions and adaptive skills to self-esteem in early adolescence. Journal of Youth and Adolescence, 17, 393-401.
- Mead, G. H. (1934). Mind, self, and society. Chicago: University of Chicago.

Neville-Jan, A., Fazio, L. S., Kenedy, B., & Snyder, C. (1997). Elementary to middle school transition: Using multicultural play activities to develop life skills. In L. D. Parham, & L. S. Fazio (Eds.), Play in occupational therapy for children, (p.144 -157). St. Louis: Mosby.

Norton, N., & Whatmore, M. (1993). Central America: Guatemala, Belize, Honduras, El Salvador, Nicaragua, Costa Rica & Panama. Old Saybrook, CT: Globe Pequot.

Parrillo, V. N. (1996). Diversity in America. Thousand Oaks, CA: Sage.

Pebley, A. R., Goldman, S., & Rodriguez, G. (1994). Prenatal and delivery care and childhood immunization in Guatemala. Demography, 33, 231-247.

Pitkin, K., & Bedoya, R (1997). Women's multiple roles in economic crisis: Constraint and adaptation. Latin American Perspectives, 24, 33 - 49.

Primeau, L. A. (1995). Orchestration of work and play within families. Doctoral dissertation, University of Southern California, Los Angeles.

Psacharopoulos, G. & Patrinos, H. A. (1994). Indigenous people and poverty in Latin America. Washington DC: The World Bank.

Rak, C. F., & Patterson, L. E. (1996). Promoting resilience in at-risk children. Journal of Counseling & Development, 74, 368-373.

Reilly, M. (1969). The educational process. American Journal of Occupational Therapy, 23, 299-307.

Reilly, M. (1974). Play as exploratory learning: Studies in curiosity behavior. Beverly Hills, CA: Sage.

Reyes, P. & Valencia, S. (1993). Educational policy: The growing Latino population problem. Hispanic Journal of Behavioral Studies, 15, 258-283.

Roopnarine, J. L., Johnson, J. E., & Hooper, F. H. (1994). Children's play in diverse cultures. New York: New York University.

Rubin, K. H., Fein, G. G., & Vandenberg, B. (1983). Play. In P. H. Mussen (Ed.), Handbook of child psychology (4th ed.), pp. 693-774. New York: Wiley.

Sanchez, Y. M. (1997). Families of Mexican origin. In M. K. DeGenova (Ed.) Families in cultural context. Mayfield, NH: University of New Hampshire.

Segall, M. H. (1979). Cross-cultural psychology. Monterey, CA: Brooks/Cole.

Schwartzman, H. (1978). Transformations: The anthropology of children's play. New York: Plenum.

Somers, M. (1993). Central American children speak. Classroom teaching guide. Fort Collins, CO: Colorado State University.

Sutton-Smith, B., & Roberts, J. M. (1981). Play, games and sports. In H. C., Triandis & A. Heron (Eds.), Handbook of cross-cultural psychology, Vol. 4. Boston: Allyn and Bacon.

Sutton-Smith, B. (1980). Children's play: Some sources of play theorizing. In K. H. Rubin (Ed), New directions for child development: No. 9. Children's play, (pp. 1-16). San Francisco: Jossey Bass.

Werner, E. E. (1984). Resilient children. Young Children, 40, 68-72.

Werner E. E., & Smith, R. S. (1989). Vulnerable but not invincible: A longitudinal study of resilient children and youth. New York: Adams, Bannister, and Cox.

Werner, E. E., & Smith, R. S. (1992). Overcoming the odds: High risk children from birth to adulthood. Ithaca, NY: Cornell University.

White, R. W. (1971). The urge towards competence. American Journal of Occupational Therapy, 25, 271-274.

White, B. L., & Watts, J. C. (1973). Experience and environment: Major influences on the development of the young child, vol 1. Princeton, NJ: Prentice-Hall.

Whiting, B. B. (1980). Culture and social behavior. Ethos, 2, 95-116.

Whiting, B. B., & Whiting J. W. M. (1975). Children of six cultures. Cambridge, MA: Harvard University.

Whiting, J. W. M. & Child, I. L. (1953). Child-training and personality: A cross-cultural study. New Haven, CT: Yale University.

Williams, R. M. (1960). American society: A sociological interpretation (2nd ed.). New York: Knopf.

Zambrana, R. E. (1995). Understanding Latino families: Scholarship, policy, and practice. Thousand Oaks, CA: Sage.

**APPENDIX A**  
**Related Literature**

The purpose of this literature review is to present information related to culture and play. Using cultural-ecological theories which explore how cultural influences affect and restrain children's daily life experiences (Bloch & Pellegrini, 1989), I also will examine how Guatemalan and Nicaraguan culture and child rearing practices influence children's play and playfulness. In particular, I will explore the roles of Guatemalan and Nicaraguan women and children and the ways in which malnutrition may affect children's cognitive abilities and, ultimately, their play. Unfortunately, the available literature focused on the mother-child dyad and overlooked the roles of the father and other family members. Also, more information is available on Nicaraguan women's roles than Guatemalan women.

### **Play and Culture**

Webster's Home University Dictionary (1997) provides the definition of culture as "all knowledge, crafts, art, literature, beliefs, and customs of a people." A dominant activity of children of all cultures is play (Kielhofner, 1995). Play is not only an expression of culture, but also a tool for cultural learning and, therefore, is both a cause and an effect of culture. First, play influences culture as it provides the means for children to learn social norms, values, roles and behaviors (Schwartzman, 1978). Sutton Smith (1980) believed human collective behavior was established through play. Finally, culture influences play through providing a medium to learn communication as well as interpretation of society (Sutton-Smith, 1980).

Although professionals from diverse disciplines have been unable to find a single definition of play, Schwartzman (1978) said that the idea of play appears to be a familiar folk concept in all cultures. Bronowski (1973) referred to our childhoods as the “ascent of our species” (p. 57), implying that we have evolved culturally on account of our playfulness, and Dutch historian Huizinga (1949) believed play was the element that “gave rise to civilization itself” (p.9).

Play is thought by some to be the precursor to adult competency (Reilly, 1974). Competency may be defined as the ability to adequately meet the demands of a particular situation (White, 1971). During childhood, play allows time to practice and master activities that are later useful for more serious endeavors in adulthood (Schwartzman, 1978).

Csikszentmihalyi (1974) discussed the importance of the “flow” theory during enjoyable activities. To experience flow, one must have intrinsic enjoyment, meaning he or she is not motivated by extrinsic rewards such as status or money. Additionally, flow activities provide just enough challenge for players that they are neither bored nor anxious while participating. Players are invested, having the capability to block out irrelevant stimulation in order to concentrate only on the activity at hand. One chess player described his experience while playing the game. “The game is a struggle, and concentration is like breathing: you never think of it. The roof could fall in and, if it missed you, you would be unaware of it” ( p. 66).

Children experience flow when they are at play (Huizinga, 1949), and because it is fun, they develop life skills without even knowing it (Hinojosa &



Kranson, 1997). In Huizinga's (1949) survey of cross-cultural linguistic usage, the descriptions of flow or of having fun, are used in regards to play throughout different cultures.

Sutton-Smith and Roberts (1989) wrote that games and sports perform many diverse functions within different cultural situations. Children learn social rules and norms through playing games with other children leading to the regulation of the conduct of members of society (Mead, 1934). Piaget (1965) discussed that games and rules help develop during the concrete operational period where children learn causation, rules of attribution and the moral rules of right and wrong. He also described three types of games (1) *practice games*, (2) *symbolic games*, and (3) *games with rules*.

*Practice games* are characterized by intrinsic motivation. For example, a child will play in the mud for the pure fun of it in addition to the experience of different sensations and movements. *Symbolic games*, are similar to pretend play, where a child uses his other imagination to play. For example, a child may pretend to have a tea party with an imaginary friend. Finally, *games with rules*, is an important contributing factor in socialization because children want to act like their peers, to be within the norm and follow the rules (Gardner, 1982). Where Piaget believed *games with rules* replace *practice games* and *symbolic games*, Sutton-Smith (1966) disagreed. According to Sutton-Smith (1966), symbolic play is active throughout the lifespan; it just becomes less apparent -- daydreaming, for example.

Sutton-Smith and Roberts (1981) found children's play to be a reflection of each culture, and as all cultures vary, so will play within those cultures. For instance, they noted that cultures in which the economy is ruled rigidly, children's play tends to be based on imitation. The transformation of play is exploratory observation -> imitation -> play -> real life behavior. By providing a vehicle for children to enter adult culture through imitation, play makes a socializing contribution to the culture at large (Sutton-Smith & Roberts, 1981). For instance, children playing house and imitating adults are not only practicing but also learning socially appropriate behaviors and roles (Schwartzman, 1978). Upon observing children play, one can interpret culture "as seen through the eyes of a child" (Sutton-Smith, 1980).

Sutton-Smith and Roberts (1989) also discussed three types of games: (a) *games of physical skill*, which relate to one's motor ability, (b) *games of chance*, which relate to luck and guessing, possibly using a die or a wheel, and (c) *games of strategy*, which relate to rationale. Cultures that lacked these types of games were considered to be of low complexity.

Those with physical skill only were of simple technology and subsistence economics. Those with games of chance were of wide ranging complexity but were noted for various forms of economic and social uncertainty. Those with strategy were noted for their complexity of social organization and severity of childrearing. The most complex of all societies possessed all three types of games (p.438).

Allardt (1970) explained that more complex games correlate with more complex cultures for a number of different reasons. Due to economic advantages found in complex societies, there is an increased opportunity to purchase equipment. Furthermore, a greater amount of free time is frequently associated with economic advantages, thus, allowing for more opportunity to participate in games. In addition, play gives rise to novelty; thus play prepares children who live in modern society to adapt to novel situations (Lieberman, 1978). By providing children with a safe context to experiment with different ideas and behaviors, play contributes to behavioral adaptation. Furthermore, play is related to flexibility in human behavior (Rubin, et al., 1983) leading to advanced problem solving and adaptation (Bruner, 1972). These abilities prepare children to perform effectively in their environments as adults (Hinojosa & Kramer, 1997).

In addition to play, work is considered to be a context in which mastery, achievement, and adaptation appear (Reilly, 1969). For children who must work at an early age in order to survive, play is not always highly valued (Sutton-Smith & Roberts, 1981). However, Primeau (1995) and Liebel (199) suggested play and work are often not individual experiences. Primeau found that parents often do “occupational scaffolding” with their children. In other words, parents provide structure so the child can perform a majority of the activity independently. In her study, Primeau discovered that not only were children motivated to perform household chores when parents provided “occupational

scaffolding”, but also that parents interpreted the children’s behavior as play versus work.

The concept of play is understood by many people throughout the world (Sutton-Smith & Roberts, 1981) and is the groundwork for socialization (Schwartzman, 1978). To be able to play is a skill a child needs to function in his or her daily life (Sutton Smith, 1980) and by having childhood be a time for children to practice and master socially appropriate behavior, play provides strength to a culture (Schwartzman, 1978).

### **Cultural-Ecological Models**

Ecological theories stem from the scientific study of how a child develops interactively with his or her immediate social and physical environment, while cultural-ecological theories explore the importance of cultural influences and how they can promote or constrain children’s daily life experiences (Bloch & Pellegrini, 1989). Bloch (1989) found that while cultural-ecological theories vary, they all take into account the following factors. First, children’s experiences are either directly or indirectly affected by cultural, historical, social, and economic factors outside the children’s direct experience. Second, the physical opportunities available to children within the immediate settings they occupy (e.g., play terrain, play materials, physical proximity to different age/gender children) affect children’s experiences. Finally, the social network of people children encounter directly, and the resulting relationships and interactions children have with these people affect their experiences.

Bronfenbrenner (1979,1983), Ogbu (1981), and the Whittings, (Whiting, 1980; Whiting & Whiting, 1975) are three primary cultural-ecologists. In the following sections, I will explore their theories of how cultural norms, values and beliefs, and social and economic patterns can enhance or constrain the children's experiences. These theories originated from Lewinian field theory (e.g., Lewin, 1935) that stressed that behavior is a function of person and environment ( $B = f(PE)$ ). Although cultural-ecological models do not focus solely on play, they do emphasize that children's daily activities are necessary for development (Bloch & Pellegrini, 1989).

### Bronfenbrenner's Model

Bronfenbrenner's (1979) model included four general environmental systems, which are described by their immediate effect on children; these include the micro-, meso-, macro-, and exosystems. Here, the ecological context of development is seen as a set of interacting systems, "a set of nested structures, each inside the next, like a set of Russian dolls" (p.22). These systems and their effects may provide either an opportunity or a risk for a child.

The most proximate system to the child is the microsystem, making up the child's reality. This contains the places they reside, the people close to them, and the activities they do together (Garbarino, 1989). In the beginning, a child's microsystem is small as it is associated with the child's home environment. However, it eventually grows as the child does more, with more people, and in more places. The role of play fits into the microsystem, as would loving, and

eventually working. Freud referred to these three as the essence of normal human existence (Bloch, 1989).

The next system going outwards within the set of Russian dolls is the mesosystem. This represents the relationship between microsystems (e.g., the relationships between home and school or home and neighborhood). The value of a child's mesosystem increases with the number of strong connections between their microsystems (Bronfenbrenner, 1979). According to Garbarino (1989), a child's mesosystem can restrain play when social forces value productivity more than free play. For affluent children, this may be when parents favor academic learning, or, for poor children, their role as a worker may be more valued than that of a player.

Exosystems, the third system, are comprised of the events that have a direct impact on a child's parents and other adults who influence the child's life (e.g., a parent's workplace, or the school board that makes decisions or performs acts that affect the daily life of a child). In other words, the exosystem is composed of situations that arise and affect a child's development, but with which the child has no direct involvement (Bronfenbrenner, 1979).

Bronfenbrenner described how exosystems may embellish a child's development when they make parent's life less complicated, enabling them to play a stronger role in a child's microsystem. However, they can weaken a child's development when they make parent's life more difficult. For example, when parents must endure stress, traveling and working long hours, a child's development and play may be jeopardized. Together, the meso- and exosystems

provide the layout for a particular culture or subculture making the fourth system within the Russian dolls, the macrosystem. It includes “the norms” about how life should proceed within a particular culture. “A macrosystem risk would be any social pattern or social event that impoverishes the ability and willingness of adults to care for children, children to learn from adults, and play to flourish” (Garbarino, 1989, p. 27).

### Whitings’ Model

John and Beatrice Whitings’ model indicated that children’s environments are established, to some extent, by the physical, social, and economic norms, requirements, and ideologies of the larger society (Bloch & Pellegrini, 1989). According to the Whitings (1975), the types of “maintenance systems” that exist within a culture are reflective of its geographical traits, cultural history, and climactic attributes. “Maintenance systems consist of subsistence economic patterns, the means of production, settlement patterns, social structure, systems of defense, law, and social control and the division of labor within a culture of society” (Bloch & Pellegrini, 1989, p. 3).

The Whitings’ model for psycho-cultural research (Figure 1) posits that history and the environment affect maintenance systems, which in turn, affect the learning environment. The learning environment includes play space, playmates, caretakers, teachers, and activities assigned to a child. This learning environment, in turn, affects the child’s behavior and innate needs, which lastly affects the projective expressive systems of religion, beliefs, art, games and play (Whiting & Whiting, 1975).

## Ogbu's Model

Ogbu's model (1981) is not as elaborate as Bronfenbrenner's or the Whittings' model. However, it does bring forth interesting points worth mentioning. Ogbu (1981) proposed that the natural environment sways a child's social organization and cultural values. Childrearing techniques, child activities, and development are affected by cultural and subcultural theories of success, which, in turn, are influenced by the cultural-ecological environment. Furthermore, the activities that adults authorize children to participate in are related to their maintenance systems. Ogbu (1981) suggested that adults choose these activities according to what they believe the child needs to become competent and successful in the culture.

### **Cultural Characteristics among Hispanic Parents**

The family is the universal social unit as well as the vehicle in which cultural learning takes place. Here children learn cultural norms, values, rules and practices, hence adopting the features of the culture into which they were born (Glittenburg, 1994). Furthermore, children's play is a product of the cultural orientation of the parents (Kooij & Hurk, 1991).

Escovar & Escovar (1982) discussed, in a comparison study of childrearing practices of Anglos, Cuban-Americans, and Latin Americans, the few existing studies on childrearing patterns of Hispanic and Latin American groups. Julian, McKenry, and McKelvey (1994) investigated cultural variations in parenting among African-Americans, Hispanics, and Asian-Americans.



Julian, McKenry, and McKelvey (1994) found that like Caucasians, Hispanic parents use modeling, reinforcement, and identification to pass on the behaviors and values of their cultural group to their children. White and Watts (1973) estimated that average young children spend approximately 60% of their voluntary time observing.

The Escobars (1982) study illustrated the Hispanic family as one where warmth and affection are freely dispensed to the child. Also, obedience is emphasized at the expense of self-reliance. Physical punishment is overtly threatened, but inconsistently used. Latin American parents are more protective than Anglo parents. They are more likely to bring up their children emphasizing obedience to parental authority, thus enabling themselves to uphold their position inside the household.

Similar to the Escobars findings, Julian, McKenry, and McKelvey (1994) found that Hispanic parents place a large emphasis on a child's sense of family obligation and less on self-reliance. Also, Julian, McKenry and McKelvey (1994) found that Hispanic parents placed greater importance on exercising self-control, obeying, getting along with others, and succeeding in athletics than parents from other ethnic groups. Hispanic parents are authoritarian, placing great demands and expectations on their children due to the difficulties they perceive their children will have to withstand from living in a racist society. (Their subjects were Hispanic families in the United States). For that reason, parents tried to encourage pride in their children in relation to their culture while also trying to instill the skills needed to deal with the realities of society.

Julian, McKenry and McKelvy (1994) suggested that perhaps parenting for Hispanic families is a more difficult task than for Caucasian families. They attributed this to the lower educational level and increased emotional stress of lower income status often associated with Hispanic families. The authors also implied that Hispanic parents were, therefore, less able to provide supportive, sensitive, and involved parenting.

## **Guatemala and Nicaragua**

### Indigenous and Ladino People in Guatemala

The Guatemalan population is divided into two ethnic groups, the indigenous and the ladinos. In 1993, 65% of the population was indigenous compared to 35% ladino. Nicaragua recorded only 5% of its population as indigenous (Somers, 1993).

The Guatemalan indigenous people are descendants of Mayan Indians and have approximately 200 different dialects which stem from the five major Mayan languages (Glittenburg, 1994). They tend to live in rural villages or small urban areas (Pebley, Goldman & Rodriguez, 1996). The ladinos, regardless of ethnic origin, speak Spanish and wear westernized clothes and are generally more educated.

The socioeconomic situation is another notable difference between the indigenous population and the ladino population. Sixty six percent of the Guatemalan population is poor. Thirty eight percent live below the poverty line. According to UNICEF statistics, seven out of every ten Guatemalan children live in poverty. However, the income distribution is uneven, and the indigenous

people remain in the lowest income bracket, while ladinos vary in income status (Pebley, Goldman & Rodriguez, 1996). Eighty seven percent of indigenous people live below the poverty line and 61% live below the extreme poverty line (Psacharopoulos & Patrinos, 1994).

Indigenous children in general are, therefore, born with a distinct socioeconomic disadvantage. In their study on child schooling performance among children in Guatemala and Peru, Psacharopoulos and Patrino (1992) established that it is more likely for an indigenous child to repeat a grade than a non-indigenous child. They are also more prone to drop out all together. On average, indigenous people have 1.3 years of schooling and 60% are illiterate, compared to 24% of ladinos (Psacharopoulos & Patrinos, 1994).

### Women's Roles in Guatemala

Guatemalan women are faced with economic responsibilities associated with the rise of female-headed households and limited access to health services and education (Kahn & Giele, 1992). Mothers and daughters are the primary work force for the daily unpaid domestic household chores (Glittenburg, 1994). Mothers are often able to generate income outside of the homes when their older daughters help relieve them of domestic responsibilities at home (Katz, 1995).

The type of work a woman does varies among villages. The contributing factors are her geographic, demographic, and socioeconomic situation. Rural Guatemalan women often earn money outside their homes using extensions of their domestic skills. Working with textiles and selling goods in the market are but two examples of such work (Katz, 1995). It is not uncommon for Guatemalan

women to work closely with one another: this provides them a strength of community (Fernandez-Poncela, 1996). Unfortunately, the available literature related to women's roles in Guatemala was not as extensive as that of Nicaraguan women.

### Women's Roles in Nicaragua

A simplified history of Nicaragua is necessary in order to understand the recent hardships that Nicaraguans currently endure, low income urban women being the most affected (Babb, 1996). During the Sandinista regime working conditions were improved. Efforts were made to reduce gender inequality and to increase women's economic and political participation: medical care and education was made available to all. This social alteration sustained further growth due to the war-time economy from the conflict with the US-backed Contras. By 1988, the high cost of defending the country while continuing to fund social services resulted in a large deficit and spiraling inflation (Babb, 1997). As a result, the government switched from domestic production and consumption to export-oriented production, devalued the currency, laid off thousands of workers in the public sector and cut social services. The women were affected the most by these adjustments because they were left holding less secure jobs. They were left with the responsibility of child-care, caring for ill family members, and household maintenance (Babb, 1996).

Anna Fernandez-Poncela (1996) explored the daily lives of Nicaraguan women whose principle identity was built around the roles of mother and person responsible for the household. She examined women's participation in the labor

market, their access to social services, and their family and survival strategies. Sixty percent of Nicaraguan women live below the poverty line (CEPAL, 1990 as cited in Fernandez-Poncela). An estimated 65% of urban families and 82.6% of rural households are headed by women (INEC, 1992 as cited in Fernandez-Poncela).

In response to the economic crisis and the men returning from combat, many women lost their jobs in the formal sector. As women were faced with little or no income and a lack of jobs, they were forced to create their own jobs. They now represent 60% of the informal sector (FIDEG, 1991, as cited in Fernandez Poncela).

Many of the most common informal-sector activities, from child care to laundry to food preparation, evolved from women's domestic roles. These jobs have advantages for many women; for instance, they do not require an education. They also enable women to work at home so they may maintain their key roles within their families and generate money at the same time. However, Fernandez-Poncela (1996) depicted the disadvantages of working in the informal sector as occupational segregation, feelings of isolation, a lengthened workday and self-exploitation.

Although women make a major contribution to the household economy, this has not led to any increase in men sharing the domestic responsibility, and therefore, women with families typically face a "double work day." They have less time to devote to sleep, rest, and the more enjoyable moments with their family (Pitkin & Bedoya, 1991). Women nationwide dedicate between 85% and

95% of their time to labor and they devote almost all of their wages to supplying necessities for the household (INM; 1987,1989, as cited in Fernandez-Poncela).

Fernandez-Poncela (1996) also described the ways in which the results of the reduction of social services fell directly on the shoulders of women who are charged with meeting those needs for their families. Women must stretch their low incomes in order to meet family needs. This entails more work for women, leaving them worn out and often with feelings of guilt and powerlessness when they are unable to provide for the basic needs of their children (food, clothing, education, and health-care). Moreover, women who live in poverty and feel unable to improve their living conditions are not motivated to stimulate their children's intellectual and socio-emotional development, producing a vicious circle and multiple hardships (Amar, 1996).

According to Fernandez-Poncela's (1996) investigation, Nicaraguan women are not like Honduran woman who maintained traditional cooperatives or the Guatemalan women who have strength within small communities. Nicaraguans have a tendency towards individualism. Therefore, there is limited collective participation of women even in difficult times like the present.

### Malnutrition and Poverty

In Nicaraguan hospitals, 70% of infant deaths are reported the result of malnutrition. Furthermore, 15 of 1,000 women die while giving birth also as a result of inadequate nutrition (Marin & Solis, 1996). In 1993, infant mortality in Nicaragua was 65 per 1,000 live births, compared to 61 in Guatemala, and 9 in the United States (Somers, 1993).

Children from less developed countries display deficits in cognitive development (Johnston, Low, Baessa, & MacVean, 1986). These cognitive deficits may be the result of their socio-economic status (SES) or malnutrition. Investigators have studied the correlation between protein-energy malnutrition (PEM), which is high in these countries, and cognitive deficits, and have found both severe and mild-to moderate PEM (defined clinically) to be causally related with lower developmental scores (Johnston, Low, Baessa, & MacVean's, 1986).

However, in a study of the interaction of nutritional and socioeconomic status as determinants of cognitive development in disadvantaged urban Guatemalan children. Johnston, Low, Baessa, and MacVean (1986), found that although PEM (defined by a ratio of height and age) is significantly related to cognitive development, SES is a more important determinant of cognitive development than stature.

#### Children's Roles in Nicaragua and Guatemala

Nicaraguan women have an average of 5.5 children; 4.6 in urban areas and 7.6 in rural areas. This makes Nicaragua a country of children: almost half of Nicaraguans (44.6%) are under 15 years of age (Marin & Solis, 1996). In Guatemala, according to UNICEF statistics, seven out of every ten children live in poverty.

Children living in poverty have routine difficulties day in and day out. Often, the economic, political and educational circumstances (i.e., access to school, poverty, and war time) do not allow children to reach full development - - physically or cognitively. In developing countries day-care is uncommon and

parents rely on extended family for child care. When play does occur in children's groups, it is rarely encouraged by adults (Whiting & Edwards, 1988).

Armar (1996) pointed out that Latin American and Caribbean children are constantly faced with problems and develop skills and strengths in order to deal with the socio-emotional conflicts that arise in their environments. Children who live in poverty continually experience social interaction from which they develop survival skills. These include independence, self-affirmation, and awareness that the group they belong to can offer them help in solving their problems.

At an early age, many girls drop out of school in order care for their younger siblings and to perform domestic chores while boys drop out to work as peddlers, or help their fathers with agricultural or family business tasks (Fernandez-Poncela, 1996). In many Latin American countries, it is normal for the eldest daughters in large rural families to go into the city and work as domestic servants. They may range from 10 years of age to 24 years of age (ECLAC,1988 as cited in Kahn & Giele).

According to Glittenberg (1994), Guatemalan daughters begin helping to fetch water by the age of 3 or 4. By the age of 7, they wash clothes and gather wood. Indigenous girls learn to weave and embroider by the age of 7. Boys start going to the fields to watch their fathers work about the age of 4. By the age of 7, they start helping to hoe the fields and carry supplies. Glittenberg (1994) stated, " Seldom did I see children sitting, and playing, except on the weekends" (p.104). She also wrote that "couples marry and start families at early ages, and therefore, childhoods are short" (p.104).



Liebel (1996) studied children between the ages of 9 and 16 who worked on the street and in markets and parking lots as well as girls who did domestic work in Nicaragua. He emphasized that, due to unemployment of their parents, children work out of necessity. However, they are underpaid and discriminated against because they are children. They work long hours, leaving little time to study, play or go out.

According to Liebel (1996), work on the street is not completely separate from play and other “free” activities. Work helps them to learn how to make friends and share their work with others. Liebel wrote that kids frequently mentioned that, “we enjoy ourselves” and “we make friends and can play with our friends” (p.37).

### **Resilience**

There is a significant amount of literature to support that children from Guatemala and Nicaragua are “at-risk” of failing to succeed in life due to negative biological and environmental factors and therefore, might not be very playful. However, only a small fraction of “at-risk” children experience serious difficulties in their personality development. Children who overcome negative biological and environmental factors are considered to be resilient (Hauser, Vierya, Jacobson & Wertreib, 1985).

Certain studies have identified how and why some “at-risk” children prosper in spite of negative biological and environmental factors. Biological factors that help identify “at-risk” children are: congenital defects, malnutrition, and low birth weight. Environmental factors that could put a child at risk are

poverty, family discord, violence and abuse, numerous siblings, parental illness or parents with minimal education (Rak & Patterson, 1996).

Werner (1989), in Hawaii, conducted the most well known longitudinal study of resilient children. The study lasted 32 years and followed the progress of over 700 high-risk children from birth. One third of the children had four or more risk factors during childhood. "One of three of these high risk children grew into competent adults who loved well, worked well, and played well" (p.262). By 32 years of age, two thirds of the children were leading successful adult lives (Werner & Smith, 1992).

In addition to Werner's findings, other studies (Rak & Patterson, 1996) identified several factors that promoted resiliency and buffered the impact of negative environmental and biological factors. Among these are certain personality traits, family characteristics, and the development of self-confidence. Personality traits that promote resiliency in "at-risk" children are: (a) a strong approach to problem solving, (b) an ability from infancy to gain positive attention from others, (c) an optimistic view, (e) an ability to be alert and autonomous and (f) a tendency to seek novel experiences (Werner, 1989). Werner also found the following family characteristics influence and aid "at-risk" children: (a) the age of the opposite gender parent, (b) four or fewer children in the family spaced 2 years apart, (c) a nurturing first year with little separation from primary care provider, (d) an array of different care providers (e.g., relatives, neighbors), (e) relatives who share similar values and are there for support, (f) siblings or

another young person to serve as a confidante, and (g) structure and rules in the household.

In addition, researchers discovered that when stressful events do not lead to decreased ability to cope, they challenge and contribute to the development of self-competence. Marton, Golombek, Stein, and Korenblum (1988) found self-confidence to be related to adaptive skills, and Werner (1984) discovered resilient children who carried out socially desirable tasks for others experienced enduring and positive changes.

Field (1990) found infants to be extremely resilient, developing the necessary coping skills to deal with negative biological and environmental stressors. Why some infants are and some are not remains unknown. However, parents attitudes and expectations play a role. Some infants regard stressful situations as a challenge and develop risk-taking behavior. Engaging in exploratory behavior in novel situations can be interpreted as active search for challenging situations. Perhaps these infants learn more and develop more because of their curiosity (Field, 1990).

It is important to understand resilient children, and identify the characteristics that allow them to resist the negative consequences of poverty and bad home situations. Also, it is important to take into account cultural factors because they influence performance (Gonzalez & Padilla, 1997). According to resilience researchers, a significant amount more needs to be studied to help identify how cultural factors foster or weaken resilient qualities in children (Bushweller, 1995).

## **Conclusion**

Children's experiences are affected by cultural factors in their immediate social and physical environments which can either promote or constrain daily life experiences. The majority of time children spend is within the family context. Here, exploration and learning occurs through the medium of play. Unfortunately, poverty and its associations can influence a child's development (i.e., malnutrition, lack of education, increased work time vs. playtime), and hence, play. However, the promotion of resilience can help "at-risk" children thrive despite negative biological and environmental factors in their lives.

APPENDIX B  
ToP Definitions

ITEM	DESCRIPTION
Is actively engaged.	<p><u>Extent</u>: <u>Proportion of time</u> the child is involved in activities rather than aimless wandering or other nonfocussed activity or temper tantrums.</p> <p><u>Intensity</u>: <u>Degree</u> to which the child is concentrating on the activity or playmates.</p> <p><u>Skill</u>: Child's ability to stay focussed on activity.</p>
Decides what to do.	<p><u>Extent</u>: <u>Proportion of time</u> during which the child actively chooses to do what she is doing. Activity does not have to be purposeful and purposeful activity does not have to be the child's idea.</p>
Maintains level of <u>safety</u> sufficient to play.	<p><u>Extent</u>: <u>Proportion of time</u> during which the child feels safe enough to continue to play. If necessary child may alter environment.</p>
Demonstrates obvious <u>exuberance</u> , manifest joy.	<p><u>Extent</u>: <u>Proportion of time</u> during which the child exhibits outward and obvious signs of having fun, being gleeful.</p>
Tries to overcome difficulties, barriers, or obstacles to <u>persist</u> with an activity.	<p><u>Intensity</u>: <u>Degree</u> to which the child perseveres in order to overcome obstacles to continuing the activity.</p>
<u>Modifies</u> activity to maintain challenge or make it more fun.	<p><u>Skill</u>: <u>Ease</u> with which the child actively changes the requirements/ complexity of the task in order to vary the challenge or degree of novelty.</p>
Engages in playful <u>mischief</u> or <u>teasing</u> .	<p><u>Extent</u>: <u>Proportion of time</u> during which the child is involved in teasing or razzing or minor infractions of the rules. Neither mischief nor teasing is done out of a spirit of meanness.</p> <p><u>Skill</u>: The <u>adeptness</u> with which the child creates/ carries out the mischief or teasing.</p>
Engages in activity for the sheer pleasure ( <u>process</u> ) rather than primarily for the outcome.	<p><u>Extent</u>: <u>Proportion of time</u> during which the child seems to want to do the activity simply because he or she enjoys it rather than to attain a particular outcome.</p>
<u>Pretends</u> .	<p><u>Extent</u>: <u>Proportion of time</u> during which there are <u>overt indicators</u> the child is assuming different character roles, pretending to be doing something, pretending something is happening that is not, or pretending an object or person is something other than what it actually is.</p> <p><u>Skill</u>: The <u>degree to which</u> the performance is convincing.</p>
Incorporates objects or other people into play in novel, imaginative, <u>unconventional</u> , creative, or variable ways.	<p><u>Extent</u>: <u>Proportion of time</u> during which the child (a) uses objects commonly thought of as toys in ways other than those the manufacturer clearly intended, (b) incorporates objects not classically thought of as toys into the play (e.g., bugs, jars, cans, table legs), or (c) uses one toy or object in a number of different ways.</p>
<u>Negotiates</u> with others to have needs/desires met.	<p><u>Skill</u>: <u>Ease and finesse</u> with which the child verbally or nonverbally asks for what he or she needs.</p>
Engages in social play.	<p><u>Extent</u>: <u>Proportion of time</u> during which the child interacts with others involved in the same or similar activity.</p> <p><u>Skill</u>: The level of social play.</p>
<u>Supports</u> play of others.	<p><u>Skill</u>: <u>Ease</u> with which child supports play of others (encouragement, scaffolding).</p>
<u>Enters</u> a group already engaged in an activity.	<p><u>Skill</u>: <u>Ease</u> with which the child does something to become part of a group already engaged in an activity; the action</p>

	is not disruptive to what is going on.
<u>Initiates</u> play with others.	<u>Skill</u> : <u>Ease</u> with which the child initiates a new activity.
<u>Clowns or jokes</u> with others.	<u>Extent</u> : <u>Proportion of time</u> during which the child tells jokes or funny stories or engages in exaggerated, swaggering behavior (usually for the purpose of gaining others' attention).
<u>Shares</u> (toys, equipment, friends, ideas).	<u>Extent</u> : <u>Proportion of time</u> during which the child allows others to play with toys, personal belongings, or playmates or on equipment the child is currently using or shares ideas.
<u>Gives</u> clear understandable <u>cues</u> (facial and body) that say, "This is how you should act toward me."	<u>Extent</u> : <u>Proportion of time</u> during which the child acts in a way to give out clear messages about how others should interact with him or her.
<u>Responds</u> to others' cues in a way that furthers play.	<u>Extent</u> : <u>Proportion of time</u> during which the child acts in accord with others' play cues and the response results in play.

Anita Bundy, ScD, OTR, FAOTA  
Department of Occupational Therapy  
Colorado State University  
OT Building  
Ft. Collins, CO 80523

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## **APPENDIX C**

### **Informed Consent Forms and Script for Children**



## **UNIVERSIDAD DEL ESTADO DE COLORADO INFORMATIVO DE CONSENTIMIENTO DEL PARTICIPANTE**

**Titulo del proyecto:** Validez y Seguridad del Examen de Recreo con niños de habla Hispana en Centro y Sur America.

El proposito de este proyecto es para aprender como se conducen los niños en el recreo en Centro y Sur America. La informacion acumulada al observar a su niño/nina no solamente contribuira al asesoramiento den un nuevo desarrollo, el Examen de Recreo, sino abarcara el conocimiento del recreo cultural.

Su niño/nina se observa tanto adentro como afuera por unos 30 o 40 minutos y probablemente se le tomara video. Si se hace un video, se le pedira su firma para el destruido, o si usted lo permite, lo conservaremos para un futuro estudio., Para segurar el estado confidencial, el video se mantendra en un lugar seguro. Solamente los primeros nombres de los niños se usaran. Las calificaciones de su niño/nina, entraran a un informativo anonimo para el Examen de Recreo.

La participacion es voluntaria y no habra gratificacion para nadie. Tienen la opcion de retirarse a la hora quegusten. No hay ningun riesgo en este estudio solamente lo relacionado al recreo. La Accion de Inmunidad del Estado de Colorado determina el estado legal del la Universidad del Estado de Colorado en cuanto a lo que concierne a lastimaduras durante el estudio. Reclamos deben de ser sometidos no mas tarde que 180 dias despues del accidente. Qualquier pregunta tocante al assunto diriganse a Celia S. Walker (970) 491- 1563.

Con su firma se reconose que a leido esta informacion, y con pleno concentimiento la ha firmado. Con su firma se reconose que ha recibido en dicha fecha este documento de una sola pagina.

### **FIRMA DEL PADRE O TUTOR PARA EL MENOR**

Como padre o guadian legal, da su concentimiento a \_\_\_\_\_ (con letra de molde) hacer participante de este estudio. La naturaleza 0 proposito de este proyecto an sido explicados satisfactriamente por \_\_\_\_\_ y quedo pregunta relacionado ha este particular pongase en contacto con Anita Bundy (inverestigadora principal): (970) 491-6173 o Heather Phillips (co-investigadora): (970) 482-8294.

\_\_\_\_\_  
Padre/Guadian (letra de molde)

\_\_\_\_\_  
Padre/Guardian (firma)

\_\_\_\_\_  
Fecha

\_\_\_\_\_  
Investigador(a) o co-investigador(a) (firma)

\_\_\_\_\_  
Fecha

### **CONSENTIMIENT DEL NINO**

Doy mi permision que me tomen un vido mientras que juego.

\_\_\_\_\_  
Firma de niño/nina

\_\_\_\_\_  
Fecha

## COLORADO STATE UNIVERSITY INFORMED CONSENT TO PARTICIPATE IN RESEARCH PROJECT

**Title of project:** Validity and Reliability of the Test of Playfulness (ToP with Spanish speaking children in Central and South America.

The purpose of this research project is to learn about children from Latin America and their play behaviors in a natural environment. The information gathered from observing your child will not only contribute to the development of a new assessment, the Test of Playfulness, but it will also enhance the knowledge about play and culture.

Your child will be observed or possibly videotaped playing in both indoor and outdoor environments for approximately 30-40 minutes. If a videotape is used you will be asked to sign a special form giving permission for the taping. At the completion of this study, the videotape will be sent to you, destroyed, or with your permission, kept for future play research. In order to ensure confidentiality the video tapes will be stored in a secured area and only first names will be used. The scores gathered from your child will be entered into an anonymous data base for the Test of Playfulness.

Participation is voluntary and neither you or your child will be compensated. If you do decide to participate, you or your child may withdraw at any time. There are no known risks associated with participating in this study other than those related to play in a supervised setting. The Colorado Immunity Act determines and may limit Colorado State University's legal responsibility if an injury happens because of this study. Claims against the University must be filed within 180 days of the injury. Questions about subjects rights may be directed to celia S. Walker at (970) 491- 1563.

Your signature acknowledges that you have read this information and willingly signed this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document constraining 1 page.

### PARENTAL SIGNATURE FOR MINOR

As parent or guardian you authorize \_\_\_\_\_ (print name) to become a participant for the described research. The nature and general purpose of the project have been satisfactorily explained to you by \_\_\_\_\_ and you are satisfied that proper precautions will be observed. If you have any questions you can contact Anita Bundy (principal investigator): (970) 491- 6173 or Heather Phillips (co-investigator): (970) 482-8294.

\_\_\_\_\_  
Parent/Guardian (printed)

\_\_\_\_\_  
Parent/Guardian signature

\_\_\_\_\_  
date

\_\_\_\_\_  
Investigator/co-investigator signature

\_\_\_\_\_  
date

### CHILD'S CONSENT

I agree to be observed and possibly videotaped while playing.

\_\_\_\_\_  
Child's signature

\_\_\_\_\_  
date

## Script

“While I’m visiting your country I’m collecting information about how kids play. We have a new way to study how kids play in the US and I want to use it to see if it works with kids in your county. You don’t have to do anything except play - indoors for 15-20 minutes and outdoors for 15-20 minutes. I’ll watch you and maybe videotape you playing. If we do use a video tape we’ll only use your first name to protect your privacy. When we’re done studying the tape I can either mail it to you for you to keep, have it destroyed or keep it to study in the future. It’s completely up to you what you want us to do with the tape after we study it.”

“After I study the tape, the information will be added to the information we have about other kids and how they play. You don’t have to participate if you don’t want to and you can stop at any time you want to. This is something safe for you to do and you won’t get anything for doing it except play time!”