
Test of Playfulness

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KEY TERMS

playfulness
intrinsic motivation
internal control
suspension of reality
framing
environment
environmental supportiveness
Test of Environmental Supportiveness (TOES)
Test of Playfulness (ToP)

Occupational therapists are responsible for assessing and promoting play because it is the primary occupation of young children. While much has been written about play, and studies have found that people recognize it when they see it (Smith, Takhvar, Gore, & Vollstedt, 1985), play remains an elusive concept that has defied universal definition for decades (cf. Berlyne, 1966; Rubin, Fein, & Vandenberg, 1983). This chapter presents a model for observing and assessing playfulness. Playfulness has been defined simply as the disposition to play (Barnett, 1991). It might also be thought of as the way that a child approaches play (and other tasks). Playfulness is only one aspect of play. The totality of play also includes play activities and the skills children use in play, to name just two other aspects. However, the high correlation of playfulness with adaptability and coping (Hess & Bundy, 2003; Saunders, Sayle, & Goodall, 1999) suggests that playfulness may be one of the most important aspects of play.

In this chapter we outline a model for the systematic evaluation of playfulness and the supportiveness of the environment in which play takes place. This model has been operationalized in two observational assessments: the Test of Playfulness (ToP) (Bundy, Nelson, Metzger, & Bingaman, 2001) and the Test of Environmental Supportiveness (TOES) (Bronson & Bundy, 2001). To illustrate the model, we present two case examples.

A MODEL OF PLAYFULNESS

The model we will put forward draws from agreement in the literature that playfulness can be determined by evaluation for the presence of three elements: intrinsic motivation, internal control, and the freedom to suspend reality (Bundy, 1991, 1993; Kooij, 1989; Kooij & Vrijhof, 1987; Morrison, Bundy, & Fisher, 1991; Neumann, 1971).

Play is intrinsically motivated. Players engage in a play activity simply because they want to, not for any other reason. The doing (process) is more important than the outcome (product) (Rubin, Fein, & Vandenberg, 1983) (Figure 1). For example, although winning a game may be fun, winning is not the primary reason for playing. In fact, not knowing who will win increases the motivation to play, whereas knowing in advance who will win decreases the fun. For this reason very skilled players may



Figure 1

Play involves more attention to process than product. (Courtesy Becca Austin.)

be given a “handicap” in games like tennis or golf. When chance plays a big part in a game (e.g., cards), players usually begin again once a clear winner is identified (Caillois, 1979). The source of the motivation or the reasons why a particular activity is intrinsically motivating vary widely; we refer to these as personal motivations. Some children are motivated by activities that provide social interaction, and others seek sensation or mastery.

Internal control means that players are largely in charge of their actions and at least some aspects of the activity’s outcome (Figures 2 and 3). Players decide such things as who to play with, what to play, and how and when the play should end. When attempting a new activity, a person may be heard to say, “I was playing with it to see what would happen” (Figure 4). Games with rules, a common form of play, may seem to be outside the definition of play; rules suggest that there is indeed a particular way to play. Nonetheless, rules can be modified to suit the style and needs of players. For example, Scrabble players may decide to look up words in a dictionary. And, while play cannot be bound by too many rules, neither can it have no rules. Otherwise players would not know how



Figure 2

A horse is a horse, but that horse can be transportation or imply a source of sensation—the choice is the player’s. (Courtesy Becca Austin.)



Figure 3

All players must retain enough control to say (verbally or nonverbally), “I’m finished. I want to do something else now.” (Courtesy Becca Austin.)



Figure 4

There is no “right way” to play with a game or toy. (Courtesy Becca Austin.)

Freedom to suspend reality means that the individual chooses how close to objective reality the play will be (Figure 5). Players may pretend that they are someone else or that an object is something other than what it really is. They may pretend to do something they are not actually doing. For example, they may pretend to be fighting but the verbal and physical cues they give say, “This is not for real.” Players may also suspend reality by stretching the rules slightly, teasing, or telling jokes. For example, a 4-year-old pretending to be the teacher can assume a bossy persona that would not be allowed except in play.

Each of the three elements (intrinsic motivation, internal control, and freedom to suspend reality) can be represented by a continuum reflecting the relative presence of the trait in a particular transaction. The summative contribution of all three continua tips the balance and determines the relative presence of playfulness. Playfulness and nonplayfulness also represent a continuum (Bundy, 1991, 1993; Neumann, 1971) (Figure 6).



Figure 5

“As if” serves the same function as rules. (Courtesy Becca Austin.)

It is unlikely—and perhaps not even desirable—for any transaction to be totally intrinsically motivated, internally controlled, or free of the constraints of reality. Thus this model should be viewed with the knowledge that the continua are not scales in any strict sense. Nonetheless, the concept is useful in presenting an impression of the relative absence or presence of traits, particularly when therapists are in need of a quick, informal means for evaluating a particular transaction in an intervention session.

In addition to the three primary elements of play, Bateson (1971, 1972) described a fourth concept, framing, that seems critical to play and playfulness. Bateson likened the play frame to a picture frame that separates the wallpaper from the picture. He described play as a frame in which players give cues to others about how they want to be treated. To be a good player, a person must be able to both give and read cues. Of course, the ability to give and read social cues is also a part of many nonplay transactions. Bateson, however, argued that, in play, cues are exaggerated and thus easier to learn. Furthermore, people do not need language to learn about play cues, making infant-adult play an excellent early medium for learning to give and read social cues.

Framing seems somewhat more difficult to explain than the other elements of playfulness, perhaps because giving and reading cues are so much a part of culture that knowledge of them is tacit: only their impairment or absence is obvious. Furthermore, social cues may involve affective processing as much as cognitive (Stern, 1985).

The four elements of playfulness reflect the player’s contributions to a play transaction. Their expression, however, will be affected by the supportiveness of the environment. The environment is addressed in depth later in the chapter.

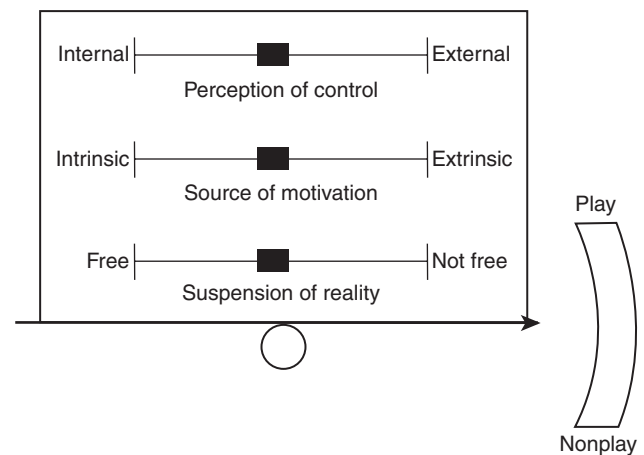


Figure 6

Schematic representation of the elements of playfulness.

Operationalizing the Elements of Playfulness

If the concept of playfulness as a reflection of the combined presence of intrinsic motivation, internal control, freedom to suspend reality, and framing is to be used in a more formal manner to evaluate playfulness, each trait must be defined in a more readily usable or operational manner. How will children act if they are intrinsically motivated, internally controlled (Figure 7), free of unnecessary constraints of reality, or entering or maintaining the frame? This operationalization of the elements is a vital step in the development of a valid assessment of playfulness—one that may allow therapists to capture the important aspects of play and thus include it routinely in their evaluations of young children. The operationalization of these concepts leads to the creation of the actual test items (Bundy, 1993).

Many of the traits of play that are most commonly listed in play literature can be viewed as an aspect of intrinsic motivation, internal control, or the suspension of reality. They can be considered a part of one or more of the more encompassing elements of play. They answer one or more questions about how intrinsic motivation,



Figure 7

A player who experiences internal control can make material things do whatever his competence allows. (Courtesy Becca Austin.)

internal control, or the suspension of reality is recognized when they are seen.

Intrinsic motivation, internal control, and freedom from some constraints of reality are not mutually exclusive. Certain behaviors may reflect more than one of these elements. For example, maintaining a play theme for a significant period of time suggests that a player is skilled at framing but also may reflect the player's social skills or skills for interacting with objects, both aspects of internal control.

The relationship between the elements of play has been explored in the development of the Test of Playfulness (ToP), which has made use of a statistical procedure called Rasch analysis (Wright & Masters, 1982; Wright & Stone, 1979) to compare performance of children on different items and thus find out which features of play are “easier” or “harder” for children to master. Although the elements of play are not mutually exclusive, the items from the ToP seem to be somewhat more strongly associated with one element than the others. These associations are represented in Box 1 . The items are defined in Table 1 .

Administering the Test of Playfulness

The ToP is designed for assessing the play of children and adolescents who are between the ages of 6 months and 18 years and whose playfulness is a concern. The ToP is scored after free play is observed, preferably in both indoor and outdoor play situations. Tyler (1996) found that boys and girls did not differ in their scores on the ToP. The ToP appears to be valid across a number of cultural groups: Porter and Bundy (2000) found evidence for its validity with African American children, and Griffith (2000) and Phillips (1998) found that it was valid for Hispanic children in the United States and in Central America, respectively.

Although there is evidence that the ToP is valid and reliable with adolescents (Hess & Bundy 2003), use of the assessment has not, so far, been studied with adults. The greatest threat to the reliability and validity of the ToP in relation to adults may be the tendency for adults to become self-conscious when being observed rather than the possibility that playfulness, which many consider to be a trait, will change with age (Guitard, Ferland, & Dutil, 2005; Lieberman, 1977). In response to this problem, one of us (ACB) has developed a self-report version of the ToP for use with adults, The Experience of Leisure Scale (TELS) (Meakins, Bundy, & Gliner, 2005). Since self-consciousness is a factor for many adolescents, TELS may prove to be a better measure than the ToP for them also.

Box 4-1 *How ToP Items Associate with the Elements in the Play Model of Playfulness*

Motivation	Freedom from constraints of reality	Control	
Engaged	Mischief	Self	Intensity
Extent	Teases	Decides	Skill
Intensity	Pretends	Safe	Supports
Process	Extent	Modifies	Enters
Persists	Skill	Interacts with objects	Initiates
Affect	Clowns and jokes	Transitions	Shares
	Extent	Shared	Frame
	Intensity	Negotiates	Gives cues
	Creative	Social play	Reads cues
		Extent	Engaged (skill)

Table 1
Definitions of ToP Items

<i>Item</i>	<i>Description</i>
Is actively engaged.	Extent—Proportion of time player is involved in activities rather than aimless wandering or other nonfocused activity or temper tantrums. Intensity—Degree to which the child is concentrating on the activity or playmates. Skill—Players’ ability to stay focused or carry a play theme from activity to activity.
Decides what to do and how to do it.	Extent—Proportion of time when players actively choose what they are doing. Players may decide to do what another is doing, but no one is forcing them or rewarding them for doing the activity.
Maintains level of safety sufficient to play.	Extent—Proportion of time when players feel safe enough to play. If necessary, players may alter the environment.
Tries to overcome barriers or obstacles to persist with an activity.	Intensity—Degree to which the child perseveres in order to overcome obstacles to continuing the activity.
Modifies activity to maintain challenge or make it more fun.	Skill—Ease with which the child actively changes the requirements or complexity of the task in order to vary the challenge or degree of novelty.
Engages in playful mischief or teasing.	Extent—Proportion of time when players are involved in playful teasing or minor infractions of the rules designed to make the play more fun. Skill—The ease, cleverness, or adeptness with which players create and carry out mischief or teasing.
Engages in activity for the sheer pleasure of it (process) rather than primarily for the end product.	Extent—Proportion of time when players seem to want to do the activity simply because they enjoy it rather than to attain a particular outcome or for some extrinsic reward.
Pretends (to be someone else; to do something else; that an object is something else; that something else is happening).	Extent—Proportion of time when there are overt indicators players are assuming different character roles, pretending to be doing something, pretending something is happening, or pretending an object or person is something else. Skill—The degree to which the “performance” convinces the examiner.

Continued

Table 1
Definitions of ToP Items—cont'd

<i>Item</i>	<i>Description</i>
Incorporates objects or other people into play in unconventional or variable ways.	Extent—Proportion of time when players (1) use objects commonly thought of as toys in ways other than those the manufacturer clearly intended, (2) incorporate objects not classically thought of as toys into the play (e.g., bugs, table legs), or (3) use one toy or object in a number of different ways. Creativity is a key. Skill—The ease or cleverness with which players incorporate objects or other people in creative ways.
Negotiates with others to have needs/desires met.	Skill—Ease and finesse with which players verbally or nonverbally ask for what they need.
Engages in social play.	Extent—Proportion of time during which player interacts with others involved in the same or similar activity. Intensity—The depth of the player’s interactions with other people during play. Skill—The level of social play. Ranges from playing alone to being the leader.
Supports play of others.	Skill—Ease with which players support play of others (e.g., encouragement, ideas).
Enters a group already engaged in an activity.	Skill—Ease with which player does something to become part of a group (two or more) already engaged in an activity; the action is not disruptive to what is going on.
Initiates play with others.	Skill—Ease with which player initiates a new activity with another.
Clowns or jokes.	Extent—Proportion of time when players tell jokes or funny stories or engage in exaggerated, swaggering behavior, usually for the purpose of gaining others’ attention. Skill—The ease or cleverness with which a player clowns or jokes. Ranges from not gaining others’ attention to gaining positive reactions from others to being overtly funny.
Shares (toys, equipment, friends, ideas).	Skill—The ease with which players allow others to use toys, personal belongings, or equipment they are using or share playmates (friends) or ideas.
Gives readily understandable cues (facial, verbal, body) that say, “This is how you should act toward me.”	Extent—Proportion of time during which players act in a way to give out clear messages about how others should interact with them.
Responds to others’ cues.	Extent—Proportion of time during which the child acts in accord with others’ play cues.
Demonstrates positive affect during play.	Intensity—Degree to which player’s affect is positive; ranges from mild enjoyment to real exuberance.
Interacts with objects.	Intensity—The degree to which players get involved with objects. Skill—The ease with which players interact with objects.
Transitions from one play activity to another with ease.	Skill—The ease with which players move from activity to activity when one has ended or is not evolving and another is available.

Scoring the Test of Playfulness

The ToP Keyform may be used to score a child's playfulness. The ToP Keyform (Figure 4-8) shows the relative difficulty of each item plotted against the means and standard deviations for the items, called the measure score. To score the ToP Keyform, the examiner circles all the scores awarded on ToP items on the ToP Protocol Sheet (Figure 9) and then draws a line through the points so that half are above it and half below. That line passes through a measure score on the right. The measure score is an interval level score that can be entered into statistical calculations (e.g., for research purposes). An idea of how this particular score compares with that of the approximately 2000 children who are a part of the ToP data set can be obtained by using Figure 10.

Development of the Test of Playfulness and Evidence for Validity and Reliability

Initially the ToP was a 60-item assessment scored from videotaped segments of free play. The ToP has undergone three notable revisions. Retaining its observational format, the current version (Version 4) comprises 29 items that can be scored directly, without videotaping, because we have found that the scores are equivalent (Nichols, 1997).

In the revision process some items (e.g., is physically active in play) were eliminated because statistical analysis suggested that they did not contribute to the construct of playfulness. Other items (e.g., using unconventional objects in play) were revised to reflect improved operational definitions that were easier to score in a consistent fashion. New items were generated to make the ToP more sensitive to small changes that come from intervention (Bundy, Nelson, Metzger, & Bingaman, 2001; Muneto, 2002).

In addition to item revision and generation, the scoring procedure for the ToP was changed. Initially all scoring was based on the proportion of time an item could be observed (extent). This, however, did not always seem to be the most relevant criterion. For example, with some items (e.g., persists in overcoming obstacles to play) the more relevant feature seemed to be the intensity with which the child engaged in the behavior. Thus an "intensity" scale was created to capture the degree to which some items were present. For other items (e.g., enters a group already engaged in an activity), a relevant feature seemed to be the skill or the ease with which a child was able to accomplish a task. Thus a third scale, "skillfulness," was created. In the current version none of the scales pertains to all the descriptors but more than one scale is applied to many descriptors. Scales that do not apply are shaded out in the sample scoring sheet (Figure 9).

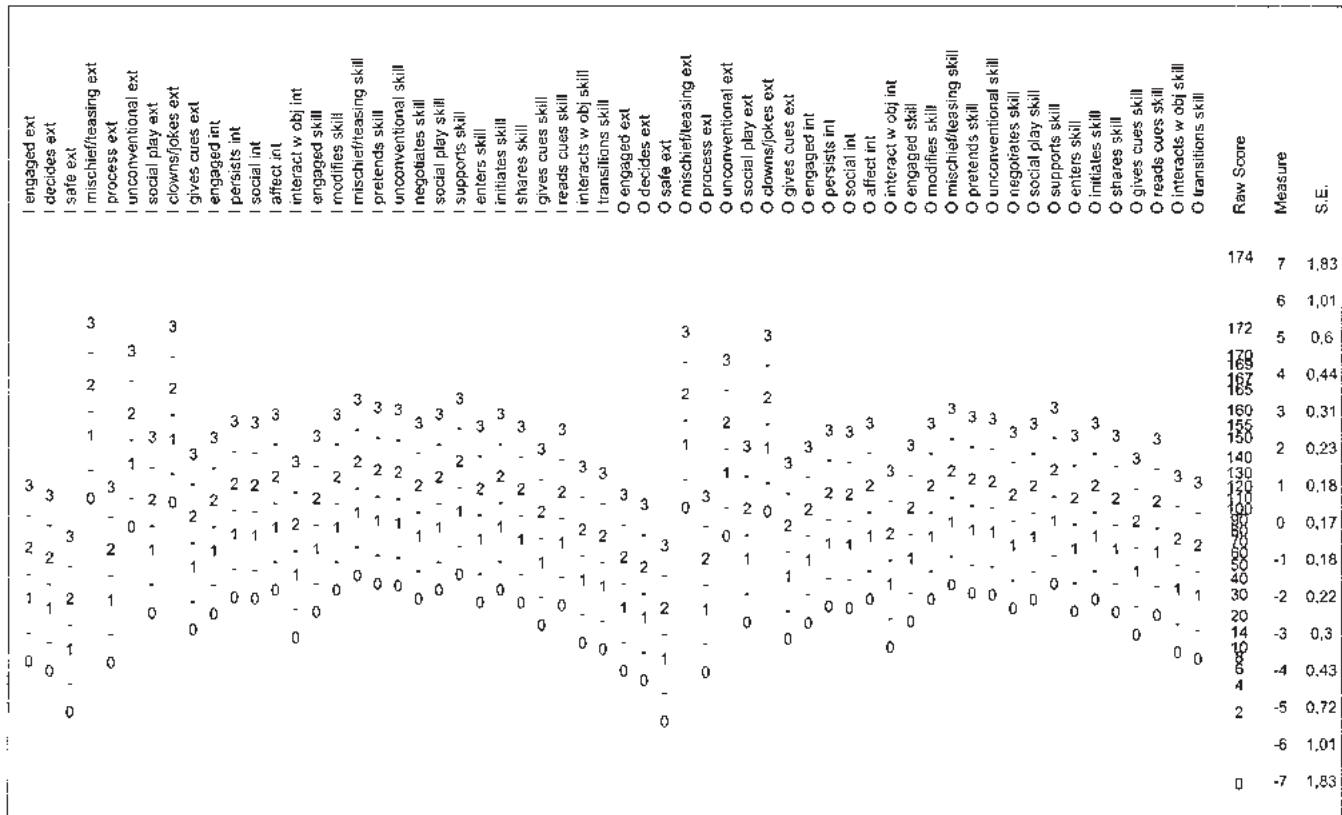


Figure 4-8

ToP Keyform indicating the relative difficulty of each item plotted against the means and standard deviations for the items.

TEST OF PLAYFULNESS (ToP) (Version 4.0–5/05)

Child (#): _____ Age: _____ Rater: _____ In Out Video Live (Circle)	EXTENT 3 = Almost always 2 = Much of the time 1 = Some of the time 0 = Rarely or never NA = Not Applicable	INTENSITY 3 = Highly 2 = Moderately 1 = Mildly 0 = Not NA = Not Applicable	SKILLFULNESS 3 = Highly skilled 2 = Moderately skilled 1 = Slightly skilled 0 = Unskilled NA = Not Applicable	
ITEM	EXT	INT	SKILL	COMMENTS
Is actively <u>engaged</u> .				
<u>Decides</u> what to do.				
Maintains level of <u>safety</u> sufficient to play.				
Tries to overcome barriers or obstacles to <u>persist</u> with an activity.				
<u>Modifies</u> activity to maintain challenge or make it more fun.				
Engages in playful <u>mischief</u> or <u>teasing</u> .				
Engages in activity for the sheer pleasure of it (<u>process</u>) rather than primarily for the end product.				
<u>Pretends</u> (to be someone else; to do something else; that an object is something else; that something else is happening).				
Incorporates objects or other people into play in unconventional or variable and <u>creative</u> ways.				
<u>Negotiates</u> with others to have needs/ desires met.				
Engages in <u>social</u> play.				
<u>Supports</u> play of others.				
<u>Enters</u> a group already engaged in an activity.				
<u>Initiates</u> play with others.				
<u>Clowns</u> or <u>jokes</u> .				
<u>Shares</u> (toys, equipment, friends, ideas).				
<u>Gives</u> readily understandable <u>cues</u> (facial, verbal, body) that say, "This is how you should act toward me."				
Responds to others' cues.				
Demonstrates positive <u>affect</u> during play.				
Interacts <u>with</u> objects.				
<u>Transitions</u> from one play activity to another with ease.				

Figure 9
ToP protocol sheet.

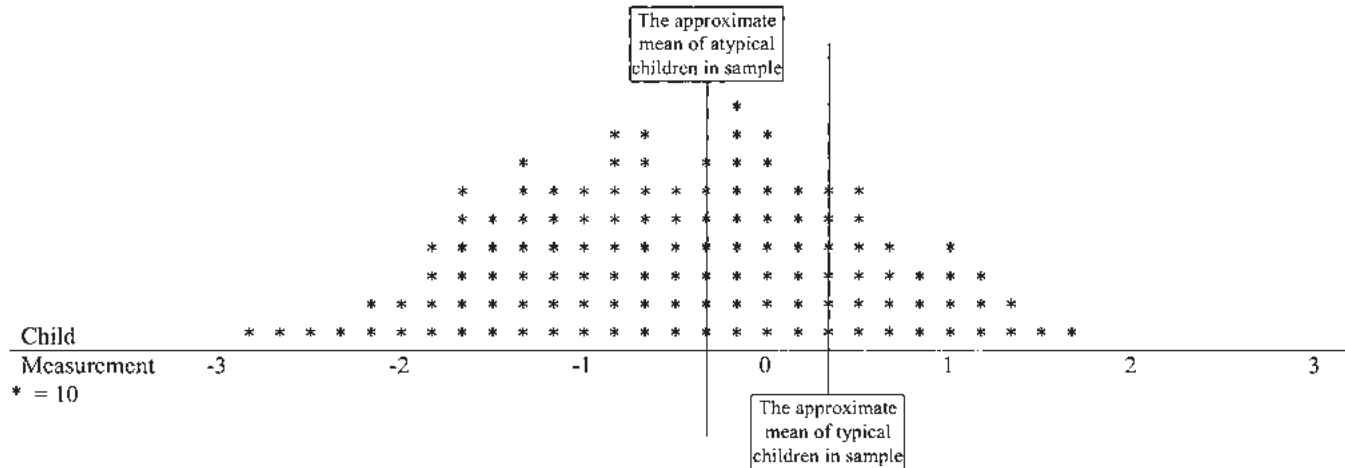


Figure 10

Graphic representation of the entire ToP data set, including the approximate means of typical and atypical children in the sample.

In the course of development of ToP, raw ToP data from nearly 2000 children have been subjected to Rasch analysis, a statistical modeling technique that measures how well performance on the items meets two basic assumptions: (1) easy items are easy for everybody, and (2) more capable (or in this case more playful) people have higher scores. By use of Rasch analysis it is also possible to determine whether items define a single unidimensional construct, the relative difficulty of each item, the relative playfulness of each child, and the degree of severity of each rater.

Over time, data from approximately 96% of items, 93% of participants, and 95% of raters have met the assumptions of the Rasch model consistently. Thus we can say that items of the ToP define a unidimensional construct reflecting playfulness. Since 95% fit to the model is desired, the data from the participants fall somewhat short of the standard. On further reflection we have learned that the construct of playfulness seems to differ slightly for some groups of children.

Although there are no large samples of children with any one diagnosis, it seems possible that some of the data that failed to conform to the expectations of the Rasch model reflect diagnostic information. In other words, children with particular disabilities may tend to attain ToP scores that reflect characteristics of their disability. Data collected by Leipold and Bundy (2000) and Harkness and Bundy (2001) are consistent with this hypothesis. These studies found that children with attention deficit hyperactivity disorder tended to have unexpectedly low scores on remaining engaged and unexpectedly high scores on mischief and teasing (Leipold & Bundy, 2000). Similarly, children with physical difficulties but no known cognitive limitations tended to have unexpectedly low scores on remaining engaged and deciding but unexpectedly high scores on clowning and joking (Harkness & Bundy, 2001). Clearly, more research is needed to investigate playfulness in children with disabilities.

The ToP has been examined for test-retest reliability in three studies (Brentnall, 2005; O'Brien & Shirley, 2001; Scott, 2003). Using a very small sample, O'Brien and Shirley found that ToP scores remained stable over several years. Both Brentnall and Scott, using data from the same videotaped play sessions at a day-care center, found only moderate test-retest coefficients. They suggested that in situations with many choices of playmates and activities, it is relatively easy to change the nature of the test and thus decrease the reliability of the scores. In particular, they found that whether a child was playing alone or with others was an important factor that affected scoring. This suggests that children tested twice to evaluate for changes occurring as a result of intervention should be seen either alone or with a playmate (not necessarily the same playmate) in both tests to ensure that any change in scores is the result of the intervention.

Brentnall also found differences in scoring that resulted from length of observation. She concluded that ToP scores were most reliable when based on 15-minute observations.

ENVIRONMENTAL INFLUENCE ON PLAYFULNESS

So far in this chapter, playfulness, defined as a disposition to play, has been assumed to be a characteristic of the individual (Lieberman, 1977). Yet even the most playful child may behave in a less playful way when the environment is unsupportive. By the same token, a child's actions may become more playful in a very supportive environment (Bronson & Bundy, 2001). Many researchers have examined how individuals interact with their environments and how this interaction affects behavior and performance (Barker, 1968; Gibson, 1979; Lewin, 1955; Pervin, 1968; Stern, 1970). For some years now, theorists have been advocating a dynamic person-environment

system, in which personal and environmental factors are seen to have a reciprocal influence on one another (e.g., Kielhofner, 1995; Magnussen, 1981; Wicker, 1987).

It follows then that, just as we examine factors in the individual related to playfulness, so too should we assess features of the environment for their influence on play. Both the physical and social environments can influence play through affording opportunities and “pulling for” certain behaviors (Gibson, 1979; Kielhofner, 1995). For example, playground climbing equipment pulls for active group play, whereas books and craft materials suggest quiet solitary play. The sociocultural ambience (e.g., accepted norms, expectations, and rules) influences the freedom and confidence with which an individual interacts with elements of the environment (Rowles, 1991). Overly strict or inconsistent rules reduce play, whereas carefully considered rules promote it. Other situational properties include complexity and clarity (Magnussen, 1981). To promote play, environments must enable children to move from “what does this do?” (exploration) to “what can I do with this?” (play).

A positive fit between the player and the environment occurs when opportunities meet the needs of the individual and when the ability of the individual matches the demands of the environment (Pervin, 1968). Congruence between the choices offered in the setting and the player’s motivation, self-determination, and desire for autonomy contributes to fit (Eccles et al., 1993; O’Conner & Vallerand, 1994).

An environment that pulls for behavior below the player’s capacity (e.g., baby toys for an older child) may result in boredom. Environments that pull for behaviors beyond the individual’s abilities can cause anxiety. Settings pulling for behaviors at the upper levels of an individual’s capacity promote involvement, attentiveness, maximum performance, and adaptation (Csikszentmihalyi, 1990). Other environmental properties that promote a positive fit include choice and the presence of playthings that match the individual’s motivations (Holland, 1966; Jordan et al., 1991). Players’ motivations are discussed in more detail in the next section.

Assessment of an environment’s capacity to support playfulness may be especially important in the case of players with physical, cognitive, or sensory impairments, who may receive less feedback from, and be less able to access and affect, playmates and the environment than typically developing players (Holaday et al., 1997).

The cues given by players with disabilities may be more difficult for caregivers and playmates to read; thus they may miss the player’s cues and, thinking the player is passive and unresponsive, decrease their interactions (Jennings & MacTurk, 1995). They may also fail to understand cues and therefore respond inappropriately. Both of these situations may result in negative consequences for the play and the player’s sense of efficacy.

Test of Environmental Supportiveness (TOES)

The TOES was developed to assess the extent to which elements of a particular environment support a player’s motivations for play (Bronson & Bundy, 2001). The TOES is meant to be administered in conjunction with the ToP. Understanding the effects that different elements of the child-environment interaction have in facilitating or restricting play allows therapists to develop and monitor appropriate modifications for established contexts. Specifically, the TOES examines fit between the players’ motivations and caregivers, playmates, objects, play spaces, and the sensory environment (Bundy, 1997). The TOES scoring sheet is presented in Figure 11 ; a description of the items is presented in Table 2 .

Researchers in education and health care now recommend evaluation of clients within naturalistic contexts. Consideration of people in their everyday environment promotes a positive, adaptive relationship between a functioning person and a supportive environment (Letts et al., 1994). This approach informs services supporting the activities of people in everyday environments as opposed to the remediation of underlying impairments (Pacheo & Lucca-Irizarry, 1995). Changing the environment may be far easier and more appropriate than changing the person (Healthy Toronto 2000 Subcommittee, 1988). Conjunctive use of the ToP and TOES addresses the need for a person-in-environment assessment of play and playfulness.

The first step in administering the TOES is to attempt to determine the source of the player’s motivations. That is, what benefit(s) do players seem to be seeking from the activities in which they are engaging? Since the TOES is set within a context of the player’s personal motivations, the therapist may need to discuss these with caregivers. Once personal motivations are established, the therapist can assess the degree to which each element (e.g., playmates, space) contributes to these motivations’ being met.

Scoring the TOES

At present the items of the TOES can be scored but there is no means for summing them into a meaningful score. Since the primary purpose of the TOES is as a tool for consultation with caregivers, however, it is appropriate that the information the instrument yields relative to each item should be descriptive.

Evidence for TOES Validity and Reliability

TOES items were selected after an extensive review of relevant literature and input from a panel of expert occupational therapists (from the United States, Canada, and Sweden) who had focused their work on the environment. Two studies (Harding, 1997; Bronson & Bundy, 2001) have provided preliminary evidence of the construct validity and reliability of the TOES.

TEST OF ENVIRONMENTAL SUPPORTIVENESS (TOES)–7/03

Child's Name: _____		Apparent Source(s) of Motivation: _____	
Date of Observation: _____			
Child's Birth Date: _____		Location of Observation: _____	
Age at Observation: _____		Examiner: _____	
CONTINUA OF ITEMS 2 = strongly favors description on right 1 = slightly favors description on right -1 = slightly favors description on left -2 = strongly favors description on left NA = not applicable			Comments
Caregivers interfere with player's activities and opportunities	-2 -1 1 2 NA	Caregivers promote player's activities and opportunities	
Caregivers change the rules	-2 -1 1 2 NA	Caregivers adhere to consistent boundaries/rules	
Caregivers enforce unreasonably strict boundaries or fail to set boundaries	-2 -1 1 2 NA	Caregivers adhere to reasonable boundaries/rules	
Peer playmate's response to player's cues interferes with transaction	-2 -1 1 2 NA	Peer playmate's response to player's cues supports transaction	
Peer playmates do not give clear cues or give cues that interfere with the transaction	-2 -1 1 2 NA	Peer playmates give clear cues that support the transaction	
Peer playmates are dominated by player or dominate players	-2 -1 1 2 NA	Peer playmates participate as equals with player	
Older playmate's response to player's cues interferes with transaction	-2 -1 1 2 NA	Older playmate's response to player's cues supports transaction	
Older playmates fail to give clear cues or give cues that interfere with transaction	-2 -1 1 2 NA	Older playmates give clear cues that support the transaction	
Older playmates are dominated by or dominate player	-2 -1 1 2 NA	Older playmates participate as equals with player	
Younger playmate's response to player's cues interferes with transaction	-2 -1 1 2 NA	Younger playmate's response to player's cues supports transaction	
Younger playmates fail to give clear cues or give cues that interfere with transaction	-2 -1 1 2 NA	Younger playmates give clear cues that support the transaction	
Younger playmates are dominated by or dominate player	-2 -1 1 2 NA	Younger playmates participate as equals with player	
Natural/fabricated objects do not support activity of player	-2 -1 1 2 NA	Natural/fabricated objects support activity of player	
Amount and configuration of space do not support type of play	-2 -1 1 2 NA	Amount and configuration of space support activity of player	
Sensory environment does not offer adequate invitation to play	-2 -1 1 2 NA	Sensory environment offers adequate invitation to play	
Space is not physically safe	-2 -1 1 2 NA	Space is physically safe	
Space is not accessible	-2 -1 1 2 NA	Space is accessible	
Additional comments:			

Figure 11
TOES scoring sheet.

Table 2*Elements for Evaluation of Human and Nonhuman Environment*

<i>Item</i>	<i>Description</i>
Caregiver promotes player's activities and opportunities.	Gives player access to possibilities if needed (e.g., ideas, props, or playthings). Facilitates interactions of entire group (including player). Acts in a way that says play and player's motivations are important (e.g., does not interrupt player or stop play unnecessarily). Responds to player's cues in a way that sanctions play. Available for help if needed. Shows respect for players. Is unobtrusive when appropriate. Gives only amount of direction necessary to facilitate play.
Caregiver adheres to consistent boundaries and rules.	Rules can be flexible but do not change unexpectedly or irrationally.
Caregiver adheres to reasonable boundaries and rules.	Enough to make player safe and comfortable. Not derived from power struggle. Not excessively strict; flexible when appropriate. Tacit or explicit permission to choose objects, activities, type of play, play locations.
Playmate(s) response to player's cues supports transaction.	Behaves toward player in logical, supportive way. Waits for responses (timing). Contributes to maintaining the flow of the play.
Playmate(s) gives clear cues that support transaction.	Gives clear messages about how player should interact with him or her. Messages reflect a continuation of the frame or a logical change.
Playmate(s) participates as equal with player.	Gets involved in activity. Adapts activity so it is play for self and player. Contributes good ideas. Does not get suppressed by player. Has skills to engage in the play. Plays with (rather than directs) player. Not bossy, manipulative. Shares common interests. Seems happy with status and roles in the situation.
Natural and fabricated object(s) support activity and apparent motivations of player.	Support player in his or her efforts to fulfill motivations. Allow modification of challenges. Sufficient number exists to support play. Engender feeling to do something with them.
Amount and configuration of space support activity.	Allow modification of challenges. Boundaries of play space evident when necessary.
Sensory environment offers adequate invitation to play.	Meets player's needs (this is the most important element). Colors—neither overstimulating nor drab. Level and type of noise are conducive to play (anger, crying versus laughing, chatting). Neither sterile nor overly cluttered. Temperature well controlled.
Space is physically safe.	No objects or surfaces pose an imminent threat to player's safety.
Space is accessible.	Objects are placed where player can get them readily. Readily permits movement. Provides physical support as needed for player.

Evidence of Reliability

Bronson and Bundy (2001) examined interrater reliability and estimated item model error. Goodness of fit statistics revealed that data from 100% of raters ($n = 10$) conformed to the expectations of the Rasch model. Furthermore, estimated item model errors were low ($< .25$) for all but one item (“younger playmates read player’s cues”; error = .26).

Evidence of Validity

Bronson and Bundy (2001) also examined fit of items and participants ($n = 160$) to the Rasch model, as well as logic of item order. Data from 94% of items (all except “space is physically safe”), 95% of environments, and 96% of ratings conformed to the expectations of the Rasch model. Bronson and Bundy concluded that the scoring criteria for “space is physically safe” should be more clearly defined; Bundy has attempted to do this in the version presented in this chapter.

Bronson and Bundy suggested that the ordering of the items is logical. For example, “space is physically safe” was found to be the easiest item, which accords with the commonsense assumption that, unless children feel physically safe, they will be unlikely to play (Vandenberg, 1981). Items that refer to younger playmates were the most difficult. This is also logical, since younger playmates lack the skills that peer or older playmates have for enhancing play (Bailey et al., 1993).

CASE EXAMPLES

Whether or not therapists assign scores to the ToP and TOES, they can easily use the ToP to undertake systematic examination of playfulness in their young clients using an approach illustrated by the following two case studies.

CASE EXAMPLE 1

Daniel

Daniel is a 4-year-old boy who experiences delays across all domains of development. The greatest concern is that he does not play well with other children. There are also concerns about his social interaction with adults. He speaks a little with his parents, but at kindergarten (which he attends every day) he rarely speaks at all. Daniel is observed by the occupational therapist for 15 minutes indoors in the kindergarten. He is part of a group of children ranging in age from 3 to 6 years. When the observation starts, Daniel is wandering around the room in an apparently aimless fashion. After a couple of minutes, he sits down by a toy castle where there are animal and human figures. He manipulates the figures somewhat awkwardly.

He places one “man” up in the tower of the castle, but there are no signs he is engaging in pretend play and the activity does not seem to develop. After a while, a girl of the same age comes to play with him. She picks up a toy lion. She makes the lion walk up the wall of the castle while she makes a threatening roaring sound. Daniel repeats her actions, moving his lion and making a roaring sound. The girl moves her lion toward Daniel’s and shakes it slightly it as if it were trying to communicate; Daniel simply repeats the roaring sounds. After failing to get a response following several repetitions of the same movement and sounds, the girl gives up and leaves to play elsewhere. Daniel stays where he is and repeats the lion’s movements up the wall, but he does not make any sound or develop the play further. Instead, Daniel sits quietly by the castle, doing nothing.

After a while, Daniel leaves the castle and goes into one of the other rooms. There are mattresses and pillows on the floor, and some older boys are jumping, and, by the sound of it, having a lot of fun. Cautiously, Daniel joins in with the jumping. He starts jumping on the edge of the mattress, perhaps waiting to see if the others will protest, then jumps nearer. The older boys are looking at him welcomingly and giving him space to jump with them. For 5 minutes, Daniel jumps and smiles and seems to enjoy himself, but there is no laughter or any other obvious signs of joy. Then the older boys stop jumping and start to negotiate a new game to play. Daniel watches but does not take part in the planning process. When the older boys start playing, he watches for a while and then leaves the room.

On his way out, Daniel passes some children who are playing with a toy railway. Daniel stops to watch for a while. When he picks up part of a train that is lying idle on the floor, a younger boy cries out, “No! That’s mine. Go away!” Daniel hesitates for a few seconds, but then drops the train on the floor. He sits down, picks up a rail part, and keeps it in his hands, watching the others play. At this point the observation ends.

Daniel’s Playfulness Profile

Daniel’s scores on the ToP are shown in Figure 12 . Through examination of scores on the items associated with each of the elements (see Figure 8), a playfulness profile has been created for Daniel (Figure 13). Daniel’s ToP Keyform is shown in Figure 14 . Each of the elements of playfulness is discussed separately before Daniel’s playfulness profile is summarized.

Source of Motivation

The mark on the continuum representing motivation is rather far toward the “extrinsic” side. Toys and other children’s play seemed to influence Daniel’s choices of

TEST OF PLAYFULNESS (ToP) (Version 4.0–5/05)

Child (#): <u> Daniel </u> Age: <u> 4 years </u> Rater: <u> G. Skard </u> <input type="checkbox"/> In <input type="checkbox"/> Out <input type="checkbox"/> Video <input checked="" type="checkbox"/> Live (Circle)	EXTENT 3 = Almost always 2 = Much of the time 1 = Some of the time 0 = Rarely or never NA = Not Applicable	INTENSITY 3 = Highly 2 = Moderately 1 = Mildly 0 = Not NA = Not Applicable	SKILLFULNESS 3 = Highly skilled 2 = Moderately skilled 1 = Slightly skilled 0 = Unskilled NA = Not Applicable	
ITEM	EXT	INT	SKILL	COMMENTS
Is actively <u>engaged</u> .	2	0	1	Engages in several disconnected play themes, and sometimes whether he is playing is in question.
<u>Decides</u> what to do.	3			
Maintains level of <u>safety</u> sufficient to play.	3			
Tries to overcome barriers or obstacles to <u>persist</u> with an activity.		1		
<u>Modifies</u> activity to maintain challenge or make it more fun.			0	
Engages in playful <u>mischief</u> or <u>teasing</u> .	0		NA	
Engages in activity for the sheer pleasure of it (<u>process</u>) rather than primarily for the end product.	2			
Pretends (to be someone else; to do something else; that an object is something else; that something else is happening).	0		1	He makes lion sound and moves the lion. Plastic lions do not make sounds or move, but uncertain whether he is really pretending or just copying his playmate.
Incorporates objects or other people into play in unconventional or variable <u>and creative</u> ways.	0		NA	
<u>Negotiates</u> with others to have needs/ desires met.			1	
Engages in <u>social play</u> .	1	0	1	
<u>Supports</u> play of others.			0	
<u>Enters</u> a group already engaged in an activity.			2	
<u>Initiates</u> play with others.			0	
<u>Clowns</u> or <u>jokes</u> .	0		NA	
<u>Shares</u> (toys, equipment, friends, ideas).			0	Shares a little too readily.
<u>Gives</u> readily understandable <u>cues</u> (facial, verbal, body) that say, "This is how you should act toward me."	1		1	
Responds to others' cues.			1	
Demonstrates positive <u>affect</u> during play.		0		
Interacts <u>with objects</u> .		1	1	
<u>Transitions</u> from one play activity to another with ease.			1	

Figure 12
Daniel's scores on the ToP.

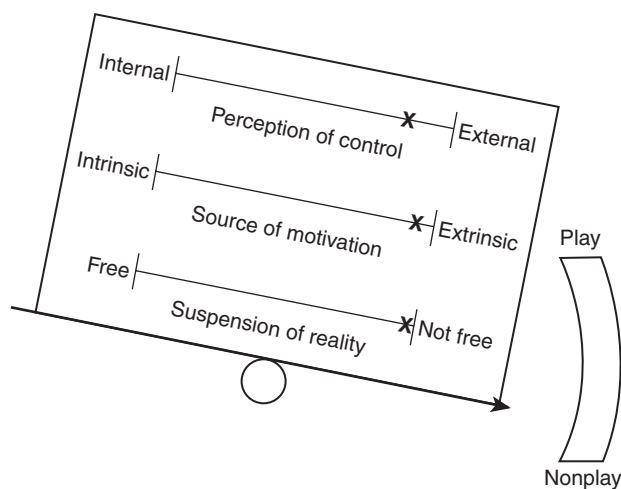


Figure 13
Daniel's playfulness profile.

what he wanted to do. He did not, however, seem interested enough or able to overcome any barrier (e.g., the girl leaving or the older boys changing the game) to continue playing. Most of the time, he did not show significant levels of interest, engagement, or affect. (The reason for this could be that the accessible activities and toys were too difficult for his skills.) The only clear indication of interest and enjoyment was when he was jumping on the mattress. In this 5-minute period, Daniel seemed to be motivated by mastery of the environment (he is able to jump and do the same thing as the older boys) (White, 1959) and by the sheer sensation associated with the gross motor activity (Cailliois, 1979). This indicates that Daniel might be more motivated if the environment presents him with possibilities to engage in appropriate gross motor activities.

Perception of Control

The marker on the continuum representing control is placed relatively far toward the “external” side. Daniel seemed to feel safe. He also decided the activities in which he wanted to take part. He is the decision maker as long as he has the real option to do something else; active choice is the main issue. “Decides” is a very easy item. The overall impression, however, was that Daniel did not feel much in control; especially with regard to items that reflect shared control, he received very low scores.

The score on “enters a group already engaged in an activity,” a shared control item, is a surprisingly high score among a long row of 1 and 0 scores. This social skill constitutes an important resource in developing play skills and social interaction, so it is worth pondering why Daniel scored so well here; perhaps his performance resulted from active training in social skills. One other possible explanation is that the gross motor

play was the only activity in the observation where the activity actually matched his play skills.

Suspension of Reality

The marker on the continuum representing suspension of reality is also placed very far to the “not free” end. Daniel did show brief behavior consistent with pretending (i.e., roaring like a lion at the castle); however, it was not clear whether he was actually pretending or simply imitating his playmate without really understanding what she was doing.

Framing

Although Daniel did give out a few relatively subtle cues as to how others should interact with him, they were so difficult to notice that only a very skilled player would be able to read them. By the same token, Daniel seemed aware of other children’s cues (as evidenced by his response to the younger boy’s retaliation), but did not seem able to read them unless they were very blatant (e.g., missing the girl’s cues to engage in pretend play).

Environmental Supportiveness

The TOES scores for Daniel are shown in Figure 15. In use of the TOES to assess Daniel’s play environment, the first step would have been to determine what motivated him during the play episode observed. However, the fact that he showed so little intrinsic motivation makes this somewhat difficult. The only period when there was a clear indication of interest and enjoyment was when he was jumping on the mattress, an activity seemingly motivated by a desire for sensation.

In establishing the degree to which the environment supported Daniel’s play, both human and nonhuman environments must be considered. In the observed play transaction the relevant human environmental factors to consider were peer, older, and younger playmates. Daniel’s peer playmate behaved toward him in a logical and supportive way. She involved herself in his play activity, giving him clear cues as to how she wanted to play. She contributed good ideas and waited for his response before finally giving up and leaving when no response was forthcoming. Daniel seemed unable to respond to her initiatives.

The older playmates’ response to Daniel’s cues seemed to support the transaction. They behaved toward him in a logical and supportive way, although they did not actively include him as an equal. And as they planned the new activity, Daniel seemed not to find a role for himself and chose to leave. The younger playmate did not behave toward Daniel in a logical and supportive way, being unable to share his friends,

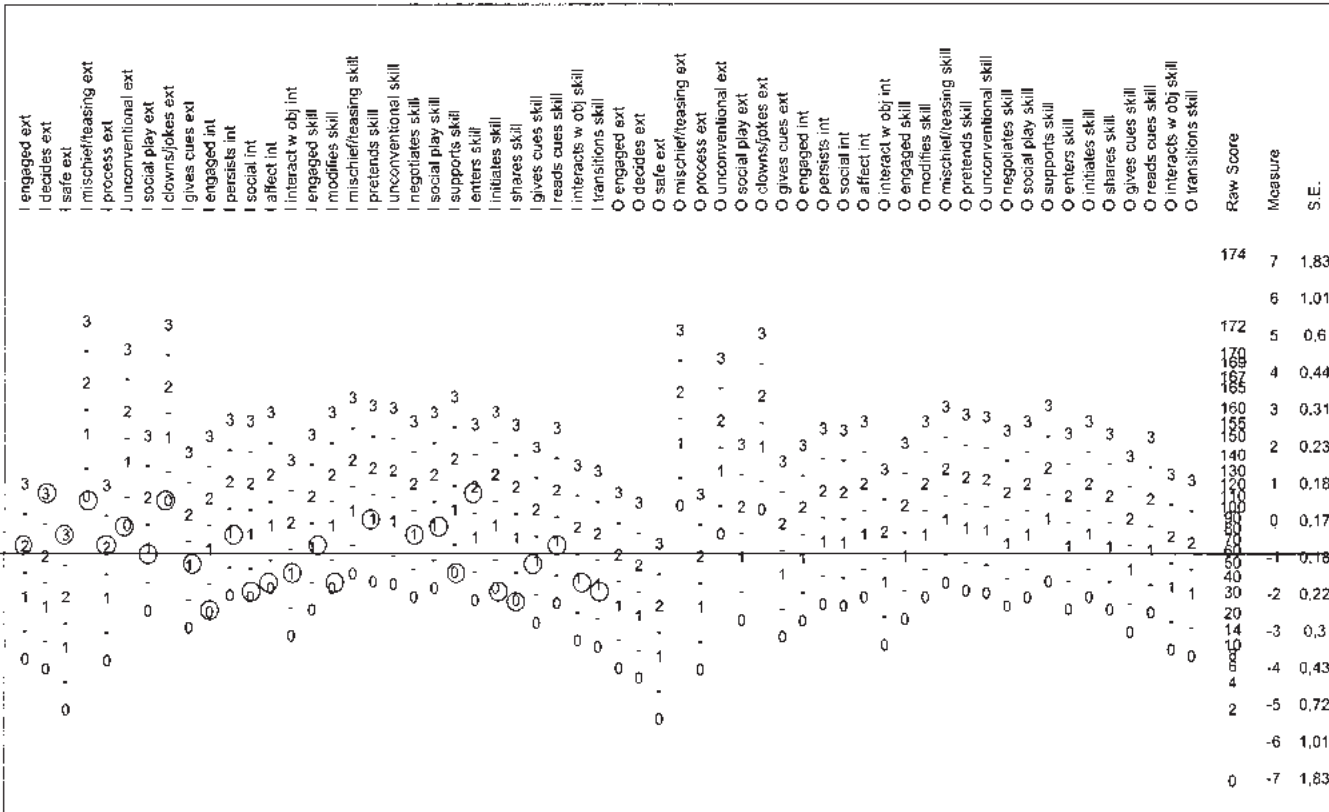


Figure 14
Daniel's ToP Keyform.

the space, or even the toys he was not playing with at the time that Daniel approached.

With regard to the nonhuman environment, the space available and the objects available for play should be considered. The space was physically safe and offered adequate invitation to play for many of the children. Daniel seemed motivated by gross motor activity, however, and the only space available for this kind of activity was occupied by a group of older children. Moreover, objects other than the mattress (i.e., the castle and figures) did not seem to support Daniel's motivations. Daniel would probably have played better with toys designed for younger children, but in a kindergarten for 3- to 6-year-olds, toys of this kind were not available.

Summary

When viewed overall, Daniel's profile describes a child who is not very playful. He has a raw score of about 65 and a scaled score (measure) slightly above -1 (see Figure 14). Daniel's score in reference to the whole sample can be determined by consulting Figure 10. Although this profile may in part reflect factors internal to Daniel, any tendencies toward playfulness were not adequately supported by the environment.

CASE EXAMPLE 2

Derja

Derja is a 4½-year-old girl who has spastic hemiplegic cerebral palsy. Her right side is affected, and she needs a walker to move around in the kindergarten she attends every day. She has relatively good control of movement in her spastic arm but has some problems with tactile discrimination in her hand. She displays no sign of learning disabilities. She has some limitations in the field of vision on her right side. She also has some minor problems with articulation but otherwise does not seem to have any language problems.

Derja is observed for 15 minutes playing indoors at the kindergarten, where she is the only disabled child. The observation begins when Derja is approaching a group of peers who are sitting in a corner, on the floor, playing with Barbie dolls. Derja tries to sit down next to them, but her walker gets in the way, threatening to knock over some of the toys. The girls protest a little, reaching out to save the toys from being knocked over, but when Derja is seated, they immediately return to their play. Derja starts playing with a doll that has not been taken by the other children. She finds a dress and

TEST OF ENVIRONMENTAL SUPPORTIVENESS (TOES)–7/03

Child's Name: Daniel				Apparent Source(s) of Motivation:			
Date of Observation: xx-2005				Toys and gross motor activity			
Child's Birth Date: xxxx				Location of Observation: Kindergarten, Indoors			
Age at Observation: 4 years				Examiner: G. Skard			
CONTINUA OF ITEMS 2 = strongly favors description on right 1 = slightly favors description on right -1 = slightly favors description on left -2 = strongly favors description on left NA = not applicable				Comments			
Peer playmate's response to player's cues interferes with transaction	-2	-1	1	2	NA	Peer playmate's response to player's cues supports transaction	
Peer playmates do not give clear cues or give cues that interfere with the transaction	-2	-1	1	2	NA	Peer playmates give clear cues that support the transaction	
Peer playmates are dominated by player or dominate players	-2	-1	1	2	NA	Peer playmates participate as equals with player	
Older playmate's response to player's cues interferes with transaction	-2	-1	1	2	NA	Older playmate's response to players cues supports transaction	
Older playmates fail to give clear cues or give cues that interfere with transaction	-2	-1	1	2	NA	Older playmates give clear cues that support the transaction	
Older playmates are dominated by or dominate player	-2	-1	1	2	NA	Older playmates participate as equals with player	
Younger playmate's response to player's cues interferes with transaction	-2	-1	1	2	NA	Younger playmate's response to player's cues supports transaction	
Younger playmates fail to give clear cues or give cues that interfere with transaction	-2	-1	1	2	NA	Younger playmates give clear cues that support the transaction	
Younger playmates are dominated by or dominate player	-2	-1	1	2	NA	Younger playmates participate as equals with player	
Natural/fabricated objects do not support activity of player	-2	-1	1	2	NA	Natural/fabricated objects support activity of player	
Amount and configuration of space do not support type of play	-2	-1	1	2	NA	Amount and configuration of space support activity of player	
Sensory environment does not offer adequate invitation to play	-2	-1	1	2	NA	Sensory environment offers adequate invitation to play	
Space is not physically safe	-2	-1	1	2	NA	Space is physically safe	
Space is not accessible	-2	-1	1	2	NA	Space is accessible	
Additional comments:							

Figure 15

TOES scoring sheet for Daniel (only relevant items are shown).

TEST OF PLAYFULNESS (ToP) (Version 4.0–5/05)

ITEM	EXTENT		INTENSITY		SKILLFULNESS	
	EXT	INT	SKILL	COMMENTS		
Child (#): _____ Derja	3 = Almost always		3 = Highly		3 = Highly skilled	
Age: <u>4 1/2</u> years	2 = Much of the time		2 = Moderately		2 = Moderately skilled	
Rater: _____ G. Skard	1 = Some of the time		1 = Mildly		1 = Slightly skilled	
<input checked="" type="checkbox"/> In <input type="checkbox"/> Out <input type="checkbox"/> Video <input checked="" type="checkbox"/> Live (Circle)	0 = Rarely or never		0 = Not		0 = Unskilled	
	NA = Not Applicable		NA = Not Applicable		NA = Not Applicable	
Is actively <u>engaged</u> .	3	3	3			
<u>Decides</u> what to do.	3					
Maintains level of <u>safety</u> sufficient to play.	3					
Tries to overcome barriers or obstacles to <u>persist</u> with an activity.		3			Her lack of movement control and tactile discrimination in her hand are major obstacles	
<u>Modifies</u> activity to maintain challenge or make it more fun.			2			
Engages in playful <u>mischief</u> or <u>teasing</u> .	0		NA			
Engages in activity for the sheer pleasure of it (<u>process</u>) rather than primarily for the end product.	3					
<u>Pretends</u> (to be someone else; to do something else; that an object is something else; that something else is happening).	2		3			
Incorporates objects or other people into play in unconventional or variable and creative ways.	0		NA			
<u>Negotiates</u> with others to have needs/ desires met.			3			
Engages in <u>social play</u> .	2	2	1			
<u>Supports</u> play of others.			2			
<u>Enters</u> a group already engaged in an activity.			3		She enters effortlessly even in a situation where she due to movement problems threatens to knock down toys.	
<u>Initiates</u> play with others.			NA			
<u>Clowns</u> or <u>jokes</u> .	1		3		Turns a potential problem into a something positive by pretending to fall in a funny way.	
<u>Shares</u> (toys, equipment, friends, ideas).			3			
<u>Gives</u> readily understandable <u>cues</u> (facial, verbal, body) that say, "This is how you should act toward me."	3		3			
<u>Responds</u> to others' cues.			3			
Demonstrates positive <u>affect</u> during play.		1				
Interacts <u>with objects</u> .		3	3			
Transitions from one play activity to another with ease.			NA			

Figure 16
Derja's scores on the ToP.

a jacket she can reach from where she is sitting. She points and asks in a polite way if one of the girls would pass her a pair of shoes and a hat that are out of her reach. For about 5 minutes, Derja dresses the doll with great difficulty. She seems to be concentrating hard and struggles to close the Velcro of the dress and the jacket. During this period Derja does not pay the other girls any attention, nor they her. The girls constantly change the dolls' clothes and pretend that their dolls are taking care of babies. They pretend that the dolls are talking, drinking coffee, and having lunch, but after a while the play does not seem to have developed very much. When finally Derja's doll is dressed with shoes and hat, Derja can focus her attention on the play interaction. She moves her doll toward them and says, "Now I am coming." Then she tries to seat her doll on a chair at the toy table but knocks it over. She pretends that the doll is afraid of falling by crying out, "I am falling down. Help me! Help me!" All the girls laugh. One of them helps Derja's doll to sit down and offers her a cup of coffee. Derja pretends that her doll is drinking and moves her own mouth to make the appropriate noises. Derja's participation seems to have given new life to the play for a few minutes, but then the other girls leave to do something else. Derja stays behind and keeps on playing with the dolls. She lays the table with plates and cups. She makes the dolls talk to each other. She moves them around and makes one of them pick up a baby and put it in a pram. She makes the doll rock the pram while she sings a lullaby in a very low voice. Derja is still playing alone when the 15-minute observation finishes.

Derja's Playfulness Profile

Derja's scores on the ToP are shown in Figure 4-16. By examinations of the scores on the items associated with each of the elements (see Figure 8), a playfulness profile has been created for Derja (Figure 17). Derja's ToP Keyform is shown in Figure 18.

Source of Motivation

The placement of the marker along the continuum representing motivation is relatively far toward the "intrinsic" end, since Derja received high scores on all the items reflecting that element. Despite her obvious difficulties with movement, she remained actively and intensely engaged in playing with the dolls for most of the 15 minutes. Throughout this time Derja seemed to be enjoying herself but was without much enthusiasm. Most of the time she seemed so focused on the challenges presented by the activities she was undertaking that she did not demonstrate joy. This is commonly observed in players of all ages; in fact, manifest joy seems to be observed only in certain kinds of activities

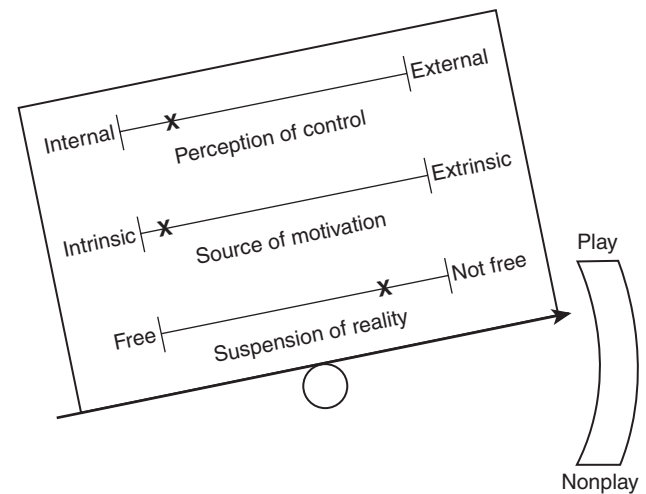


Figure 17
Derja's playfulness profile.

such as gross motor play or play including performance (e.g., playing clowns or comedians, or even acting as children playing).

In addition to the social interaction with her peers, it seems likely that the mastery and experience of playing house with the dolls were Derja's main sources of motivation. This impression is based on her persistence in dressing the doll, which was very difficult for her, and the fact that she stayed behind to continue playing with the dolls alone after all the others left to do something else.

Perception of Control

The placement of the marker along the continuum representing control is also on the "internal" side, but more toward the middle than that for motivation. Derja received higher scores on items that reflect self-control than on those that reflect shared control (e.g. "social play" and "supporting play of others"). This is to be expected, given her problems with tactile discrimination in the hand and subsequent movement control and because sharing control is more difficult than self-control. The dressing of the dolls is very difficult to perform, and this makes it difficult to be attentive to shared control as well. Derja appeared to feel safe and to be the decision maker with regard to the activity on which she focused. Dressing and role play were important parts of the activity, which the other girls performed simultaneously. Derja, on the other hand, seemed to modify the challenge by splitting these activities and performing them one at a time. When she performed the difficult task of dressing the doll, she had to focus all her attention on controlling her movements. In this period she did not take part in any other interactive play. Later, when the doll was dressed, she focused her attention on the pretend play

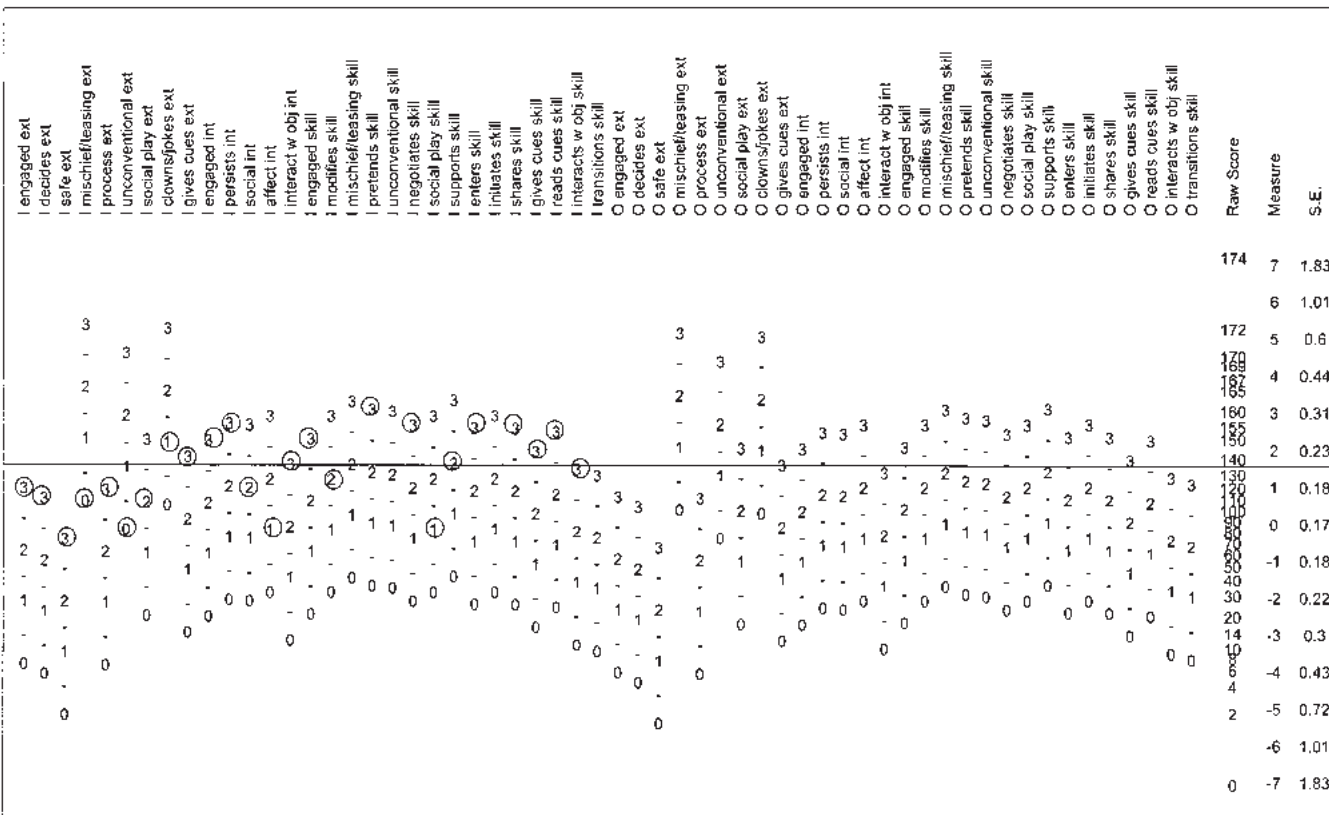


Figure 18
Derja's Top Keyform.

and the social interaction and did not change the doll's clothes again.

Derja's social play score is relatively low not because of a lack of social skills, but rather because of her disability. The short clowning incident showed how skillful she was in getting the positive attention of others and encouraging other children to follow her lead.

Suspension of Reality

The placement of the marker on the continuum representing suspension of reality is toward the "not free" end. That is, aside from pretending and the short incident of clowning, the overall transaction appeared quite bound by objective reality. Derja's performance in this area seemed once again to be a reflection of her disability. In addition, one item relating to suspension of reality, the use of objects in variable or unconventional ways, never occurred, with all the toys being used in their prescribed ways.

Framing

Derja seemed very good at all the items related to framing. There were no obvious points at which she failed to interact with others in expected ways, and it

would have been easy to know how to interact with her. Furthermore, the play session seemed quite cohesive.

Environmental Supportiveness

The TOES scores for Derja are shown in Figure 19. When the TOES is used to assess Derja's play environment, the first step is to determine what motivated her during the play observed. Of course, the observer can never be certain of the sources of a player's motivations, but a good place to start is often to consider what benefits a player might be seeking from the activities in which he or she is engaging. As suggested previously, and in addition to social interaction with her peers, it seems likely that the mastery and experience of playing house with the dolls were Derja's main sources of motivation.

In this play transaction the only relevant human environmental factor to consider is that relating to peer playmates. Although the period of interaction between Derja and her playmates was very short, their response to Derja's cues seemed to support the transaction. The playmates' play cues were quite clear and made it easy for Derja to enter the group and

TEST OF ENVIRONMENTAL SUPPORTIVENESS (TOES)–7/03

Child's Name: Derja	Apparent Source(s) of Motivation: Social interaction with her peers, and the mastery and sensation of playing with dolls	
Date of Observation: xx-2005	Location of Observation: Kindergarten, Indoors	
Child's Birth Date: xxxx	Examiner: G. Skard	
Age at Observation: 4¹/₂		
CONTINUA OF ITEMS 2 = strongly favors description on right 1 = slightly favors description on right -1 = slightly favors description on left -2 = strongly favors description on left NA = not applicable		Comments
Peer playmate's response to player's cues interferes with transaction	-2 -1 1 2 NA	Peer playmate's response to player's cues supports transaction
Peer playmates do not give clear cues or give cues that interfere with the transaction	-2 -1 1 2 NA	Peer playmates give clear cues that support the transaction
Peer playmates are dominated by player or dominate players	-2 -1 1 2 NA	Peer playmates participate as equals with player
Natural/fabricated objects do not support activity of player	-2 -1 1 2 NA	Natural/fabricated objects support activity of player
Amount and configuration of space do not support type of play	-2 -1 1 2 NA	Amount and configuration of space support activity of player
Sensory environment does not offer adequate invitation to play	-2 -1 1 2 NA	Sensory environment offers adequate invitation to play
Space is not physically safe	-2 -1 1 2 NA	Space is physically safe
Space is not accessible	-2 -1 1 2 NA	Space is accessible
Additional comments:		

Figure 19

TOES scoring sheet for Derja (only relevant items are shown).

take part in the transaction when she was able to do so. Another important feature is that all the players seemed to participate as equals.

With regard to the nonhuman environment, the objects seemed to support Derja's activity relatively well. Although the small details of Barbie dolls' clothes presented a significant problem for Derja, her motivation to play with these particular dolls helped her to rise to meet the challenge. Adjusting the difficulty by offering alternative dolls with fewer accessories but potentially less attraction would probably not have increased the supportiveness. Amount and configuration of space, by comparison, were not very supportive of Derja's participation. In the corner dedicated to playing with dolls there was not enough room for Derja to move her walker around without knocking things over. It would

probably have been better for Derja if there had been a table and chairs to play at instead of just the floor to sit on. Sitting at a table might also have made it easier for Derja to get up and follow her playmates when they left to do something else, supposing she had wanted to. At the same time, however, the sensory environment of the kindergarten offered adequate invitation to play and the space was certainly physically safe.

Summary

When viewed overall, Derja's profile describes a relatively playful child who was playing in a fairly supportive environment. She has a raw score of about 135 and a scaled score (measure) between 1 and 2 (Figure 18). Derja's score in reference to the whole sample can be seen by looking at Figure 10 .

SUMMARY

In this chapter we have argued that assessing an individual's playfulness is very important. Playfulness can be assessed in the context of any activity (play or nonplay). The chances of seeing playfulness, however, may be greatest during free play. We have provided a model for the evaluation of playfulness and introduced an assessment based on that model. We have also introduced an assessment for the evaluation of environmental supportiveness of play. We have illustrated the use of the model and the assessments in two case studies.

Review Questions

1. What is meant by the phrase "operationalizing the elements of playfulness"?
 2. Discuss the concept of framing and how it is operationalized in the Test of Playfulness (ToP).
 3. What are the four dimensions measured by the ToP? Define each one, and describe the behaviors and behavioral qualities that each one addresses.
 4. How can the ToP be used in clinical practice to generate a playfulness profile for a child? Sketch an example to show a colleague what a playfulness profile might look like.
 5. Explain how to administer and score the ToP.
 6. What is the TOES, and why was it developed?
 7. Explain how to administer and score the TOES.
-

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