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THE MODIFICATION OF THE KID PLAY PROFILE: FOR URBAN LIVING CHILDREN IN TSHWANE/PRETORIA

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree

of

Master of Science in Occupational Therapy

Johannesburg 2015

DECLARATION

I, Marna Hartman, declare that this research report is my own work.

It is being resubmitted for the degree of Master of Science in Occupational Therapy in the University of the Witwatersrand, Johannesburg.

It has not been submitted before for any other degree at this or any other university.



_____ 2015-11-27

Signature of candidate Date

“Play is the highest form of research” Albert Einstein

Dedicated to:

My family and friends, who supported and encouraged me during this endeavour for almost five years and to all the therapists working with children as well as all the children “playing” in occupational therapy.

“Success is not final and failure is not fatal, but the courage to continue is what counts” Winston Churchill.

ABSTRACT

The assessment of play as an occupation is difficult in occupational therapy due to the lack of tools that measure play directly from the child. The Kid Play Profile is a child self-report survey developed in the USA that enquires from children directly, but contains activities that may not be appropriate in South Africa. This study aimed to modify the KPP for use in South Africa, using the Nominal Group Technique. The modified KPP was field tested and the results showed that the mKPP has adequate content validity. The overall test-retest reliability scores were above 0.7 indicating acceptable reliability, but did not achieve acceptable reliability levels in 3 of the 6 subsections. The internal consistency presented with an adequate Cronbach's alpha of 0.77 in both tests. It was concluded that mKPP can be used in the process of play assessment with urban, middle- to high socio-economic children in Tshwane/Pretoria.

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NOMENCLATURE

KPP	Kid Play Profile
mKPP	Modified Kid Play Profile
NGT	Nominal Group Technique
PIP’s	Pediatric Interest Profiles
OPA	Occupational Performance Area
OTs	Occupational therapists
USA	United States of America

CHAPTER 1

1.0 INTRODUCTION TO THE STUDY

1.1 Introduction

In this chapter the researcher introduces the reader to the journey that has been undertaken in this project, starting from setting the background of the situation surrounding the research idea, the issues that were examined and the plan of action that was set in motion to answer the questions and meet the objectives.

1.2 Background

Play is considered one of the main occupational performance areas of children (1, 2). Learning through play has been widely researched in both education and psychology. Scholars have aimed to define play by listing the characteristics or elements of activities to be considered as play or playful. These characteristics include activities which are pleasurable, with no extrinsic goal, spontaneous, active engagement and the opportunity to suspend reality(3, 4). Play was described by Susan Knox as "an automatic and integral part of the lives of young children whereby they develop an understanding of the world and gain competence in interacting within it" (p.55)(5). Alexis Henry, on the other hand, viewed play activities as those that are "freely chosen, intrinsically motivated and done for personal enjoyment or a sense of challenge" (p.95)(6).

Occupational therapists working with children need to do comprehensive assessments that include the assessment of play (2). Current assessment practices often make use of observation techniques as well as interviews with parents and educators, but do not necessarily directly assess play as an occupation and do not include the child's perspective of the play activities, the level of enjoyment experienced and real preferences (7, 8). To hear from the chid directly is a very important aspect, as there could be a difference between what children see as playful and what adult caregivers consider as play (6).

While searching to find a measurement tool that allows children themselves to comment on the activities in which they participate, it became apparent that the most common tools used in occupational therapy (such as the Knox Play Scale, and the Test of Playfulness) depend entirely on adults' interpretation of play (2, 5). A few less well-known tools, such as the

"Play Detective Diary"(9) and the "Activity Appreciation Story Procedure"(10) have been developed to elicit information regarding play from the children directly. However, the "Activity Appreciation Story" relies heavily on the assessor's interpretation and the "Play Detective Diary" relies on the child to complete an activity diary over a few days, which might have questionable reliability of the measure, as children of this age might complete the diary irregularly and find it difficult to give account of their whereabouts over time (11).

The Paediatric Interest Profiles (7) were identified as a possible useful tool. These self-report surveys were developed for children from the age of six years to adolescents. The Kid Play Profile (7) in particular was developed for children between the ages of six and nine years; an age group that is regularly referred for occupational therapy. According to the developer, Alexis Henry(7), a self-report survey/tool is an effective way to gain insight into children's perspective of their own play. She argued that child-friendly self-report questionnaires can capture the young child's perspective, play preference, involvement and enjoyment (7). Henry also viewed the Kid Play Profile (KPP) as a platform for therapists to start the conversation and exploration of a child's play and social activities, which inevitably will play a part in the therapeutic recommendations made, as well as the choice of intervention activities (7). This profile, however, was developed in the United States of America (USA) and thus its applicability to a South African population is unknown. Factors such as climate, culture, school curriculum, socio economics and crime can influence the types of activities in which children participate as well as their attitudes towards participation (7, 12-14).

Therefore, using a play profile developed for children in the USA may not be useful in South Africa if the range of activities in the profile does not accurately represent the play activities most common in South Africa.

1.3 Statement of the problem

The Kid Play Profile(KPP) is a user-friendly and time-effective measure that provides a profile of play activities for groups and individual children, reported by the children themselves (7). This measurement tool can provide therapists with valuable information regarding a child's play patterns and socialising as viewed by the child. However, the KPP was not developed in South Africa and thus the content validity of the profile is questionable in the South African context. When one looks at the KPP, several of the activities in the profile appear to be applicable in the South African context, but there are items in each

category that appear to be inappropriate or irrelevant for the South African child due to possible differences in the South African sports arena, school curriculum, socio economic milieu, climate, culture and resources (13-15). The activities that urban South African children engage in are likely to differ from those of children in the urban USA where the KPP was developed. South Africa has a unique and diverse population with several ethnic and cultural groups, which may have an impact on children's choice of play activities (14, 16). Thus there is a need to investigate whether the Kid Play Profile can be used in South Africa.

1.4 Purpose of the study

The purpose of the study was to investigate the use of the KPP in the urban South African population and to furthermore modify the profile by removing irrelevant items and substituting them with local and cultural relevant content for use in an urban South African context, specifically in Tshwane/Pretoria East.

1.5 Research question

What modifications need to be made to the KPP to ensure that valid and reliable assessment results can be obtained when utilised with English-speaking, middle to upper class children between the ages of 6 and 9 years, living in the urban areas of Tshwane/Pretoria East (the target population)?

1.6 Aim of the study

The aim of this study was to modify the KPP for use with English-speaking, middle to upper class children living in the urban areas of Tshwane/Pretoria East by developing valid content for the tool and measuring aspects of reliability (internal consistency and test-retest reliability).

1.7 Objectives of the study

1. To determine valid content for the KPP appropriate for English-speaking, middle to upper class children between the ages of 6 and 9 years, living in the urban areas of Tshwane/Pretoria East (target population).
2. To modify the KPP according to the content determined in objective 1.
3. To confirm the content validity of the modified Kid Play Profile (mKPP) with a sample of the target population during field testing.

4. To determine aspects of reliability of the mKPP, namely internal consistency and test-retest reliability with a sample of the target population.

1.8 Justification of the study

Currently no self-report play measure, specific to the nature of South African children's play activities, exists. The KPP was developed in the USA to guide therapists in the choice of intervention activities as well as providing a profile of the child's preferences in terms of the type of play activities they engage in (7). Play is a very important occupational performance area in a child's life and efficient assessment and intervention in this area is important to obtain occupational balance (17, 18). During the exploration of assessment tools, the researcher found that this was the only play tool that can easily be used by occupational therapists (OTs) and that actually asks the child's opinion. All the other available assessments for specific use in occupational therapy look at play from an adult's perspective (2, 5). This profile (the KPP) also looks at play as an occupation, can determine the number and variety of play activities that children participate in, as well as their enjoyment of those activities (7). However, due to several possible irrelevant items (due to differences in culture, climate and resources, etc.) within the profile, the assessment results would not be valid or reliable for the South African child. Thus modifications needed to be made.

1.9 Assumption

There is one assumption underlying this research, namely that children between the ages of six years and nine years living in urban South African contexts participate in different activities to children living in the USA.

CHAPTER 2

2.0 LITERATURE REVIEW

2.1 Introduction

In this chapter, some of the literature and theories relating to children as occupational beings and the occupational performance area of play will be explored. Attention was given to defining play, the importance of play, as well as the assessment of play and the KPP. The factors influencing children's choices in activities were examined and play a major role in the outcome of this project. Research with children as participants has its challenges, thus measures to improve validity and reliability in doing research with children were also explored.

2.2 Play and the importance of play

To define play is no easy matter; therefore different scholars have aimed to define play by listing the characteristics or elements of activities to be considered as play or playful. These characteristics include activities that are pleasurable, spontaneous, active engagement and the opportunity to suspend reality (3, 4).

Play is defined by the Cambridge Online Dictionary as "to spend time doing an enjoyable and entertaining activity" (19). Play was described by Susan Knox as "an automatic and integral part of the lives of young children whereby they develop an understanding of the world and gain competence in interacting within it" (p.55)(5). Alexis Henry, on the other hand, viewed play activities as those that are "freely chosen, intrinsically motivated and done for personal enjoyment or a sense of challenge" (p.95)(7). Intrinsic motivation is an essential element of play that emphasises the link between motivation and the inner drive of the individual (20). Play is usually seen as outside one's obligations and provides the opportunity for relaxation, personal growth, recreation and enjoyment (2, 20, 21). Play can take many shapes and forms, being interactive or structured or physical, for example improvisation or pretend play, games and sports. Structured play or games has clearly defined rules or goals, while unstructured play is free and without set rules. Both these types of play promote adaptive behaviour as well as happiness (2, 22).

Play presents children with the opportunity to use creativity while skills such as dexterity, emotional maturity, physical and cognitive strength, as well as imagination are acquired (23-25). As they master their world, play assists children in the development of new competencies and leads to resiliency in future challenges (26, 27). These skills include the development of memory, language, literacy, co-operation and self-control (9). Physical play has been found to be important in whole body and hand-eye co-ordination development, as well as developing strength and endurance (12, 28). Long-term studies have shown that pre-schoolers who participated in play-based programmes had superior academic scores and socio-emotional skills compared to older children (29). The play-based learning approach increased the children's ability to interact appropriately with their peers, as well as the ability to understand abstract concepts (29). This emphasizes the importance of play in the learning process, not only to obtain sensory-motor skills, but also to gain social and higher cognitive skills (28, 29). The ability to play includes the initiation of play behaviour, adequate skills to perform the tasks safely and the ability to manipulate materials creatively during play behaviour (30).

2.3 Children as occupational beings and play as an occupation

Like adults, children are occupational beings and thus engage in occupation in order to create meaning in their lives (17, 30). Occupation is usually defined as goal-directed activities that characterise daily life and that patterns of these activities occur over a person's lifetime, influencing health and general well-being (5, 17). Play thus forms a major occupation for younger children. Within the occupational behaviour frame of reference, play is viewed as the primary modality to develop abilities, interests and skills for later in life (5). Play in childhood can be viewed as preparation for occupation in adulthood and play in adulthood as recreational (30). Thus occupational behaviour can be defined on a continuum of play and work (17).

Occupational therapists acknowledge play as an integral part of life and categorise it as one of the most important occupational performance areas (OPAs) of children (5, 17). Therefore, OTs need to understand, assess and treat play (2). However, research has found that OTs do not frequently assess play as an occupation or write treatment goals related to this OPA, even though it is frequently used as a motivator or treatment modality (5, 7, 31, 32).

The relationship between ‘occupation’ and ‘wellbeing’ has been the subject of many a scholar, such as Yerxa(33) and Kielhofner(34) and it is now accepted that people need to engage in activities that are meaningful to them and performed in order to fulfil social roles and routines (18, 30). One of the core tenets of occupational therapy with children is that children as occupational beings have the same need to create meaning in their lives through doing (5, 17). Occupational therapists have to understand the occupation of play in order to provide client-centred services (17, 30). Therapists need to be able to assess play; not only to look at the underlying skills necessary for participation in the occupation of play, but also to look at occupational balance, satisfaction and comfort (18, 35).

In order to do this, therapists should acquire knowledge of the child’s perspective on his/her own occupation, just as a therapist would do with adults (6). Intervention in this area also requires understanding of the child’s involvement in play activities and the effect of play, or lack thereof, on occupational behaviour and balance (6, 35). If the OPA of play is within the expected norms, then some of the underlying components will be stimulated and developed spontaneously, or if the OPA of play is not age appropriate, this could be addressed to not only improve challenged underlying components, but to also ensure better social skills and occupational balance and satisfaction (18, 35).

Henry(6), as well as Woodhead & Faulkner(36), stated that most of the research into children’s play is observational and has not necessarily engaged the child’s perspective. Whilst observational techniques provide much developmental information, this information does not tell the researcher about children’s perceptions and therefore does not allow conclusion or interpretation of the child’s definitions of playfulness (37). Woodhead & Faulkner(36) stated that it is important to make a distinction between the “observable act of play” and a “playful intention”.

This emphasizes the need to separate the act of play from the feelings of playfulness brought to the activity by the players, the children themselves, as what may look like play may not be approached in a playful manner. For this reason it is important to look at play and the occupation of play from the child’s perspective. Thus is it necessary to find or develop tools that represent and reflect the child’s perspective and preference regarding play (2, 20, 36, 37).

2.4 Development and types of play

Play can take many shapes and forms, being interactive or structured or physical, for example improvisation or pretend play, performance play, games and sports (38). Structured play is games that have clearly defined rules or goals, while unstructured play is free and without set rules (38). Both types of play are important in the development of children. In his systematic review, Whitebread(12) found four different studies between 2000 and 2011 investigating children's play in a variety of cultures, from very primitive to modern and urbanised societies. These studies showed that, irrespective of culture and socio-economic groupings, all children engage in the five types of play that Piaget(39) described in his work.

The five types of play relate to physical play, play with objects, symbolic play, pretence/socio-dramatic play and games with rules (12). These types of play were found in several cultures, although sometimes the actual activities were different due to the availability of objects/toys or technology (12). Variations were found based on the cultural perception of play, which included the behaviour of parents, which affected how much play was encouraged and supported (12, 40). Thus it is clear that different types of play are present across cultures, which means that play is found all over the world, even though the activities themselves might look different (12).

There has been considerable agreement within the literature on the continuum in children's play, starting from free-play, moving on to games and then evolving to sports (38, 41). Whitebread(12) found that young children from the age of five years are very interested in rules and consequently they enjoy games with rules and frequently make up their own. These include physical games, such as hide and seek and throwing and catching a ball, to more intellectual games, such as board or card games, electronic or computer games and later in life, a variety of sports (12).

There are many approaches that aim to classify the development of play. Nancy Takata(42) developed the Takata play epochs, which describe play in five stages. She described the first 18 months as sensorimotor, being purely with sensations and motions; symbolic play during the ages of two to four years, where pretend play is dominant and solitary play shifts to parallel play with simple constructions representing other objects. Takata(42) indicated that play shifts to associative play during the ages of four to seven years. Activities that require skill and dexterity, such as more complex construction, interest them. Between the ages of seven and twelve years, Takata describes the fascination with games with rules as well as sports, and that formal groups are predominant (17, 42, 43).

Reilly(43) described play development from the viewpoint of the exploratory drive of curiosity. She described the first stage as "exploratory behaviour" in infancy where the child has an intrinsically motivated interest in the environment with the aim of sensory experiences. The second stage that she described in young children is "competency behaviour" driven by the need to interact with the environment to achieve self-confidence and self-reliance. The third stage she described as "achievement behaviour", which is motivated by comparing to a specific standard of excellence that involves risk taking and strategy (17, 43).

Case-Smith(41) categorised the development of play into play occupations (types of play) and performance skills (motor skills, cognitive processing and social interaction). She described play in infancy (0-6months) as sensorimotor play focused on bonding, which shifts after the age of six months to functional play for functional purposes and attachment to caregivers (6-12months) (41).

Case-Smith(41) proposed that relational and functional play occurs from 12-18 months, where simple pretend play is directed to the child's needs, such as eating and sleeping. During this stage, children engage in gross motor play by exploring the environment, as well as the beginning of parallel play.

During the toddler years (18-24months), pretend play is predominant with more social play in the form of parallel play and watching other children. During this phase, the toddler also enjoys sensory input of gross motor play (41).

In early childhood (2-4years), children start participating in symbolic play, with multiple pretend play ideas; constructive play, which involves drawing and building; as well as gross motor play that involves rough-and-tumble and messy activities. This progresses into more complex constructive play and playground gross motor activities. Social play evolves from associative parallel play to associative play with other children, games and social activities, such as singing and dancing (41).

In the preschool years (5-6years), play occupation involves games with rules, evolving to board games, computer games and competitive games. Construction play is predominant, with interest in art and complex construction (41, 44). During this phase, pretend play evolves into dramatic play with activities such as dress-up and telling stories (12, 38, 41).

During middle childhood (6-10years), play occupations involve the playing of games with rules that require problem solving and abstract thinking. Construction play evolves into crafts and hobbies and gross motor play shifts to organised sports where skills are required. Social play changes to talking to friends and peer play at home and school (41).

If one examines the characteristics of play, especially the trends and types as well as the development of play over time, play appears to be universal, but as there are many factors that can affect play and the engagement in specific play activities, there must be differences as to the specific activities (or in other words, the specific content of play) that children all over the world engage in. This will be explored in the following section.

2.5 Factors influencing play and engagement in play

There may be many explanations for the current trends regarding children's play and playfulness, but several key factors should be considered when studying children's play activities. Factors such as age, gender, culture, socio-economic status and climate may play a significant role in a child's preference and opportunities to participate in specific play activities (6, 41). In modern society, factors such as modern lifestyles, academic pressures, technology and infrastructure, crime and safety, as well as parental perceptions may also play a role in a child's participation in play activities (6, 12).

Age:

Vossen(38) and Meier(45) indicated that play forms part of an individual's development and changes over time. This implies that a child's age is one of the significant factors that has an influence on a child's playfulness and choice of play activities (38, 45). Results of the 2011 National Kid Survey in the USA(46) indicated that children between the ages of six and twelve years played outdoors more, participating in physical activities such as bicycle riding, jogging and walking than children between the ages of 13 and 19 years. This survey indicated that children between the ages of 13 and 19 years preferred to listen to music, watch television or use electronic devices and participated in structured or team sports more than children in the younger group (46).

The normal development of physical, emotional and cognitive skills can be linked to changes in play over time. Children need to develop good motor skills for sports, organisational and

praxis skills for team sports and emotional skills for the development of competitiveness (38, 41, 47). As children's skills improve, their play becomes more complex and gains new dimensions (41). This can be seen in the development of social play, which starts off with interaction only with an adult and then slowly develops through interactions with one another, small groups and eventually into the co-operative play between groups of children seen in primary school (38). The ability to deal with competition develops in the foundation phase of formal schooling and is seen in the preference for games with rules, such as simple ball games and board games (41).

The above mentioned literature supports that the development of play and interests in activities change over time and those children of different ages participate in different play activities as development of skills takes place.

Gender differences:

The differences in play preferences between boys and girls are also a factor to consider when play activities are investigated (48). In her systematic review, Muñoz(49) found that several studies done in the United Kingdom between 2001 and 2007 showed gender differences in the way girls and boys wanted to use public spaces for play. Boys between the ages of seven and eleven years preferred being outdoors and doing activities away from their homes with their peers, while girls of the same age preferred being at home either with friends or with siblings (49). The National Kid Survey(46) conducted in the USA found that boys prefer outdoors play, participation in team sports and riding bicycles and off-road vehicles, while girls preferred sitting outside reading or studying. Girls preferred water-based activities like swimming, while boys liked land-based sports better. Boys preferred video games, digital video discs (DVDs) and television, while girls were more interested in listening to music, art, reading, text messaging and spending time in the mall (46, 50). These studies confirm children's interests and preferences in play activities change over time, but that the different genders also have some activity preferences that are different from each other (47, 48, 51). It is not clear whether this difference would be present in South Africa, as the research does not indicate whether gender differences are due to cultural conditioning or rather an innate difference in preference.

Culture, race and parental perception regarding play:

Whitebread(12) found that children participate in play activities irrespective of culture and socio-economic groupings (39). In their study, Gaskins, Haight & Lancy(13) identified three general cultural perceptions of play which have a significant impact on children's play, as well as the level of involvement and perception of their parents. In some pre-industrial societies, play is tolerated, but viewed as of little value. In other cultures where parents expect children to play, it is perceived as useful to keep children busy until they are old enough to contribute to household chores and attend school. Culturally, cultivated play is encouraged by parents who view play as the child's occupation and an important part of development (12, 13, 52).

A number of studies revealed that parental assumptions and attitudes towards play differ across different cultures and that cultural prejudice can lead to misinterpretation of children's play and behaviour, as a person from one culture may attribute incorrect meaning to play behaviour of children from another culture (53, 54).

Cross-cultural studies conducted by Gaskins(55) and Bazyk, Stalnaker, Llerana, Ekelman & Bazyk(56) found that Mayan children's activities are mainly structured around work and not play activities. Bazyk, et al(56) stated that play activities occupy a small part of these children's days, but that an attitude of playfulness such as humour and playful social interaction is embedded throughout the Mayan children's daily lives. Bazyk, et al(56) indicated that most research regarding play is conducted on middle-class American children and that deficits can be attributed erroneously to minority groups. This can be applied to South Africa as well; thus the importance of research in South Africa to avoid wrongful attributions and assumptions, as South Africa has a diverse and unique population.

Children do not automatically develop a variety of play skills and knowledge regarding activities and games by themselves (57). Whitebread(12) and Gaskins, et al(13) have argued that parents' perception of the importance of play has a major impact on children's play, exposure to play activities and opportunity to participation in play activities.

This literature indicated that play is found amongst different cultures and that parental perception and the value that they contribute to play largely influence children's play activities and may introduce some differences in the activities in which South African children participate compared to American children (58-60).

Socio-economic factors:

A family's socio-economic status can play a major role in the opportunities that children have to participate in different activities (14, 47). This is one area in which research in South Africa has been completed. A study was conducted by Veigh, Norris & De Wet(14) to examine the relationship between socio-economic status and physical activity patterns in South African children, as well as the influence of maternal characteristics on children's physical activity levels. The study also looked at the associations between television watching, activity level and body composition. A total of 381 children from all over South Africa participated in the study (14). Researchers used validated questionnaires during structured retrospective interviews to assess the physical activity and socio-economic status of the participants. An asset indicator score was calculated as a proxy measure of socio-economic status and used to divide children into four groups. The children falling into the highest socio-economic status group came mostly from dual parent homes with two parents and the results indicated that they were more physically active, watched less television and had greater lean muscle composition than children in lower socio-economic groups. The researchers concluded that physical activity levels and socio-economic variables are closely related in this population of South African children (14).

During the recreation research study conducted by the City of Cape Town, a combination of qualitative and quantitative methods was used, including focus groups and one-on-one interviews with stakeholders and a quantitative survey completed by 1500 residents (16). Results indicated that less than 50% of children participated in physical activities when they had free time, but that the levels varied significantly between demographic groups. The results indicated that significantly more children in upper income households participated in physical exercise, while only slightly more children from the upper income groups participated or belonged to sports clubs/teams, than children from the lower income groups (16). These studies indicated that children living in middle to upper class homes engaged more in informal physical activities than the children living in lower socio-economic circumstances. One reason offered for this is that middle to upper class children had more opportunity and resources to participate in these activities whenever they wanted to (14, 16).

These findings are supported by literature produced by Tandon, Zhou, Sallis, Cain, Frank & Saeles(40), which indicated that children from higher socio-economic status groups in the

USA are more likely to participate in physical activities than children from lower socio-economic groups. Socio-economic status also had an influence on the use of technology and screen time. Although children from lower socio-economic status groups had higher levels of screen time, the type of technology used was different to those from higher socio-economic groups (40). Those from the lower socio-economic groups spent more time watching television or DVDs, while those from higher socio-economic status groups had access to video-game systems in their bedrooms. There were also differences in the rules related to going outdoors and playing unsupervised. Children from high socio-economic status groups had more freedom to move around independently and play unsupervised, which may be as a result of their parents' perceptions of safety within the neighbourhood and attitudes towards play (40).

It is clear that socio-economic status can play an important role in what kind of opportunities for play exist for a child, as well as the attitudes towards play by the adults in their environments.

Crime and safety:

One of the most prevalent factors that can either support or inhibit children's play is the environment, especially the safety of children within the environment (12).

Muñoz' systematic review concluded that parental perceptions and fears are a major constraining factor in children's use of the outdoors and that children themselves are fearful to play outside (49). Research on perceptions found that children between the ages of eight and eleven years have some fears that are often linked to potential encounters with 'dangerous strangers' that could be associated with serious criminal activity and deviant behaviour of teenagers, such as vandalism and anti-social behaviour (57, 61-63). Ginsburg(23) confirmed these findings and argued that in some communities children cannot play safely outside their immediate home environment unless they are under close adult supervision and protection. This is particularly true in unsafe areas because of increased crime, violence or other environmental dangers (49). Studies and surveys of parental attitudes in more than sixteen countries have reported fears about allowing their children to play outdoors, which are related to increases in crime, harassment, possible abduction, traffic and many similar issues (52, 64-67).

Karsten & Van Vliet(68) indicated that there is a related reduction in the area that children are allowed to play away from the home in terms of their unsupervised use of the outdoors. The studies conducted by Moss(69) confirmed this, as he found evidence that the area where children are allowed to play unsupervised around their homes has decreased by 90% in the last 40 years. This trend has been noted within rural and urban contexts (70, 71) and researchers have linked these "spatial constraints" to a consequential increase in supervised or commercialised play, such as after-care centres and malls, which parents resort to (68, 72). This means that contemporary children's play spaces are seen to be moving away from time spent in unsupervised outdoor play towards adult-controlled use of the outdoors (72, 73).

All these studies indicated that crime and the safety of children are a concern all over the world and have an impact on the spaces in which children are allowed to play, which subsequently also have an impact on their activity choices. This is a factor that probably has a significant impact on South African children's play as well, due to the high crime rate in the country, especially in urban areas (74, 75).

Climate:

Studies done in the United Kingdom and Canada, where there are extreme temperature differences between winter and summer, explored the effects of weather and daylight on physical activity amongst children. Goodman, Paskins & Mackett(15) conducted two observational studies among 325 British school children aged 8 to 11 years. Physical activity was recorded, using accelerometers for four days. The children also completed activity and travel diaries for four days. The study focused on three behavioural outcomes, namely "outdoor unstructured play, structured sport and active travel". The results indicated that children were more active on longer and warmer days during the week and weekends. Post hoc analysis revealed that a higher proportion of unstructured ball games occurred during longer and warmer days. Rainfall was also associated with less physical movement (15). Thus climate and the weather had a significant impact on children's choices regarding play activities.

Although South Africa does not experience the same extremes in weather as in the United Kingdom or Canada, it is reasonable to assume that weather and climate can also play a role in the choice and participation of South African children in specific activities. South Africa has a comparatively low average annual rainfall and plenty of sunshine in most regions

throughout the year. The inland region of Gauteng has a mild climate that is not too hot, cold, humid or windy. Temperatures in winter are between 5 and 19 degrees Celsius. During summertime, the days are warm with brief thunderstorms and temperatures that vary between 17 and 28 degrees Celsius (76). This means that the South African climate offers children the opportunity to play outdoors and participate in outdoor sports. This suggests that the activities that South African children can participate in would be different to the activities that the children in the USA participate in, specifically in New England, where the KPP was developed (77). This would mostly relate to the winter activities, such as sledding, playing in snow and snowboarding, which will not be applicable in the South African context (6). South African children also make use of the opportunity to play outside in the warmer and moderate climate to improve motor skills (78).

Modern lifestyle, urbanisation and technology:

The effect that the modern lifestyle has on children's play and activity participation needs some consideration. The reality of modern society is that there are more families with a single head of household or working parents, which makes it necessary for children to be in child-care settings where they can be monitored by adults other than their parents throughout the day (23). Parents aim to balance work and home schedules and then they often want to make the most of the limited time with their children. Consequently, parents try to manage their children's routines by including more extra-mural activities to have every opportunity in life, but less playtime with their overworked parents (23). Ginsburg(23) also mentioned that due to more parents working outside the home, organised after-school activities and academic enrichment opportunities offer valuable alternatives to children who might otherwise be left with minimal or no adult supervision in the afternoons, but that many after-school centres prioritise an extension of academic activities over organised play, free play and physical activities. He stated that parents feel pressurised to provide the opportunities and encourage their children to reach for academic excellence and a wide variety of extra-mural activities starting from a young age (23).

The influence of urbanisation is seen in the options of play and social activities that children have. Friends spend time at the mall or go to the movies instead of staying home and playing (46, 72, 79). The development of play arenas in malls and at restaurants are also in demand, as parents prefer places of social gatherings to have facilities for their children to play or entertain themselves (72, 80, 81).

In the technologically advanced society of recent times, scholars argued that decreasing free and outdoor play can also be attributed to children being more passively entertained through television and other electronic media than before (40, 57). Even though the health benefits of active and free outdoor play and the developmental benefits of appropriate organised activities are positive, the fact remains that technology is a major factor affecting children's choice of and participation in play activities (23). According to the National Kids Survey done in the USA in 2011, technology-centred activities are more popular than nature-based activities and that electronic media seemed to be an important factor influencing children's time outdoors negatively (46). Communication media to make life faster and more efficient, and entertainment technology, such as television, internet, tablets, cell phones and video games have advanced so rapidly during the last few decades (82, 83). The target population of this study lives in the city and the impact of the modern lifestyle, urbanisation and the advances of technology may also affect their choices of play and social activities.

In conclusion, it is clear that there are a number of factors that can influence the choice of play activities in children between the ages of six and nine years. These factors may create many similarities between South African children's preferences, but may also create differences. As only limited research in play preferences of South African children has been done, further investigation into valid play activities for this age group needs to be undertaken. In order to obtain a truly valid and reliable tool for assessment of play in South Africa, researchers must include children in their research to try and understand their preferences.

2.6 Assessment of play

Occupational therapists have to understand the occupation of play in order to provide client-centred services (2, 5). Therapists need to assess this occupation, not only to look at the underlying skills necessary for participation in the occupation of play, but also to look at occupational balance, satisfaction and comfort (18, 34) . In order to do this, therapists require knowledge of the child's own perspective on his/her occupation, as with adults (6). Intervention in this area also requires understanding of the child's involvement in play activities and the effect of play, or lack thereof, on occupational behaviour and balance (6, 35, 84).

Children do not always negotiate space the way adults expect them to and this can lead to a misconception between parental perception of play and children's experience of play (85). Thus the adult perception does not necessarily match the child's experience.

2.6.1 Assessment of play in other professions

Various measures have been developed to assess play. Some describe how play manifests in a particular group, while others identify challenging areas for individuals (7, 8). These assessments are mostly based either on observation of play by the therapist or parent, or the caregiver's report (8, 47, 86).

Many of the original play assessments were designed to asses a specific skill (87). Kalverboer developed an assessment to examine the relationship between play organisation and neurological functionality (Measurement of Play: Clinical Applications, 1977). Rosenblatt (Developmental Trends in Infant Play, 1977) considered play and language as a continuum in the development of meaning of symbols and viewed play as cognitive activity that contributed to children's knowledge about the world, while Hulme & Lunzer (Play, Language and Reasoning in Subnormal Children, 1966) examined the relationship between language, reasoning and play (87). Smilanski elaborated on Piaget's stages of play and examined the stages of socio-dramatic play (The Effects of Socio-dramatic Play on Disadvantaged Preschool Children, 1968). Linder developed a trans-disciplinary play-based assessment that evaluates a child's cognitive, language, physical and socio-emotional development by means of a questionnaire completed by the parents and through structured and unstructured play settings with a peer, a parent and the facilitator (Trans-disciplinary Play-based Assessment, 1993) (87, 88).

A more current play assessment measure is the Play Observation Scale by Rubin(47) that attempts to determine age and gender differences in play, socio-economic differences in play, individual differences in play, etc. - once again by means of observation.

In the book Play Diagnosis and Assessment (2nd edition) Karen Gitlin-Weiner, Sandgrund & Schaefer(8) explored several different play assessment tools. These involve developmental play assessments, diagnostic play assessments, parent-child interaction play assessments, peer-interaction play assessments and projective play assessments (8). These assessments mostly involve interviews, observation or role play to assess the child's play and do not necessarily enquire from the children themselves about their play activities.

The abovementioned assessments were developed predominantly in the field of psychology and not occupational therapy and are based on assessing components of play and skills, rather than play as an occupation.

2.6.2 Assessment of play in occupational therapy

Within occupational therapy, the assessment of play has followed a similar approach as in psychology. Some of the more well-known play assessments are based on developmental levels as well as observation of play by adults. The "Play History" by Takata(89) and "Preschool Play Scale" by Knox(5) are two assessments developed by occupational therapists to explore play on a developmental level. Takata viewed play as a developmental phenomenon and reflected on the interaction between the child and his/her environment. Knox developed the "Play History" from these ideas into "semi-structured interviews and play observation" to acquire information on the child's daily activities. Knox(5) also developed an observational assessment designed to describe normal play behaviour up to the age of six years. The assessment examines "space management, material management, symbolic or pretence and participation". Children are observed and rated on all four dimensions while indoors and during outdoor play (5). Neither of these two assessments takes the child's own perspective into account.

A different approach is to assess playfulness, rather than actual play activities. Bundy & Skard(2) developed the Test of Playfulness (ToP) to assess the child's degree of playfulness. The child's play is rated on scales of content, intensity and skill. The ToP contains 68 items representing the four elements of play that Bundy concluded to represent playfulness: "intrinsic motivation, internal control, the ability to suspend reality and framing" (2). The ToP enables the assessor to see the child performing familiar activities in a natural setting as well as performing self-chosen and routine activities. This gives the assessor an overview of the child's competencies and a sense of the family routine that allows some interpretation of occupational performance, but again is from the perspective of the adult. Scholars such as Knox(90) and Bundy(20) viewed play as an "interaction between the child and the environment" and claimed that there could be a significant difference in a child's play from one setting to the next, depending on physical and human factors. Thus, the standardised environment in which these play assessment methods/tools are mostly set can alter or inhibit play.

The risks of these measures are that observers and players might bestow different meanings and purposes to a play activity, which makes it difficult for the observer to evaluate the purpose or meaning of the activity to the child (13, 55). Knox(90) found that, over a prolonged period of time, a child's play could significantly differ and concluded that to capture play effectively, the observer has to observe the child multiple times in a variety of settings (90).

Although the assessment of play and the child's abilities are very important in determining treatment plans, these methods do not take into consideration the child's perspective, perception and comfort or occupational balance (7). A few measures like the "Play Detective Diary" (9) and the "Activity Appreciation Story Procedure" (10), have been developed to elicit information regarding play from children directly. The "Play Detective Diary" is a measurement tool that children have to take with them and complete over the course of a few days (9). The "Activity Appreciation Story Procedure" is a tool where the child tells his/her play story to the assessor. This can be very time consuming, vague and open for interpretation (10).

The abovementioned were mostly developed in the USA and do not necessarily satisfy the requirements for assessment of play in the South African context. In South Africa, we need assessment tools specifically designed for our children with their unique lifestyles and challenges to eliminate wrongful attribution and interpretation and invalid results (56).

According to Henry(7), a self-report survey/tool used within an assessment setting could be an effective way to gain insight into children's perspectives of their own play if it is designed in a child-friendly manner. She argued that child-friendly self-report questionnaires can capture the young child's perspective, play preference, involvement and enjoyment (7). With this in mind, she and her team developed the Pediatric Interest Profiles, consisting of three separate self-report surveys, namely the Kid Play Profile, the Preteen Play Profile and the Adolescent Leisure Interest Profile (7). The Kid Play Profile was designed for children between the ages of six and nine years and intended to provide an easy and effective method of gathering information directly from the child about play interests (7). The Preteen Play Profile elicits play information from nine and ten year olds and the Adolescent Leisure Interest Profile is completed by adolescents between the ages of 14 and 19 years (7).

2.7 The Kid Play Profile

The Kid Play Profile consists of 50 activities/items in eight categories, namely sports activities, outdoor activities, summer activities, winter activities, indoor activities, creative activities, lessons/classes and socializing (see Appendix A). The participant can answer up to three questions about each activity. The questions in the KPP focus on the participation in an activity, the level of enjoyment and whether the activities are done alone or with others (7). At the end of the survey there are five open areas where the participant can add his/her own activities. This child-friendly tool with illustrations and simple instructions offers an easy and time-effective measure to obtain information from the child regarding his/her play activities. The assessor can obtain information about the type of activities the child engages in, how much it is enjoyed and with whom the child does these activities; thus assessing occupational comfort, balance and satisfaction (18, 91).

The KPP can be used by OTs to identify social and play-related problems, or to select appealing activities during treatment (7). In order to score the KPP the assessor calculates the percentage of activities that the child participates in within a specific category (see Appendix A).

The KPP was developed in New England, USA, which is situated on the north-eastern seaboard. The activities included in the profile reflect the culture, climate and interests of that part of the country. In order to develop the initial pool of activity items, several small groups were conducted with 18 children between the ages of six and twelve years. Factors that influenced the inclusion of activities were demographics, culture, weather and socio-economic influences (7). Based on the interviews, a 75 activity pool was developed and organised into 12 categories. This activity pool was administered to 481 school children between the ages of eight and twelve years in New England in the USA. The review yielded an additional nine activities, resulting in an activity pool of 84 items. Some of the items were combined into a broader item and five expert occupational therapists reviewed the appropriateness of the items. They were asked to suggest appropriate activities for six and seven year old children as well. Pilot studies were launched to test the content validity and test-retest reliability with typical developing children. Thirty-one children between the ages of six and nine years participated in the test-retest reliability study (using the 30-item research version). The ability of the children to respond to the content as well as the consistency of their answers was evaluated. As a result of the information obtained from the pilot studies,

the KPP was adjusted to the 50-item version. The Kid Play Profile is considered suitable for use in research, as results can be compared to norms for different population groups, cultures, genders and socio-economic subgroups (7).

The Kid Play Profile is designed for children between the ages of six and nine years and the combination of words and simple pictures are used so that young children can complete this profile with minimal assistance (7).
The instructions are read to children who cannot read themselves. Assistance and further explanation are allowed for learners who are not English first-language speakers. This feature (pictures) enables this assessment tool to be used in the South African context, as we have many children who have English as their second or third language (92, 93).

During the pilot reliability testing, 31 Grade 1-3 learners were asked to complete the 30-item research version. The preliminary results indicated that the activities most commonly done and preferred were to 'Watch television', 'Use computers' and 'Draw or Paint', all at a 97.4% participation rate, followed by 'Go swimming', 'Go to the beach' and 'Listen to music' at 92.1%. While there were many similarities between the boys and girls, the data reflected some gender differences in the preference of activities (7). The five most preferred activities for boys were to 'Watch television', 'Use computers', 'Ride bikes', 'Listen to music', 'Go to beach / swimming / sledding' and 'Play with Lego'. The girls preferred to 'Draw/Paint', 'Read', 'Watch television', 'Ride bikes', 'Use computers', 'Go swimming /Beach,' 'Play Tag/Hide and Seek' or 'Board Games' (7).

Henry(7) stated in her conclusion of the Pediatric Interest Profiles that the items in the profiles may reflect bias in terms of cultural, ethnic and socio-economic status, as the studies were conducted in an overwhelmingly middle-class area with mostly Caucasian subjects. The development process involved a small sample of the population and she suggested studies with a greater sample to investigate play patterns and to determine if certain patterns can indicate children at risk (7).

Thus, when considering whether the profile would be appropriate in South Africa, the factors influencing play and playfulness need to be explored to determine what would be similar and what would be different about play in the USA and play in South Africa.

2.8 Engaging children in research

This research study's main focus was to obtain information from children themselves and to engage children in the research process directly. Thus recommendations found in the literature were noted and applied.

It is now deemed acceptable to do research studies with children and not only about children and that many benefits, such as accurate information, can be obtained when children are active participants in the research process (94, 95). Noble-Carr(96) stated in her systematic review about engaging children in research of sensitive issues, that there has been a growing interest in finding better ways to engage children in the whole research process. This is also an important aspect in this research study.

One of the major points mentioned in literature regarding engaging children in research is about the power imbalance between the researcher and the child that needs to be acknowledged and addressed (94, 96, 97). The popular notion is to employ "child-centred and participatory methods" (94, 95). The main reason for involving the children in aspects of the research projects is to build rapport and to maximize the child's interest and sense of ownership (94). This is important in order to obtain the child's optimum reliable and valid information. In this research study the children were directly employed by completing the modified KPP.

Reflexivity is recommended whereby the researcher has to reflect on his/her own bias, assumptions, choice of methods and not interpret the children's responses through his/her own childhood memories and frame of reference (96). This was an important aspect to remember during this study, as personal bias and assumptions could play a role during the nominal group process as the opinion of parents and educators were elicited. Some literature supports the inclusion of significant others such as parents or siblings in the research process (95). The triangulation of information, where interviews are also conducted with parents or significant others in the child's life, helps to establish a multi-voice research design (96). This triangulation of information was done during the nominal group discussion in this study.

The setting in which the data collection with children occurs, is very important in order to not only maintain a healthy researcher-child power balance, but also because children behave differently towards adults in different settings (94). In a school setting, for example, they may

not necessarily feel that they have any authority and the freedom to express their views. Thus, the children have to feel comfortable in the data collection setting. It is recommended that data collection should include more than a once-off encounter to build rapport and trust and to let them know that there is not a "right" or "wrong" answer (96). During this study, the setting was more informal than in a classroom setting and the participants had to complete the modified profile twice, thus applying the suggesting of more than a once-off encounter.

As with adults, the researcher has to take the time, budget and resources into account when selecting the research method as well as the children's age, gender, culture, social context and the research subject (94, 95). Research methods employed with children include participation observation, interviews, the use of visual and task-based activities, focus groups, drawing and other art forms, timelines and charts, maps, photographs, spider designs, brainstorming, role play, drama, journals and computer-based data collection (96, 97). Visual and task-based research techniques borrow or adapt the ideas from therapeutic activities and new participatory approaches such as the "Participatory Action Research" (PAR) and "Participatory Rural Appraisal" (PRA) were developed (96). Advantages of using these participatory and task-based techniques include making research more fun, setting children at ease, accommodating limited attention span, setting a healthy adult-child power balance, limiting pressure to talk or make eye contact, giving the participant time to think, giving the researcher the opportunity to triangulate data and staging the opportunity to take class, gender, age and culture into consideration (96, 97). During this study, the use of task-based activities was employed with the children.

Another aspect regarding validity and reliability in research with children is the concern about children's recollection and account of events. Yang(11) found in her study measuring general activity levels in children and adolescents using a self-report profile that the reliability of their response decreased significantly after three days. Punch(97) commented on this and stated that children, just as adults "lie" during a research study to avoid painful memories, out of shame, fear or because they think it is what the researcher wants to hear. She stated that children give account, just as adults do, according to their perception and that the only difference might be the power relationship of the researcher and child, where the child wants to please or fears the researcher (97). Thus the importance of building good rapport, actively involving children in the study, explaining the purpose of the study and the value of their input are very important aspects (95).

Punch indicated that there are similarities and differences in the way research can be conducted with children and adults. She viewed research with children as a continuum where the individual children, their ages and competencies, the research question as well as the research setting have to be taken into consideration (97). Thus, when doing research on issues affecting children, it is important to include children in the process and to obtain their views and perspectives.

Completing a self-report survey: link to academic task and performance

As to why boys perform less well when it comes to academic tasks than girls, has been the subject of many studies (98). Gender differences are evident in the results of standardised testing and teacher ratings of school performance. These gender differences in educational achievement could not be explained by differences in intelligence, but could adequately be explained by gender-related differences in behaviour (98, 99). It was found that the boys were more prone to disruptive and inattentive classroom behaviours that affected their academic outcomes (98-100). This leads to the question of whether there would be gender differences in the efficiency in which children would complete the self-report survey, as it is similar to academic tasks and completed within a school setting.

2.9 Conclusion and question

South African children live in another country far away from the children of New England, USA. One can assume that their play activities would possibly differ quite substantially. The literature, however, indicated that there are many similarities in the factors all over the world which affect children's opportunities and choices of play. Universal factors are the age of the children, gender preferences, socio-economic status, crime and safety and the modern lifestyle. Factors that may lead to different activity options and preferences are probably culture and climate.

When looking at the KPP, it was clear that some of the items might need modification in order to make it a valid and reliable tool to utilise in South Africa, as the KPP was developed in the USA. This brings us to the research question as to which activities should be retained, removed and added to make it a valid and reliable tool to use in a South African population.

CHAPTER 3

3.0 METHODOLOGY

3.1 Introduction

The methodology of the study will be discussed in this chapter. This includes the steps taken during different phases to modify the KPP, as well as the type of data analyses done during each phase.

3.2 Design frame and data collection techniques

An instrument development and adaptation research design was implemented (101, 102). The KPP is an existing tool developed in the USA. In order to use this tool successfully in South Africa, it needed to be adapted to suit South African children's interests and activity opportunities. For this reason, the process of instrument adaptation as described by Creswell(102) was considered appropriate to answer the research question.

Creswell(102) described instrument development and adaptation as a variant of the sequential exploratory mixed method design, with three separate phases: (a) a qualitative phase collecting information necessary for the development of the tool, (b) the development or adaptation of an instrument based on the information gathered in (a), and (c) testing of the developed or adapted instrument on a sample of the targeted population to determine psychometric properties. This project was based on Creswell's description. However, the initial qualitative phase was replaced with a nominal group technique(103) and was quantitative in nature. Thus the project used a purely quantitative strategy rather than a mixed methods strategy.

This study was divided into two phases. In the first phase the content of the profile was investigated and the profile was modified to contain valid items for a South African population. This phase represents the first two steps described by Creswell(102) in instrument design or adaptation and was undertaken to determine content validity of the KPP for use in South Africa.

The second phase tested the adapted/modified Kid Play Profile in a sample of the target population, in order to confirm the content validity and to investigate two aspects of reliability, namely internal consistency and test-retest reliability. This phase represents the third step described by Creswell in instrument design or adaptation (102).

3.2.1 Overall study population and selection of study site

The Kid Play Profile was originally designed for administration with children between the ages of six and nine years (7). The population for this study was limited to English-speaking middle to upper socio-economic groups of children in the Tshwane/Pretoria East region between the ages of six and nine years. This limitation was created because of the influence of culture, location and socio-economic status on the types of activities children engage in (7, 12, 15, 16). The overall study population consisted of children, as well as their parents and educators.

The most convenient site to sample the population was at schools, as the researcher could gain access to children, educators and parents at one location. For the purpose of this study a sample of convenience was utilised to identify the study site and two primary schools in the urban region of Tshwane/Pretoria East were selected. These schools were accessible to the researcher and agreed to participate in the study.

Both schools are located in the eastern suburban parts of Tshwane/Pretoria. One of the schools is English medium, while the other school is parallel medium, educating in English and Afrikaans. Both schools encourage achievement in academics, sport and cultural activities. Both schools have learners from different cultural and racial backgrounds (104, 105).

Children from these two schools are not necessarily representative of the population of children between the ages of six to nine years in all of South Africa due to differences in culture, weather and resources, etc. However, they do represent the population most often referred to school-based occupational therapy in this area. Thus the validity and reliability tested in this study are for a homogenous group and is applicable specifically to this population.

The study design, sampling methods, data collection and data analysis will be described separately for each phase.

PHASE 1:

3.3. Determining valid content for the KPP and modifying the profile accordingly

This phase addresses objectives one and two of this study (see page 3).

This phase of the study consisted of three steps:

- Determining appropriate content for the KPP in a South African context.
- Modifying the KPP if necessary.
- Allowing experts to review the face validity of the modified profile before moving to Phase 2 of the project.

3.3.1 Study design: Tool development by means of the Nominal Group Technique

A descriptive, quantitative study(106) employing the Nominal Group Technique(107, 108) was implemented to establish which items of the KPP should be retained, removed and added to ensure that the activity pool consisted of appropriate items for the target population (7). This technique replaced the first step of Creswell's instrument adaptation design (102).

Quantitative descriptive designs are used in research where there is no manipulation or experimentation of a variable (106). Descriptive quantitative research investigates spontaneous events, behaviour or attitudes of participants. It is used to describe a phenomenon, usually in real world environments (106). This is in line with the objectives of the first phase of this study, which was to develop and describe valid content for the KPP for use in South Africa.

The Nominal Group Technique (NGT) was originally developed by Delbecq & Van de Ven(108) and has been applied to adult education programme planning by Vedros(103). Edward Duncan(107) described the NGT as "an evaluative methodology that uses structured groups to elicit the views of group members on a specific topic" (p.404) and is used to build consensus regarding a topic.

The NGT was selected to assist in the content validity phase as it is a structured variation of small group discussions, which prevents the domination of a single person and results in prioritised recommendations (109, 110). This technique creates the platform to focus on one specific question and not on the personal values or socio-emotional experiences of the participants (109). Thus the NGT is a suitable technique for adapting a pre-existing tool such as the KPP, as it allows for focussed discussion and voting on the tool and tool items (i.e. the activities that children do in their leisure or play time) and uses quantitative description (percentages and ranking) to obtain consensus (108).

The second step of instrument adaptation, according to Creswell(102), is the modification of the tool based on the information gathered in the first step. In order to modify the KPP, the results of the NGT were captured on an Excel spreadsheet and the items to remain, be removed and added were determined according to the inclusion and exclusion criteria (described in detail in 3.3.5). After this process, the modifications were made with the assistance of a graphic designer in order to keep to the original graphic design and illustration style.

In order to check face validity of the mKPP, the original and the mKPP were presented to a panel of three expert occupational therapists to make comments and further recommendations in writing.

3.3.2 Target population

The population used to determine content validity consisted of parents and educators who come into daily contact with children between the ages of six and nine years at the participating schools (research site), as well as occupational therapists who come into daily contact with children between these ages in this demographic group (purposive selection).

Purposive sampling includes a group of different non-probability sampling techniques that rely on the judgment of the researcher when it comes to selecting the people, organisations or events (units) participating in the study (111, 112). The goal of purposive sampling is not to randomly select units from a population, but to create a sample for a specific purpose in order to focus on specific characteristics of a population, which will enable the researcher to answer the research question (113). This homogeneous sample is not representative of the

population, but the purposeful choice was made based on particular characteristics that are of interest to the researcher or study (113) .

3.3.3 Selection of participants

- The persons participating in the nominal groups were purposively selected from the population of educators and parents affiliated with the two schools selected to participate in the study. One nominal group per school was recruited. Each nominal group consisted of a total of five members: three educators and two parents. Thus a total of ten participants were recruited to participate in the nominal groups. The participants were recruited with the assistance of a liaison and via an invitation/ information letter (see Appendix C). Members were selected according to the inclusion criteria laid out in table 3.1 (Also see Demographics 4.2.1).

Table 3.1: Inclusion criteria for the participants of the nominal groups

	Educators	**Parents**
Inclusion criteria	• Educators directly involved in the education and extramural activities of learners between the ages of six and nine years, for two years or more.	• Parents of children between the ages of six and nine years. • Parents personally attending one or more extramural activities of children between the ages of six and nine years, per week.

- Three occupational therapists with experience in play and play assessments were approached by letter and email (see Appendices H-1 and H-2) to review the mKPP once the nominal groups were completed and the necessary changes or modifications were made. These occupational therapists were selected based on the following criteria:
  - Working in the region of the target population and accepting referrals from the two participating schools.
  - At least five years' experience working in school-based occupational therapy practices with children between the ages of six and nine years.
  - At least 70% of practice would be defined as hands-on therapy of children.

3.3.4 Data collection procedures

The data collection procedure for the nominal groups will be described first, followed by a description of the data collection technique with the panel of experts.

Nominal group procedures

The School Governing Bodies of both schools were approached by letter and in person to obtain on-site permission to conduct the study (see Appendix B). A liaison (contact person) from each school was requested to assist the researcher in identifying possible participants in the nominal group discussions as well as to assist in the communication with the participants. The contact persons at both schools were the Heads of Department of the Foundation Phase (Grades1-3).

With the assistance of the liaisons, participants were identified and approached to participate in the nominal group discussions at each school. An invitation/informed consent letter was given to request participation (see Appendix C). Those who then consented formed the nominal group. A specific time and place were set for the meeting of each group. Two separate nominal group discussions were conducted at the two different schools.

The steps of the Nominal Group Technique were originally developed by Delbecq & Van de Ven(108) and were conducted as follows: (see Appendix D)

- **Preparation and logistics**
  - A welcoming statement was prepared to explain the purpose of the meeting, the desired response from each member and how the output would be used in the modification of the KPP.
  - A KPP was given to each member of the nominal groups and a worksheet prepared (see Appendix E) on which each member could review the KPP activities and indicate activities that in their opinion needed to be removed. There was also allocated space for the participants to write down activity ideas that in their opinion should be included in the profile.
  - Ranking worksheets on A2 sheets were prepared for each category to be used during the round-robin recording and clarification of ideas, as well as during the preliminary ranking/voting of the nominal group (steps IV-VI).

- Different coloured ‘voting dots’ were provided for each participant to use during step VI.
- The rooms where the meetings were conducted were spacious enough to seat all the group members comfortably at a table.
- A few calculators were available for the participants to check their ratings in step VIII.

- **Stating the question**

The researcher was the facilitator of each meeting and welcomed and thanked the participants for their time and input. The objective of assisting in the modification of the activities in the KPP in order to establish a more suitable tool for the target population was explained. The participants were instructed to peruse the given profiles (the original Kid Play Profile) and to indicate which items/activities should remain in the profile, as well as which activities were inappropriate and should be removed from the profile. The participants were also instructed to write down other activities, which in their opinion should be included in the modified profile (see Appendices D & E).

- **Silent idea generation**

Each participant was requested to spend several minutes in silence reading through the original KPP, identifying activities in the profile that should remain in the profile and which activities should be removed from the profile (see Appendix E).

Each participant was given the opportunity to write down activities that were not on the KPP, which in their opinion, children living in the urban areas of Tshwane/Pretoria East, participate in.

- **Round-robin recording and clarification of ideas**

In this step, the researcher (facilitator) recorded ideas from each participant on A2 ranking worksheets for each category. The facilitator asked questions to clarify the ideas/suggestions. The process continued until all ideas had been recorded.

- **Discussion of ideas**

After the round-robin recording of ideas, the participants had the opportunity to discuss and clarify the given ideas.

- **Preliminary voting**

During this step, the participants began narrowing down the list of possible activities. Building on the discussion of ideas, each member had to make his/her own judgment about the activities which he/she considered most likely to be appropriate for the Tshwane/Pretoria East context. This was done by voting for the activities.

Each participant received six coloured voting dot stickers per category. If less than six activities were identified in a category, the participants were asked to use the votes in the categories that had more than six items. Participants then stuck these coloured voting dots on the A2 worksheets against the activities they thought should be included in the modified version of the KPP.

- **Discussion of preliminary voting**

After the preliminary voting, the participants discussed the items that received inconsistent voting and this gave the group the opportunity to decide if an item should remain in the activity pool or not. Inconsistent voting was defined as an activity that received no votes during the preliminary voting or only one vote in categories including more than eight activities. The participants also had the opportunity to indicate if they thought that an activity was represented better elsewhere or if activities should be combined.

- **Final voting**

The final voting occurred by means of the constant sum method (103, 108, 109). Each participant had to rate the activities in each category by distributing a set of 100 points across the activity pool in each category (see Appendix F).

The KPP was modified according to the summative analysis of the groups, which will be discussed in the data analysis in point **3.3.5** below.

The assistance of a qualified graphic designer was employed to create illustrations for the new activities not previously in the original KPP, in the same style as the original profile (see Appendix G-1), to move activities that were assigned to another category as well as to modify some of the old illustrations.

- **Review by panel of occupational therapists**

After the modifications were made, the opinion of three independent occupational therapists, with at least five years' experience working in paediatrics, was elicited to assist in evaluating the face validity of the modified profile (see Appendix H-1 & H-2).

They were asked to comment on the clarity of the content, the age appropriateness of the activities and the overall appeal for both boys and girls. They were supplied with the original KPP and the modified KPP and requested to make the abovementioned comments in writing. Two experts received hard copies and the other corresponded via email. The experts indicated their responses on a worksheet (see Appendix H-2). An agreement of at least two out of three experts was considered sufficient evidence for face validity or lack of face validity.

3.3.5 Data analysis

The objective of the nominal groups was to determine which items of the original KPP should be retained, which items should be removed and which items should be added to ensure a reliable outcome when utilised with a sample of the target population.

Duncan(107) explained that no specific reliability or validity assessments had been developed for the nominal group technique, but that comparisons of the level of agreement between two or more groups could be used to make a valid summative analysis and this form of analysis was used in this study. Descriptive statistics using percentages and ranks were used to analyse the data during the summative analysis.

Data capturing of nominal groups

The results of the preliminary voting and discussion of the activities (steps VI&VII of the nominal group process) were documented and available to the researcher on the A2–worksheets of each category. The results of both groups conducted were captured on an Excel spreadsheet to determine the overall activity pool and which activities received the most votes.

The results from the final votes (step VIII) of both nominal group discussions were documented and available to the researcher on the rating worksheets (see Appendix F) from each group.

Summative analysis

The results from each group's preliminary (steps VI & VII) and final voting (step VIII) were used to compile the summative analysis in order to modify the original KPP. Because there

were not an equal number of activities in each category, the activities were ranked and rated within the specific category, comparing them to other activities in the same category. This was done with the votes of both nominal groups.

The activities and results of both nominal groups were combined and analysed by the researcher as follows:

- The activities that were voted on during the preliminary voting (step VI) were plotted onto an Excel worksheet.
- The number of votes received during the preliminary voting of both nominal groups was plotted next to the activity (number of votes out of 10). This was done in order to rank the activities in each category.
- The number of nominal groups that indicated the activity as relevant was plotted next to the activity.
- The average constant number (percentage) attributed to an activity during the final vote (step VIII) was plotted against each activity. This was done in order to rate the activities in each category.

To enable the researcher to eliminate activities that received a small number of votes or had low ratings within each category, activities were omitted when they met the exclusion criteria.
An activity was omitted from the pool when **three** of the following **four** exclusion criteria were met:

- When an activity received only votes from one of the nominal groups.
- When an activity received four or less votes (out of 10 votes) in the preliminary voting.
- When an activity was rated last in a category with less than eight activities or when an activity rated in the bottom three activities in a category with more than eight activities in the pool.
- When an activity received less than 10% of the combined points distributed by both nominal groups during step VIII (the final vote).

Detailed data on this process for each category can be found in 4.2.2.

PHASE 2:

3.4 Field testing of the mKPP with a sample of the target population: confirming content validity and determining reliability.

This phase addressed objectives 3and 4 of the study (see page 3 & 4).

3.4.1 Study design

Phase two represented the final step in the instrument development and adaptation study design, where testing of the developed or adapted instrument on a sample of the targeted population was done to determine psychometric properties (102). During this phase, the use of the mKPP with a sample of the target population was investigated to determine its usefulness with this population as well as aspects instrument reliability (101, 106).

The objectives of this phase were to confirm content validity of the mKPP with a sample of the target population as well as to determine two aspects of reliability, namely internal consistency(114) and test-retest reliability(101). Thus, a psychometric study design with both descriptive and correlation elements were implemented (106).

One of the criticisms of current play assessment tools is that they rely on information from adults about children rather than information from children themselves (6). The purpose of this study was to adapt a play assessment tool that can collect information from children themselves. To confirm content validity, a descriptive study design aimed at describing participation rates of children in the activities on the mKPP was implemented (106). Content validity refers to the sufficient capturing of the domain which the tool aims to measure (101). Therefore, it was important to confirm that the activities included in the mKPP indeed represented those that children reported participating in. Thus a descriptive design aimed at describing children's report of activity participation was implemented.

Reliability refers to consistency of a measure and that any variation should be due to true difference and not due to errors made (101). In this study, test-retest reliability and internal consistency were measured.

Internal consistency measures whether the items of a tool correlate with each other, thus measuring the consistency with which a tool measures a construct within a specific

population, i.e. the consistency with which the mKPP measured play participation within the target population (115, 116). Internal consistency is often assessed by using Cronbach's alpha (101). Test-retest reliability measures the extent to which the same result would be obtained when a tool is administered at two different occasions (116). Reliability is based on the assumption that the variable/s being measured remain/s constant and stable over time. Test-retest reliability measures the similarity of results when a test is conducted repeatedly by the same individuals under the same circumstances. It is also described as the consistency of results produced by a specific measuring procedure or tool(116). Both internal consistency and test-retest reliability are measured through correlations. Internal consistency is measured through the correlation of the total sample's responses to individual items and test-retest reliability is measured through the correlation of each participant's scores on the profile administered on two different days (116). Thus implementing a correlation study design is appropriate to meet these objectives (101).

The intention was to finalise the mKPP after this phase of the study and make any necessary modifications based on the results of the validity and reliability data.

3.4.2 Population

The population for this part of the study consisted of all children in Grades 1-3 within the targeted primary schools.

Selection of participants

To administer the test and retest of the mKPP, one class per grade (Grades 1-3) was selected by the research liaison in the two schools participating in this study. All the children in these classes received an invitation letter with parental consent to participate in the study (see Appendix I-1). A sample of eight participants (four boys and four girls) per class was randomly selected by means of a random numbers table from the children who had written parental consent. This resulted in 24 participants per school and a total of 48 participants in field testing of the mKPP.

3.4.3 Data collection procedure

Written consent was obtained from the learners' parents in the selected classes (see Appendix I-1). Times and dates were set up with each liaison and the educators involved. Before administering the mKPP, the objective of the process was explained to the participants

(children) and verbal assent was acquired from each participant (see Appendix I-2). The first administration (test) and the second administration (retest) were conducted within 14 days from each other, as was done during the development of the original KPP (7) (see Appendices G-1 & I-2).

Administering the mKPP

In order to maintain a high level of confidentiality, the modified Kid Play Profile (mKPP) was coded as follows:

Gender of child	Boys were provided with a mKPP with a green cover page and the girls with a mKPP with a yellow cover page. The rest of the profile was printed on white paper for easy reading. The use of green and yellow cover pages facilitated the identification of the participant's gender during data capturing and analysis.
Age of child	The children only indicated their age by writing (6, 7, 8 or 9) and their Grade (Gr 1, 2, 3) on the cover page.
Initials	In order to establish test-retest reliability, the children were asked to write their initials on the front page so that comparisons could be made when the results were analysed.

The mKPP was administered during the test and retest in groups of eight participants, where each participant had his/her own desk.

The instructions were read and demonstrated on a blown-up example from the original KPP before the participants could commence with the completion of the profile. Rephrasing an instruction was done when a specific participant asked for help. The participants were allowed to ask questions.

As per instruction, the participants responded by circling or colouring in the appropriate picture. They were asked to answer the first question about an activity: "Do you do this activity?" If the participant indicated "yes", he/she had to answer the second and third questions about the activity: "Do you like this activity?" as well as "Who do you do this activity with?" When the participant answered "no" to question one, he/she was instructed to continue to the next item and not answer questions two and three of that item. In answering question three, the children could indicate more than one option. At the end of the mKPP there are five open spaces for the children to add some other activities that they participate in.

3.4.4 Data analysis

After data collection, the researcher marked and scored each completed mKPP from the test and the retest (see Appendices G-1 & G-2).

A response was considered appropriate if the participant answered "yes" to question one and also answered questions two and three, or if the participant answered "no" to question one and did not answer questions two and three. An **error** was recorded if the participant answered "yes", but did not complete questions two and/or three or when the participant answered "no", but answered questions two and/or three.

Descriptive statistics, using percentages to describe the data, were used to determine participation rates of the sample in each activity and category. Participation rates were examined during the field testing of the original KPP as well (7).

After the researcher had marked and scored each profile, the results of the field testing were plotted on an Excel worksheet.
To score a participant's profile (mKPP) the number of activities that he/she participated in was added up and divided by the number of items in the category. This answer was multiplied by a 100 to calculate the percentage of activities that the child participates in within that category (see Appendix G-2).

Activity participation rates were calculated by adding up the number of "yes" answers that the participants indicated for that specific activity, multiplied by 100 and then divided by the number of participants. The category participation rate was calculated by the sum of the activity percentages of that category, divided by the number of activities in the category. This information, as well as the number of errors made during both administrations, were plotted on an Excel worksheet.

A participation rate of 5% in any activity was considered adequate confirmation of the validity of that item. Any items that had a participation rate lower than 5% were to be removed in the final (re-modified) version of the mKPP (7). None of the mKPP items received a participation rate lower than 5%. Thus re-modification of the mKPP was only necessary to correct an error (described in the Results Chapter 4).

An invalid administration was considered to have taken place if the participants made more than one error per category, as this indicates that possibly the participant did not understand the instruction. All invalid administrations were removed from the analysis when calculating the test-retest correlation quotients. Five Grade 1 profiles and two Grade 2 profiles were excluded, reducing the sample size of n=48 to n=41.

A statistical programme (STATISTICA) was used to analyse data using correlational methods in order to determine the following:

- The correlation coefficients of the test-retest to determine if the modified profile is a reliable measuring tool.
- The level of internal consistency of both sets of profiles.
- The correlation coefficient comparing Grade 1-3 learners on both sets.
- The correlation coefficient comparing the outcome of the boys and girls on both sets.
- The level of errors made during the test-retest to compare the results of the grades and the genders.

A Pearson's correlation coefficient analysis was conducted to determine the reliability coefficients of the category scores during the test–retest (101, 115) . Pearson correlation coefficients for the two genders and the three different grades were also determined. Internal consistency was measured by means of the Cronbach's alpha (114, 115). Secondary analysis was done to determine whether age (as represented by grade) and gender influenced the test-retest reliability scores.

Table 3.2 below indicates how correlations were interpreted throughout the study and represents a suggested scale of strength of correlation to determine test-retest reliability.

Value of the Correlation Coefficient	Correlation Strength
1	Perfect
0.7 – 0.9	Strong
0.4 – 0.6	Moderate
0.1 – 0.3	Weak
0	Zero

Table 3.2 Correlation strength scale: categorising by Dancey & Reidy (2004).

Table 3.2 indicates that a correlation score of 0.7 is considered a strong correlation between variables. The original development of the KPP used 0.6 as an acceptable correlation score

for young children (7). In this study a correlation score of 0.7 was considered to indicate a strong psychometric score (117) . However, a score of 0.6 was considered acceptable, but the results of that section should be interpreted with caution.

3.5 Ethical considerations

Before conducting this research study, the following steps were taken and special consideration was given to the following aspects:

- The developer of the Pediatric Interest Profiles, which include the original Kid Play Profile, gave permission for this research study (see Appendix J: Permission letter from Alexis Henry). It also stated in the Pediatric Interest Profile document that parts of the document (the profiles) may be reproduced for administrative and instructional use (p.ii)(7).
- Ethical clearance for this study was obtained from the Human Research Committee (Medical) of the Witwatersrand University before commencement of the study, Clearance certificate no. M140237 (see Appendix K).
- Permission was obtained from the Gauteng Department of Education, Reference no. D2014/345. (See Appendix L).
- Permission and co-operation from the Governing Bodies and Management Teams from the selected schools were obtained by means of a letter to the Governing Body and a short presentation in person to the Head of Department (HOD) of the Foundation Phase of each school, to explain the purpose and the process of the study (see Appendix B).
- Written consent was obtained from all the participants in the nominal groups (see Appendix C).
- During the Nominal Group Technique and during the administration of the modified Kid Play Profile, all measures were taken to keep the participants anonymous. No identifiable information was requested or used during any phase of the research study. Absolute confidentiality could not be guaranteed in the nominal group discussions as these involved different individuals and the discussion was in an open forum.
- Before conducting the testing and re-testing of the mKPP, written consent from the parents/guardians of the children in the selected classes in each of the selected schools was obtained. Consent was obtained by means of a permission letter, with a consent

slip, that stated the purpose and process of the study, as well as what was required from each child (see Appendix I-1).

- Before embarking on administering the modified KPP, the researcher explained to the children (participants) what needed to be done and obtained verbal assent from the children. It was made clear that participation was voluntary and that there would be no negative consequences if they did not participate or discontinue at any time (see Appendices I-2 & I-3).
- As far as the researcher was aware, the content obtained during this study did not include sensitive information that could be harmful to any participant's physical or social wellbeing.

CHAPTER 4

4.0 RESULTS

4.1 Introduction

The results of the two phases of this study will be laid out in this chapter. This includes the results of the nominal groups, how the KPP was modified, the comments of the panel of experts as well as the results of the internal consistency and test and retest reliability of the mKPP. The similarities and differences between the different grades and genders will be represented. To determine if all the activities and categories were appealing to the sample of participants in Phase 2, the participation level of the individual activities and the different categories were calculated.

4.2 PHASE 1: Determining valid content for the KPP and modifying the profile accordingly

4.2.1. Demographics

The members of the nominal groups consisted of ten women, six of whom were educators and four parents. The teachers included two from each grade in the foundation phase (Grades1-3). The ages ranged from 28 years to 56 years, with an average of 38 years. The children of the parents who participated varied between four and twelve years in age, with an average age of seven years. The inclusion criteria for the selection of participants in the nominal groups are summarised in table 3.1 in the Methodology Chapter 3.

4.2.2. Item determination via nominal groups

Two nominal groups were conducted as described in the methodology chapter (3.3.5) to determine which items should remain, which items should be removed and which items should be added to the mKPP.

An activity was omitted from the activity pool when three of the following four exclusion criteria were met:

- When an activity received only votes from one of the nominal groups.
- When an activity received four or less votes (out of ten votes) in the preliminary voting.
- When an activity was ranked last in a category with less than eight activities or when an activity ranked in the bottom three activities in a category with more than eight activities in the group.
- When an activity received less than 10% of the combined points distributed by both nominal groups during step VIII (the final rating vote).

The results of the votes conducted in the nominal groups are displayed in Tables 4.1 to 4.8 according to the following key:

✓	Meet the inclusion criteria → to be included in the mKPP
➢	Activities overlap → assign to one category or combine with similar activity
❖	Meet three or more of the exclusion criteria → to be excluded from the mKPP

- **Sports activities**

In the initial steps of the nominal groups (steps III - V) the groups unanimously decided to remove baseball, basketball and dodge ball from the activity pool (see table 4.9), as these are not common South African activities (59, 60, 118). The results of the votes regarding the sports activities conducted in the nominal groups are displayed in Table 4.1(a)

Table 4.1(a): Sports activities (n=10)

Activity	Prelim Votes	Groups supporting activity	Ranked by Group A	Ranked by Group B	Rated by Group A	Rated by Group B	Average Rated Percentage	Key
Cricket	8	2	1st	5th	22%	12%	17%	✓
Ride a bike	5	1	4th		15%		8%	➢
Play Touchers	8	2	5th	4th	13 %	15 %	14 %	➢
Horse riding	*1*	*1*	*6th*		*12 %*		*6%*	❖
Athletics	5	1	2nd		20 %		10 %	✓
Tennis	10	2	3rd	6th	18 %	10 %	14%	✓
Soccer	5	1		1st		22 %	11 %	➢
Swim	5	1		2nd		20 %	10 %	➢
Hockey	3	1		3rd		17 %	8 %	➢
Acrobatics	4	1		7th		4 %	2 %	➢

Comment:

The sports activity pool consisted of ten activities after steps III-V of the nominal groups. Activities that were added to the pool during these steps (III-V) included cricket, horse riding, tennis, athletics and acrobatics. Activities such as rugby and netball were designated in the winter activity category during the idea generation round, but the nominal groups indicated after the preliminary voting (steps VI &VII) that these sports are not played over the winter months only, but throughout the year.

When the researcher analysed the number of preliminary votes as well as the ranking of the activities, the following activities remained or were included in the category: 'Play soccer', 'Play hockey', 'Play cricket', 'Athletics', 'Play tennis', 'Cross country/fun run', 'Swimming' and 'Gymnastics'. 'Horse riding' was the only activity that met the exclusion criteria and was therefore excluded from the mKPP. The activities 'Play Touchers' and 'Ride a bike' were assigned to outdoor activities, as both originated from that category. The 'Swimming' activity obtained scores from different categories (lessons, summer and sports), but was assigned to sports activities. A summary of the results is presented in Table 4.1(b).

Table: 4.1(b): Summary of sports activities

Activities that remained from the original KPP	Activities added (typically South African) that were not on the original KPP	Activities that were reassigned to this category, modified or combined with another activity
Sports activities • Play soccer	**Sports activities** • Play hockey • Play cricket • Play tennis • Athletics	**Sports activities** • Swimming/Swimming lessons • Gymnastics/ Acrobatics • Cross Country/ Fun runs • Play rugby • Play netball

- **Outdoor activities**

During steps III – V of the nominal groups, it was unanimously decided to remove 'Play frisbee' from the activity pool (see table 4.9). The results of the votes conducted during the nominal groups are displayed in Table 4.2(a).

Table 4.2(a): Outdoor activities (n=10)

Activity	Prelim Votes	Groups supporting activity	Ranked by Group A	Ranked by Group B	Rated by Group A	Rated by Group B	Average Rated Percentage	Key
Hide and seek	8	2	4th	3rd	12 %	10%	11 %	✓
Play on playground	7	2	1st	2nd	20 %	11 %	16 %	✓
Jump rope	6	2	5th	7th	11 %	2 %	7 %	✓
Jump trampoline	10	2	3rd	1st	14 %	20 %	17 %	✓
Jay-board/ Scooter/ Rollerblades	7	2	2nd	7th	18 %	2 %	10 %	➢
Gardening	4	1	6th		10%		5%	➢
Rollerblade	*2*	*1*	*3rd*		*15%*		*8 %*	➢
Ride a bike	5	1		1st		20 %	10 %	➢
Play kickball	1	1		5th		6 %	3 %	➢
Hand tennis	1	1		5th		6 %	3 %	➢
Swing ball	1	1		6th		4 %	2 %	➢
Swinging	4	1		3rd		10 %	5 %	✓
Climb trees	5	1		4th		9 %	5 %	✓

Comment:

After steps III-V of the nominal groups, the outdoor activity pool consisted of thirteen activities. Newly added activities included 'Jump trampoline', 'Swinging', 'Climb trees', 'Play ballgames', 'Jay-boarding/skateboarding', 'Gardening' and 'Motor biking'. When the researcher analysed the number of preliminary votes as well as the ranking of the activities, the following activities remained or were included in the category: 'Ride bicycle', 'Play Touchers', 'Play hide and seek', 'Play on playground / jungle gym', 'Play ball games', 'Jump on trampoline', 'Jump rope', 'Swinging', 'Jay-boarding/skateboarding', 'Climb trees', 'Motor biking/quad biking'. The activity 'Gardening' was assigned to summer activities, as it was part of that category in the original KPP. The activities 'Kickball', 'Hand tennis' and 'Swingball' were combined into 'Play ball games'. 'Jay-boarding' and 'rollerblading' were combined as well. This was suggested by the nominal groups during step VII. Henry also combined similar activities during the development process of the original KPP (7). A summary of the results is presented in Table 4.2(b).

Table 4.2(b): Summary of outdoor activities

Activities that remained from the original KPP	Activities added (typically South African) that were not on the original KPP	Activities that were reassigned to this category, modified or combined with another activity
Outdoor activities • Hide and seek • Play on playground • Jump rope • Ride bicycle • Play Touchers	**Outdoor activities** • Jump trampoline • Swing • Climb trees • Motor biking / Quad biking	**Outdoor activities** • Play ballgames • Jay-boarding/ Skate-boarding

- **Summer activities**

During steps III - V, the groups unanimously decided to remove 'Go fishing' from the activity pool, as the area in which the target population lives is not close to the ocean or large dams or rivers (see table 4.9). The results of the votes conducted in the nominal groups are displayed in Table 4.3(a).

Table 4.3(a): Summer activities (n=10)

Activity	Prelim votes	Groups support-ing activity	Ranked by Group A	Ranked by Group B	Rated by Group A	Rated by Group B	Averag e Rated Percent -age	Key
Play at river / beach	*3*	*1*	*7th*		*8 %*		*4 %*	❖
Picnic	10	2	5th	3rd	11%	16 %	14%	✓
Camp-ing	10	2	2nd	3rd	17 %	16 %	16 %	✓
Hiking / Walking	10	2	3rd	4th	15 %	15 %	16 %	✓
Garden-ing	4	1		5th		9 %	4 %	➢
Fun runs	3	1	6th		11 %		5 %	➢
Motor biking	5	2	4th	6th	13 %	7 %	6 %	➢
Social swim-ming	10	2	1st	1st	25 %	20 %	24 %	➢
Walking	5	1		2nd		17 %	10 %	➢

Comment:

After the idea generation rounds of the nominal group, the summer activity pool consisted of nine activities. When the researcher analysed the number of preliminary votes as well as the ranking of the activities, 'Go on a picnic', 'Go camping' and 'Go hiking/walks' as well as 'Gardening' were included. Activities such as 'Swimming' and 'Fun runs' were assigned to the sports activities and 'Motor biking' was assigned to the outdoor activities, as these activities overlapped in both categories. The activity 'Play at river/beach' met the exclusion criteria and was excluded from the mKPP. A summary of the results is presented in Table 4.3(b).

Table 4.3(b): Summary of summer activities

Activities that remained from the original KPP	Activities added (typically South African) that were not on the original KPP	Activities that were reassigned to this category, modified or combined with another activity
Summer activities • Go on picnic • Go camping • Gardening	**Summer activities**	**Summer activities** • Hiking / Go for walks

- **Indoor activities**

During the initial steps of the nominal groups (steps III - V), the groups unanimously decided not to remove any activities from the activity pool (see table 4.9). New activities that were included during the idea generation steps involved 'Watch a DVD', 'Play with toys' and 'Theatre'. The results of the votes conducted in the nominal groups are displayed in Table 4.4(a).

Table 4.4(a): Indoor activities (n=10)

Activity	Prelim Votes	Groups support-ing activity	Ranked by Group A	Ranked by Group B	Rated by Group A	Rated by Group B	Average Rated Percentage	Key
Chess	*1*	*1*	*8th*		*5 %*		*3 %*	❖
Play cards	6	2	6th	8th	9%	3 %	6 %	✓
Read	7	2	3rd	1st	12 %	19 %	16 %	✓
Watch TV	6	2	5th	6th	10 %	7 %	9 %	✓
Use compu-ter	5	2	1st	7th	16 %	5 %	11 %	➢
Board games	6	2	4th	3rd	11 %	13 %	12 %	✓
Listen to music	*3*	*2*	*8th*	*8th*	*5 %*	*3 %*	*4 %*	❖
Take care of pets	7	2	7th	7th	8 %	5 %	7 %	✓
Play with cars / dolls	4	1	6th		9 %		5 %	➢
Watch a DVD	6	2	2nd	2nd	15 %	14 %	15 %	✓
Collec-tions	*3*	*1*		*6th*		*7 %*	*4 %*	❖
Build puzzles	3	1		5th		8 %	4 %	➢
Theatre	3	1		4th		11 %	6 %	➢
Play TV and computer games	3	1		7th		5 %	3 %	➢

Comment:

After the idea generation rounds, the indoor activity pool consisted of 14 activities. When the researcher analysed the number of preliminary votes as well as the ranking of the activities, the activities that remained or were included were ‘Read’, ‘Watch TV’, ‘Watch a DVD’, ‘Play cards’, ‘Play with toys’, ‘Board games’, ‘Build puzzles’, ‘Use computer/ laptop/ PSP’ and ‘Take care of pets’. The ‘Theatre’ activity was incorporated with drama in the creative activities, as suggested by the group. The activities such as ‘Chess’, ‘Collections’ and ‘Listen to music’ met the exclusion criteria and were omitted. A summary of the results is presented in Table 4.4(b).

Table: 4.4(b): Summary of indoor activities

Activities that remained from the original KPP	Activities added (typically South African) that were not on the original KPP	Activities that were reassigned to this category, modified or combined with another activity
Indoor activities • Play cards • Play board games • Read • Watch TV • Take care of pets • Do puzzles	**Indoor activities** • Watch a DVD • Play with toys	**Indoor activities** • Use Computer/ Laptop / PSP

- **Winter activities**

During the initial steps of the nominal groups (steps III -V), the groups unanimously decided to remove 'Go sledding', 'Play in snow' and 'Ski/Snowboarding' from the activity pool, as the area in which the target population lives, is not exposed to such extreme climate changes to include snow related activities (15). (See table 4.9). New activities added during the idea generation stages included 'Cross country', 'Netball', 'Rugby' and 'Ice skating'. The results of the votes conducted in the nominal groups are displayed in Table 4.5.

Table 4.5: Winter activities (n=10)

Activity	Prelim Votes	Groups suppor-ting activity	Ranked by Group A	Ranked by Group B	Rated by Group A	Rated by Group B	Average Rated Percentage	Key
Cross country	*4*	*1*	*4th*		*17 %*		*8 %*	➢
Hockey	*4*	*1*	*3rd*		*18 %*		*9 %*	➢
Netball	*7*	*2*	*1st*	*1st*	*33 %*	*41 %*	*37 %*	➢
Rugby	*7*	*2*	*2nd*	*4th*	*32 %*	*18 %*	*25 %*	➢
Soccer	*5*	*1*		*3rd*		*19 %*	*10 %*	➢
Ice skating	*3*	*1*		*2nd*		*22 %*	*11 %*	➢

Comment:

After the idea generation steps, the activity pool of the winter activities consisted of six activities as indicated in Table 4.5. The participants of the nominal groups indicated during step VII that the six activities remaining in the activity pool were all sports which were played all year round and recommended that these activities are better represented elsewhere**.** The activities 'Cross country', 'Hockey', 'Netball', 'Rugby' and 'Soccer' were assigned to

the sports activities category. 'Ice skating' was assigned to creative activities erroneously, as it should have been assigned to the social activities, where one of the groups indicated it as a relevant activity. This was rectified during the re-modification of the mKPP. This category in itself was then omitted and not included in the mKPP.

- **Creative activities**

During the initial steps of the nominal groups (steps III - V), the groups unanimously decided not to remove any activities from the activity pool, but included 'Mosaics', 'Pottery', 'Build Lego', 'Build models', 'Crafts' and 'Journaling'. The results of the votes conducted in the nominal groups are displayed in Table 4.6(a).

Table 4.6(a): Creative activities (n=10)

Activity	Prelim Votes	Groups support-ing activity	Ranked by Group A	Ranked by Group B	Rated by Group A	Rated by Group B	Average Rated Percen-tage	Key
Do puzzles	5	1		3rd		9 %	3%	➢
Sing	4	2	5th	2nd	9 %	11 %	10%	✓
Dance	7	2	3rd	2nd	12 %	11 %	11%	✓
Build things	6	2	3rd	3rd	12 %	9 %	10 %	✓
Draw &paint	6	2	2nd	2nd	13 %	11 %	12 %	✓
Baking & cooking	9	2	3rd	1st	12 %	17 %	13 %	✓
Mosaics	*5*	*1*	*4th*		*10 %*		*5 %*	❖
Pottery	*3*	*1*	*6th*		*7 %*		*4 %*	❖
Build Lego	4	2	1st	3rd	15 %	8 %	11 %	✓
Build models	4	2	4th	4th	10 %	6 %	8 %	➢
Crafts	*5*	*1*		*2nd*		*11 %*	*6 %*	➢
Journa-ling	*2*	*1*		*4th*		*7 %*	*3 %*	❖

Comment:

After the idea generation and discussion rounds, the activity pool of the creative category consisted of 12 activities. When the researcher analysed the number of preliminary votes as well as the ranking of the activities, the following activities remained or were added to the category: 'Sing', 'Dance', 'Ice skating', 'Drama', 'Build things', 'Draw & paint', 'Bake & cook' as well as 'Build Lego'. The items 'Build things' and 'Build models' were combined

(7). The activities that met the exclusion criteria were ‘Mosaics, ‘Pottery’ as well as ‘Journaling’. The ‘Do puzzles’ activity was assigned to the indoor activities, as recommended by the group. ‘Music lessons’ and ‘Dance lessons’ were combined with ‘Sing and dance’ and included in this category (see Lessons & Table 4.7). The scores of the activities ‘Drama lessons’ (from the lessons category) and ‘Theatre’ (from indoor activities) were combined and included in this category as ‘Drama’, as recommended by the nominal groups. A summary of the results is presented in Table 4.6(b).

Table 4.6(b): Summary of creative activities

Activities that remained from the original KPP	Activities added (typically South African) that were not on the original KPP	Activities that were reassigned to this category, modified or combined with another activity.
Creative activities • Sing • Dance • Build things • Draw and paint • Bake and cook	**Creative activities** • Ice skating • Drama • Build Lego	**Creative activities** • Music lessons • Dance lessons • Do puzzles • Drama (lessons &theatre)

- **Lessons category**

  During the initial steps of the nominal groups (steps III - V) the groups unanimously decided not to remove any activities from the activity pool. Activities that were added during the idea generation process included ‘Gymnastics’, ‘Drama lessons’, ‘Wrestling’, Crafts’, ‘Martial arts’, ‘Cooking class’, ‘Soccer club’, ‘Monkeynastix’, ‘Playball’ and ‘Art lessons’ (119, 120). The results of the votes conducted in the nominal groups are displayed in Table 4.7.

Table 4.7: Lessons (n=10)

Activity	Prelim Votes	Groups support-ing activity	Ranked by Group A	Ranked by Group B	Rated by Group A	Rated by Group B	Average Rated Percen-tage	Key
Music lessons	*9*	*2*	*2nd*	*4th*	*17 %*	*8 %*	*13 %*	➢
Swimming lessons	*10*	*2*	*1st*	*1st*	*31 %*	*12 %*	*22 %*	➢
Dance lessons	*10*	*2*	*3rd*	*2nd*	*15 %*	*10 %*	*13 %*	➢
Gymnastics	*7*	*2*	*3rd*	*2nd*	*15 %*	*10 %*	*13 %*	➢
Drama lessons	*8*	*2*	*4th*	*3rd*	*12 %*	*9 %*	*11 %*	➢
Wrestling	*3*	*1*	*5th*		*10 %*		*5 %*	❖
Crafts	*4*	*1*		*4th*		*8 %*	*4 %*	❖
Martial arts	*1*	*1*		*5th*		*7 %*	*4 %*	❖
Cooking class	*2*	*1*		*1st*		*12 %*	*6 %*	❖
Soccer club	*2*	*1*		*7th*		*4 %*	*2 %*	➢
Monkey-nastix	*2*	*1*		*6th*		*6 %*	*3 %*	❖
Playball (franchise)	*2*	*1*		*4th*		*8 %*	*4 %*	❖
Art lessons	*3*	*1*		*6th*		*6 %*	*3 %*	❖

Comment:

After the idea generation, the activity pool of the lessons category consisted of 13 activities. The following activities were eliminated due to low scoring and ranking (exclusion criteria): 'Wrestling', 'Crafts', 'Martial arts', 'Cooking class', 'Monkeynastix' and 'Playball'. During the discussion of the preliminary votes in step VII, the nominal groups indicated that the remainder of the lessons are better represented elsewhere**. '**Gymnastics', 'swimming lessons' and 'Soccer club' were incorporated in the sports activities. The 'Music lessons' and 'Dance lessons' were combined with Singing' and 'Dance' in the creative activities category. The lesson category in itself was then omitted and not included in the mKPP.

- **Social activities**

During the initial steps of the nominal groups (steps III & IV), the groups unanimously decided not to remove any activities from the activity pool. Activities that were added during the idea generation process included 'Go to the mall', 'Go to the movies', 'Go to restaurant', 'Go to birthday parties', 'Ice skating' and 'Scouts'. The results of the votes conducted in the nominal groups are displayed in Table 4.8(a).

Table 4.8(a): Social activities

Activity	Prelim Votes	Groups support-ing activity	Ranked by Group A	Ranked by Group B	Rated by Group A	Rated by Group B	Average Rated Percen-tage	Key
Play/ Hang outwith friends	9	2	1st	2nd	15 %	12 %	14 %	✓
Play school	8	2	5th	5th	10 %	8 %	9 %	✓
Play house	4	2	5th	5th	10 %	8 %	9 %	✓
Play Superhero	5	1		5th		8 %	4 %	➢
Play dress-up	7	2	4th	3rd	12 %	10 %	11 %	➢
Ice skating	2	1	6th		8 %		4 %	➢
Go to Mall	4	2	2nd	7th	14 %	5 %	10 %	✓
Cubs / Scouts	*1*	*1*		*6th*		*6 %*	*4 %*	❖
PuttPutt	*4*	*1*		*6th*		*6 %*	*4 %*	❖
Birthday parties	5	2	7th	1st	4 %	16 %	10 %	✓
Go to restau-rants	4	2	3rd	2nd	13 %	12 %	14 %	✓
Go to movies	7	2	2nd	4th	14 %	9 %	13 %	✓

Comment:

After the idea generation process, the social activity pool consisted of 12 activities. When the researcher analysed the number of preliminary votes as well as the ranking of the activities, the following activities remained or were added to the category: 'Play with friends', 'Play school', 'Play house', 'Play superhero/ dress up', 'Go to the mall', 'Go to the movies', 'Go to restaurants' and 'Go to birthday parties'. The activities that met the exclusion criteria were 'Scouts' and 'PuttPutt'. 'Ice skating' was assigned to creative activities erroneously and was designated to social activities during the re-modification of the mKPP. A summary of the results is presented in Table 4.8(b).

Table 4.8(b): Summary of social activities

Activities that remained from the original KPP	Activities added (typically South African) that were not on the original KPP	Activities that were reassigned to this category, modified or combined with another activity.
Social activities • Play (hang out) with friends • Play school • Play house	**Social activities** • Go to the mall • Go to the movies • Go to restaurants • Go to birthday parties	**Social activities** • Play dress-up • Play Superhero

To summarise the results of the nominal groups, the activities that were omitted, reassigned and the final activity pool are presented in tables 4.9 - 4.11.

Table 4.9: Summary of activities that were omitted during the nominal groups

Activities omitted during steps (III-V) of the Nominal Group Technique	Activities excluded during steps (VI-VIII) of the Nominal Group Technique
Sports activities • Play baseball • Play basketball • Play dodge ball	**Sports activities** • Horse riding (6%)
Outdoor activities • Play Frisbee	**Outdoor activities**
Summer activities • Go fishing	**Summer activities** • Play at beach / river (4%)
Winter activities • Go sledding • Play in snow • Ski / Snow boarding	**Winter activities**
Indoor activities	**Indoor activities** • Collect things (4%) • Listen to music (4%) • Chess (3%)
Creative activities	**Creative activities** • Mosaics (5%) • Pottery (4%) • Journaling (3%)
Lessons	**Lessons** • Wrestling (5%) • Crafts (4%) • Martial Arts (4%) • Cooking class (6%) • Monkeynastix(franchise) (3%) • Playball(franchise) (4%) • Art lessons (3%)
Social activities	**Social activities** • Go to Scouts / Cubs (4%) • PuttPutt (4%)

Activities included in Table 4.9 represent the activities that were eliminated during the nominal group process due to unanimous agreement during the initial steps of the NGT, as well as the activities meeting the exclusion criteria after the votes were analysed.

Table 4.10: Summary of activities that were reassigned or combined

Overlapping of activities in two or more categories or better represented elsewhere	Activities that were combined due to similarity / category	Activities that were modified due to progress in technology
Social swimming & Swimming lessons	Cross country & Fun runs	Use Computer was modified to Use Computer/ Laptop/ PSP
Gardening	Ball games (Kick ball, Hand tennis & Swing ball)	Rollerblading was modified to Jay-boarding and combined with Skateboarding
Puzzles	Hiking & Going for Walks	
Hockey	Play Dress-up and Play Superhero	
Soccer and Soccer club	Music lessons were combined with Singing	
Rugby	Dance lessons were combined with Dancing	
Netball	Drama lessons and theatre were incorporated in Drama	
Ice skating		

Table 4.10 summarises the activities that were reassigned to other categories due to overlapping, similarity or modification due to progress in technology.

Table 4.11: Activities included in the modified Kid Play Profile

Sports activities	Outdoor activities	Summer activities
• Play soccer • Play hockey • Play netball • Play cricket • Play tennis • Athletics • Cross country / Fun runs • Swim /Swimming lessons • Gymnastics / Acrobatics	• Ride bicycle • Play Touchers • Play Hide and seek • Play on playground/ Jungle gym • Play ball games • Jump on trampoline • Jump rope • Swing • Jay-boarding/ Skateboarding • Climb trees • Motor biking/ Quad biking	• Go on a picnic • Go camping • Go hiking/ Go for walks • Gardening
Indoor activities	**Creative activities**	**Social activities**
• Read • Watch TV • Watch a DVD • Play cards • Play with toys • Play board games • Build puzzles • Use computer/ Laptop / PSP • Take care of pets	• Sing/ Take music lessons • Dance/ Take dance lessons • Ice skating • Drama • Build things • Draw and paint • Bake and cook • Build Lego	• Play with friends • Play school • Play house • Play Superhero / Dress-up • Go to the mall • Go to the movies • Go to restaurants • Go to birthday parties

Table 4.11 represents the final activity pool which was used to make the modifications of the KPP.

4.2.3 Modification of the Kid Play Profile

Using the abovementioned summative analysis of the first phase (item determination), the KPP was modified with the assistance of a graphic designer (see Appendix G-1). The newly added activities received appropriate illustrations and some of the items that remained in the profile received more up-to-date versions of the technology within the illustration. Figure 4.1 shows an example of this.

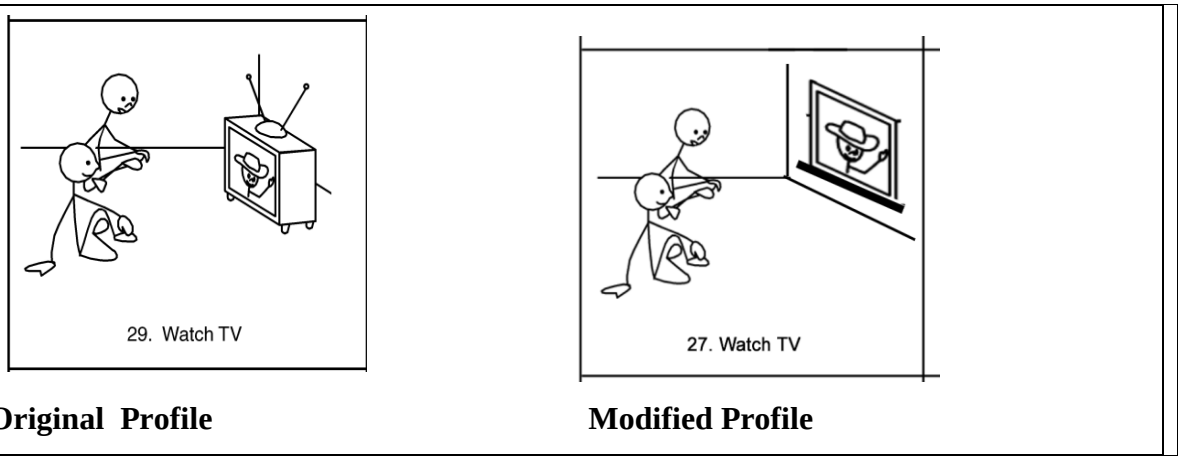


Figure 4.1: Example of a more modern illustration

The item 'Watch TV' received a more up-to-date illustration, as televisions have changed from the box shape to flat screen types. This type of modification was done with the activities that involved technology, such as computers and DVDs. The newly added activities also received new and original illustrations.

Due to several modifications that were made, the score sheet of the profile was modified according to the assigned activities (see Appendix G-2).

After the modifications were made, the opinion of three independent occupational therapists, with at least five years' experience working in paediatrics, was elicited to assist in evaluating the face validity of the modified profile (see Appendices H-1 & H-2). They were asked to comment on the clarity of the content, the age appropriateness of the activities and the overall appeal for both boys and girls. An agreement of at least two out of three experts was considered sufficient evidence for face validity or lack of face validity.

The therapists indicated that there were sufficient activities to appeal to both boys and girls and that the activities were clear and age appropriate overall. The items which received comments were numbers*33*: 'Use computer & tablet', *37*: 'Ice skating' and *43:*'Play with friends' (see Figure 4.2).

One therapist from the panel indicated that in her opinion ice skating was not accessible to most of the target population. It was decided to leave the item on the mKPP to see how the children respond to this, as it received five out of ten preliminary votes, a high ranking, (2nd&

6th) and rating (15% average) in the nominal groups. The other two experts did not perceive that item to be problematic.

All three experts recommended that the use of a Tablet be added to the title of item *33:*'Use computer / Laptop/ Tablet'. This was done.

One therapist's comment on number *43:*'Play with friends' was that the illustration was unclear to the reader. It was decided to leave this item on the modified profile as the other two therapists who were consulted did not agree that the illustration was unclear. Due to this discrepancy, the researcher decided to keep the illustration as it was and to note whether this item raised questions or uncertainty from the participants in the field testing. If it was the case, this item would be re-modified during the re-modification/ correction process.

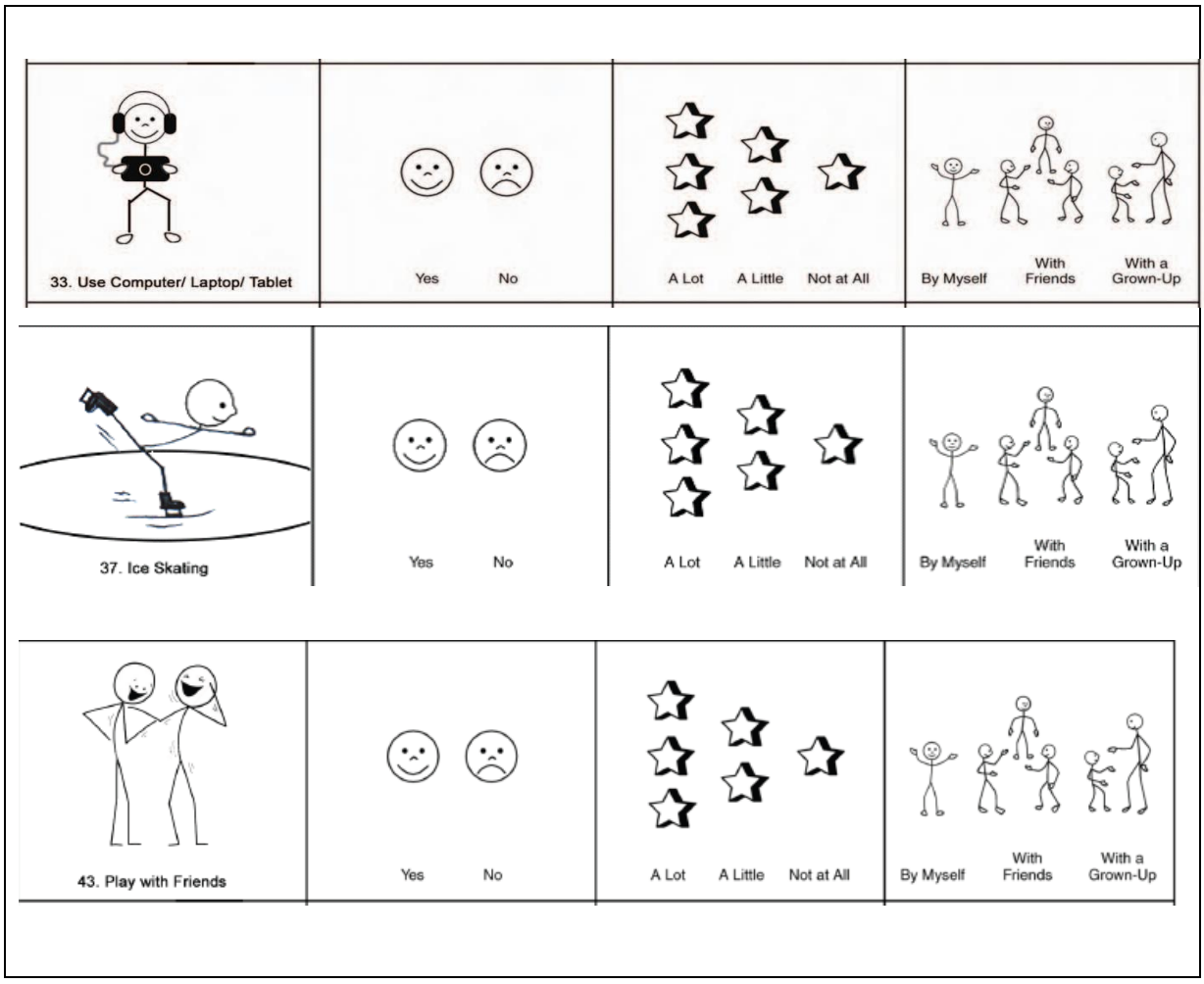


Figure 4.2: Example of items *33* 'Use Computer/Laptop/ Tablet'; *37* 'Ice Skating' and *44* 'Play with Friends'

The experts agreed that overall the mKPP showed face validity and represented an appropriate range of activities for the target population in South Africa. The complete mKPP can be found in Appendix G-1.

4.3 PHASE 2: Field testing the mKPP with a sample of the target population: confirming content validity and determining reliability

In order to confirm content validity of the mKPP, the responses from a sample of the target population were evaluated during the field testing phase and participation rates calculated. This allowed the researcher to determine whether the children reported sufficient participation in the activities as determined by the adult participants. Two aspects of reliability were determined: internal consistency and test-retest reliability.

4.3.1. Demographics

A total of 48 children in Grades 1-3 participated in this study. The participants consisted of 24 girls and 24 boys, thus eight boys and eight girls from each grade.

The Grade 1 learners were on average 6.7 years old, the Grade 2 learners 7.8 years and the Grade 3 learners 8.9 years.

As in the original profile, the researcher measured the error rate / "consistent response" of the participants in the test and retest to ensure that a valid administration of the profile had taken place (7). A response was considered appropriate if the participant answered "yes" to question one and also answered questions two and three, or if the participant answered "no" to question one and did not answer question two and three. An error was recorded if the participant answered "yes", but did not complete questions two or when the participant answered "no", but answered questions two and/or three (7).

During the completion of both the test and the retest profiles, the Grade 1 learners accidently left some items open or skipped pages. This contributed to the inconsistent scores. The researcher also observed that some of the Grade 1 learners had difficulty in understanding the instruction on how to answer when they did "not" participate in an activity. They often continued to complete the follow-up questions on that item, which they were instructed not to do. This led to inconsistent responses and invalid administration of some of the surveys. An invalid administration was considered to have taken place if the participants made more than one error per category, as this indicates that possibly the participant did not understand the

instructions. All invalid administrations were removed from the analysis when calculating the test-retest correlation quotients. Five Grade 1 profiles and two Grade 2 profiles were excluded, reducing the sample size of n=48 to n=41.The average age was 7.8 years (n=41).

4.3.2 Participation rate in activities: confirming content validity

The average participation rate of individual activities on the mKPP as well as the participation rate for each category was calculated (see Method Chapter 3.3.4). The category participation rates are summarised in Table 4.12 and the participation rates of the individual activities are presented in Table 4.13.

Table 4.12: Participation rate of the categories

Category	**Participation rate of (n=41)**
Sports activities	46 %
Outdoor activities	62 %
Summer activities	58 %
Indoor activities	61 %
Creative activities	50 %
Social activities	59 %
Average participation rate	**56 %**

The results indicated that sports activities obtained the lowest participation rate and that outdoor activities obtained the highest participation rate when analysing the overall participation rate of each category. The average participation rate was 56%.

During the field testing of the original KPP, a participation rate of 5% or more was considered as a valid item (7). None of the activities on the mKPP obtained a participation rate of less than 5% during the field testing process. Thus, no items needed to be removed due to low participation rates. The re-modification of the mKPP was only necessary to correct a mistake made during the modification process.

Table 4.13: Participation rates of the individual activities (n=41).

Sports activities	**Outdoor Activities**	**Summer Activities**	**Indoor Activities**	**Creative Activities**	**Social Activities**
Play Soccer 49%	Ride Bicycle 77%	Go on Picnic 65%	Read 67%	Sing / Take Music Lessons41%	Play with Friends 78%
Play Rugby 22 %	Play Touchers 69%	Go Camping 66%	Watch TV 73%	Dance / Take Dance Lessons38%	Play School 41%
Play Hockey 42 %	Play Hide & Seek 75%	Go Hiking / Go for Walks 57%	Watch DVD 68%	Ice Skating 68%	Play House 26%
Play Netball 36 %	Play on Playground / Jungle Gym 65%	Gardening 45%	Play Cards 58%	Drama 20%	Play Superhero/ Dress-up 36%
Play Cricket 42%	Play Ball Games 60%		Play with Toys 52%	Build Things 55%	Go to the Mall 63%
Play Tennis 58%	Jump on Trampoline 77%		Play Board Games 61%	Draw and Paint 59%	Go to the Movies 81%
Athletics 51%	Jump Rope 55%		Build Puzzles 44%	Bake and Cook 60%	Go to Restaurants 70%
Fun runs / Cross country 50%	Swing 52%		Use Computer / Laptop / Tablet 64%	Build Lego 60%	Go to Birthday Parties 80%
Swim / Swim Lessons 71%	Jay-Boarding / Skateboarding 40%		Take Care of Pets 60%		
Gymnastics / Acrobatics 41%	Climb Trees 63%				
	Motor Biking / Quad Biking 47%				

4.3.3 Opportunities for children to contribute their own ideas at the back of the mKPP

The open areas at the back of the profile pages did not deliver the anticipated results, as the participants mostly repeated activities that were already in the profile. The Grade 3 learners comprehended and followed this instruction the best. Activities that were indicated as popular, but not on the profile, were: 'Ballet', 'Martial arts', 'Boxing' and 'Playing on the beach'. The participation rates of all these activities were below 10%, but this score cannot be considered valid, as all the participants did not have the opportunity to respond to this.

4.3.4 Internal consistency

The internal consistency was calculated by means of the statistics programme (STATISTICA) and presented with a Cronbach's alpha of 0.77 in both the test and in the retest. A Cronbach's alpha of 0.8 and above is considered adequate when measuring internal consistency (115). This means that there is a good internal consistency and relationship between the items of the profile. During the development of the original KPP, the Cronbach's alpha measured at 0.8 (p.29)(7).

Table 4.14: Cronbach's alpha of each category during the test and retest (n=41)

Category	Cronbach's alpha (test)	Cronbach's alpha (retest)
Sports activities	0.75	0.77
Outdoor activities	0.75	0.75
Summer activities	0.72	0.72
Indoor activities	0.73	0.74
Creative activities	0.73	0.71
Social activities	0.77	0.74

4.3.5 Overall test-retest reliability

The overall test-retest scores were correlated by means of a Pearson's correlation coefficient to determine the test-retest reliability (116). Test-retest reliability was calculated on the first question: "Do you participate in this activity?"

Figure 4.3 indicates how correlations were interpreted throughout the study and represents a suggested scale of strength of correlation to determine test-retest reliability.

Value of the Correlation Coefficient	Correlation Strength
1	Perfect
0.7 – 0.9	Strong
0.4 – 0.6	Moderate
0.1 – 0.3	Weak
0	Zero

Figure 4.3: Correlation strength scale: categorising by Dancey & Reidy (2004)

Figure 4.3 indicates that a correlation score of 0.7 is considered a strong correlation between variables. The original development of the KPP used 0.6 as an acceptable correlation score for young children (7). In this study a correlation score of 0.7 was considered to indicate strong psychometric score (117). However, a score of 0.6 was considered acceptable, but the results of that section should be interpreted with caution.

Table 4.15: Correlation strength of the total sample

Category	Test – retest correlation (r) for the Total sample (n=41)
Sports activities	0.70 (p ‹0.05)
Outdoor activities	0.47 (p ‹0.05)
Summer activities	0.73 (p ‹0.05)
Indoor activities	0.53 (p ‹0.05)
Creative activities	0.74 (p ‹0.05)
Social activities	0.62 (p ‹0.05)
All categories	0.75 (p ‹0.05)

Comment:

The correlation strength varied between 0.47 – 0.74 in the six categories. A strong correlation score of 0.7 was not obtained in the outdoor, indoor and social activities categories, but an acceptable score of 0.6 was achieved in all the categories, except in the outdoor and indoor activities categories. When looking at the correlation between the total scores of the test and retest of the sample, a strong correlation score of 0.75 was obtained.

- **Variables affecting reliability: grade (age) and gender of participants**

Factors that may affect test-retest reliability were explored by calculating the reliability results for the different grades (1-3) and the two genders. The correlation scores for the test-retest reliability on the mKPP of the different Grades (1-3) are summarised in Table 4.16.

Table 4.16: Correlation strength comparing the grades (* statistically insignificant)

Category	Test - Retest Correlation (r) Grade 1 (n=11)	Test - Retest Correlation (r) Grade 2(n=14)	Test - Retest Correlation (r) Grade 3(n=16)
Sports activities	0.35 (p ›0.05) *	0.75 (p ‹0.05)	0.72 (p ‹0.05)
Outdoor activities	0.11 (p ›0.05) *	0.57 (p ‹0.05)	0.42 (p ‹0.05)
Summer activities	0.73 (p ‹0.05)	0.74 (p ‹0.05)	0.80 (p ‹0.05)
Indoor activities	0.62 (p ‹0.05)	0.32 (p ›0.05)*	0.13 (p ›0.05) *
Creative activities	0.64 (p ‹0.05)	0.85 (p ‹0.05)	0.72 (p ‹0.05)
Social activities	0.60 (p ‹0.05)	0.74 (p ‹0.05)	0.74 (p ‹0.05)
Total scores	0.73 (p ‹0.05)	0.76 (p‹0.05)	0.72 (p ‹0.05)

Comment:

The correlation strength obtained by the Grade 1 learners varied between 0.11 and 0.73, which presented weak to strong correlations. The results obtained in the sports and outdoor activities were not statistically significant and indicated weak correlations. The summer activities showed strong correlation scores, while creative, indoor and social activities showed moderate correlations that were above the 0.6 (adequate) level.

The results of the Grade 2 learners also displayed some variation of scores, but to a lesser degree. The correlation strength varied between 0.32 (weak) and 0.85 (strong). The result obtained in the indoor activities was not statistically significant. The sport, summer, creative and social activities showed strong correlation scores, while moderate correlation scores were obtained in the outdoor activities (not adequate) and weak correlation scores in the indoor activities.

The results of the Grade 3 learners followed the same pattern as the other grades and varied between 0.13 (weak) and 0.80 (strong). The result obtained in the indoor activities was also not statistically significant. Strong correlation scores were measured in the sports, summer, creative and social categories, while moderate (not adequate) correlation scores were obtained in the outdoor activities and weak correlation scores in the indoor activities.

Conclusion

Two of the subtests consistently achieved below acceptable (<0.6) reliability scores for all three grades (indoor activities and outdoor activities) and thus should also be interpreted with caution. Overall test-retest reliability scores for the total scores on the mKPP were above 0.7

for all three grades, indicating acceptable reliability when used with younger as well as older children.

The correlation scores for the test-retest reliability on the mKPP of the genders are summarised in Table 4.17.

Table 4.17: Correlation strength: comparing the genders

Category	Test - Retest Correlation (r) Boys (n=21)	Test - Retest Correlation (r) Girls (n=20)
Sports activities	0.55 (p ‹0.05)	0.82 (p ‹0.05)
Outdoor activities	0.45 (p ‹0.05)	0.52 (p ‹0.05)
Summer activities	0.57 (p ‹0.05)	0.86 (p ‹0.05)
Indoor activities	0.45 (p ‹0.05)	0.62 (p ‹0.05)
Creative activities	0.68 (p ‹0.05)	0.73 (p ‹0.05)
Social activities	0.56 (p ‹0.05)	0.52 (p ‹0.05)
Total scores	0.50 (p ‹0.05)	0.88 (p ‹0.05)

Comment:

The girls obtained strong correlation strength scores in sports, summer and creative activities and a moderate, but adequate correlation score in indoor activities. The outdoor and social activities obtained moderate scores, but below the acceptable level of 0.6. The boys, on the other hand, obtained acceptable correlation strength in the creative activities category only, while all other categories were below the acceptable 0.6 mark.

Conclusion

The total correlation scores indicated that the boys obtained a moderate coefficient of 0.5 (not adequate) whereas the girls obtained a strong correlation coefficient of 0.88. This leads us to the conclusion that the outcome of the mKPP is more reliable when completed by girls than boys.

4.3.6 Consistent response / Error rate

One of the important aspects to consider when doing a self-report survey is to look at the proficiency in which the learners can complete the survey. To measure this, the researcher examined the number of errors the learners made. In the original KPP this aspect was also applied (7).

Table 4.18 indicates the number of errors made during the test and retest of the mKPP. The results of the different grades are displayed of the total sample (n=48) as well as of the reduced sample (n=41).

Table 4.18: Comparing the total of errors made during the field testing according to grade

Category	Grade 1 (n=16)	Grade 1 n=11	Grade 2 n=16	Grade 2 n= 14	Grade 3 n=16	Grade 3 (n = 16)
Sports activities	60	11	14	9	4	4
Outdoor activities	39	5	15	7	9	9
Summer activities	9	1	7	2	3	3
Indoor activities	30	11	20	11	5	5
Creative activities	16	6	9	6	3	3
Social activities	22	5	6	2	2	2
Total Errors	**176**	**39**	**71**	**37**	**26**	**26**
Total Errors made in Test	108	24	38	27	9	9
Total Errors made in Retest	68	15	33	10	17	17

Table 4.19: Comparing total errors made by the total sample and the reduced sample

	Total sample (n=48)	Reduced sample (n=41)
Total Errors made in Test	155	60
Total Errors made in Retest	118	42
Total errors made	**273**	**102**

Comment:

The total sample (n=48) made 273 errors. The Grade 1 learners made 64% of the errors, the Grade 2 learners made 26% of the errors and the Grade 3 learners made 10% of the errors.

By analysing the level of errors, it is apparent that the Grade 1 learners made many more errors than the Grade 2 and Grade 3 learners. The outcome also showed that the errors made in the test were more than in the re-test for Grade 1 and Grade 2 learners. Grade 3 learners made more errors in the retest than in the original test.

When considering the consistent response of the reduced sample (n=41), a total of 102 errors were made. The Grade 1 learners made 38% of the errors, the Grade 2 learners made 36% of the errors and the Grade 3 learners made 25% of the errors. Though the margins of difference are smaller in the reduced sample, the Grade 2 and Grade 3 learners still made fewer mistakes than the Grade 1 learners. Two Grade 1, five Grade 2 and eight Grade 3 learners made no mistakes.

Table 4.20 displays the number of errors made by the two genders to explore the difference in the result of the sample.

Table 4.20: Comparing the total of errors made during the test-retest according to gender

Category	Boys (n=24)	Boys (n=21)	Girls(n=24)	Girls (n=20)
Sports activities	46	15	33	9
Outdoor activities	38	10	25	11
Summer activities	8	3	11	3
Indoor activities	32	15	23	12
Creative activities	16	10	12	5
Social activities	18	6	11	3
Total Errors	**158**	**59**	**115**	**43**

Comment:

The results of the total sample show that the boys made 58% of the errors, while the girls made only 42% of the errors during the test-retest of the mKPP. The same result was obtained when calculating the reduced sample's results.

Conclusion

The outcome showed that the boys made more errors in total than the girls and that the difference in percentage remained the same even though the sample was reduced.

4.4 Chapter summary

The results of the first phase have shown that eight activities were unanimously removed from the original Kid Play Profile prior to the preliminary voting in the nominal group process. A total of 19 new activities were added to the modified profile and 11 activities were either modified or combined with overlapping activities. A further 15 activities met the exclusion criteria and were removed from the profile. After the modifications were made, a panel of experts viewed the mKPP and recommended that *item 33* be modified to 'Use Computer/ Laptop/PSP'.

The results of the field testing (phase 2) showed that all the activities obtained an acceptable participation rate (confirming validity) and an acceptable internal consistency of 0.77 in both the test and retest were obtained. The correlation strength between the test and retest scores varied from weak to strong, but a strong reliability coefficient of 0.7 could not be obtained throughout the categories. Differences were noted in the number of errors that the participants in different grades and different genders made.

CHAPTER 5

5.0 DISCUSSION OF RESULTS

5.1 Introduction

This project was undertaken to investigate the appropriateness of the KPP in a South African context. In this chapter the researcher will discuss the results of the modification of this profile by means of the nominal group discussions and the review of the panel of experts to determine content validity for the mKPP. The confirmation of the content validity through participation rates and the results of the reliability testing of the mKPP (internal consistency, test-retest reliability and error rates) by means of the field testing will be discussed as well.

The usefulness and recommendations regarding the use of the mKPP in a South African setting will be made and finally the limitations of this study will be listed.

The use of the original KPP in the South African context was questionable, as this profile was developed on the north-eastern seaboard of the USA, for children living in a different culture and climate, with a different socio-economic status and different preferences than children in South Africa (13-15). The area in the USA where the KPP was developed has extreme weather conditions, which creates the opportunity for winter activities, such as snowboarding and sledding (77). This is not the case in South Africa, which has a moderate climate in comparison to that area of the USA (76). Culture in terms of activities also differs from that in South Africa, as each country has a diverse and unique population influenced by local culture and opportunity. The resources and accessibility of activities for American children would be different from those for South African children (14, 46). The USA is a first-world country with a wealth of resources and opportunities for their children, which might not necessarily be the case for most South African children (16). The extra-mural activities that they offer in their schools are also not the same as those offered to the South African child (16, 105). These few areas mentioned are already an indication that the content of the KPP probably needed modification to be suitable for the South African child. The goal of the modification was to develop a valid and reliable measuring tool to assess play activities of children living in the urban areas of South Africa. The intention of the original KPP was to set the process of play assessment in motion and to create a platform to discuss play, play

preferences, the social aspects around play and to observe if there is an overall lack in any of these areas (7). This was the goal of the mKPP as well.

5.2 Discussion of sample

The participants in this study were limited to English-speaking, middle to upper socio-economic class children, their parents and educators, living in the eastern suburbs of Tshwane/Pretoria. The participants in the sample were from different cultural and racial backgrounds, but mostly described their lifestyles as urban, westernised lifestyles (104, 105). The sample could be described as affluent in comparison to the majority of South Africa's population (93). This sample of the population often has the opportunity to participate in a wide variety of activities (sport, cultural and creative) within and outside the school extra-mural schedule (104, 105). This sample also often has easy access to the facilities that an urban lifestyle offers, such as malls, restaurants and clubs (80) and this influences the type of activities that are available for these children (66, 85). The sample is thus not necessarily representative of the population of South Africa as a whole where large portions of the population live in poverty and do not have the financial resources to access a variety of activities. This sample also does not represent children living in rural settings (93). However, this sample does represent the population most often referred to school-based occupational therapist in the Tshwane/Pretoria East area.

5.3 Developing valid content for the mKPP

To develop valid content for the mKPP, the expertise of parents and educators was accessed through the nominal group technique. The results of the summative analysis of the nominal groups indicated that 23 items from the original KPP remained, 19 new items were added and eight items were excluded during the initial rounds. This indicates that, although there are some differences between the activities that American (USA) and South African children participate in (according to parents, educators and OTs), there are also many similarities. In literature there is more emphasis on the similarities of play across cultures than the differences.

Play is considered a universal phenomenon and the development of play follows similar patterns regardless of the setting (12, 28, 41, 90). The fact that 23 out of the original 50 activities remained on the profile is an indication hereof. Play activities on the KPP that

remained in the mKPP indicate that age is one of the most important factors influencing play activities (as the children participating in this study were of the same age range as those who participated in the development of the KPP). The activities that were added or removed during the development of the mKPP predominantly reflect differences in sporting culture (different sports are valued in South Africa as compared to the USA) and differences in weather (South Africa does not have regular snow, but also enjoys a mild climate that encourages outdoor play).

The nominal group discussions delivered a wealth of information as to what the parents and educators of children living in the urban areas of Tshwane/Pretoria East perceive about children's play activities and will be discussed in more detail below.

5.3.1. Sports activities, outdoor activities and summer activities

The exploration of activities in the outdoor activities, summer activities, and sports categories in the NGT phase indicated that children in this sample have the potential to participate in many outdoor, physical and summer activities. When these sections are scrutinised, it becomes clear that the relatively mild Highveld climate allows for outdoor activities to occur throughout the year. The activities classified in the different sections (particularly in the outdoor and summer activities) are quite similar in nature and all occur in the outdoors. Thus differences in the climate between the Highveld in South Africa and the north-eastern seaboard in the USA seem to be an important differential between the mKPP and the original KPP. Each section will be discussed in more detail below.

- **Sports activities**

The sports activities section was the category that had the most changes to it, while still remaining on the profile when compared to the original KPP. Of the original six activities in the KPP, only one activity was retained. Sports preferences can differ dramatically between countries and even within countries based on availability of resources and space (59) . In the USA the most popular sports include basketball, baseball, American football, soccer, hockey, gymnastics and swimming (60), while in South Africa soccer, rugby, cricket, netball, boxing, hockey and tennis are considered of the most popular sports (58). A study conducted in Cape Town confirmed this, as it was found that soccer, netball, rugby, athletics, dancing, cricket, running, walking, hockey, swimming, gymnastics and tennis are the activities that children participate in mostly in the Cape Town region (16). This is reflected in the type of activities

removed, retained or added to this section in the mKPP. Baseball, basketball and dodge ball, were unanimously eliminated by both nominal groups in the initial rounds of voting, while 'Play catches' and 'Ride a bike' were moved to the outdoor category. Sports like baseball, dodge ball and basketball are not popular in South Africa and are not part of the regular extra-mural activities presented in South African schools (104, 105) -thus the limited opportunity for children within this sample to participate in these sports activities. Activities that were added to this category through the nominal group process were hockey, cricket, tennis and athletics. Activities such as swimming, gymnastics/acrobatics, cross country/fun runs and sports such as rugby and netball also received a lot of support during the nominal group process and were assigned to this category. This result can be directly linked to the activities that are offered by the participating schools and facilities that are available in the area (104, 105). This finding is similar to the results obtained in two studies conducted in South Africa, which found that children of middle to high socio-economic status have high participation rates in physical activities and organised sports (14, 16).

The only activity that remained from the original profile was soccer, which is regarded as the most popular sport in the world, including South Africa (118). The relatively modest need for equipment and space (a soccer ball, field and goal posts) means that a wide variety of populations can participate in the sport regardless of socio-economic status or culture. Within South Africa, this popularity persists in both rural and urban areas as well as within populations with a wide range of socio-economic statuses (16, 58).

An interesting outcome of the discussions during the NGT was the indication by teachers and parents that sports no longer really follow the summer/winter pattern and are generally offered or played all year round. This makes the classification of sports as winter or summer activities more difficult and may also eventually have an effect on the variety of sports activities in which children participate. As a result, all activities that could be classified as sports were included in this section regardless of whether these were traditionally summer or winter activities. This may also have eventually resulted in the elimination of the winter activities section, as many of the sports activities originally included in that section (such as cross country and rugby) were moved to the sports category.

The only activity that was eliminated through the voting process was horse riding. This is a very expensive and exclusive sport and might not be accessible to most of the participants in this study.

- **Outdoor activities**

The outdoor activities section had five activities remaining from the original KPP, which included 'Hide & seek', 'Play on playground', 'Jump rope', Ride bicycle' and 'Play Touchers'. These types of activities are part of children's play all over the world and relate back to the types of play described for this age group by Case-Smith (41). The relatively modest need for equipment and space means that most children can participate in these activities regardless of socio-economic status or culture (38, 46, 49).

The only activity that was eliminated during the initial rounds of the NGT was playing Frisbee. The newly added activities included 'Jump trampoline', Swing', 'Climb trees', 'Play ballgames', 'Jay-boarding/skateboarding' and 'Motor biking'. Children of middle to higher socio-economic status have relatively easy access and the opportunity to participate in these types of activities (40, 57). The South African studies conducted by Veigh, Norris & De Wet(14) and Wright, Anthony, Farmer, Witbooi, Lubbe & Van Heerden(16) also found that children from a middle to upper socio-economic status enjoy outdoor activities and are physically more active than children from a lower socio-economic status. The activity 'Gardening' was assigned to summer activities, as it was part of that category in the original KPP.

- **Summer activities**

A few activities in this category were removed during different stages of the nominal group process. The activity 'Go fishing' was eliminated early in the nominal group process and 'Play at beach / lake / river' received low scores during the voting process of the nominal groups. The exclusion of these activities could be expected since the target population lives in the urban areas of Tshwane/Pretoria and does not necessarily get the opportunity to engage in these two activities on a daily basis, as the city is not close to a big dam, river or the ocean(92). Travelling to the coast is a popular annual occurrence, but tends to be restricted to a holiday period and thus cannot be described as a regular play opportunity for children in Tshwane. In contrast, the area where the original KPP was developed is on the north-eastern seaboard of the USA and is surrounded by large rivers and lakes (77).

Participation in summer and outdoor activities can definitely be influenced by the climate and in South Africa, families with a westernised, middle to upper socio-economic status culture (as represented in this sample) tend to enjoy an outdoors type of lifestyle (14-16).
South Africa and specifically the inland region of Gauteng have a comparatively low average annual rainfall and plenty of sunshine throughout the year (76). This means that the South African climate offers children the opportunity to play outdoors and participate in outdoor sports and activities. The item 'Hiking/go for walks' was added to the summer activities. People like to go camping or go on holiday with a caravan, or enjoy outdoor activities such as hiking. To have parties and a 'braai' (barbecue) in the outdoors are a regular occurrence across South Africa. This is in line with the findings of Goodman(15) who indicated that children in the UK and Canada were more active on longer and warmer days and that rainfall was also associated with less physical movement.

Moss(69) reported evidence that the area where children are allowed to play unsupervised around their homes in the UK has decreased by 90% in the last 40 years. This may be applicable to the urban South African child, as more and more people live in security complexes due to the high crime rate in South Africa (65, 75, 93). Parents do not feel comfortable about allowing their children to play outside unsupervised (65), but that does not mean that South African children are inactive and mostly indoors. Parents have resorted to other means to give their children the opportunity to play outside. This is seen in places like aftercare facilities and restaurants, which create playgrounds and jungle gyms to provide children the opportunity to play outside (23, 80, 85). This trend has also been reported by scholars in Europe and the USA (68, 72).

5.3.2 Indoor and creative activities

The items in the creative activities category are mostly indoor activities and will be discussed with the indoor activities section.

The activities that remained in the indoor activities category of the original profile were 'Play cards', 'Play board games', 'Read', 'Watch TV' and 'Take care of pets'. This may be since these activities are viewed as universal for westernised children for generations (38, 41). The newly added activities were 'Watch a DVD' and 'Play with toys'. The inclusion of the 'Watch a DVD' activity is probably due to the progress of technology during the fifteen years between the development of the original KPP and the modification of the profile (40, 72, 79).

This was also the reason why the ‘Use computer’ item was modified to ‘Use computer/ laptop/tablet’ (as recommended by the panel of experts). Activities such as ‘Chess’, ‘Collect things’ and ‘Listen to music’ received low scores in the voting process and were therefore eliminated during the nominal group process. This may be that those types of activities might be more appealing to older children and that an activity such as chess requires higher cognitive skills that develop as children get older (41). This is also in line with the findings of Larson, Green & Cordell (46) who found that older children between the ages of 13 and 19 years preferred activities such as listening to music, using electronic devices and playing in team sports, while younger children (6-12 years) participated in outdoor activities such as bicycle riding, jogging and running.

In the creative activities category the items that remained from the original profile were ‘Sing’, ‘Dance’, ‘Build things’, ‘Draw and paint’ and ‘Bake and cook’. The newly added activities included ‘Music and dance lessons’, ‘Ice skating’, ‘Drama’ and ‘Build Lego’. This strongly relates to the activities that are offered at the participating schools as well as activities that are relatively accessible to the target population (104, 105). The popularity of the ice skating activity can be directly linked to the opening of a new ice skating arena in a popular (and accessible to the target population) shopping centre just prior to the study (80, 81).

The activities that were omitted due to low scoring were ‘Mosaics’, ‘Pottery’ as well as ‘Journaling’. These three activities require a lot of skill and might be more appealing to older children. Journaling, for example, would require a high level of reading and writing ability, which might be too challenging for the younger children at this stage of their development (28, 41).

5.3.3. Social activities

The social activities that remained from the original profile were ‘Play with friends’, ‘Play school’, ‘Play house’, ‘Play superhero/dress up’. These types of activities are part of children’s play development and children can participate in these activities regardless of socio-economic status or culture (12, 41).

The newly added activities included ‘Go to the mall’, ‘Go to the movies’, ‘Go to restaurants’ and ‘Go to birthday parties’. Children participating in this study often have the opportunity to

engage in these types of activities with their parents and peers. The influence of urbanisation is seen in the options of play and social activities that children have (57, 69, 72). Friends spend time at the mall or go to the movies instead of staying home and playing. The development of play arenas in malls and at restaurants is also in demand, as parents prefer places of social gatherings to have facilities for their children to play or entertain themselves (46, 57, 85).

The 'PuttPutt' activity was excluded from the mKPP and the low ratings in the nominal groups might have been due to the abovementioned trend to go to the mall, where there are activity arenas and parents might feel more comfortable about letting them play in an activity arena in a mall, than at an isolated PuttPutt course in town (66, 72, 80).

The activity 'Scouts/Cubs' was also excluded due to low scoring in the nominal group voting. Activities like the Scouts, Cubs and the South African version, "Die Voortrekkers", are culture-specific activities, which are mostly encouraged and initiated by parents from specific demographic groups (23). This might have not been the case at the participating schools; therefore, these items did not get votes in the nominal groups. These and similar cultural activities such as The Young Rangers are offered in the area, but not necessarily on the school premises.

Humans, including children, are social beings and the results of playing with their friends are not surprising. Socialising and group play activities are part of social development for this age group (41). The inclusion of activities such as 'Go to the mall', 'Go to the movies', 'Go to restaurants' and 'Ice skating' demonstrates the urbanisation and the city life of the participants in this study. The sample of children that participated in this study lives in the city and one can expect that children living in cities participate in different activities than children living in rural areas (63, 85). This means that activities included in the mKPP may be applicable for children living in the city, but are not necessarily applicable for children living in rural areas and in the countryside. Children living in rural areas or small towns may not often have the opportunity to go to malls, movies and restaurants often, thus these types of activities may not be applicable when children from another demographic group complete the mKPP (63). Thus, the applicability of the mKPP with regard to rural or small town populations is questionable and would have to be explored further.

5.3.4. The omission of two categories

From the analysis, two categories were finally completely removed from the mKPP, namely the winter activities and the lessons category (see Appendix G-1).

In the original KPP, the winter activities category contained mostly activities related to snow, such as 'Go sledding', 'Play in snow' and 'Ski/snowboarding'. These activities were deemed inappropriate by the nominal groups, as the Tshwane/Pretoria area is not exposed to such extreme climate changes to include snow-related activities. Tshwane/Pretoria is on the Highveld of South Africa with mild winters, which allow many sports and outdoor activities, even summer activities to be carried out all year long (76). Therefore, there is not such a marked difference between the activities that can be done in the winter months and summer than in the USA, where there are extreme climate changes between summer and winter (77). After the idea generation steps in the nominal groups, the activity pool (winter activities) consisted of 'Cross country', 'Hockey', 'Netball', 'Rugby', 'Soccer' and 'Ice skating'. The nominal groups indicated that activities such as cross country, hockey and soccer are offered during specific school terms and not bound to a specific time of year (season) and that these activities are better represented elsewhere**.** This supports the notion that sports activities in South Africa are no longer played during a specific season of the year per se. Therefore, the activities 'Cross country', 'Hockey', 'Netball', 'Rugby' and 'Soccer' were included in the sports activities category. The only activity that remained was 'Ice skating'. This activity was assigned to creative activities erroneously, as it should have been assigned to the social activities, where one of the groups indicated it as a relevant activity (see Tables 4.5 & 4.8a). This was rectified during the re-modification of the mKPP (see Appendix M-1). The nominal group considered ice skating to be a social activity within the South African context, as it usually occurs at an indoor ice skating arena with friends and not outdoors in the snow (81). This left the winter activity category with no activities and it was therefore omitted.

In the lessons category, none of the existing activities were removed during the initial rounds of the nominal groups. Activities that were added during the idea generation process included 'Gymnastics', 'Drama lessons', 'Wrestling', 'Crafts', 'Martial arts', 'Cooking class', 'Soccer club', 'Monkeynastix', 'Playball' and 'Art lessons'. 'Wrestling', 'Crafts', 'Martial arts', 'Cooking class', 'Monkeynastix' and 'Playball' were eliminated during the voting process. These activities are not offered on the school premises, which may have led to lower scoring during the voting process (104, 105). Activities such as martial arts and wrestling require a

lot of skill and might not be appealing to everybody. Crafts and cooking classes might also be more exclusive and appealing to either a smaller group of the target population or an older group of children (41, 46). The franchise-related activities Monkeynastix and Playball are mostly offered to a younger target population in preschool and in the younger grades (119, 120) and are thus not deemed applicable for the whole target population of the mKPP. The remainder of the lessons were gymnastics, swimming lessons and soccer club, music lessons, drama lessons and dance lessons. When the nominal group reviewed the outcome of the preliminary votes it was noted that these activities are closely related to activities already plotted in the sports and creative activities. This repetition was deemed unnecessary by the groups, which recommended that the activities be combined and assigned to these two categories. This type of collapsing of activities was also done during the development of the original KPP (7). This left the lessons category with no activities and was therefore omitted.

5.4 Confirming content validity of the mKPP with a sample of the target population

In order to confirm validity of the items included in the mKPP, the participation rates of individual activities as well as of the six categories were measured during the field testing of the mKPP. Participation rates indicated how many children in the sample actually reported participation in the presented activities. During the first stages of the development of the original KPP, a participation rate of 5% was seen as acceptable for individual activities and this was applied to the mKPP as an indicator of content validity (7). All the activities in the mKPP achieved a participation rate of at least 5% and thus the content of the mKPP could be considered valid for this sample of children. Although the sample in this study is small and not necessarily representative of the South African population, some interesting trends in activity participation were nonetheless noted.

Firstly, this study seems to confirm findings from other studies that children from higher socio-economic statuses tend to be more active (14, 16). The outdoor activities category, which contains predominantly physical activities, obtained the highest participation rate (62%) and four of the top ten activities, according to participation rates, were physical activities. This relates closely to the results of the 2011 National Kid Survey in the USA where it was found that children between the ages of 6 and12 years played outdoors more, participating in physical activities such as bicycle riding, jogging and walking than children between the ages of 13 and 19 years (46). Combined with the high participation rates in the

summer activities category (‘Go on picnic’ 65%, ‘Go camping’ 66%), where activities are also predominantly active and outdoors, provides evidence that the age, socio-economic status and location of this sample of children encourages active play. The difference in gender play preferences is a factor that needs some consideration, as there is ample literature that indicates that boys and girls do not always prefer the same kind of play activities (46, 49-51). This might also be the case with this target population, as results of gender unbiased activities such as ‘Go to the movies’ and ‘Play with friends’, ‘Jump on trampoline’, ‘Play hide and seek’, ‘Watch TV/DVD’, ‘Read’ and ‘Use computer’ scored higher participation rates than more gender-specific activities such as ‘Rugby’, ‘Netball’, ‘Jay-boarding’ and ‘Playing house/superhero’. Although the mKPP appears to have enough range in activities to cover both genders, the participation rates of this study were not analysed according to gender; thus proper conclusions cannot be made regarding differences between play preferences of the two genders.

Interestingly, the other active outdoor collection of activities, namely the sports activities category, had the lowest participation rate (46%). The low participation rate in the sports category could be explained by two factors: age of the participating children in the study and opportunity. The items from the sports activities category that obtained high scores were ‘Swimming’(71%), ‘Tennis’(58%) and ‘Athletics’(51%), while those that scored the lowest were ‘Rugby (22%) and ‘Netball’(36%). One of the reasons for these participation rates maybe the opportunity to participate in these sports, as children tend to participate in activities that are offered by their schools. The participating schools in this study did not offer rugby and netball as sport options (104, 105). The other influencing factor may be the nature of sports activities. Sports such as soccer, hockey, rugby and netball are not presented to children in the foundation phase in a formal format. Children are only starting to develop the necessary skills to compete in team sports at this age (41, 46) and simplified formats are presented to obtain these skills in the younger grades (104, 105). Children of this age are also not compelled to participate in these simplified formats, whereas older children are required to participate in organised sport at school. This could also explain why activities such as ‘Swimming’ and ‘Athletics’ obtained higher participation rates than the team sports, as they do not require as many organisational skills as team sports (41).

Secondly, although the children in this sample indicated a high participation rate in activities that included accessible technology, these types of activities did not seem to dominate the

participation rate in the indoor activity category. The activity 'Watch TV' obtained the 6th highest participation rate and 'Watch a DVD' was number ten. The use of computers was not under the top ten highest participation rates. This indicates that children from this target population appear to find different types of activities appealing and that technology is not as overpowering as literature indicates it to be in the USA (40, 82, 83).

All the items, except 'Build puzzles', in the indoor activities category scored a participation rate of above 50%. This shows that the recommended content, from the nominal groups, for this category is valid for this sample of the population. Activities such as 'Board games', 'Play cards', 'Play with toys' and 'Read', which are not technology driven, obtained good participation rates as well (see Table 4.13). The results of the pilot study in the development of the original KPP indicated that indoor activities such as watching TV and playing on the computer scored the highest participation rates in the USA (7), while outdoor activities obtained the highest participation rate in this study. This may indicate that the target population is more active and that the children play outdoors compared to the children in the USA. This is confirmed by the results of a study done by Van Jaarsveld, Mailloux & Herzberg(78), which found that South African children between the ages of six and nine years performed moderately to significantly better in, amongst others, the "Bilateral Motor Coordination, Standing Walking Balance as well as the Motor accuracy" subtests of the Sensory Integration and Praxis Test, than children from the USA. This can lead us to the conclusion that South African children are more active and have well-developed motor skills.

Factors that may have contributed to the high participation rates in non-technology activities could be that the parents of these young children might restrict the time that they spend with these devices. They might also encourage other play activities such as reading (67%) and playing board games (61%), building Lego (60%), cooking and baking (60%) and painting and drawing (59%), as they realise the importance of play as described by Whitebread (12), Gaskins, et al(13) and Ginsburg(23).

Another factor that might have moulded the opportunity for the target population to participate in these activities is socio-economic status and being able to afford these types of activities. The items 'Drama' (20%) and 'Dance/dance lessons' (38%) scored the lowest participation rate in the creative activities category. The reason for this might be that these activities are not part of the extra-mural activities that the particular schools offer and that

private lessons are required. An interest in these types of activities normally develops later in middle childhood. These activities also require much skill and commitment, which may be more suitable for older children (41, 46). In this case, the factors that might have contributed to the lower participation rate include age (more suitable for older children) and location (not easily accessible to all).

The high participation rates in both indoor and outdoor activities seem to indicate that South African children may have the best of both worlds, being able to participate in both indoor and outdoor activities.

Finally, children in this sample still enjoy social activities. This is seen in the participation rates in the social activities category that obtained the top three highest participation rates where 'Go to movies' scored 81%, 'Go to birthday parties' scored 80% and 'Play with friends' scored 78%. Children like to engage with their friends and participate in group activities where they make the rules themselves (2, 41). Young children cannot wait for break time at school so that they can play with their friends (48, 100). The notion of "play dates", where get-togethers with friends are formally organised by parents, is common. Even though the onslaught of technology is mentioned often, children still like to play and spend time with friends (49, 61, 62, 67). The high participation rate in activities such as going to the mall, the movies and restaurants displays the influence of urbanisation and the modern lifestyle as well as the importance of location when it comes to social activities (72). The high participation rate of the ice skating activity (68%) may be due to the opening of an ice skating arena in close proximity of the participating schools just prior to this research study, making this a novel activity for the sample of children (81).

The activities that scored a low participation rate in the social activities category were 'Play house' and 'Play superhero/dress-up'. Although these are social activities, when one considers the development of fantasy play, these types of activities would be more appealing to younger children, thus more appealing to the Grade 1 learners (41). This means that these activities seemed valid when one looked at their face value, but were not very applicable to all of the target population (Grade 2 and Grade 3 learners).

5.5 Conclusion: Developing and confirming content validity

In conclusion, the exploration of all the categories in both the NGT phase as well as the measured participation rates on a sample of children in Tshwane/Pretoria East, indicated that the mKPP has represented a valid selection of activities for the target population. Although South African children do not match their American peers in the rate of participation in indoor and creative activities (7), it is still clear that these activities, even those related to technology, form an important part of a child's play profile.

The exploration of activities in the outdoor activities, summer activities and sports categories in both the NGT phase as well as the measured participation rates indicated that children in this sample enjoy outdoor, physical activities and summer activities and that the mKPP has represented a valid selection of activities in these categories. These activities are as much outdoor activities as they are summer activities. Within the moderate, sunny Highveld climate in Gauteng, South Africa (76), activities such as going on a picnic or going camping are not necessarily restricted to the summer months. The complete removal of the winter activities category from the mKPP and the fact that the remaining activities in summer activities could just as well be classified as outdoor activities is perhaps an indication of this lack of this distinction in the South African context.

The indoor and creative categories also presented with new activities that indicate that although our moderate climate presents the opportunity for outdoor types of activities, the target population also has a healthy interest in indoor and creative activities.

The location and socio-economic status of the target population, as well as the cultural perception about play activities assumably played a major role in the final makeup of the activity pool of the mKPP.

This is in line with the literature that indicated that climate, socio-economic status and parental perception about play, amongst others, have an impact on children's play activities (13-16, 40). The social category, for instance, included activities such as going to the mall, movies and restaurants, which are closely linked with the location of the target population (close to shopping outlets), the ability to afford these type of activities (socio-economic status) and the opportunity granted by the parents (culture: perception about play) to do these types of activities (72). This also applies to the other categories where the location of the target population offers the opportunity to participate in the activities, whether it is due to

curriculum (sports) or the weather (outdoor activities) (15, 59). The socio-economic status of the target population and the parents' perception about play activities (culture) also assumably played a role in the selection of activities in the activity pool(40, 65) . This trend of factors is also seen in the indoor and creative categories, where some of the activities involve expensive technology such as TV, DVD and computers (socio-economic status) and the opportunity to participate in activities such as taking music and dance lessons, building Lego, reading, playing board games, drawing and painting, etc. (culture/perception), where the parents understand the value of these types of activities (12).

This pattern is noticeable throughout the categories where location (urbanisation and modern lifestyle), climate, socio-economic status and parental perception played a major role in the final activity pool indicated by the nominal groups. Factors such as age and gender differences were more noticeable during the field testing of the mKPP than during the nominal group process.

Based on these results, the selection of activities provided a valid range with which to measure play in an urban South African context. That being said, there are definitely areas that require some further research and exploration. The impact of different locations and socio-economic status as well as gender differences in activity preference could be examined in future.

5.6. Reliability of the mKPP

The final objective of the study was to determine two aspects of reliability, namely internal consistency and test-retest reliability in a sample of the target population

5.6.1 Internal consistency

Internal consistency defines how well a test addresses different constructs and delivers reliable results. Internal consistency also estimates how much the total test scores would vary if slightly different items were used (114). Researchers usually want to measure constructs rather than particular items. One way of testing this is by using a test-retest method, where the scores obtained from two successive measurements are compared and the correlation of these two measurement scores are calculated (116). This method was used in this study and

the internal consistency was calculated for both the test and retest administration to ensure that there were not major differences.

Cronbach's alpha coefficient was used to provide an inter-item coefficient. This alpha coefficient calculates the average of all possible split-half coefficients and allows multi-level responses (114, 115). Cronbach's alpha gives a score of between zero and one, with 0.7- 0.79 generally accepted as a sign of acceptable inter-item reliability (106, 115). A Cronbach's alpha of 0.8 and above is considered high reliability when measuring internal consistency (114).

During the development of the original KPP, the Cronbach's alpha measured 0.8 on the 30-item version (p.29)(7). During this study, the internal consistency testing presented with a Cronbach's alpha of 0.77 in both the test and in the retest, which indicates an adequate level of internal consistency (114). This means that the items/content of the mKPP is closely related and the mKPP measures that what is supposed to measure within this sample, namely play activities. The result of this study proved to be slightly lower than during the development of the original KPP and a possible reason for this lower result might be the reduction of the sample size during the study from n=48 to n=41. The Cronbach's alpha with a sample size of n=48 measured at 0.82. The Cronbach's alpha test takes both the size of the sample and the number of potential responses into account, thus the possible reduction in the alpha coefficient with the smaller sample (115).

That being said, the results of the internal consistency testing indicated that the mKPP inter-item coefficient proved to be adequate to deliver a reliable outcome when completed by the target population.

5.6.2 Test-retest reliability

Test-retest reliability refers to the consistency of responses from the same person over time (116) Test-retest reliability is therefore an important indicator of whether results obtained on a test are trustworthy and measure the construct accurately over time (115, 116). There is debate about what is considered good reliability in psychometric testing. Dancey & Reidy (2004) suggest that a correlation of 0.7 can be considered strong and this is also accepted by other authors such as Kielhofner (117) and Roseblum, Sachs & Schreuer (32). During the development of the original KPP, a correlation score of 0.6 was considered as an acceptable

correlation score for young children on a self-report questionnaire (7). However, this means that there is considerable variability in the responses from one administration of the assessment to the next. In this study a correlation score of 0.7 was considered to indicate a strong test-retest reliability score. However, a score of 0.6 was considered adequate, but the results of that section would be interpreted with caution.

There was considerable variability in the test-retest reliability scores for different sections of the mKPP. Thus the results will be discussed under the following headings: overall test-retest reliability, subsection test-retest reliability and the factors influencing test-retest reliability. All test-retest reliability scores were calculated on the final sample of n=41, after the seven invalid administrations were removed from the sample.

5.6.2.1 Overall test-retest reliability of the mKPP

When looking at the correlation between the total scores of the test and retest of the sample, a strong correlation score of 0.75 was obtained (see Table 4.15). The overall reliability score is much higher than the individual subsection parts, but this can be due to the fact that far more items were correlated in the total score than in the subsections. During the original development of the original KPP, the total test-retest reliability coefficient for the first question of the profile was 0.91 (7), which is considerably stronger than scores obtained with the mKPP. This testing was done on the 30-item version though, and not the 50-item version, which could have resulted in less variability of the original KPP. The original KPP also obtained scores lower than the adequate 0.6 coefficient in the outdoors and creative activities categories (7). Many standardised tests use the overall reliability scores to present a reliable outcome, but closer investigation is needed when different subsections measure different aspects (32).

The overall reliability coefficient is acceptable, but the mKPP is a multidimensional questionnaire, examining the participation in a variety of different types of activities. Therefore, to look at the individual subsection scores makes for a more nuanced interpretation of the profile, as each section is measuring a different aspect (32, 117).

5.6.2.2 Test-retest reliability of the individual categories

In the six categories of the mKPP the correlation strength varied between 0.47 – 0.74 (see Table 4.15). Thus, a strong correlation score of 0.7 was not obtained in all the individual categories. An acceptable score of 0.6 was obtained in all the categories, except the outdoor and indoor activities categories (117).

The summer activities and creative activities obtained the highest correlation coefficient scores while the outdoor and indoor activities scored the lowest correlation coefficients. This is interesting, as these two categories (indoor and outdoor) were among the categories that scored the highest participation rate. The reason for the high correlation coefficient in summer activities might be due to the fact that it consists only of four items, which creates less opportunity for variety in the responses. The creative activities obtained the second lowest participation rate, thus a large portion of the sample probably did not participate in these activities and found it easy to report on these activities with just a "no" answer, as they did not participate in these activities -- thus less variability. As a result, test-retest reliability was high in these categories, as the reliability coefficient measures the consistency with which children answer the questions in the profile, and not the participation levels.

The lower correlation coefficient in the outdoor and indoor activities could be because these two categories have the most items to report on and this creates opportunity for different reporting over time. However, the sports and social activities categories also contained a higher number of items, yet the correlation scores obtained were 0.7 and 0.62, which is notably better than the outdoor and indoor categories. To answer why this is the case is difficult, as many factors could have played a role. The change in 'play trends' for especially outdoor activities might have played a role, as the two administrations were conducted two weeks apart, but fell into two different school terms. Changes in playground activities such as Touchers can change to ball games over a short period of time and might cause the participants to report differently on these items (48, 85). The inconsistency in the reporting might also have occurred due to the informal nature of the activities in these categories, as mentioned before. The children might recollect the sports and social activities in which they participate better than they do the outdoor and indoor activities, as these activities might be more formal and structured (11, 97).

5.6.2.3. Factors influencing test-retest reliability

There are many factors that can affect reliability when children complete self-report surveys. These factors include contextual and social factors as well as participant factors (94-97).

One of the most influential contextual factors is the setting in which the test-retest is done. The completion of a survey can be similar to an assessment or test environment, which can cause distress and anxiety in the participants, as the objective of the exercise is unfamiliar to them (94). The researcher is also an unfamiliar person and no relationship or rapport has been built, which might lead to uncertainty and unwillingness to ask questions for clarity (94, 96). The test-retest of the mKPP was done in a school setting. The researcher could have been perceived as a person of authority, which could have led to a researcher-participant power imbalance (94). It is recommended that researchers attempt to minimise the power imbalance, as this can affect the reliability of the survey testing. This may cause the participants to answer in a certain way, as they think it is what the researcher wants or answer in a specific manner out of fear (97). In order to minimise their anxiety, the researcher did build some rapport with the participants by stating the purpose of the study and the importance of their input in the outcome as well as ensuring them that this is not a 'test' situation where there are right and wrong answers. This was effective, as the setting of the test-retest was informal and learners could speak, ask questions and make comments. This perhaps led to differences in the completion of the profiles, as group influences (see social factors) could have affected a child's answering on a specific day and led to inconsistent responses during the completion of the test and retest.

The contextual factor of time and memory can also play a role in the variability in answers (11). A period of approximately 10 to 14 days transpired between the test and the retest of the mKPP. This incidentally fell over a school holiday period, which might have affected what the children remembered doing before. This change in routine could have led to the children doing different activities just prior to the retest, thus resulting in some inconsistent reporting.

Yang(11) found in her study of measuring general activity levels with a self-report survey that children's ability to recollect their activities from the previous three days decreased significantly.

The inconsistency in the reporting might also have occurred because of the informal nature of the activities in especially the outdoor and indoor categories. For example, a child might remember that he/she rode his/her bicycle in one week, but may not have done so in the following week. Thus, in completing the profile in the retest setting, this activity may not have been fresh in his/her mind.

Group pressure and awareness of social expectations can also be contextual and social factors could influence reliability, for example, "If my friends swim, I must say that I swim". Children are well aware of social expectations, which could possibly influence responses when completing the survey in a group setting (41, 95). An example thereof might be that the participant does not participate in sport, but because he/she perceives this to be expected, his/ her responses could be affected because the participant wants to comply with social expectations (94-96). The test-retest was done in small groups and the abovementioned contextual and social awareness factors could have affected the reporting in the completion of the survey and the outcome could be different if a specific child had completed the survey in an individual setup.

The participant factors that one should take into consideration when completing a self-report survey are the participant's ability to understand the instructions as well as the participant's competency to complete the survey independently (97). Participant factors such as age/ competency and gender can also influence how the children completed the profile and could possibly create difficulties in interpreting the profile results (7, 99). These participant factors were considered in the data analysis and will be discussed further.

5.6.2.4. Participant factors

Factors that may affect test-retest reliability were explored by calculating the reliability results as well as analysing the consistent response (error rate). Two measured factors, namely age (educational grade) and gender, that could have influenced the results of the test-retest reliability of the mKPP, will be discussed in more detail.

Age

During analysis of the correlation coefficients obtained, it was noted that the Grade 2 and Grade 3 participants obtained a coefficient of 0.7 or more in four of the six categories, while

the Grade 1 participants obtained acceptable scores in only one category (see Table 4.16). This indicates that the chances of obtaining a reliable outcome when Grade 2 and Grade 3 learners complete the survey, in a small group setting, are much better than with younger children. Grade 2 and Grade 3 learners are more proficient in reading and writing and could probably follow the instructions better and make fewer errors than the younger Grade 1 learners (29, 41). They are also more likely to be able to manage their anxiety better and are more confident in these settings to ask questions if they are uncertain (94).

When one looks at the total correlation score of the Grade 1 participants, the correlation score of 0.73 appears strong, but when one interrogates specific subtests, there are many variations. The correlation strength obtained by the Grade 1 learners varied between 0.11 and 0.73, thus presenting weak to strong correlations, which showed great variability and inconsistent results in the individual categories. The results obtained in the sports and outdoor activities were not statistically significant and indicated weak correlations.

The mKPP comprises 22 pages and some of the Grade 1 participants might have found the prospect of completing the survey daunting. During the completion of both the test and the retest profiles, the Grade 1 learners accidently left some items open or skipped pages. This contributed to the inconsistent scores. The researcher also observed that some of the Grade 1 learners had difficulty in understanding the instruction on how to answer when they did "not" participate in an activity. They often continued to complete the follow-up questions on that item, which they were instructed not to do. This links back to the contextual factor, namely the setting in which the survey was completed (94, 96). The mKPP was completed in a school setting, where the children are usually required to complete and answer all the questions on a paper and this may have led to some confusion regarding leaving out questions.

The low correlation score for the sports and outdoor activities can also be related to the fact that these categories are the first two categories in the mKPP. It is possible that the Grade 1 participants still felt unsure about what was required at the beginning of the administration, thus the inconsistent reporting, but then became more comfortable with the administration process as the administration continued (97). The validity discussion also highlighted that all the items in the sports category were not as appropriate for the younger children and therefore their responses might have been inconsistent. The change in school terms might also have

been a contributing factor to the inconsistent reporting of the sports activities, as some learners might have started participating in a new sport after the school holidays.

Contextual factors such as inconsistent reporting due to the number of items in the category and the informal nature of the outdoor activities could have also played a part.
The summer activities showed strong correlation scores, while creative, indoor and social activities showed moderate correlations that were above the 0.6 (adequate) level. The strong correlation scores in the summer activities were in line with the total sample and might be due to the few items to report on in this category. Surprisingly, the Grade 1 learners obtained a stronger correlation score than the Grade 2 and Grade 3 learners in the indoor activities (0.62). This might indicate that the Grade 1 learners found these activities more appealing and reported better on this than the older children who delivered statistically insignificant results in this category. The informal nature of the activities in this category might also have played a role in the inconsistent reporting of the older participants.

The results of the Grade 2 learners also displayed some variation of scores, but to a lesser degree than the Grade 1 learners. The correlation strength varied between 0.32 (weak) to 0.85 (strong). The result obtained in the indoor activities was not statistically significant. The sports, summer, creative and social activities showed strong correlation scores, while moderate correlation scores were obtained in the outdoor activities (0.57). The results of the Grade 3 learners followed the same pattern as the Grade 2 learners and the scores varied between 0.13 (weak) and 0.80 (strong). The result obtained in the indoor activities was also not statistically significant. Strong correlation scores were measured in the sports, summer, creative and social categories, while moderate (not adequate) correlation scores were obtained in the outdoor activities. The lower correlation scores in the indoor and outdoor activities might be due to the number of items, which creates the opportunity for variety, or because of the informal nature of the activities, as mentioned before. A personal factor that might have impacted on the consistency of the reporting is researcher participant power balance (94). By the time the retest was administered, the older children had realised that this was not a real academic situation and might have approached the completion in a more relaxed fashion and reported inconsistently in some parts of the profile, as they did not feel compelled to work meticulously and please the researcher.

The total correlation score of the Grade 2 and Grade 3 participants obtained strong correlation scores though (see Table 4.16). This indicates that when one looks at the Grade 2 and Grade 3 participants, the results overall are reliable and acceptable. This implies that age is a significant personal factor when it comes to test-retest reliability and that younger participants should receive more guidance and reassurance when completing the survey in a small group, which is a contextual factor that should be taken into consideration as well.

Gender

When comparing the correlation strength of the genders, it is noted that the girls obtained higher correlation strength in five of the six categories, whereas the boys only obtained a stronger correlation coefficient in the social category.

The girls obtained strong correlation strength scores in sports, summer and creative activities and a moderate, but adequate, correlation score in indoor activities.

The outdoor and social activities obtained moderate scores, but below the acceptable level of 0.6. This is interesting, as one would assume that girls would report more consistently on social activities such as going to the mall, birthday parties and playing with friends, as these types of activities are perceived to be popular with girls (46, 50). The specific activities that were reported on inconsistently were not analysed during this study and could be an avenue for future studies. The social activities category is also the last category in the mKPP. This could have led to inconsistent reporting due to decreased focus and meticulousness.

The inconsistent reporting in the outdoor category could be due to the informal nature of the activities as mentioned in the discussion of the age groups. The play trends of girls also differ from those of boys, who move quickly from one popular activity to the next and might report on it differently when asked at two different points in time (46, 48).

The boys, on the other hand, obtained adequate correlation strength in the creative activities category only, while all other categories were below the acceptable 0.6 mark. There is some evidence that boys perform differently on standardised assessments and in academic tasks to girls and that gender-related behaviour can affect performance on academic-like tasks. Boys tend to be less motivated to complete academic-related tasks and are more disruptive and inattentive in a classroom setting (98-100). It was noted that the boys were not as eager as the girls to complete the mKPP (an academic-related task) for a second time (during retesting) and therefore rushed through the survey to see who could complete it first (100). This might

have led to inconsistencies and unnecessary errors. Competitiveness amongst boys is something that is very present in this age group and was observed especially among the Grade 3 groups (41, 100). The researcher reminded the participants of each group of the importance of the meticulous completion of the survey (95). Younger children might feel that they have to please the adult and comply with the rules, whereas older children might not be as eager to please and then bend the rules somewhat. This is in line with the notion of the researcher-child power balance, where, once the participants felt comfortable and did not have uncertainty or fear, they rushed to complete the task (94, 97).

The researcher noted that the girls enjoyed the completion of the surveys more than the boys. They enjoyed the colouring in and decorating of the pictures. This links back to gender preference in activity choices where girls are more likely to prefer sedentary activities than boys (46, 99, 100). Girls were found to be more competent in language skills at this age than boys (100) They worked more meticulously and took the instructions more seriously. They also made fewer errors than the boys (100).

The boys obtained a stronger correlation score in the social activities category than the girls. The reason for this is probably that boys know which social activities they enjoy and often participate in and therefore reported on them more consistently. Girls, on the other hand, might have moved on to other social activities and thus reported on them differently in the two profiles that they completed (48).

The total correlation scores indicated that the boys obtained a moderate coefficient of 0.5 (not adequate), whereas the girls obtained a strong correlation coefficient of 0.88. This leads us to the conclusion that the outcome of the mKPP is more reliable when completed by girls in a small group setting.

5.6.2.5. Conclusion regarding test-retest reliability

Overall, test-retest reliability scores for the total scores on the mKPP were above 0.7 for all three grades, indicating acceptable reliability when used with younger as well as older children. However, the mKPP is a multidimensional tool measuring many different types of play. All the individual subtests did not achieve acceptable reliability scores with the majority of lower scores (<0.7) occurring in the Grade 1 sample. Thus caution should be used when interpreting the mKPP, especially when used with younger children. Two of the subtests

consistently achieved below acceptable (<0.6) reliability scores for all three grades (indoor activities and outdoor activities) and thus should also be interpreted with caution.

5.7 Error rate and inconsistent response

A final note must be made regarding the error rate amongst participants when completing the mKPP. In the analysis of the levels of errors made during the reliability testing, it is apparent that the Grade 1 participants made more errors than the Grade 2 participants and that the Grade 3 participants made the least errors, even when the invalid administrations were removed. The understanding of instructions and the proficiency of completing larger volumes of paperwork might once again have played a part in the number of errors and subsequent inconsistent responses that the Grade 1 learners made (41, 94).

The number of errors made due to accidently skipping items and pages contributed to inconsistent correlation scores, as the participants did not skip the same items or pages in the retest as in the test. The high error rate with especially the younger children influenced the validity of the results and brought to light that the reliability of group administration of the mKPP is questionable with younger children. Thus the mKPP is recommended for use as an individual or interview tool.

5.8 Conclusions

The aim of the study was to modify a measuring tool of the play activities for the children living in the urban setting of Tshwane/Pretoria. The results of this study showed that the mKPP has adequate content validity (established by the NGT, through the panel of experts and participation rates in the field testing) for the middle to upper socio-economic, urban westernised population. Thus, occupational therapists working with children in this type of background can feel confident that the mKPP measures play appropriately. The test-retest reliability, however, showed that there is some variability in children's responses due to several factors and thus should be interpreted with some caution when administered in a group.

The objective was to create a valid and reliable measuring tool that enquires about children's play activities from the children directly. The participation levels of the mKPP during the field testing were satisfactory to good, which confirms that the content is valid for the sample

of the target population. This means that this measuring tool can set the assessment of play activities in motion and create a platform for discussion about play activities with the children themselves. Though the mKPP does not measure the quality of participation, it can indicate an activity pattern to the assessor. This profile can indicate a child's interests and play preferences, but can also indicate the possibility of imbalances or lack of play in certain areas. For instance, if an overweight child comes for an occupational therapy assessment and the mKPP indicates a low participation rate in outdoor and sports activities, the therapist will have the opportunity to address this with a valid tool in hand. The mKPP can also create the opportunity to assess other aspects like socialising and interpersonal relations, as the survey asks direct questions with whom the children engage when they play. The mKPP could provide a platform or starting point for the therapist to understand play from the child's perspective.

5.9 Recommendations for use of the mKPP

It is recommended that the mKPP profile preferably be completed individually, but not with more than three children at the same time, so that adequate assistance can be given. This is important when young children complete the profile, as the reliability throughout is questionable with younger children and the error rate higher than with children older than Grade 1.

The assessor or the assistant needs to be in the vicinity to answer questions and clear up uncertainty. It is recommended that the assessor assists and guides the younger children through the first few items until the child has responded "yes" and "no" to an activity in the correct manner at least once. Children who are competent in these scholastic skills will be able to complete the mKPP on their own.

The building of a good rapport with the child is important and thus the profile should not be administered in the very first session, but preferably after the therapist has built a relationship with the child.

5.10 Limitations of the project

One of the biggest limitations of this study is the small demographic group that was involved. This demographic group is not representative of the whole South African population.

However, considering the differences found between the play activities of different demographic groups, it may be unrealistic to think that one profile could represent all the demographic groups. To develop different profiles for different groups such as children living in rural areas and the countryside, and for specific cultural groups such as Indian and orthodox Jewish children may be a possibility to consider. The sample size of the study was also a limitation. This prohibited the researcher to make comparisons and assumptions as to the reason for certain results, especially with regard to the participation and error rate.

The nominal group process (108) served its purpose in the item determination process together with the panel of experts, but still activities, such as 'Play house/school', were not age appropriate for all the participants included in the mKPP. A better course of events would have been to do a pilot study with a larger group of children just indicating "yes" or "no" to participating in the activities in the activity pool recommended by the nominal group and panel of experts, prior to physically modifying the profile. This was done during the original development of the KPP where the children indicated the activities that they participated in from the activity list compiled through checklists and interviews (7).

The idea was to develop a tool that could be administered to small groups of children to create a time-effective tool. The reliability testing was done in a similar set-up, but the results indicated that administering the mKPP in this manner does not deliver reliable results throughout. If reliability comparisons could be made between administering the mKPP in small groups versus individual administration, valuable information could have been obtained to determine if the reliability of the mKPP will be acceptable if administered individually.

5.11 Recommendation in general

When reviewing the results of the validity and reliability of the mKPP, it is clear that this tool can be used to set the process of play assessment in motion and open up the doors for further discussion and evaluation. The content of the mKPP is valid for children living in the urban areas of Tshwane/Pretoria, but care should be taken regarding the individual and contextual factors when administering the profile. This profile can be used to describe play, but cannot be used as a standardised measure.

CHAPTER 6

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The purpose of this study was to modify the Kid Play Profile for use in a South African population by developing valid content for the profile, confirming the content validity in a sample of the target population and determining two aspects of reliability (internal consistency and test-retest reliability) in the sample. The Kid Play Profile (7) was chosen for investigation, as it is a measure that enquires about the play activities and preference directly from children rather than depending on observations and reports from adults, and thus can give the child's perspective on his/her own play. The target population was a group of English-speaking children of middle to high socio-economic status attending two private schools in the Tshwane/Pretoria East area.

The results of this study indicated that there are indeed differences in the activities in which South African children participate compared to their American peers, thus requiring the KPP to be modified for use in the South African context. The first phase of the study focused on developing valid content for the KPP by accessing the expertise of parents and educators of children in the target population. The result of this phase was the inclusion of 19 new activities to the profile, the modification of 11 activities and the exclusion of 16 original activities. The resulting modified KPP (mKPP) showed face and content validity. This modified version was tested with a final sample of 41 children. The results showed that the mKPP had adequate internal consistency (0.77) and test-retest reliability (0.75) for a middle to upper socio-economic status, urban westernised population in South Africa. Thus occupational therapists who work with children with this kind of background can feel confident that the mKPP measures play appropriately and consistently in this population. The test-retest reliability, however, showed that there was some variability in children's responses over time. Participant factors such as gender and age played a role in the outcome in the test-retest reliability in general. The girls obtained a strong correlation score of 0.88, whereas the boys only obtained a moderate, but not adequate correlation score of 0.50. The overall correlation scores of all three grades (1-3) were strong (see Table 4.16), but not consistent in all the subsections. The high error rate of the grade one participants and the lower test-retest

reliability of the grade one learners make this tool less reliable for younger children when administered in a group.

Interpretation of the results should be part of a holistic assessment of the child, taking factors such as age, culture, socio-economic status, gender and competency to complete the profile, into consideration (40, 41, 46).

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6.2 Corrections made to the mKPP

After the completion of the study, the graphic designer re-modified the item 'Play with friends', which was indicated as unclear by one of the therapists in the panel of experts and because some of the field testing participants commented on the item (see Appendix G-1). The item 'Ice skating' was moved to the social activities category to correct the previous modification error (see Appendix M-1). The score sheet was also adapted accordingly (see Appendix M-2).

6.3 Recommendations for further studies

This particular study did not acquire satisfactory reliability coefficients when completed in a group setting. It would be interesting to see if the mKPP delivers reliable results when completed individually, using participants from the age of six, who are usually preschool in South Africa, up to the age of nine. The reliability coefficients for the different ages could be determined. This study was done with a homogeneous group and to think that one KPP in the South African context is enough is unrealistic. Factors such as socio-economic status, specific location and cultural perceptions on play have proven to be influential in the play activities that children participate in. South Africa, with its diverse population, cultures, locations and resources, would need more than one play profile (93).

The modification of the KPP for different demographic groups in South Africa will be useful for therapists working in rural and community areas as well as therapists in smaller towns. The differences between the profiles could deliver interesting and useful information to therapists working with children. The impact of different locations and socio-economic status as well as gender differences in activity preference could also be examined.

To do a similar study with a bigger sample size could confirm or measure the content validity of the items or expand the activity pool.

Another interesting avenue of research would be to investigate the difference in activity preference of urban-living children.

6. 4 Final note

In conclusion, the content and the format of the mKPP can be utilised to assess which activities children between the ages of six and nine years participate in. The mKPP will enable the therapist using the tool to get a snap shot of the daily play activities that a specific child participates in. A self-report survey, such as the mKPP, has many advantages. It is time-effective for the assessor, as it can be administered within a therapy session and no extra observation times or class visits need to be organised (7). The survey is easy to mark and score and presents play participation and preference scores. When completing the survey, the children can think about their answers and work at their own pace, which is not the case with other methods such as interviews or focus groups. Completing a child-friendly survey can be interesting and fun for the children, other than an interview about their play activities, which can be very daunting (94, 97). The objective of the mKPP, as with the original KPP(7), was to create a starting point in the assessment of play and the results indicated that it is a valid and reliable tool to use during assessment of children who are similar to the target population.

Kid Play Profile

Alexis D. Henry, ScD, OTR/L

Directions

There are 50 activities in this booklet. For each activity, there are three questions.

1. Do You Do This Activity?
2. Do You Like This Activity?
3. Who Do You Do This Activity With?

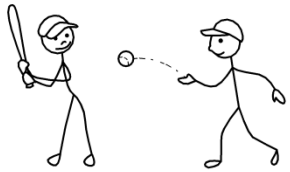
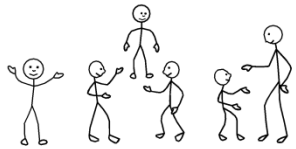
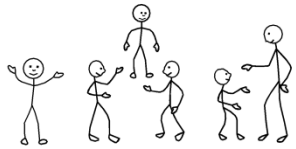
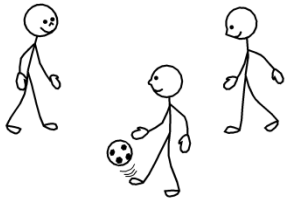
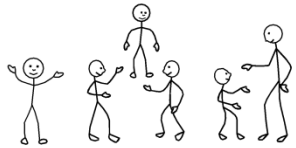
If you answer "No" to question 1, you do not need to answer questions 2 or 3. Just go on to the next activity.
You can color or circle your answers.
At the end, you may add other activities that you do and that you weren't asked about.

Name _____ Date _____

Age _____ Birthday _____ Grade _____ Check ☐ Boy ☐ Girl

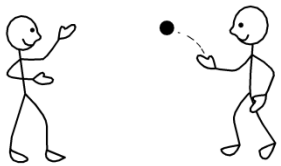
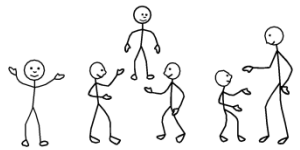
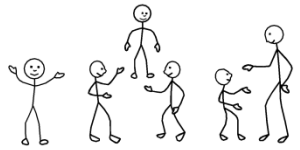
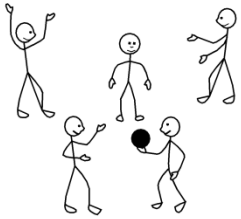
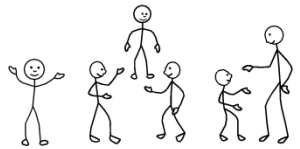
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Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 1. Play Baseball	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 2. Play Basketball	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 3. Play Soccer	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

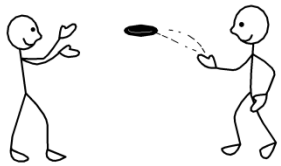
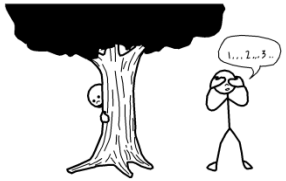
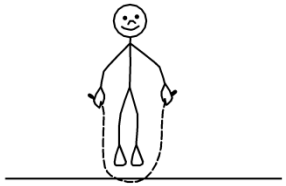
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Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 4. Play Catch	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 5. Ride a Bike	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 6. Play Dodgeball	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

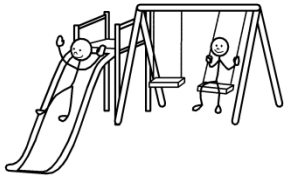
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Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 7. Play Frisbee®	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 8. Play Hide-and-Seek	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 9. Jump Rope	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

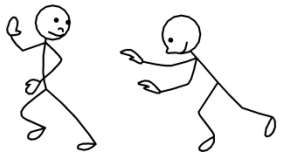
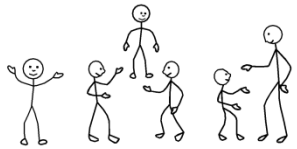
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Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 10. Play Kickball	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 11. Play on Playground	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 12. Roller-Skate or In-Line Skate	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

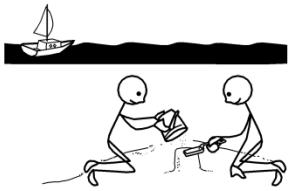
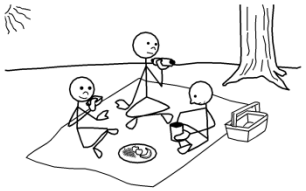
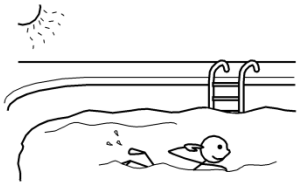
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Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
			
13. Play Tag	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

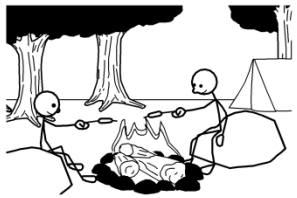
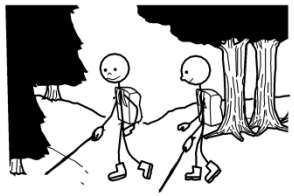
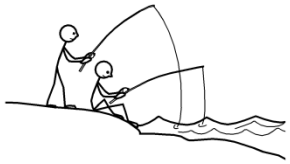
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Kid Play Profile

Summer Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 14. Play at Beach, Lake, or River	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 15. Go on Picnic	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 16. Swim	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

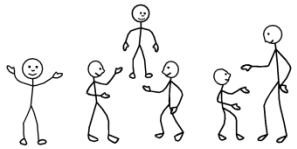
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Kid Play Profile

Summer Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 17. Camp	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 18. Hike	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 19. Go Fishing	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

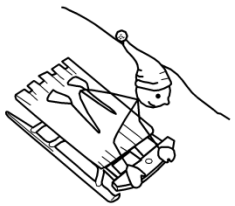
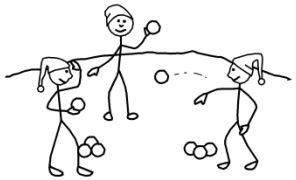
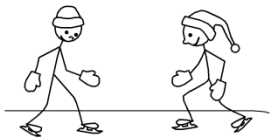
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Kid Play Profile

Summer Activities	Do you do this activity?	Do you like this activity?	Who do you do this activity with?
			
20. Garden	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

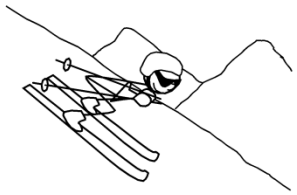
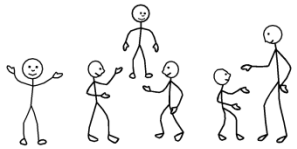
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Kid Play Profile

Winter Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 21. Go Sledding	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 22. Play in Snow	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 23. Ice-Skate	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

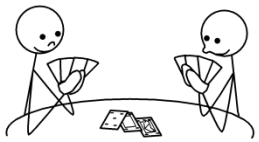
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Kid Play Profile

Winter Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
			
24. Ski or Snowboard	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

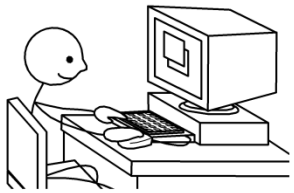
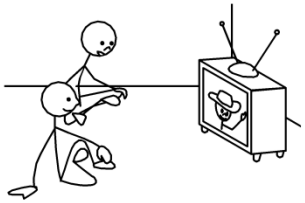
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Kid Play Profile

Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 25. Play Cards	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 26. Play Board Games	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 27. Read	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

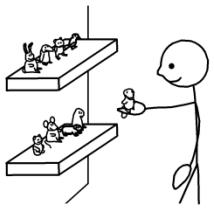
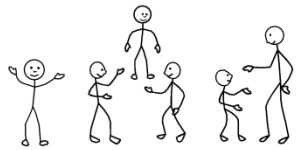
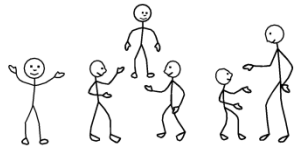
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Kid Play Profile

Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 28. Use Computer	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 29. Watch TV	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 30. Listen to Music	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

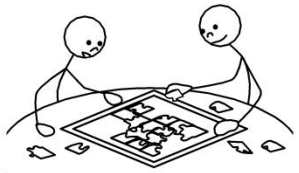
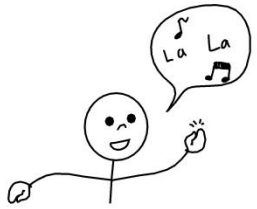
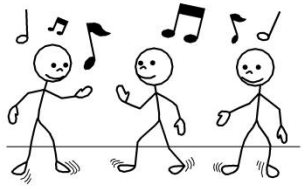
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Kid Play Profile

Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 31. Collect Things	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 32. Take Care of Pet	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

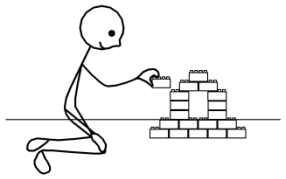
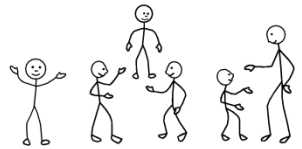
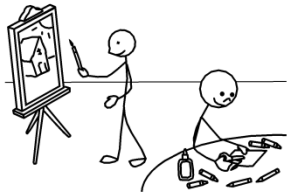
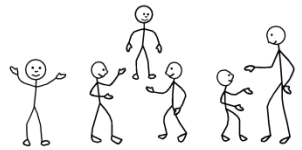
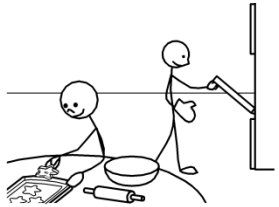
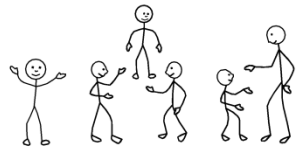
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Kid Play Profile

Creative Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 33. Do Puzzles	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 34. Sing	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 35. Dance	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

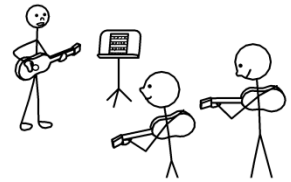
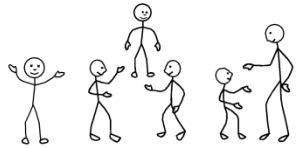
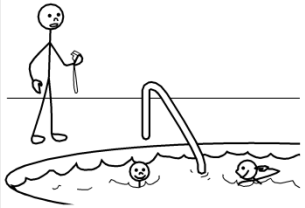
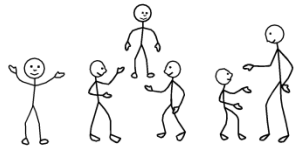
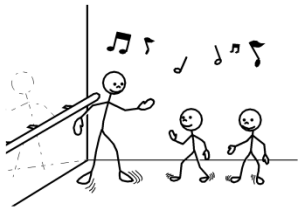
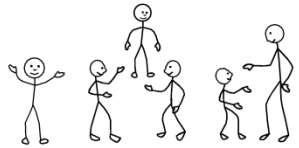
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Kid Play Profile

Creative Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 36. Build Things	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 37. Draw or Paint	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 38. Cook or Bake	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

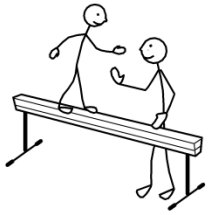
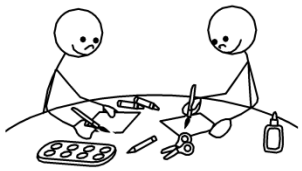
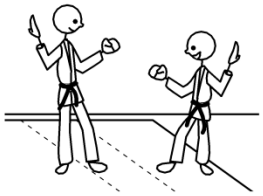
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Kid Play Profile

Lessons/Classes	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 39. Music Lessons	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 40. Swimming Lessons	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 41. Dance Lessons	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

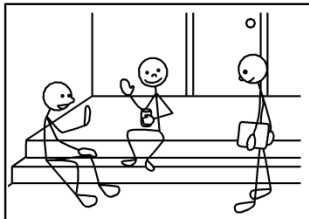
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Kid Play Profile

Lessons/Classes	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 42. Gymnastics Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 43. Arts and Carfts Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 44. Martial Arts Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

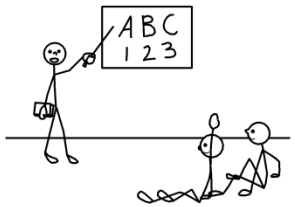
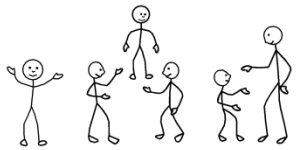
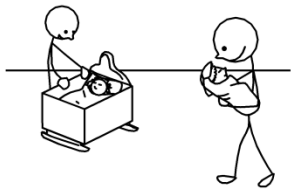
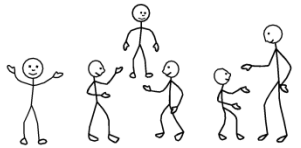
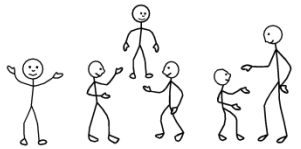
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Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 45. Hang Out With Friends	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 46. Go to Scouts	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 47. Play Superheroes	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

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Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 48. Play School	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 49. Play House	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 50. Play Dress-Up or Make-Up	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

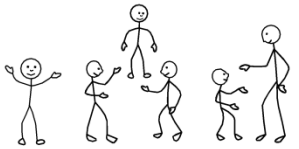
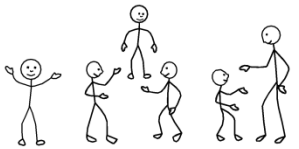
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Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
51. Fill in Your Own	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
52. Fill in Your Own	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
53. Fill in Your Own	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

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Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
54. Fill in Your Own	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
55. Fill in Your Own	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

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Kid Play Profile

Alexis D. Henry, ScD, OTR/L

Summary Score Sheet

Child's Name _____ Gender ☐ Male ☐ Female

School _____ Grade _____

Service Provider's Name _____

Discipline _____

	Year	Month	Day
Date Tested			
Date of Birth			
Chronological Age			

The child receives the following service(s) _____

_____

Conditions that may affect the child's play _____

_____

Category Scores

Instructions

Transfer the following information from the child's *Kid Play Profile* to each corresponding category table.

Place a checkmark in the "Yes" column of each activity in which the child has participated.

In the next three columns, circle the score that indicates how the child likes the activity (3 = a lot; 2 = a little; 1 = not at all).

Place a checkmark in one or more of the last three columns to indicate with whom the child does the activity.

Scoring

Add the checkmarks in the *Yes* column and place this number in the box labeled *Number of (Sports, Outside, etc.) Activities Child Participates in.*

Divide the number of activities the child participates in by the total number of activities in the category. Then multiply by 100 to calculate the percent of activities the child participates in. Place the percent in the box labeled *Percent of Activities the Child Participates in.*

To calculate how much the child likes the category activities, add the scores of the three columns. Divide the total by the number of activities the child participates in. Place this number in the box labeled *How Much the Child Likes Activities.* Scores will range from 1 to 3. The closer the number is to 3, the more the child likes the activities.

To calculate the percent of activities that the child does alone, with friends, or with an adult, add the checkmarks in each column. Divide the total for each column by the number of activities the child participates in. Multiply each total by 100 and place the percent in the appropriate place in the box labeled *Percent of Activities the Child Does By Myself, With Friends,* or *With a Grown-Up.* Because children may give more than one answer for this question (for example, children may do an activity both "by myself" and "with friends"), the total for the 3 responses may exceed 100%.

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Sports Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-Up
1. Play Baseball		3	2	1			
2. Play Basketball		3	2	1			
3. Play Soccer		3	2	1			
Total							

Number of Sports Activities Child Participates in _____

Percent of Sports Activities Child Participates in _____

How Much the Child Likes Sports Activities _____

Percent of Activities the Child Does
By Myself _____
With Friends _____
With a Grown-Up _____

Play Interview

Outside Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-Up
4. Play Catch		3	2	1			
5. Ride a Bike		3	2	1			
6. Play Dodgeball		3	2	1			
7. Play Frisbee®		3	2	1			
8. Play Hide-and-Seek		3	2	1			
9. Jump Rope		3	2	1			
10. Play Kickball		3	2	1			
11. Play on Playground		3	2	1			
12. Roller-Skate or In-Line Skate		3	2	1			
13. Play Tag		3	2	1			
Total							

Number of Outside Activities Child Participates in _____

Percent of Outside Activities Child Participates in _____

How Much the Child Likes Outside Activities _____

Percent of Activities the Child Does
By Myself _____
With Friends _____
With a Grown-Up _____

Play Interview

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Summer Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-Up
14. Play at Beach, Lake, or River		3	2	1			
15. Go on Picnic		3	2	1			
16. Swim		3	2	1			
17. Camp		3	2	1			
18. Hike		3	2	1			
19. Go Fishing		3	2	1			
20. Garden		3	2	1			
Total							

Number of Summer Activities Child Participates in _____

Percent of Summer Activities Child Participates in _____

How Much the Child Likes Summer Activities _____

Percent of Activities the Child Does
- By Myself _____
- With Friends _____
- With a Grown-Up _____

Play Interview

Winter Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-Up
21. Go Sledding		3	2	1			
22. Play in Snow		3	2	1			
23. Ice-Skate		3	2	1			
24. Ski or Snowboard		3	2	1			
Total							

Number of Winter Activities Child Participates in _____

Percent of Winter Activities Child Participates in _____

How Much the Child Likes Winter Activities _____

Percent of Activities the Child Does
- By Myself _____
- With Friends _____
- With a Grown-Up _____

Play Interview

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Indoor Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-Up
25. Play Cards		3	2	1			
26. Play Board Games		3	2	1			
27. Read		3	2	1			
28. Use Computer		3	2	1			
29. Watch TV		3	2	1			
30. Listen to Music		3	2	1			
31. Collect Things		3	2	1			
32. Take Care of Pet		3	2	1			
Total							

Number of Indoor Activities Child Participates in _____

Percent of Indoor Activities Child Participates in _____

How Much the Child Likes Indoor Activities _____

Percent of Activities the Child Does
- By Myself _____
- With Friends _____
- With a Grown-Up _____

Play Interview

Creative Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-Up
33. Do Puzzles		3	2	1			
34. Sing		3	2	1			
35. Dance		3	2	1			
36. Build Things		3	2	1			
37. Draw or Paint		3	2	1			
38. Cook or Bake		3	2	1			
Total							

Number of Creative Activities Child Participates in _____

Percent of Creative Activities Child Participates in _____

How Much the Child Likes Creative Activities _____

Percent of Activities the Child Does
- By Myself _____
- With Friends _____
- With a Grown-Up _____

Play Interview

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Lessons/Classes	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-Up
39. Music Lessons		3	2	1			
40. Swimming Lessons		3	2	1			
41. Dance Lessons		3	2	1			
42. Gymnastics Lessons		3	2	1			
43. Arts and Crafts Lessons		3	2	1			
44. Martial Arts Lessons		3	2	1			
Total							

Number of Lessons Child Participates in _____

Percent of Lessons Child Participates in _____

How Much the Child Likes Lessons _____

Percent of Lessons the Child Does
By Myself _____
With Friends _____
With a Grown-Up _____

Play Interview

Socializing Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-Up
45. Hang Out With Friends		3	2	1			
46. Go to Scouts		3	2	1			
47. Play Superheroes		3	2	1			
48. Play School		3	2	1			
49. Play House		3	2	1			
50. Play Dress-Up or Make-Up		3	2	1			
Total							

Number of Socializing Activities Child Participates in _____

Percent of Socializing Activities Child Participates in _____

How Much the Child Likes Socializing Activities _____

Percent of Activities the Child Does
By Myself _____
With Friends _____
With a Grown-Up _____

Play Interview

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APPENDIX B

PERMISSION LETTER TO THE GOVERNING BODY / MANAGEMENT TEAM OF THE PARTICIPATING SCHOOLS

To whom it may concern

Permission requested to conduct a research study at the school

Study Title:

The modification of the Kid Play Profile from the Paediatric Interest Profiles for children in the urban areas of Pretoria / Tshwane

Introduction:

I am Marna Hartman and doing my Masters Degree in Occupational Therapy at the Witwatersrand University. I am conducting a research study on the play activities of children in the urban areas of (Pretoria) Tshwane. In this study I am using the Kid Play Profile as a tool to measure children's play activities.

What the Study Involves:

The Kid Play Profile was developed and tested in the USA. South African occupational therapists also evaluate children's play activities to identify problems or use these activities in therapy. Some of the activities in the Kid Play Profile are relevant for the South African child, but there are activities that are not relevant for our children. In this study I want to establish relevant content for the Kid Play Profile for the South African population, in particular the child living in the urban areas of Pretoria/ Tshwane. Once relevant content has been established, the Kid Play Profile will be modified accordingly and used with children in the urban areas of Pretoria/Tshwane. This entails the completion of the modified Kid Play Profile twice by children in grade 1-3.

Requesting permission:

I am requesting permission from the Governing Authority of this School to conduct this study at your school.

The participation in this study will be two-fold:

1. Firstly in the form of a Nominal (small group) discussion. This will involve 5-8 educators and parents from the school to meet once on the school premises. During this meeting the participants will discuss the content of the Kid Play Profile and make recommendations to modify the profile to have relevant content (activities) for the child living in the urban areas of Pretoria/Tshwane.
2. Secondly Field testing. After the Kid Play Profile has been modified, I am requesting your permission to use the modified Kid Play Profile at your school. This will entail that Grade 1–3 learners, who have parental consent and agree to it themselves, complete the Kid Play Profile twice (within two weeks) by colouring in or circling their choices of activities.

This study will not require any identifiable information from the participants and as far as I know, there will be no risk regarding personal safety or health in participating in the study. The content of the information obtained in this study will not carry sensitive information that can be harmful to any person's social well being. Participation during any phase of the study is voluntary. The Research Ethics Committee of the university may inspect the research records for quality assurance and data analysis, but all efforts will be made to keep the results confidential.

If you have any questions please contact me, Marna Hartman at 082 417 5181 or marnahartman@gmail.com. The research supervisor Lyndsay Koch can be contacted at lyndsay.koch@wits.ac.za.
For any ethical queries or concerns please contact the chair of the HREC at the University of the Witwatersrand, Prof P. Cleaton-Jones on 011 7171234 or at anisa.kashav@wits.ac.za

Yours truly



Marna Hartman

Please Indicate:

- ☐ Permission is granted to conduct the research study.
- ☐ Permission is not granted to conduct the research study.

_____ _____

Signature: Date
Chairperson of Governing Authority

_____ _____

Signature: Date
School Principle / Executive Officer

APPENDIX B

APPENDIX C

RESEARCH STUDY INFORMATION AND CONSENT LETTER FOR NOMINAL GROUP

Study Title: Modification of the Kid Play Profile from the Paediatric Interest Profiles for children in the urban areas of Pretoria/ Tshwane.

Good Day,

I am Marna Hartman and doing my Masters Degree in Occupational Therapy at the Witwatersrand University. I am conducting a research study on the play activities of children in the urban areas of (Pretoria) Tshwane. In this study I am using the Kid Play Profile as a tool to measure children's play activities.

What the Study Involves: The Kid Play Profile was developed and tested in the USA. South African Occupational therapists also evaluate children's play activities to identify problems or use these activities in therapy. Some of the activities in the Kid Play Profile are relevant for the South African child, but there are activities that are not relevant for our children. In this study I want to establish relevant content (activities) for the Kid Play Profile for the South African population, and particular in Pretoria/ Tshwane. Once relevant content has been established, the Kid Play Profile will be modified accordingly and used with children in the urban areas of Pretoria/Tshwane. This entails the completion of the modified Kid Play Profile twice by children in grade 1-3.

Invitation: I am inviting you to participate in the research study as a member of a small (nominal) group to discuss the suitability of the activities in the Kid Play Profile for the child living in the urban areas of Pretoria/Tshwane. This group discussion will be held at a venue on the school grounds and will take approximately one hour of your time. The small group (5-8 persons) will look at the activities on the original profile and suggest what items should remain, what items should be removed and what new items should be added. Your final voting on the items will be anonymous. Your participation and input will play a major role in the outcome of this study. Your participation in the group discussion is voluntary and you may discontinue participation at any time. This study will not require any identifiable information from you and as far as I know there will be no risks regarding personal safety or health in participating in the study. The content of the information obtained in this study will not carry sensitive information that can be harmful to your social well being. Great care will be taken to keep your input confidential, but complete anonymity cannot be guaranteed due to the nature of the group.

If you have any questions please contact me Marna Hartman at 082 417 5181 or marnahartman@gmail.com. The research supervisor Lyndsay Koch can be contacted at lyndsay.koch@wits.ac.za.

For any ethical queries or concerns please contact the chair of the HREC at the University of the Witwatersrand, Prof P. Cleaton-Jones on 011 7171234 or at anisa.kashav@wits.ac.za

Yours truly



Marna Hartman

Letter of Consent to participate in the nominal group discussion

I, _____ (name of participant) herewith agree to participate in the nominal group discussion to assist the researcher in establishing valid content for the Kid Play Profile in the South African population. I understand that no identifiable information will be attained from this process and that the outcome will be kept confidential.

Please sign this letter to indicate your consent for participation in the research study.

Date: _____ Signature: _____

APPENDIX C

Nominal Group Technique Process **APPENDIX D**

After the nominal group members have been identified and agreed to participate, a time and place will be set up for the meeting of each nominal group. This will preferably occur on the premises of each school in a suitable venue.

Conducting the nominal group discussion

I. Preparation and logistics

- Prepare a welcoming statement that explains the purpose of the meeting, the desired response from each member and how the output will be used in the modification of the Kid Play Profile.
- Print a Kid Play Profile for each member and prepare a worksheet on which each member can review the Kid Play Profile, strike-through activities that needs to be removed and add their extra activity ideas to add to the profile as well as rating worksheets for each participant.
- The room where the meeting is conducted will be spacious enough to seat all the group members comfortably around a table in a half-circle.
- A white board or flip chart, markers, pens and papers will be available.
- Coloured 'Voting dots' will be provided for each participant
- A couple of calculators will also be provided for participants to check their ratings

II. State the question

- The researcher will be the facilitator / leader of each meeting, assisted by the research liaison (contact person) who will serve as a scribe.
- The welcoming, the objectives and process of the meeting will be explained.
- The objective of the group discussion will be to identify which activities in the Kid Play Profile are suitable for the target population and should remain in the profile as well as which activities are inappropriate and should be removed from the profile. Finally activities which should be added to the profile, considering the South African context.

III. Silent idea generation

- Each person spends several minutes in silence reading through the Kid Play Profile and identify activities in the profile that should remain in the profile and which activities should be removed from the profile. (Appendix E)

- Each participant writes down activities that are not on the Kid Play Profile that the participant in his/ her experience knows South African children to participate in.

IV. Round-robin recording and clarification of ideas

- In this step the group facilitator (leader) goes around the table and records ideas from each participant on the white board / flip chart. The facilitator is allowed to ask questions to clarify the idea / suggestion. The process continues until all ideas have been recorded.

V. Discussion of ideas

- This involves discussing and clarifying of ideas by all the group members.

VI. Preliminary ranking of ideas by voting

- During this stage the group will start narrowing down the list of possible activities. Building on the discussion of ideas, each member will make their own judgement about the activities which they consider most likely to be appropriate for the South African context. This will be done by ranking the activities. Ranking of the ideas will be achieved by voting. Each participant will receive 6 coloured voting per category (If less than 6 activities were identified in a category, the participants can use the votes in a different category). Participants will stick these voting dots on the flip-chart against the activities they believe need to be included in the modified Kid Play Profile.

VII. Discussion of preliminary voting

- This step is designed to discuss the items that have received inconsistent voting and provide an opportunity for the group to decide if the items should remain in the pool or not.

VIII. Final voting

. The final voting will be done by rating the activities. Rating involves the distribution of set of points out of (100) across the activities in each category of the final list. (Appendix F)

APPENDIX D

NOMINAL GROUP DISCUSSION **APPENDIX E**

INSTRUCTION: Read through the supplied Kid Play Profile and decide which activities you think are applicable to the urban Tshwane context and should remain in the Kid Play Profile. On the sheet below**, strike-out (draw a line through) the activities not applicable** and should be removed from the Kid Play Profile. Lastly please **write down the activities you think should be added** to make the Kid Play Profile relevant to the Pretoria/ Tshwane child.

Category	Activities in the Kid Play Profile	Activities that should be added
Sports Activities	1, Play Baseball	
	2. Play Basketball	
	3, Play Soccer	
	4. Play Catch	
	5. Ride a Bike	
	6. Play Dodge ball	
Outdoor Activities	7. Play Frisbee	
	8. Play Hide-and-Seek	
	9. Jump Rope	
	10, Play Kickball	
	11. Play on Playground	
	12 Roller-Skate or In-Line Skate	
	13. Play Tag	

Category	Activities in the Kid Play Profile	Activities that should be added
Summer Activities	14. Play at the Beach, Lake or River	
	15. Go on Picnic	
	16. Swim	
	17. Camp	
	18, Hike	
	19. Go Fishing	
	20. Garden	
Winter Activities	21. Go Sledding	
	22. Play in Snow	
	23. Ice Skate	
	24. Ski or Snowboard	
Indoor Activities	25. Play Cards	
	26. Play Board Games	
	27. Read	
	28. Use Computer	
	29. Watch TV	
	30. Listen to Music	
	31. Collect Things	
	32. Take Care of Pet	

Category	Activities in the Kid Play Profile	Activities that should be added
Creative Activities	33. Do Puzzles	
	34. Sing	
	35. Dance	
	36. Build Things	
	37. Draw or Paint	
	38. Cook or Bake	
Lessons	39. Music Lessons	
	40. Swimming Lessons	
	41. Dance Lessons	
	42. Gymnastics Lessons	
	43. Arts and Crafts Lessons	
	44. Martial Arts Lessons	

Category	Activities in the Kid Play Profile	Activities that should be added
Social Activities	45.Hanging out with Friends	
	46. Go to Scouts	
	47. Play Superhero	
	48. Play School	
	49. Play House	
	50. Play Dress-up or Make-up	

APPENDIX E

RATING WORKSHEET **APPENDIX F**

INSTRUCTION: Write the activities of the Final List in each category columns and distribute (divide) "100" points across the list of activities in each category. A larger distribution to an activity indicates that you consider the activity more suitable for the child living in Pretoria / Tshwane and a smaller distribution to an activity indicates that you consider it to be less suitable.

Category	Activity	Score
Sports Activities		
	Sports Activities Total	

Category	Activity	Score
Outdoor Activities		
	Outside Activities Total	

Category	Activity	Score
Summer Activities		
	Summer Activities Total	

Category	Activity	Score
Winter Activities		
	Winter Activities Total	

Category	Activity	Score
Indoor Activities		
	Indoor Activities Total	

Category	Activity	Score
Creative Activities		
	Creative Activities Total	

Category	Activity	Score
Lessons / Classes		
	Lessons / Classes Total	

Category	Activity	Score
Social Activities		
	Socializing Activities Total	

APPENDIX F

Modified profile used in field testing

Modified Kid Play Profile

Modified by Marna Hartman (2014)



Directions

There are 50 activities in this booklet. For each activity, there are three questions.

1. Do You Do This Activity?
2. Do You Like This Activity?
3. Who Do You Do This Activity With?

If you answer "No" to question 1, you do not need to answer questions 2 or 3. Just go on to the next activity.
You can colour or circle your answers.
At the end, you may add other activities that you do and that you weren't asked about.

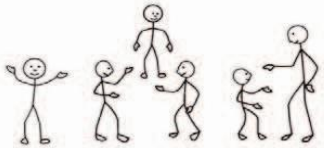
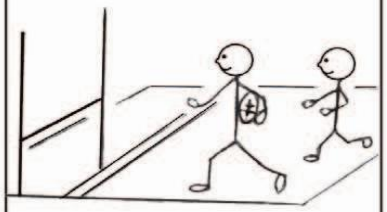
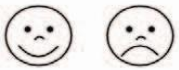
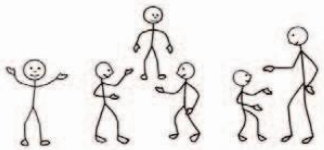
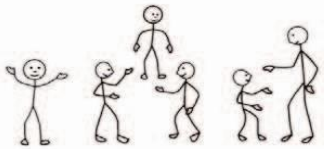
Name _____ Date _____

Age _____ Birthday _____ Grade _____ Check ☐ Boy ☐ Girl

Original Kid Play Profile developed by Alexis D. Henry (2000)

SPORT

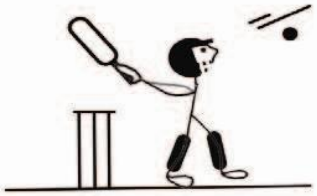
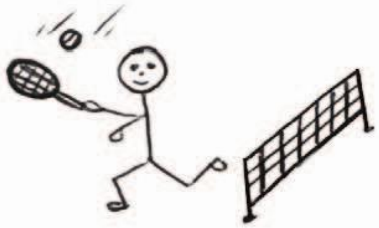
Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 1. Play Soccer	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 2. Play Rugby	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 3. Play Hockey	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

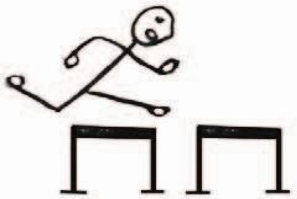
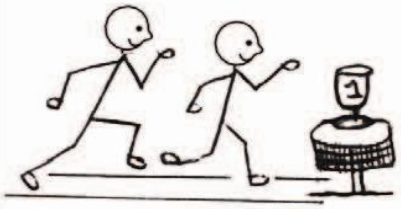
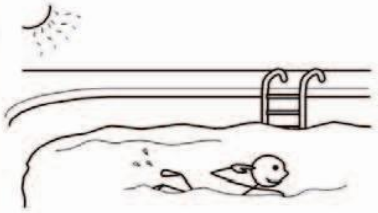
SPORT

Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 4. Play Netball	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 5. Play Cricket	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 6. Play Tennis	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

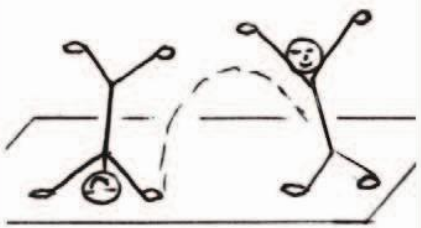
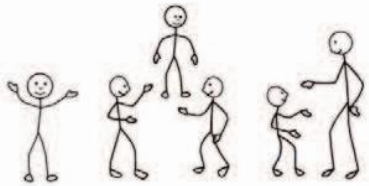
SPORT
Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 7. Athletics	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 8. Cross Country/ Fun Runs	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 9. Swim/ Swimming Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

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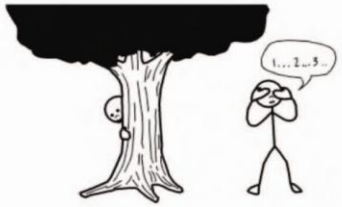
SPORT

Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 10. Gymnastics	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

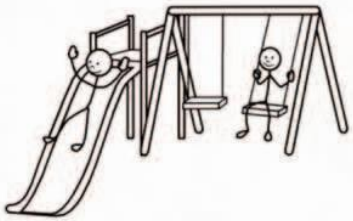
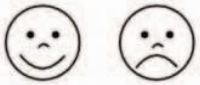
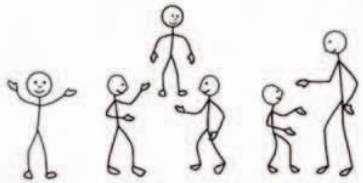
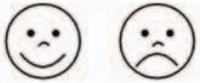
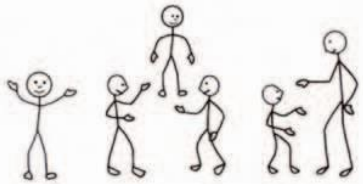
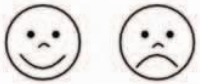
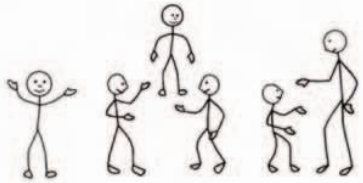
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OUTDOOR
Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 11. Ride Bicycle	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 12. Play Touchers	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 13. Play Hide and Seek	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

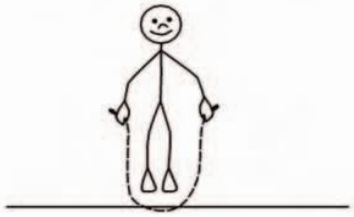
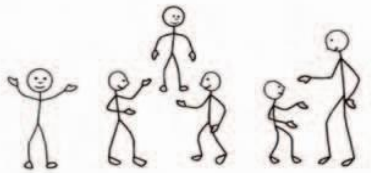
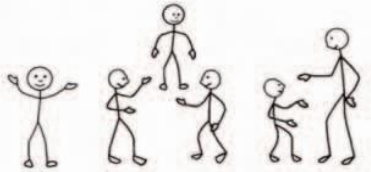
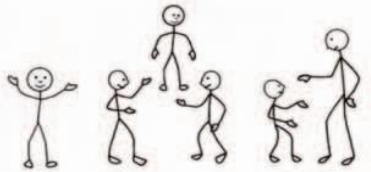
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OUTDOOR
Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 14. Play on Playground/ Jungle Gym	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 15. Play Ball Games	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 16. Jump on Trampoline	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OUTDOOR
Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 17. Jump Rope	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 18. Swing	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 19. Jay-Boarding/ Skateboarding	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

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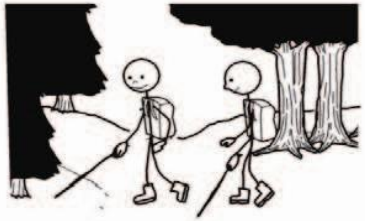
OUTDOOR

Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 20. Climb Trees	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 21. Motor Biking/ Quad Biking	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

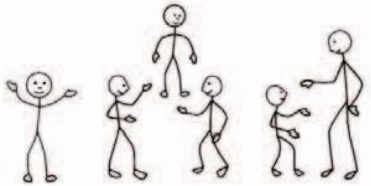
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SUMMER
Kid Play Profile

Summer Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 22. Go on a Picnic	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 23. Go Camping	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 24. Go Hiking/ Go for Walks	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

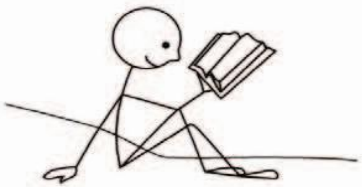
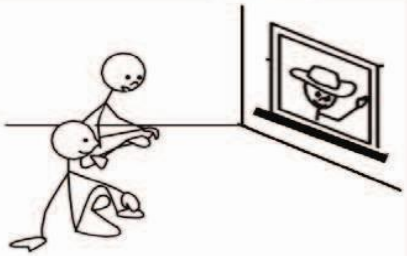
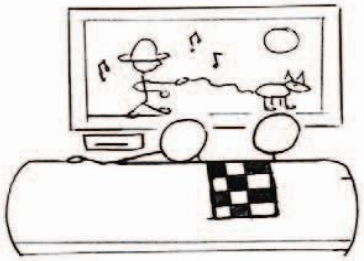
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SUMMER
Kid Play Profile

Summer Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 25. Gardening	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

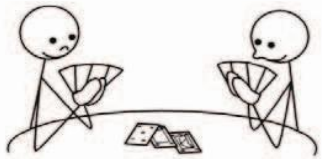
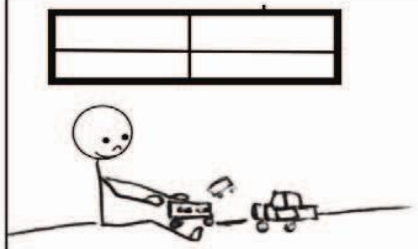
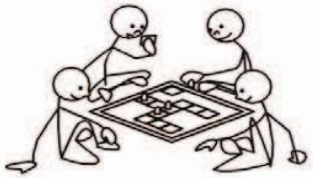
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

INDOOR
Kid Play Profile

Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 26. Read	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 27. Watch TV	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 28. Watch DVD	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

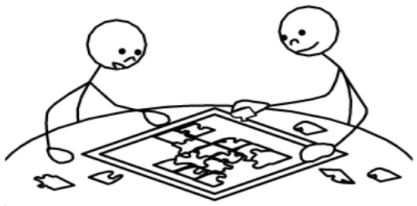
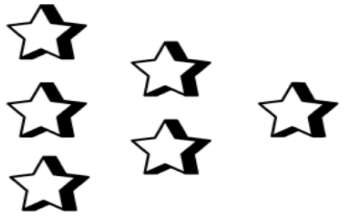
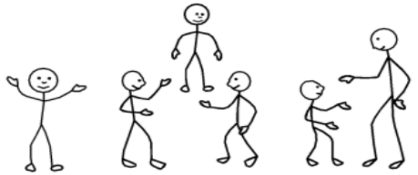
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

INDOOR
Kid Play Profile

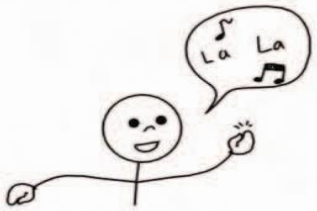
Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 29. Play Cards	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 30. Play with Toys (cars/ dolls etc)	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 31. Play Board Games	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

Kid Play Profile

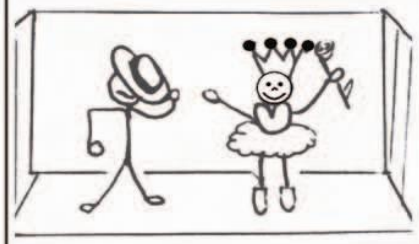
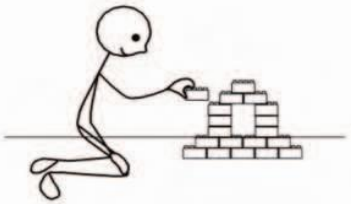
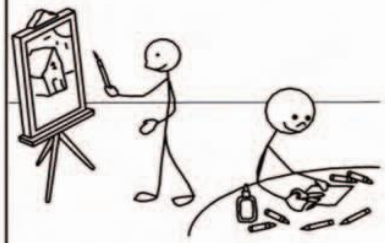
Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 32. Build Puzzles	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 33. Use Computer / Laptop / PSP	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 34. Take care of pets	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

CREATIVE
Kid Play Profile

Creative Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 35. Sing/ Take Music Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 36. Dance/ Take Dance Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 37. Ice Skating	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

CREATIVE
Kid Play Profile

Creative Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 38. Drama	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 39. Build Things	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 40. Draw & Paint	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

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CREATIVE

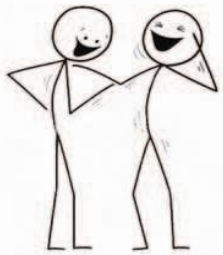
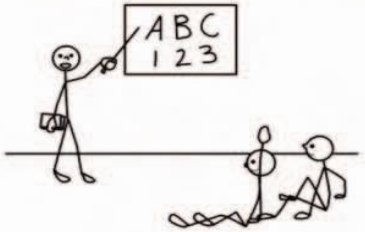
Kid Play Profile

Creative Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 41. Bake and Cook	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 42. Build Lego	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

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SOCIAL
Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 43. Play with Friends	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 44. Play School	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 45. Play House	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

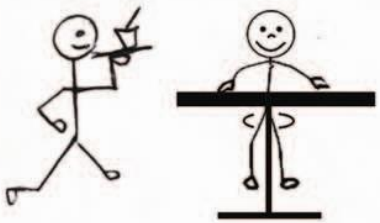
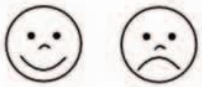
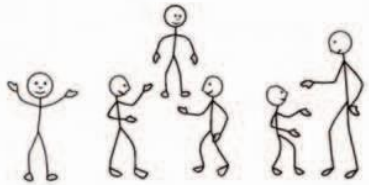
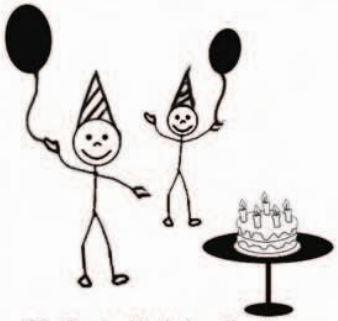
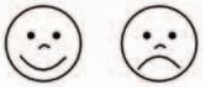
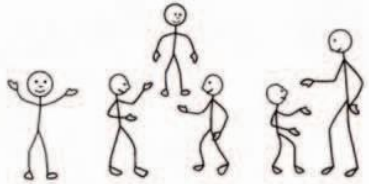
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SOCIAL
Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 46. Play Superhero/ Dress-Up	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 47. Go to the Mall	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 48. Go to the Movies	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

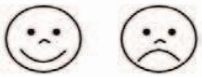
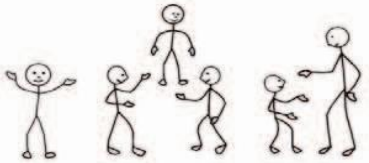
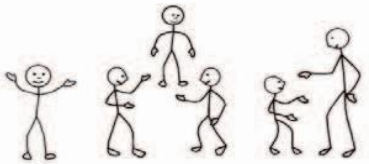
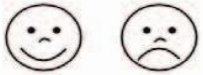
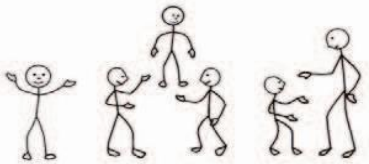
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SOCIAL
Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 49. Go to Restaurants	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 50. Go to Birthday Parties	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

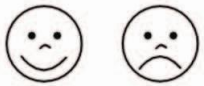
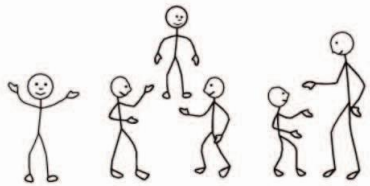
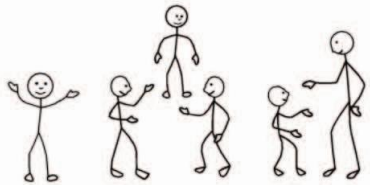
OTHER
Kid Play Profile

Other Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
51. Fill in your own activity	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
52. Fill in your own activity	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
53. Fill in your-own activity	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OTHER

Kid Play Profile

Other Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
54. Fill in your own activity	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
55. Fill in your own activity	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

APPENDIX G-2

Modified Kid Play Profile
by Marna Hartman
Summary Score Sheet

Child's Name_____ Gender_____
School _____ Grade _____
Service Provider's Name_____ Date _____
Discipline_____ Age _____

This child receives the following therapies:
_____
_____
Conditions that may affect play:
_____
_____

Scoring of the Modified Kid Play Profile

Categories

- Transfer the information from the Modified Kid Play Profile to each corresponding category table.
- Place a checkmark in the "Yes" column of each activity in which the child has participated.
- In the next three columns, circle the score that indicates how the child likes the activity.
  (3 = a lot; 2 = a little; 1= not at all)
- Place a checkmark in one or more of the last three columns to indicate with whom the child does the activity.

Calculations

- Add the checkmarks in the "Yes" column and place this number in the box labelled "Total".
- Divide the number of activities the child participated in by the number of activities in the specific category. Then multiply by 100 to calculate the percentage of activities the child participates in. Place the percentage in the box labelled " Percentage of Activities the Child Participates in".
- To calculate how much the child like / enjoy the activities, add the scores of the three columns and divide the total by the number that the child participates in. The closer the number is to "3", the more the child enjoys the activities.
- To calculate the percentage of activities that the child does alone or with others, add the numbers of each column in the "By Myself", "With Friends" and "With a Grown-up". Then divide the total by the number of activities that the child participates in and multiply by 100. Because the children may respond to more than one of these options, the total number of responses may exceed a 100%.

Sports Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
1. Play Soccer		3	2	1			
2. Play Rugby		3	2	1			
3. Play Hockey		3	2	1			
4. Play Netball		3	2	1			
5. Play Cricket		3	2	1			
6. Play Tennis		3	2	1			
7. Athletics		3	2	1			
8. Cross Country or Fun Runs		3	2	1			
9. Swimming or Swimming Lessons		3	2	1			
10. Gymnastics or Acrobatics		3	2	1			
Total							

Number of Sports Activities Child Participates in _____	How Much the Child Likes Sports Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Sport Activities Child participates in _____		
Play interview / Comments:		

Outdoor Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
11. Ride Bicycle		3	2	1			
12. Play Touchers		3	2	1			
13. Play Hide & Seek		3	2	1			
14. Play on Playground / Jungle Gym		3	2	1			
15. Play Ballgames		3	2	1			
16. Jump on Trampoline		3	2	1			
17. Jump Rope		3	2	1			
18. Swing		3	2	1			
19. Jay-Boarding / Skateboarding		3	2	1			
20. Climb Trees		3	2	1			
21. Motor Biking / Quad Biking		3	2	1			
Total							

Number of Outdoor Activities Child Participates in _____	How Much the Child Likes Outdoor Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Outdoor Activities Child participates in _____		
Play interview / Comments:		

Summer Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
22. Go on Picnic		3	2	1			
23. Go Camping		3	2	1			
24. Go Hiking / Go for Walks		3	2	1			
25. Gardening		3	2	1			
Total							

Number of Summer Activities Child Participates in _____	How Much the Child Likes Summer Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Summer Activities Child participates in _____		
Play interview / Comments:		

Indoor Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
26. Read		3	2	1			
27. Watch TV		3	2	1			
28. Watch DVD		3	2	1			
29. Play Cards		3	2	1			
30. Play with Toys		3	2	1			
31. Play Board Games		3	2	1			
32. Build Puzzles		3	2	1			
33. Use Computer / Laptop / PSP		3	2	1			
34. Take Care of Pets		3	2	1			
Total							

Number of Indoor Activities Child Participates in _____	How Much the Child Likes Indoor Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Indoor Activities Child participates in _____		
Play interview / Comments:		

Creative Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
35. Sing/Take music lessons		3	2	1			
36. Dance/ Take dance lessons		3	2	1			
37. Ice Skating		3	2	1			
38. Drama		3	2	1			
39. Build Things		3	2	1			
40.Draw & Paint		3	2	1			
41. Bake and Cook		3	2	1			
42. Build Lego		3	2	1			
Total							

Number of Creative / Culture Activities Child Participates in _____	How Much the Child Likes Creative / Culture Activities _____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Creative / Culture Activities Child participates in _____		
Play interview / Comments:		

Social Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
43. Play with Friends		3	2	1			
44. Play School		3	2	1			
45. Play House		3	2	1			
46. Play Superhero / Dress-Up		3	2	1			
47. Go to Mall		3	2	1			
48. Go to the Movies		3	2	1			
49. Go to Restaurants		3	2	1			
50. Go to Birthday Parties		3	2	1			
Total							

Number of Socializing Activities Child Participates in _____	How Much the Child Likes Socializing Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Socializing Activities Child participates in _____		
Play interview / Comments:		

Comments on Own Activities Filled In:

- _____
- _____
- _____
- _____

APPENDIX G-2

LETTER TO PANEL OF EXPERTS **APPENDIX H-1**

Dear Therapist **August 2014**

Thank you for assisting in this research project.

Study Title:

The modification of the Kid Play Profile from the Pediatric Interest Profiles for children in the urban areas of Pretoria/Tshwane.

Introduction:

I am in the process of conducting a research study on the play activities of children in the urban areas of (Pretoria) Tshwane. In this study I am modifying the Kid Play Profile that was developed in the USA to have more suitable activities for the urban South African child.

Some of the activities in the Kid Play Profile are relevant for the South African child, but there are activities that are not relevant for our children. In this study I want to establish relevant content (activities) of the Kid Play Profile for the South African population, in particular the child living in the urban areas of Pretoria/Tshwane.

Methodology

Phase 1:

Two nominal discussion groups were conducted at two primary schools, where the parents and teachers directly involved with children in the foundation phase, discussed the content of the Kid Play Profile and made recommendations to modify the profile for the urban middle to upper class child living in Tshwane/ Pretoria. Through the nominal group process the activities that in their opinion should remain in the profile and the new activities that should be included, were indicated.

Phase 2:

Step 1:

This information (from phase 1) was analysed and the modifications were made accordingly.

The new inclusions were illustrated by means of the assistance of a graphic designer.

Step 2:

This is where I need your help. As part of this phase in the process of the modification of the KPP the study requires the assistance of three qualified occupational therapists with at least five years of experience working with children between the ages of 6- 9 years. This is to look at the modified profile and comment on the clarity of the content, the age appropriateness and overall appeal for both boys and girls.

Phase 3:

After the final modifications have been made, the modified Kid Play Profile will be tested and retested with the children in gr 1-3 at the two participating schools. This will be to determine the reliability of the modified profile.

If you have any questions please contact me, Marna Hartman at 082 417 5181 or marnahartman@gmail.com. The research supervisor Lyndsay Koch can be contacted at lyndsay.koch@wits.ac.za. For any ethical queries or concerns please contact the chair of the HREC at the University of the Witwatersrand, Prof P. Cleaton-Jones on 011 7171234 or at anisa.kashav@wits.ac.za.

Yours truly



Marna Hartman

RESPONSE SHEET OF PANEL OF EXPERTS **APPENDIX H-2**

Instruction: Please look at the given original Kid Play Profile (KPP) and the Modified Kid Play Profile (mKPP). Activities 1, 9, 11, 12, 13, 17, 20-26, 29, 31, 34, 39-41, 44 & 45 are the activities that remained from the original KPP. The format and instructions remained the same in the modified profile. The modifications that were made involved the play activities and the categories the activities fall into. The new activities received illustrations and some of the original activities received a more up to date illustration.

Please comment or make suggestions on the following regarding the Modified Kid Play Profile:

Aspect to consider	Comment
Clarity of the activities (which may include the name of the activity or the illustration)	
Age appropriateness of the activities (Children 6-9 years)	
Overall appeal to both boys and girls **(**Children from middle to upper class homes in the urban areas of Tshwane**)**	

Other Suggestions / Comments	

Thank you

Marna Hartman

APPENDIX I-1

RESEARCH STUDY INFORMATION AND LETTER FOR PARENTAL CONSENT

Study Title: Modification of the Kid Play Profile from the Paediatric Interest Profiles for children in the urban areas of Pretoria / Tshwane.

Good day

I am Marna Hartman and doing my Masters Degree in Occupational Therapy at the Witwatersrand University. I am conducting a research study on the play activities of children in the urban areas of (Pretoria) Tshwane. In this study I am using the Kid Play Profile as a tool to measure children's play activities.

What the Study Involves: The Kid Play Profile was developed and tested in the USA. South African Occupational therapists also evaluate children's play activities to identify problems or use these activities in therapy. Some of the activities in the Kid Play Profile are relevant for the South African child, but there are activities that are not relevant for our children. In this study I want to establish relevant content (activities) for the Kid Play Profile for the South African population, particularly for the child living in the urban areas of Pretoria. Once relevant content has been established, the Kid Play Profile will be modified accordingly and used with children in the urban areas of Pretoria/Tshwane. This entails the completion of the modified Kid Play Profile twice (within a two week interval) by children in grade 1-3.

Invitation: I am inviting your child to participate in this study and asking your permission to include your child in this research study. Your child's participation in the study will be voluntary and he / she may discontinue participation at any time with no negative consequences.

Your child will be asked to indicate the play activities that he / she participate in or like on the Kid Play profile by circling or colouring in the picture. The activities include sport activities, outdoor play, indoor play, cultural activities etc. I will be there in person assisted by the teacher to ensure that the children understand what to do. The Kid Play Profile is a child-friendly questionnaire with pictures to indicate their choices, likes and dislikes. The completion of the profile will take approximately 15 minutes. Your child will remain anonymous as no identifiable information will be gathered at any stage of this study.

If you have any questions please contact me Marna Hartman at 082 417 5181 or marnahartman@gmail.com. The research supervisor Lyndsay Koch can be contacted at lyndsay.koch@wits.ac.za.

For any ethical queries or concerns please contact the chair of the HREC at the University of the Witwatersrand, Prof P. Cleaton-Jones on 011 7171234 or at anisa.kashav@wits.ac.za

Regards



Marna Hartman

PERMISSION SLIP:

Please complete the following and return to the school if you agree that your child may participate in the study by completing the Kid Play Profile anonymously.

I, _____ (name of parent / guardian) consent to _____ (name of child) participating in the research study by completing the Kid Play Profile. I understand that no identifiable information will be attained from the documentation and that the outcome will be kept confidential.

Please sign this letter to indicate your consent for submission of your child's documentation.

Date: _____Signature: _____

APPENDIX I-1

APPENDIX I-2

VERBAL ASSENT & INSTRUCTION SHEET

VERBAL ASSENT



Good day my friends!

I am Marna and today I need your help. I really want to know what fun games and play activities you do. I have a little book with pictures in which I want you to circle or colour in if you do the activity.

Your Mom and Dad said that it would be OK if you want to do this, but you do not have to.

Who wants to help me?

Thank you so much!

If you get tired you may have a rest and you can stop any time if you do not want to finish it.

APPENDIX I-3

INSTRUCTIONS DURING FIELD TESTING / ADMINISTERING THE mKPP

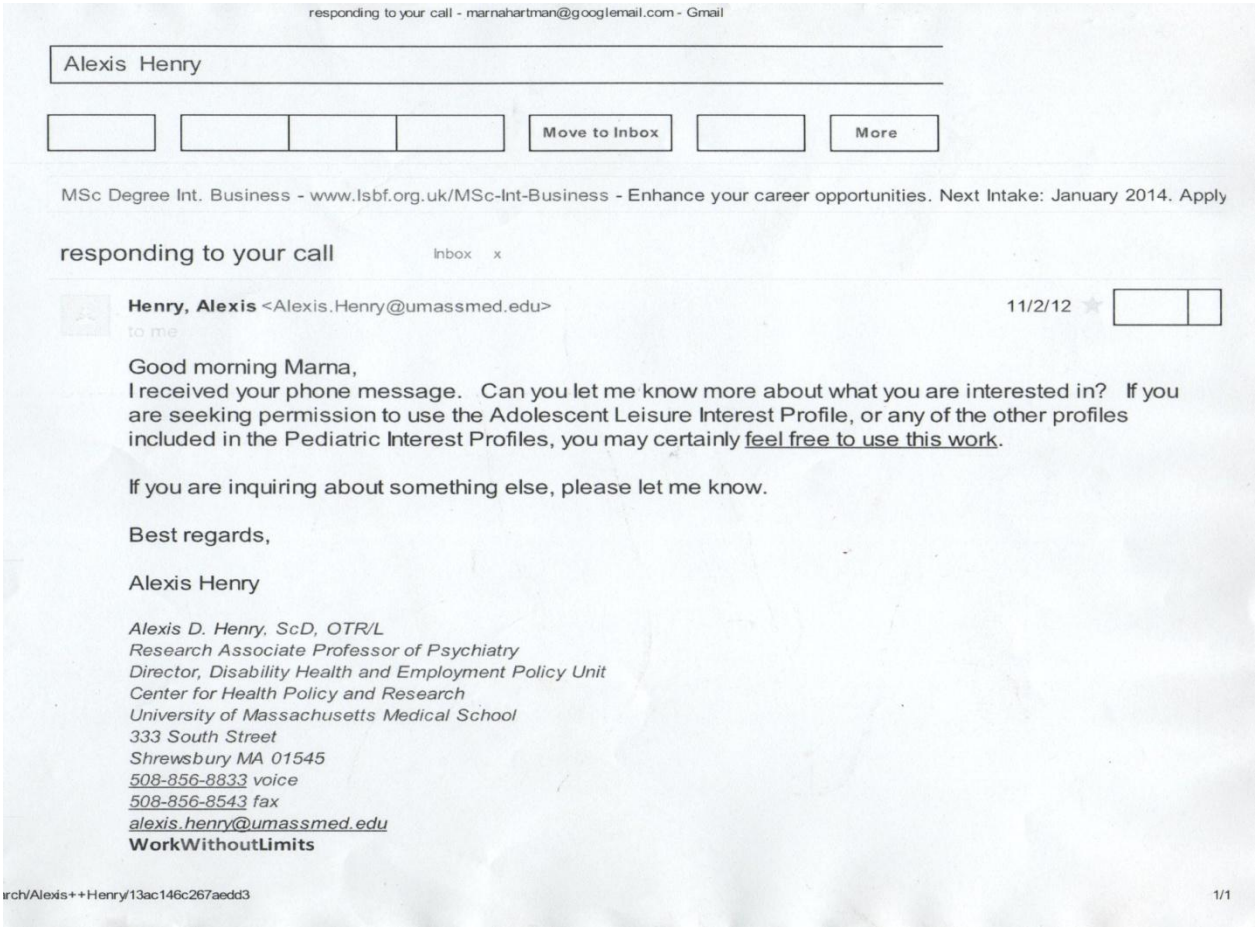
Hand out booklets to those who agreed – boys get the green booklets and girls the yellow. Ask the children to take out their colour pencils (See Appendix A).

- Firstly write your age on the front page e.g. (7)
- Okay lets' look at the first picture. (A3 – Example)
- If you do this activity you circle or colour the happy face this means YES, if you don't do this you colour or circle the sad face this means NO.
- If you coloured the happy face which means YES you can tell me HOW MUCH you like the game by colouring in the stars.
- Three stars means you like it a lot, two stars means you like it a little and one star means you do not like it at all.
- Then you can tell me with WHO do you do this activity. The first is by myself, with friends, with grown- ups.
- If you are done you can go on to the next activity and do the same with all the activities.
- If you said NO to an activity you can go to the next activity and answer YES or NO by marking the happy or sad face.
- At the end there are open spaces where you can draw me the activity which I may have left out what you often do or like.



APPENDIX J

PERMISSION LETTER FROM THE DEVELOPER OF THE PEDIATRIC PLAY PROFILE: ALEXIS D HENRY



responding to your call - marnahartman@googlemail.com - Gmail

Alexis Henry

Move to Inbox | More

MSc Degree Int. Business - www.lsbf.org.uk/MSc-Int-Business - Enhance your career opportunities. Next Intake: January 2014. Apply

responding to your call Inbox x

Henry, Alexis <Alexis.Henry@umassmed.edu> 11/2/12

to me

Good morning Marna,
I received your phone message. Can you let me know more about what you are interested in? If you are seeking permission to use the Adolescent Leisure Interest Profile, or any of the other profiles included in the Pediatric Interest Profiles, you may certainly feel free to use this work.

If you are inquiring about something else, please let me know.

Best regards,

Alexis Henry

Alexis D. Henry, ScD, OTR/L
Research Associate Professor of Psychiatry
Director, Disability Health and Employment Policy Unit
Center for Health Policy and Research
University of Massachusetts Medical School
333 South Street
Shrewsbury MA 01545
508-856-8833 voice
508-856-8543 fax
alexis.henry@umassmed.edu
WorkWithoutLimits

rch/Alexis++Henry/13ac146c267aedd3 1/1

R14/49 Ms Marna Hartman

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M140237

NAME: (Principal Investigator)	Ms Marna Hartman
DEPARTMENT:	Occupational Therapy Private Practice
PROJECT TITLE:	The Modification of the Kid Play Profile from the Pediatric Interest Profiles for Children in Urban South African Context
DATE CONSIDERED:	28/02/2014
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Lindsay Koch
APPROVED BY:	Professor P Cleaton-Jones, Co-Chairperson, HREC (Medical)
DATE OF APPROVAL:	06/06/2014

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Secretary in Room 10004, 10th floor, Senate House, University.
I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**.

Principal Investigator Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

For administrative use:
Reference no: D2014 / 345

GDE RESEARCH APPROVAL LETTER

Date:	**11 February 2014**
Validity of Research Approval:	**11 February to 3 October 2014**
Name of Researcher:	**Hartman M.**
Address of Researcher:	**P.O. Box 1148**
	Wapadrand
	Pretoria
	0050
Telephone Number:	**082 417 5181**
Email address:	**marnahartman@gmail.com**
Research Topic:	**Modification of the Kid Play Profile from the Paediatric Interest Profiles for children in the urban South African context**
Number and type of schools:	**FOUR Primary Schools**
District/s/HO	**Tshwane North and Tshwane South**

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

2014/02/

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

Office of the Director: Knowledge Management and Research
9th Floor, 111 Commissioner Street, Johannesburg, 2001
P.O. Box 7710, Johannesburg, 2000 Tel: (011) 355 0506
Email: David.Makhado@gauteng.gov.za
Website: www.education.gpg.gov.za

1. *The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.*
2. *The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.*
3. *A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.*
4. *A letter / document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.*
5. *The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.*
6. *Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.*
7. *Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.*
8. *Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.*
9. *It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.*
10. *The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.*
11. *The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.*
12. *On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.*
13. *The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.*
14. *Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.*

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

jMakhado
.....

Dr David Makhado
Director: Education Research and Knowledge Management

DATE: 2014/02/13

Making education a societal priority

Office of the Director: Knowledge Management and Research
9th Floor, 111 Commissioner Street, Johannesburg, 2001
P.O. Box 7710, Johannesburg, 2000 Tel: (011) 355 0506
Email: David.Makhado@gauteng.gov.za
Website: www.education.gpg.gov.za

APPENDIX L

Modified Kid Play Profile

Modified by Marna Hartman (2014)



Directions

There are 50 activities in this booklet. For each activity, there are three questions.

1. Do You Do This Activity?
2. Do You Like This Activity?
3. Who Do You Do This Activity With?

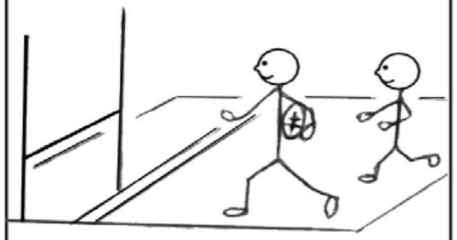
If you answer "No" to question 1, you do not need to answer questions 2 or 3. Just go on to the next activity.
You can **colour** or circle your answers.
At the end, you may add other activities that you do and that you weren't asked about.

Name _____ Date _____

Age _____ Birthday _____ Grade _____ Check ☐ Boy ☐ Girl

Original Kid Play Profile developed by Alexis D. Henry (2000)

SPORT
Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 1. Play Soccer	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 2. Play Rugby	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 3. Play Hockey	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

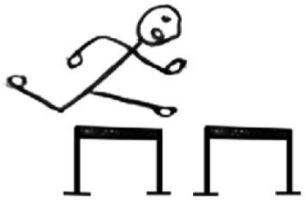
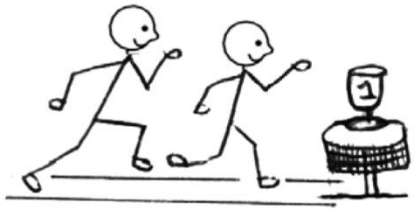
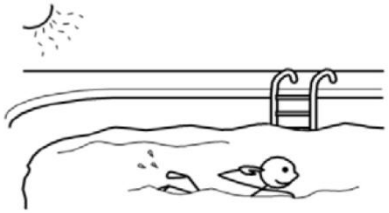
SPORT

Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 4. Play Netball	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 5. Play Cricket	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 6. Play Tennis	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

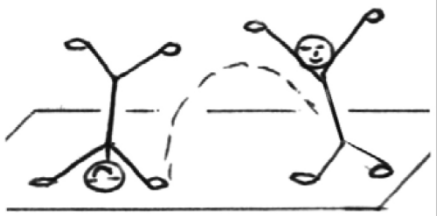
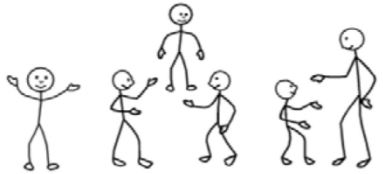
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SPORT
Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 7. Athletics	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 8. Cross Country/ Fun Runs	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 9. Swim/ Swimming Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

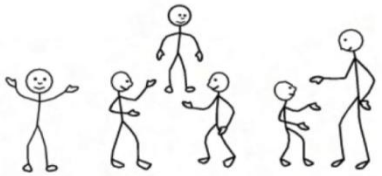
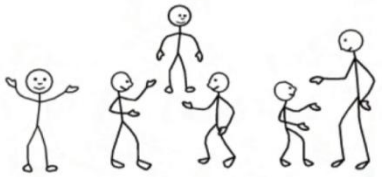
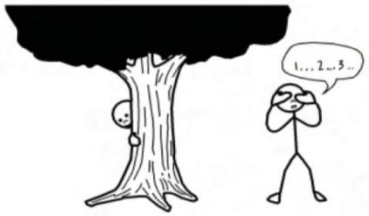
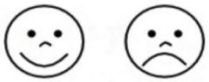
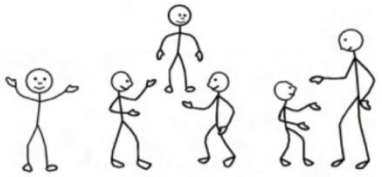
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SPORT
Kid Play Profile

Sports Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 10. Gymnastics	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OUTDOOR
Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 11. Ride Bicycle	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 12. Play Touchers	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 13. Play Hide and Seek	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

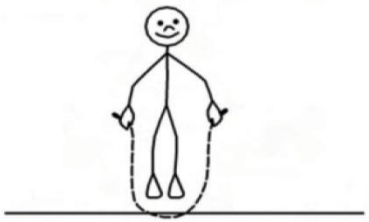
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OUTDOOR
Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 14. Play on Playground/ Jungle Gym	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 15. Play Ball Games	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 16. Jump on Trampoline	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

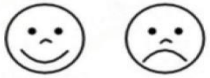
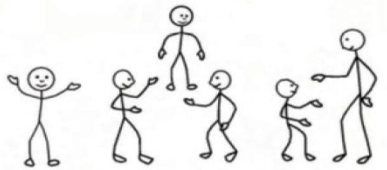
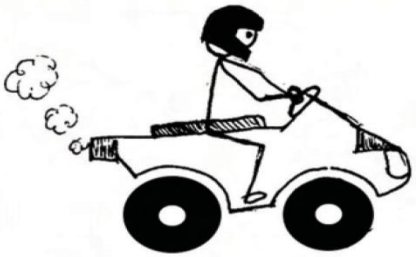
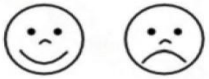
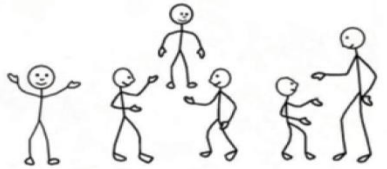
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OUTDOOR
Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 17. Jump Rope	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 18. Swing	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 19. Jay-Boarding/ Skateboarding	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

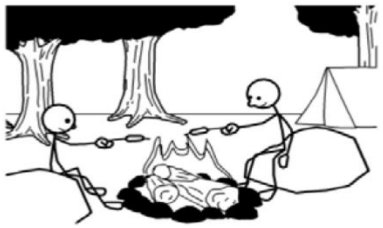
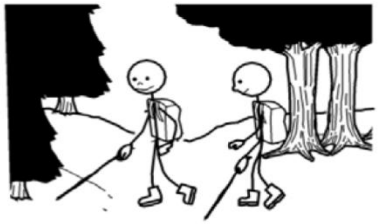
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OUTDOOR
Kid Play Profile

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 20. Climb Trees	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 21. Motor Biking/ Quad Biking	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

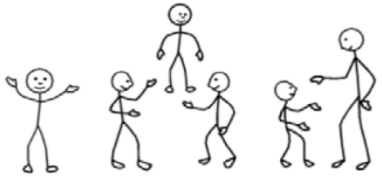
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SUMMER
Kid Play Profile

Summer Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 22. Go on a Picnic	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 23. Go Camping	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 24. Go Hiking/ Go for Walks	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

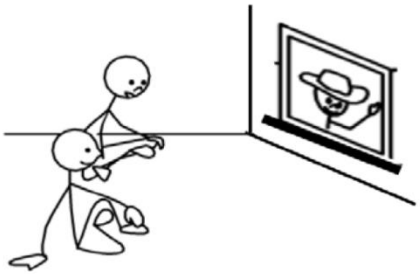
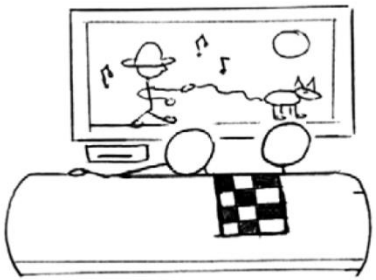
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SUMMER
Kid Play Profile

Summer Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 25. Gardening	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

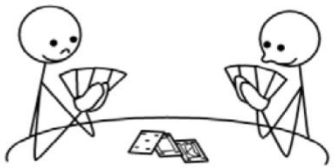
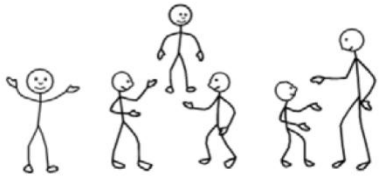
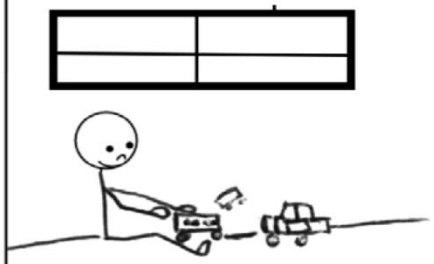
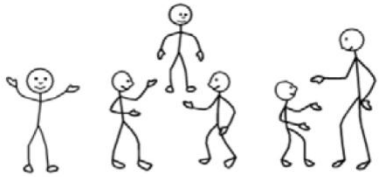
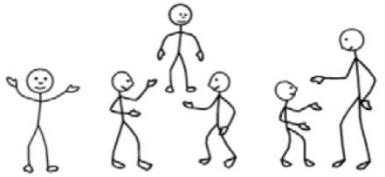
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

INDOOR
Kid Play Profile

Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 26. Read	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 27. Watch TV	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 28. Watch DVD	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

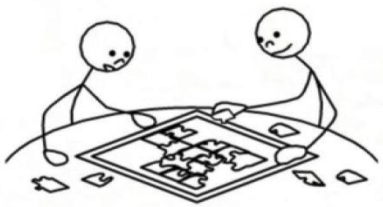
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

INDOOR
Kid Play Profile

Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 29. Play Cards	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 30. Play with Toys (cars/ dolls etc)	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 31. Play Board Games	Yes No	A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

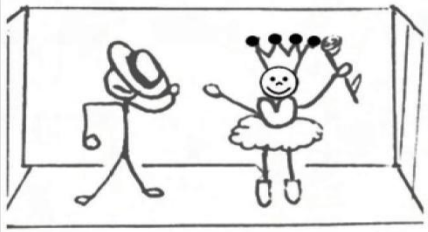
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

INDOOR
Kid Play Profile

Indoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 32. Build Puzzles	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 33. Use Computer/ Laptop/ Tablet	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 34. Take care of pets	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

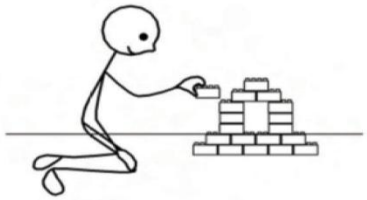
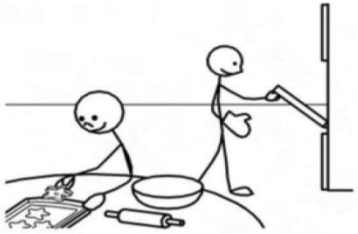
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

CREATIVE
Kid Play Profile

Creative Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 35. Sing/ Take Music Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 36. Dance/ Take Dance Lessons	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 37. Drama	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

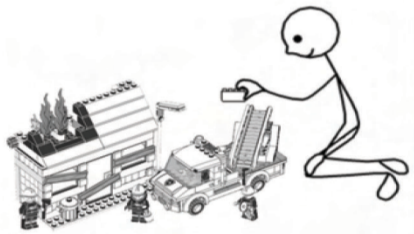
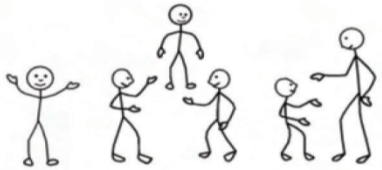
CREATIVE
Kid Play Profile

Creative Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 38. Build Things	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 39. Draw & Paint	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 40. Bake and Cook	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

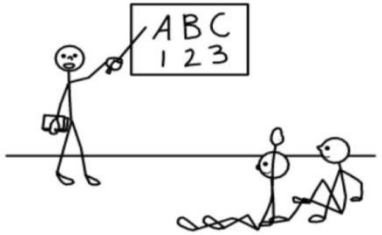
CREATIVE

Kid Play Profile

Creative Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 41. Build Lego	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

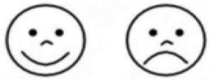
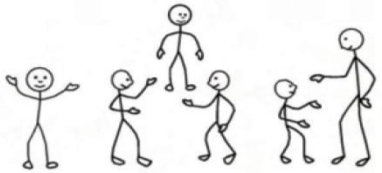
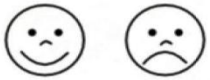
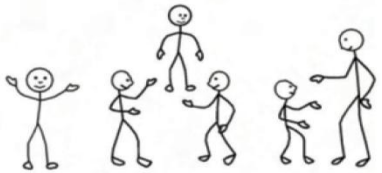
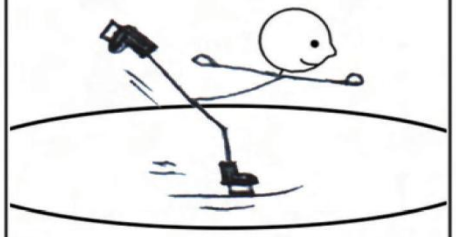
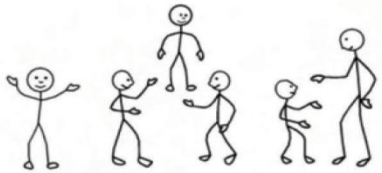
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SOCIAL
Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 42. Play with Friends	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 43. Play School	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 44. Play House	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

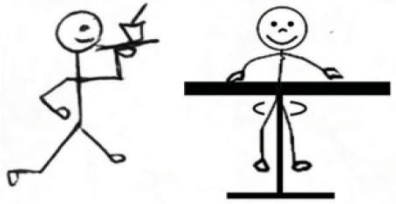
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SOCIAL
Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 45. Play Superhero/ Dress-Up	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 46. Go to the Mall	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 47. Ice Skating	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

SOCIAL
Kid Play Profile

Socializing Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 48. Go to the Movies	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 49. Go to Restaurants	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
 50. Go to Birthday Parties	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

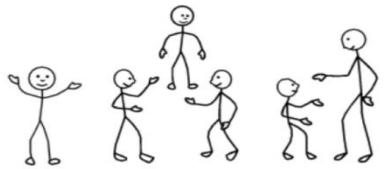
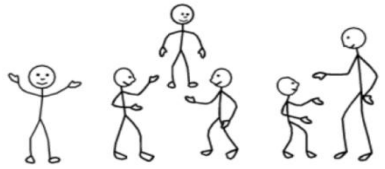
Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OTHER
Kid Play Profile

Other Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
51. Fill in your own activity	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
52. Fill in your own activity	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up
53. Fill in your-own activity	Yes No	A Lot A Little Not at All	By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

OTHER
Kid Play Profile

Other Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
54. Fill in your own activity	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
55. Fill in your own activity	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

Modified by Marna Hartman (2014) : Original developed by Alexis D. Henry (2000)

APPENDIX M-2

Modified Kid Play Profile
by Marna Hartman
Summary Score Sheet

Child's Name_____ Gender_____
School _____ Grade _____
Service Provider's Name_____ Date _____
Discipline_____ Age _____

This child receives the following therapies:

_____

_____

Conditions that may affect play:

_____

_____

Scoring of the Modified Kid Play Profile

Categories

- Transfer the information from the Modified Kid Play Profile to each corresponding category table.
- Place a checkmark in the "Yes" column of each activity in which the child has participated.
- In the next three columns, circle the score that indicates how the child likes the activity.

  (3 = a lot; 2 = a little; 1= not at all)
- Place a checkmark in one or more of the last three columns to indicate with whom the child does the activity.

Calculations

- Add the checkmarks in the "Yes" column and place this number in the box labelled "Total".
- Divide the number of activities the child participated in by the number of activities in the specific category. Then multiply by 100 to calculate the percentage of activities the child participates in. Place the percentage in the box labelled " Percentage of Activities the Child Participates in".
- To calculate how much the child like / enjoy the activities, add the scores of the three columns and divide the total by the number that the child participates in. The closer the number is to "3", the more the child enjoys the activities.
- To calculate the percentage of activities that the child does alone or with others, add the numbers of each column in the "By Myself", "With Friends" and "With a Grown-up". Then divide the total by the number of activities that the child participates in and multiply by 100. Because the children may respond to more than one of these options, the total number of responses may exceed a 100%.

Sport Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
1. Play Soccer		3	2	1			
2. Play Rugby		3	2	1			
3. Play Hockey		3	2	1			
4. Play Netball		3	2	1			
5. Play Cricket		3	2	1			
6. Play Tennis		3	2	1			
7. Athletics		3	2	1			
8. Cross Country or Fun Runs		3	2	1			
9. Swimming or Swimming Lessons		3	2	1			
10. Gymnastics or Acrobatics		3	2	1			
Total							

Number of Sports Activities Child Participates in _____	How Much the Child Likes Sports Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Sport Activities Child participates in _____		
Play interview / Comments:		

Outdoor Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
11. Ride Bicycle		3	2	1			
12. Play Touchers		3	2	1			
13. Play Hide & Seek		3	2	1			
14. Play on Playground / Jungle Gym		3	2	1			
15. Play Ball Games		3	2	1			
16. Jump on Trampoline		3	2	1			
17. Jump Rope		3	2	1			
18. Swing		3	2	1			
19. Jay-Boarding / Skateboarding		3	2	1			
20. Climb Trees		3	2	1			
21. Motor Biking / Quad Biking		3	2	1			
Total							

Number of Outdoor Activities Child Participates in _____	How Much the Child Likes Outdoor Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Outdoor Activities Child participates in _____		
Play interview / Comments:		

Summer Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
22. Go on Picnic		3	2	1			
23. Go Camping		3	2	1			
24. Go Hiking / Go for Walks		3	2	1			
25. Gardening		3	2	1			
Total							

Number of Summer Activities Child Participates in _____	How Much the Child Likes Summer Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Summer Activities Child participates in _____		
Play interview / Comments:		

Indoor Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
26. Read		3	2	1			
27. Watch TV		3	2	1			
28. Watch DVD		3	2	1			
29. Play Cards		3	2	1			
30. Play with Toys		3	2	1			
31. Play Board Games		3	2	1			
32. Build Puzzles		3	2	1			
33. Use Computer / Laptop / PSP		3	2	1			
34. Take Care of Pets		3	2	1			
Total							

Number of Indoor Activities Child Participates in _____	How Much the Child Likes Indoor Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Indoor Activities Child participates in _____		
Play interview / Comments:		

Creative Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
35. Sing/Take music lessons		3	2	1			
36. Dance/ Take dance lessons		3	2	1			
37. Drama		3	2	1			
38. Build Things		3	2	1			
39.Draw & Paint		3	2	1			
40. Bake and Cook		3	2	1			
41. Build Lego		3	2	1			
Total							

Number of Creative / Culture Activities Child Participates in _____	How Much the Child Likes Creative / Culture Activities _____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Creative / Culture Activities Child participates in _____		
Play interview / Comments:		

Social Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grown-up
42. Play with Friends		3	2	1			
43. Play School		3	2	1			
44. Play House		3	2	1			
45. Play Superhero / Dress-Up		3	2	1			
46. Go to Mall		3	2	1			
47. Ice Skating		3	2	1			
48. Go to the Movies		3	2	1			
49. Go to Restaurants		3	2	1			
50. Go to Birthday Parties		3	2	1			
Total							

Number of Socializing Activities Child Participates in _____	How Much the Child Likes Socializing Activities_____	Percentage of Activities the Child Does: By Myself _____ With Friends _____ With a Grown-Up _____
Percentage of Socializing Activities Child participates in _____		
Play interview / Comments:		

Comments on Own Activities Filled In:

- _____
- _____
- _____
- _____

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