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Developing a culturally based play inventory from the perspectives of Hong Kong parents and children: a content analysis method

Angela Siu and Chrysa Keung

ABSTRACT
Using a content analysis method, this study develops a culturally based inventory of play categories from parents and children reports and explores how such types of play varies in environment and time. A total of 171 parent–child dyads from 13 Hong Kong kindergartens participated in the study. Results reveal that play practices reported from Hong Kong parents and children are categorised into four types. Data from parents and children show that a high frequency of symbolic and sociodramatic play is arranged on weekdays, whereas place-specific activity is the most frequently arranged in weekends. The qualitative quotes from parent and children interviews share the consistent view which reflects symbolic and sociodramatic play as the most liked activities. However, findings exhibit the inconsistent view on the most wanted play activities. Implications of these findings and suggestions about parental involvement and play facilitation for children are discussed.

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Culturally based inventory; play type; parental involvement; kindergarten; content analysis method

Introduction
The Article 31 of the United Nations Convention on the Rights of the Child (1989) affirms that children have the right to ‘rest and leisure, to engage in play and recreational activities appropriate to the age of the child and participate freely in cultural life and the arts’ (9). Past studies have investigated children’s engagement in different play types such as object, pretend, social, constructive, and physical play. All these play types are evident to children’s whole-person development and growth (e.g. Cohen and Mendez 2009; Ginsburg 2007; Keung and Cheung 2019; Lester and Russell 2008; Russ and Kaugars 2001; Wood 2013). In addition to those studies on indoor play, the playground can provide children with outdoor play activities which are relatively safe environment, free of adult control, as well as their play, games, and social relations are more their own (Jacobi-Vessels 2013; Little and Eager 2010; Mannello, Casey, and Atkinson 2020). Baines and Blatchford (2011) have identified children’s play activities and games taking place in a range of settings, ‘both in and outside of the home, in gardens, parks, on the streets, designated playground arenas, or other locations’ (260). While the significance of play has been well-documented, research on children play types are based on the prescribed list from questionnaires and those are referred from Western countries but lack of culturally based inventory developed in the Chinese context (Lin, Xie, and Li 2019). Hence, collecting parents’ responses to open-ended questions may allow for a greater range of play categorisation and accurate reflection of the specific cultural context.

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Early childhood research has indicated long-standing evidence that the role of the parent in children’s play. Parents are the important play partner in arranging play activities which facilitate balanced development for children (Keung and Cheung 2019; Singh and Gupta 2011; Parmar, Harkness, and Super 2008; Roopnarine 2011). Many studies have been done to understand parents’ perceptions about play and play practices with their children (e.g. Lin and Yawkey 2013; Shiakou and Belsky 2013; Veitch et al. 2006). Those empirical studies reveal that parents perceive play to be beneficial for children’s cognitive development (e.g. Tamis-LeMonda et al. 2004), social development (e.g. Roopnarine 2011), and motor skills (e.g. Houser et al. 2016). However, these empirical evidence are often drawn from observational studies that treat children as an object to observe their free selection of toys. They used self-reporting questionnaires with prescribed lists to collect adults’ views on play practices with children and this may undermine the diversity of play types (e.g. Harkness and Super 1999; Turnbull and Jenvey 2006; Wood 2013). Few have taken children’s perspectives into account and studies looking for perspective overlap and differences are almost absent (e.g. Howard 2010; Jenvey and Jenvey 2002; Keung and Fung 2021).

It is argued that few studies have systemically investigated children’s views and their play preferences. Hence, including parents’ and children’s descriptions of play is important for understanding how their differential views may shape children’s exposure to various play experiences. To fill this gap, the present study uses a sample of Hong Kong parents and their children to develop a culturally based play inventory and explore the pattern of play practices and preferences.

Literature review

Understanding types and developmental benefits of play

Play as a multidimensional concept encompasses different types of play that can be classified by its characteristics, as well as the age and developmental stages of children (Brown 2014; Eberle 2014). An example of classical categorisation, Piaget (1951) categorises play into practice play, symbolic play, and games with rules. Smith and Pellegrini (2013) have listed play types including locomotor play, social play, parallel play, object play, language play, and pretend play. Wood (2013) proposes play types including ‘role play, socio-dramatic play, heuristic play, constructive play, free-flow play, structured play, rough-and-tumble play, technological play’ (9). Kemple (2017) classifies play into object play, construction play, pretend play, solitary pretend play, sociodramatic play, games with rules, and rough-and-tumble play (20–21). While most play activities are classified based on Western countries, less is studied on play categorisation according to the Chinese context (Lin, Xie, and Li 2019).

Early childhood education programmes and care provision is generally considered a play-based learning strategy for laying the foundation for the growth and well-being of young children (UNICEF 2018). Child-centred play is shown to be an important vehicle for children’s cognitive, social, emotional, and physical development (e.g. Cohen and Mendez 2009; Ginsburg 2007; Keung and Cheung 2019; Lester and Russell 2008; Russ and Kaugars 2001). Using the concept of the zone of proximal development, Vygotsky (1978) argues that play facilitates the cognitive development of children, enabling them to perform above their developmental levels. With developmentally appropriate play materials, children are provided with opportunities to ‘try out new combinations of actions, free of external constraint and help develop cognitive and problem solving skills’ (Smith and Pellegrini 2013, 2). In line with the developmental growth of children, Smith and Pellegrini (2013) observe that games with rules are most likely to be arranged for children after about 6-year-old. Others view play as a learning tool for understanding and responding to environmental stimuli and incidents in a child’s life (Jacobi-Vessels 2013; Vickerius and Sandberg 2006).

Additionally, children’s social skills and emotional regulation can be enhanced through interactions with others in play (Cohen and Mendez 2009). Through play, children can acquire subtle social rules and skills, such as empathy and theory of mind, that are essential to their social life.
Research has also shown that imaginative play and therapeutic play help children alleviate the anxiety associated with negative events and learn to adapt to others’ feelings and emotions. This helps children understanding various emotions, giving them a sense of security, and allowing them to connect with others so as to build peer relationships (Coolahan et al. 2000; Russ and Wallace 2013). As to the play benefits, some studies reveal that children who participate in child-organised play have a high level of physical activity (Mackett and Paskins 2008) and better motor skills (Pellegrini 2011).

**Parental involvement and play practice**

Parents are viewed as a key stakeholder in structuring play and learning for their children. Their perceptions and investment in time determine the opportunities for play learning of children. A sociocultural perspective accounts for the cultural variations in parents’ beliefs about children play. This perspective stresses the importance of parental involvement in education and learning activities (Carlson and Stenmalm-Sjöblom 1989; Parmar, Harkness, and Super 2008; Roopnarine and Jin 2016). Research on children play has addressed on the importance of parental beliefs and their influence on the choices and environments offered to their children (e.g. Keung and Cheung 2019; Lin and Yawkey 2013; Shiakou and Belsky 2013; Veitch et al. 2006). Comparing parent roles in play, the study of Parmar, Harkness, and Super (2004) show that Euro-American parents serve as play partners for their children, whereas Asian parents tend to serve as instructional coaches during play. Findings reflect that Euro-American parents view play as a source of happiness for children, while Asian parents focus on the intellectual benefits of play for children. Traditionally, Chinese parents have been influenced by filial piety, believing that children should learn to show obedience and reverence to their parents. They have also tended to focus on the intellectual benefits and social function of children’s play with an emphasis on acquisition of knowledge and skills (Jiang and Han 2016; Luo, Tamis-LeMonda, and Song 2013). These differences in the conception of play reflect parents’ culturally based values, affecting their involvement in children play at home (Roopnarine and Davidson 2015).

Likewise, parental play practices could be patterned historically (Eberle 2014; Malone 1997). Ginsburg (2007) points out that an increasing number of working parents nowadays has resulted in more opportunities for children to participate in organised activities or academic-oriented courses provided by child care centres. Furthermore, today’s parents are more inclined to prepare their children for the future, exposing them to different enrichment activities for developing a variety of learning skills (Fung and Cheng 2012; Keung and Fung 2021; Lin and Yawkey 2013). Another influence on children play has resulted from parents’ concern over their children’s personal safety related to potential dangers, such as strangers, traffic, and accidents. These concerns have been associated with a reduced amount of active free play and fewer options for play locations (Holt et al. 2015; Mannello, Casey, and Atkinson 2020; Veitch et al. 2006).

In Hong Kong, parental involvement in play has been highlighted in the latest issue of the Kindergarten Education Curriculum Guide (CDC 2017). A recent qualitative study conducted by Siu and Keung (under review) reveal that two types of parents with different play beliefs (educational-oriented beliefs and child-led beliefs) recognise the value of play in several aspects: cognitive, social, emotional, and physical developments. However, the play practices at home are found to be inconsistent with their stated beliefs. Another study investigates the parent–child play time in Hong Kong (Tang 2008). Through the telephone interviews, results reveal that 538 parents with children aged 3–12 years old have inadequate time to play with their children. Half of parents spent only six hours or less each week, whereas 17.3% of them have no play time with children at all. It may be due to long working hours of parents and children being occupied by their own learning activities. While the importance of play has increasingly gained recognition by parents, evidence from early childhood studies has shown the diverse views on play presented from parents’ and teachers’ perspectives (e.g. Fisher et al. 2008; Fung and Cheng 2012). Therefore, understanding parents’
expectations and preferences can eliminate ‘any conflicting views between parents and schools on educating children’ (CDC 2017, 96).

Methodology

Context and participants
This study was conducted in Hong Kong – a city in the southeastern part of Mainland China whereby it is one of the most densely populated cities in the world. Being positioned as a cosmopolitan city, Hong Kong has developed its strengths in areas such as financial, transportation, and trade centre, as well as innovation and technology (HKSAR 2018). According to the Census and Statistics Department (2018), there is a declining trend in the number of births in Hong Kong over the past 30 years. The crude birth rate (i.e. the ratio of the number of live births in a calendar year to the mid-year population) has reached to the lowest level in 2017 which displaying 7.7 live births per 1000 population. As to the provision of early childhood education and care services, there are about 1030 kindergartens and kindergarten-cum-child care centres operated by private enterprises and non-government organisations (Education Bureau 2017). Under the Free Quality Kindergarten Education Scheme, all children aged between 3 and 6 years are eligible to receive free kindergarten education in the 2017/2018 school year (HKSAR 2017). The education-based meritocracy has long been viewed as an effective vehicle for upward social mobility in Hong Kong and has resulted in reinforcing parental meritocratic beliefs. Hong Kong parents are well known about their strong emphasis put high on the academic development and rote learning for equipping children’s future prospective. Children in preschool years are already expecting to complete many homework after class, and they also take up extra learning based on primary education syllabus of grade 1.

A total of 171 parent–child pairs participated in this study. They were recruited through the coordinating kindergarten teachers who participated in the university and school project in 2016–2017. Approval and access from the principals of the sampled kindergartens were granted. Parents’ consent for themselves and their children participating the study was also obtained. Of these participants, 150 mothers and 18 fathers, 3 grandparents/guardians joined the study. Participating children aged between 4 and 6 were enrolled in K2 classes ($N = 78$) and K3 classes ($N = 93$) at the time of interview. Based on the demographic data completed by parents, half of them reported themselves as homemakers, 17% were clerical workers, 15.8% were working in technical and service sectors, and 10.5% were engaged in the professional/administrative sector. Children enrolled in full-time kindergarten education programmes made up 71.3%, and 55.6% of the child participants were girls.

Procedure
This exploratory study was drawn from parents’ and children’ interviews by collecting their views on play practices and preferences. Before interviews, a self-administered survey, covering demographic information about family background and socioeconomic status, was sent to parents. Instead of the prescribed options in the questionnaire-like format, this study used open-ended interview questions to understand how parents structure the home for play activities and what children experience (details refer to Appendix). The interview questions with instructions for parents and children were reviewed by early childhood experts and piloted in a kindergarten with 40 parents and children from different grade levels to ensure the content validity. These experts were school development officers from a project conducted in a university. They had led professional development programmes and trainings for kindergarten principals and teachers. All of them worked in kindergartens as principals or head teachers for several years. They have practical experience in leading children’s play and understanding parents’ play practices in general. Another two experts were staff at professoriate rank who have taught early childhood courses for several years in a university. Permission to conduct the study was obtained from the university research ethics committee.
On the implementation, the authors of this study held a one-day training workshop for two research assistants and five undergraduate students who were studying early childhood education. This training allowed interviewers to have a practicing time for asking the interview questions and for handling any ambiguous questions. Trained interviewers were responsible for taking notes of all the parents’ and children’s responses and then inputting their notes and observations into the data sheets. All interviews were conducted in Cantonese, and each was lasted approximately 15–20 min. Each participant was free to stop or not respond to any questions when they felt reluctant to answer, and they were reminded of their voluntary participation throughout the interviews. As the parents’ interviews were conducted by telephone, we dialled at least three times for each case to boost the response rate. As to the children’s interviews, each participant was individually interviewed in a quiet room at the kindergartens. To put young participants at ease, we held warm-up conversations to reduce any uncomfortable feelings about sharing or being assessed. Trained interviewers were reminded not to impose any predetermined views on the children’s responses. The young participants were asked to tell us about their play practices and preference by saying any words came to their minds. After the interviews, each young participant received a small sticker for their participation.

**Analysis**

This study attempts to develop a play category inventory by using open-ended questions when interviewing parents and children. A content analysis method was used to categorise play types from the qualitative quotes (Elo et al. 2014). All the interview data were transcribed and analysed. The authors and two research assistants with early childhood education backgrounds were responsible for data coding and used an inductive reasoning for analysing open-ended questions (Strauss and Corbin 1998). The data coding involved three stages: familiarisation, coding, and adjudication. At the familiarisation stage, the distinct themes were identified and cross-checked by an external reviewer to ensure all the children’s and parents’ responses were appropriately captured in the code list. At the coding stage, the data was coded separately by research assistants, while the authors conducted a reliability check. At the adjudication stage, all the entries were checked for redundancy and for alternate forms of wording by authors. The authors’ collective adjustments with a ‘cleaned list’ and revised file for the analysis were sent back to the research assistants for clarification.

**Results**

To our best knowledge, few studies aim to develop a culturally based play inventory and investigate play patterns in the context of Hong Kong. This study attempts to develop the unique inventory for understanding Hong Kong parents’ involvement in children play. Using an open-ended question method can provide a contemporary picture of how parents denote play and different play types. In developing the play inventory, we collect the views of parents and children about their weekday and weekend play activities. After coding and analysis, responses based on the themes/categorisations to emerge from the interviews are described, and illustrative quotes are drawn as examples from the interview data. For example, a participant described activities related to playing sports or ball games, chasing one another, we then grouped these responses together and categorise them as ‘locomotor play’.

Results reveal that four types of play activities: Symbolic and sociodramatic, rule-based game, locomotor play and place-specific activity. First, symbolic and sociodramatic play refers to playful interactions between objects, children, peers and other adults. It would be occurred frequently when children use play materials or construction equipment to build something, such as making a block structure or creating something out of clay. In this play type, the use of objects (e.g. cars, action figures, and dolls) to let children perform ‘make-believe play and role-taking’
scenarios such as having a tea party or pretending to be someone like a mommy, daddy, or superhero. Second, rule-based game refers to broad and card games where take place with rules and strategic thinking such as matching card and scrabbles. Locomotor play involves larger body movements which are generally referred to the activity support physical development. It includes those physically active exercises and training of muscles, such as running, playing sports, and ball games. Rough-and-tumble play also is regarded as locomotor play which refers to some games like hide and seek, and wrestling or tickling for no particular reason. Fourth, place-specific activity refers to an unstructured play that is place-specific and more physically active than playing indoors. This play environment provides children’s opportunities to interact in a naturalised outdoor setting.

In addition to the inventory, this study includes both the perspectives of parents and children, which provide an interesting pattern of play activities indicating the differential views between parents and children on play practices and preferences. The descriptive results presented in Tables 2 and 3 show the perceived frequency for parents and children in each play type. Comparing the perceptions of play practices, the results in Table 2 show that parents and children have reported consistent views on play practices for both weekdays and weekends. For the parent data, the highest frequency type for symbolic and sociodramatic play (57.3%) is reported for weekdays and place-specific activity (70.7%) for weekends. From the children data, the highest frequency type in symbolic and sociodramatic play (58.3%) is reported for weekdays and place-specific activity (66%) for weekends.

In Table 3, the inconsistent views are found between parents and children when reporting the most liked and most wanted play activities. Results show that most parents perceive children’s most liked play activity with them is symbolic and sociodramatic play (46.6%), followed by locomotor play (22.7%). Parents have reported a certain proportion on the perception of rule-based game (21.5%) as children’s most liked play activity with them. From the children data, results show that children perceive symbolic and sociodramatic play (54.9%) as the most liked play activity followed by locomotor play (26.8%). As to the most wanted play activity, parents prefer place-specific activity (40.5%) when they have time to play with children followed by locomotor play (27.6%). From the children data, children express that symbolic and sociodramatic play (35.7%) and locomotor play (35.7%) are the most wanted play, followed by place-specific activity (16.1%).

Table 1. The inventory of play category.

<table>
<thead>
<tr>
<th>Play type</th>
<th>Description with examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbolic &amp; sociodramatic play</td>
<td>Construction play: Playing Legos, building blocks, making things out of clay</td>
</tr>
<tr>
<td></td>
<td>Object play: Playing toys e.g. cars, train, action figures, guns, dolls</td>
</tr>
<tr>
<td></td>
<td>Pretend play: Pretending with baby dolls, dressing up, make-believe with toys</td>
</tr>
<tr>
<td>Rule-based game</td>
<td>Board and card games with rules like matching cards, scrabbles, UNO, connect four</td>
</tr>
<tr>
<td>Locomotor play</td>
<td>Physical play: Running around, playing sports or ball games e.g. throwing, catching, kicking balls</td>
</tr>
<tr>
<td></td>
<td>Rough-and-tumble play: Games like hide and seek, chasing one another, wrestling or tickling for no particular reason</td>
</tr>
<tr>
<td>Place-specific activity</td>
<td>Going to parks, hiking, biking, travelling to outlying islands</td>
</tr>
</tbody>
</table>
Discussion

Developing culturally based play inventory

This study develops the inventory of play categories which is served as an operational definition of play activities. The significance of this study lends further evidence to support play defined as a multidimensional concept. Concerning the use of existing questionnaires and checklists that are limited to the prescribed play types, this exploratory study aims at asking open-ended questions to identify play categories from the perspectives of parents and children. Such play categories can offer a more user-oriented classification compared to an expert-driven one (Fisher et al. 2008). This inventory becomes the basis for classifying which activities are considered play in the context of Hong Kong. Early childhood educators and researchers are encouraged using this inventory when they observe children at play.

The inventory encompasses some popular childhood activities which are aligned with current observations. It appears that both parents and children have similarly agreed upon the criteria pertaining to each play type, suggesting play may have universal characteristics that are salient in observation of early life. Referring to the four play types identified, it seems that both parents and children have perceived a linkage between play and ‘play materials’. They recalled their play activities with a variety of play materials, such as blocks, cars, dolls, balls, guns, board games. These materials were mentioned for most play types, except for rough-and-tumble play and place-specific activity. This situation is similar to some studies conducted in Western contexts where ready-made materials for children’ play are plentiful in commercial societies and also contribute to their play habits and behaviour (Oncu and Unluer 2010; Langer 2005).

It is interesting to note that parents’ descriptions of other educational and leisure activities as play may reflect that the definition and classification of play are rather blurred among Hong Kong parents. Such findings reflect parental beliefs that encourage early education and academic learning.
These beliefs are formed by Chinese traditional culture which emphasises academic learning and knowledge acquisition in early years. Rao and Li (2009) use the term of ‘Eduplay’ which is a combination of play and early academic acquisition, indicating Chinese parents engage in children’s play for educational purposes. Likewise, educational and leisure activities are also highlighted in this study when parents describe their involvement in play activities, revealing the constellation of related beliefs and practices that need to be investigated in future studies.

This study develops the inventory of play categories which are culturally defined by Hong Kong parents and kindergarten children. The application of the open-ended questions and inventory are highly recommended to other studies for cross-comparison. The sample in this study are parents and children from kindergartens of low and medium socioeconomic status background. The extent to which parents facilitated play activities appears to be constrained by family factors, such as parents’ educational and occupational backgrounds, family structure, and family size. Families having immigrant backgrounds and those who are recent arrivals from other countries may affect the play practices at home. In future studies, it is recommended that families with diverse backgrounds can be included, in order to explore the perceptions of play practices and preferences among parents with different cultural backgrounds.

Revisiting play practices and preferences

In reviewing the existing literature, there is scarce research to understand both parents’ and children’s perceptions of their liked and wanted play activities. The differentiated play practices and preferences perceived from parents and children have been identified from this study. Referring to the socio-cultural perspective, parents structure environments to facilitate children’s play opportunities. By analysing interview data, findings can inform the patterns instantiating play practices, which are related to the organisation of play activities at home and outside the home. Additionally, findings of this study build on existing research documenting play activity practices and preferences across the perceptions of parents and children. These patterns are drawn from the parent–child dyads which are worthy of attention. Two key findings are emerged from this exploratory study.

First, consistent views on play practices are found between parents and children as symbolic and sociodramatic play are the cited weekdays’ activities. This finding shows that such play types may constitute an important play routine for children on weekdays, and their popularity probably results from limited time for Hong Kong parents to facilitate children’s play during working days (Tang 2008). The findings also indicate that place-specific activity is the most frequently engaged during weekends according to both the parent data and children data. This suggests that parents are willing to arrange play activities outside of the home for children only on the weekends, likely because these activities have a relatively higher demand on their time and efforts. On the one hand, the parents’ stated desires for weekend activities also aligns with the Hong Kong kindergarten curriculum guide’s promotion of outdoor play for children (CDC 2017). On the other hand, it might be a matter of fact that the cramped living environment in Hong Kong where public open spaces outside home may provide interesting play arenas for children.

Second, inconsistent view is found between parents and children when they describe the most liked play. Of the four play types, parents display a strong preference on rule-based game with children; however children’s perception in this study is much less favourably than parents. Rule-based game is the most liked by parents probably because such play type can provide children with intellectual challenges during the games (e.g. matching pictures, using dice, reading instructions) (Rogerson and Gibbs 2018). Parents’ preference, thus, may contribute to their emphasis on the education-oriented beliefs. Another inconsistent view is found between the parents’ perceptions of their desired play activities together with their children, that is, place-specific activity, and such play type is what the parents usually do with their children on the weekends in reality. However, from the children data, findings show that children the most want to do locomotor play with parents, while this is rather a less preferred play from parents’ perspective. As locomotor play involves a
lot of strength and challenge, including running, bouncing, grabbing, spinning, climbing, and other boisterous physical movements (StGeorge, Goodwin, and Fletcher 2018). While parents have a lower preference for this type of play, they may relate to the safety concerns for children as argued by some scholars like Holt et al. (2015).

Last but not least, the analyses of this study have presented the value of a reinvigorating attention to parent–child play. Findings of this study fill the research gap by including children's perspectives. It yields culturally reliable data which includes children's perspectives in understanding their play preferences and the patterns of parental involvement in play. In this exploratory study, a larger gap in their views has illustrated the importance to include children's perspectives in order to facilitate play that matches with their interests and developmental needs. Understanding different stakeholders’ play preferences can better fit the needs of children Future studies could look into comparing mothers’ and fathers’ preferences on parent–child play. Moreover, this study can inform parents about how to support children’s learning experience by providing related play activities. Informing parents and teachers can help them to reflect on their own practices and better create an environment in which children receive support for engagement with a variety of play activities (Fung and Cheng 2012; Mannello, Casey, and Atkinson 2020). More theoretical groundworks devising and refining the inventory of play types are sought for examining the agreement of views between parents and children. Future observational studies may provide additional evidence to support the self-report data from parents and children.

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**References**


Appendix. Interview questions for parents and children

Parent interview:

- What kinds of activity you usually play with your child on weekdays? Please say 3–4 kinds of play activity.
- What kinds of activity you usually play with your child on weekends? Please say 3–4 kinds of play activity.
- What kinds of activity do your child prefer when playing with you?
- If time allows, what kinds of activity do you want to play with your child?

Children interview:

- What kinds of activity you usually play with your parents on weekdays? Please say 3–4 kinds of play activity.
- What kinds of activity you usually play with your parents on weekends? Please say 3–4 kinds of play activity.
- What kinds of activity you are most liked to play with parents?
- What kinds of activity are the most wanted play to you?