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Comparing and contrasting Primary school playgrounds in Turkey and Australia

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This study aimed to investigate several aspects of school playgrounds in the city of Denizli, Turkey, and in the state of Victoria, Australia, in order to identify and compare factors impacting on the provision of high quality outdoor facilities. Results from a recent study in Victorian primary school playgrounds are compared with data collected from a large number of schools in Denizli and analysed in light of international research findings. The most significant differences between playgrounds in both contexts are related to the age of schools, involvement of local communities in their school playgrounds, enforcement of playground rules and the natural features in the playgrounds. A number of shared challenges have emerged from this study, such as finding ways to involve children in decision making in playground design, improving processes for playground rule-making, increasing natural features and loose parts in playgrounds, and enhancing teacher understandings of the learning that occurs when children play freely outdoors during recess breaks.

Keywords: school playgrounds, playspace design, outdoor play, playground rules

INTRODUCTION

This study aims to shine a light on school playgrounds thousands of kilometres apart, and in cultures with different histories and education systems. It seeks to identify common challenges faced by schools in both settings that may be of global interest. Findings are analysed through an "education" lens; both researchers have worked in early childhood and primary school sectors and value the playground as a learning environment. By increasing insights into the challenges faced in both contexts, it is more likely that playgrounds can be improved to meet the needs of today's children, teachers and communities wherever they live.

This study also aims to provide a "big picture" upon which future case studies in both Turkey and Australia can be built as well as provide useful insights for researchers in other parts of the world. At present, there are no large-scale collaborative international studies investigating school playground design, playground rules and provision of natural features for children's play available for researchers who wish to contextualise case studies. This investigation, therefore, begins to fill that void.

A large study undertaken in Victoria, Australia (Chancellor, 2013) provided the impetus for this collaboration. The aim of the Chancellor (2013) study was to collect data from a large number of schools to enable findings of a more general nature than has been possible in past studies of individual or small groups of schools. For the study reported in this paper, the aim was to similarly collect data from a large sample in Turkey. In Australia, it was relatively easy to engage a large sample since all schools have Internet access and school staff are familiar with online questionnaires. In Turkey, however, Internet facilities are not available in all schools. It was, therefore, necessary to physically distribute surveys to school principals and this was achieved at two large formal gatherings of school principals in the city of Denizli. The researchers also provided verbal explanations to the school principals at the time of questionnaire distribution and answered questions about the research.

After administration of the questionnaire to the principals in Denizli, the Turkish and Australian data sets were compared and contrasted to build a picture of the physical features of playgrounds in both countries as well as the processes for playground rule-making and management of playground supervision .

In Turkey, data was collected using the survey instrument from the Australian study, translated and distributed to 75 school principals in Denizli. The data revealed many differences in the two settings; however, surprising similarities also showed themselves, hinting at common challenges. Discussion in this paper centres on playground design and management, focussing on building a broad picture. Future case studies will be designed to provide greater details of the issues faced by individual schools.

This study is underpinned by a strong belief in the importance of recess breaks in the school day and that the playground is an important learning space in schools. Pellegrini (2008) explains: “breaks during the school day, like breaks from work on the factory assemble lines, have existed for nearly as long as each of those institutions has existed” (p. 85).

In both Australia and Turkey there are many barriers that stop children engaging in outdoor play today. From the over-organised, overprotected lives of some children, to the large numbers of children living in urban environments with limited access to play in the outdoors, opportunities for free play diminish, if not vanish, altogether. For many children, the only chance they get to play together outside is at recess breaks in school. Therefore, schools today have an increasingly important role to facilitate this opportunity.

THE EDUCATION SYSTEM IN TURKEY

The contemporary Turkish education system was established in 1924 when Atatürk closed the religious schools, set up new secular schools, and made primary school attendance compulsory (World Education Encyclopaedia, 2002), necessitating the training of primary education teachers. In 1997, eight-year compulsory primary education was introduced and a national primary education curriculum accepted (Erdem, 2005) with an increase in content about the environment (Tanrıverdi, 2009). Teachers are now expected to utilize both indoors and outdoors in their teaching. Investigating how this is achieved in other countries such as Australia is important for fostering the educational policies essential for advancing socio-cultural and economic

priorities in Turkey today. While each primary school is responsible for their playgrounds in terms of design and management, there is no adequate data that shows how schools manage their playgrounds.

THE EDUCATION SYSTEM IN AUSTRALIA

In Australia, federal, state and territory governments have acknowledged that children in the early years of life mostly learn what they need to know through play experiences. A national Early Years Learning Framework was introduced in 2009 and has a play-based focus and each state and territory has built upon this to develop individual curriculum frameworks (retrieved from http://www.deewr.gov.au/early-years-learning-framework). The introduction of the Victorian Early Years Learning and Development Framework (VEYLDF) in 2011, applicable to students up to eight years of age, means that Victorian primary schools are now required to address play-based learning in their curriculum design. Currently individual schools are responsible for design and management of their playgrounds. As in Turkey, research in playground design and management is scarce, particularly from an educational standpoint. International research collaborations are an important way of addressing this shortfall of knowledge.

OPPORTUNITIES FOR CHILDREN'S OUTDOOR PLAY IN BOTH COUNTRIES

Today, children in Turkey are faced with fewer opportunities to play outside because there are insufficient natural and safe places to play independently. Researchers in Australia are also finding that play today is being threatened (Wood, 2012). While research conducted in several Turkish provinces (Aksoy, 2001; Yilmaz and Bulut, 2003; Önder, 2011) has shown a lack of quality playgrounds for children in urban planning, this is not the case in Australia where playgrounds are provided by councils and play equipment is required to meet Australian safety standards. Every neighbourhood in Australia has at least one playground and parents can be confident equipment is safe. Cevher-Kalburan and Yurt (2011) found that, in Turkey, teachers say parents are anxious about and overprotective of their children in relation to playing outdoors. In Australia the over-organised and over-protected lives of children and the large numbers living in urban environments with limited access to safe outdoor areas mean that, despite the availability of suitable playgrounds, opportunities for free outdoor play diminish or vanish altogether for many children (Chancellor, 2013). Many barriers to children engaging in play are well documented in the media in Australia and in other parts of the world. For many children in Turkey and Australia, the only chance to play together outside is likely to be at recess breaks in school. Consequently, schools today have an increasingly important role in facilitating high quality play opportunities.

AIMS OF THIS STUDY

The aim of this study is to begin a research conversation about a range of aspects concerning primary school playgrounds in two very different contexts, Turkey and Australia. By learning more about the differences and shared challenges with regard to design and management of school playgrounds, new directions and solutions may emerge. This will not only be of use to schools in the two countries it will also

contribute to international research on school playground design and management; there is a current paucity of such research, with large scale studies particularly rare. Current Australian research on school playgrounds is limited to case studies that study small numbers of schools (Chancellor, 2013) and are, therefore, not generalizable. The same is true in Turkey where there is no adequate data to show how schools manage their playgrounds. This study also aims to identify areas of importance for schools which are planning design and management improvements to their playgrounds. Future case studies of individual schools could target, in more detail, specific issues that would help schools with specific needs.

It is widely agreed that both physical features and social atmosphere of educational settings are related to educational outcomes. Outdoor learning environments are where children connect to the real world through exploring their surroundings, communicating with others, learning and trying new things. By accurately identifying factors that are impacting on schools with poorly designed and managed playgrounds, these key experiences can be improved.

KEY RESEARCH QUESTIONS

1. What do school playgrounds in Victoria, Australia and Denizli, Turkey have in common in relation to design and management?
2. What are the significant differences in design and management of school playgrounds in both contexts?
3. What major challenges are identified by schools in both contexts for playground design and management?

METHOD

A survey instrument designed for a research project in Australia, State of Play: Victorian Primary School Playgrounds (Chancellor, 2013) underpins this study. Having gained approval to conduct a survey from RMIT University Higher Degrees and Research Ethics Committee and the Department of Education and Early Childhood Development, an email was sent to every government primary school in the state of Victoria (1595 email addresses) with a link to the survey instrument. Participation was anonymous and voluntary. School principals or nominees were asked to complete the survey and 350 schools participated. The survey instrument was adapted for use in the Turkish context, including: context and description of schools, enrolment numbers, physical features (built and natural) in playgrounds, design, improvements, playground rules and supervision.

A language expert translated the survey questions into Turkish. After translation, three experts in early childhood education who have good command of Turkish and English were asked to examine the translations in terms of clarity and understandability and suggest necessary revisions. All word changes were checked by the researchers to ensure that meaning remained as originally intended. Permission was gained from the Provincial Directorate for National Education (Turkey) to administer the survey in schools in Denizli. The survey was explained and administered by the researcher to directors of the schools in two separate formal meetings in the second semester of the 2010-2011 academic years.

THE SAMPLE

Turkey: Data was collected in Denizli, which is located in the southwestern part of Turkey. Denizli has population of 540,989 and has 83 primary schools located in central Denizli. The study sample consisted of 75 primary schools (90% of the population). All schools were public schools and administered by the National Ministry of Education. Each school has a playground.

Australia: The survey was emailed to all primary schools in the state of Victoria, Australia, 1595 email addresses were sent with a link to the survey instrument which allowed for anonymity. The Australian Bureau of Statistics indicates that many primary schools are not "stand alone," suggesting that they may use more than one email address. Three-hundred-and-fifty schools voluntarily responded; 100 emails not delivered. Half (50.2%) of schools responding to the survey were located in rural areas and half (49.8%) urban areas.

DATA ANALYSIS

In this collaborative study, descriptive statistics were used to analyse the data from the survey (Büyüköztürk, 2004). Data is displayed in percentages but a social constructivist approach (Crotty, 1998, p52-7) was used by the researchers to construct meaning from the data. Data interpretation was done in light of local and international research. International research collaborations such as this offer the opportunity for increased understandings of unfamiliar contexts and social constructions. As Crotty points out, "humans engage in their world and make sense of it based on their historical and social perspective – we are all born into a world of meaning bestowed upon us by our culture" (cited in Cresswell, 2003, p. 9).

RESULTS

Five major categories emerged in the data analysis: context and description of the schools; physical features of the playgrounds; playground design; rules of the playground; and supervision of the playgrounds.

Context and description of the schools

Table 1 shows the majority of the schools (41.4%) in Turkey are old buildings aged between 10 to 30 years old. In Australia, 59.0 percent of respondent schools are more than 50 years old; though 24 percent of Turkish and 6.2 percent Australian schools have new buildings.

Table 1: Age of schools

School first built	Turkey		Australia	
	n	%	n	%
Less than 10 years ago	23	27.1	20	6.2
Between 10-30 years	35	41.2	40	12.3
Between 31-50 years	15	17.6	73	22.5
More than 50 years ago	12	14.1	191	59.0
Total	**85**	**100**	**324**	**100**

Table 2 shows that respondents in Turkey are mostly from schools of 200 or more students whereas in Australia the split between large schools (52.0%) and smaller schools (48%) is nearly the same.

Table 2: Population of the schools

Number	Turkey		Australia	
	n	%	n	%
Less than 50 students	3	3.5	49	15.4
Between 50-100 students	5	5.9	35	11.0
Between 101-150 students	6	7.1	37	11.6
Between 151-200 students	1	1.2	32	10.0
Above 200 students	70	82.4	166	52.0
Total	85	100	319	100

Physical features of the playgrounds

Table 3 shows that basketball and netball courts are the most common playspaces in both Denizli and Victoria.

Table 3. Playspaces

Equipment	Turkey		Australia	
	n	%	n	%
Basketball court	69	81.2	284	89.9
Netball court	64	75.3	233	73.7
Soccer pitch	40	47.1	120	38.0
Athletics track	8	9.4	38	12.0
Football oval	-	-	254	80.4
Cricket pitch	-	-	178	56.3
Others (Pull up, Handball, Bocce)	3	3.5	-	-

Table 4 compares natural features in the playgrounds of respondent schools, with 93.2 percent in Victoria and 41.2 percent in Denizli having sandpits. More schools in Denizli (29.0%) than in Victoria (17%) allow children to climb trees. More schools in Victoria (94%) have grassed areas than Denizli (42.4%). In both contexts, similar numbers of schools have flower and food gardens. Data indicates that Australian schools have more natural elements in their playgrounds than schools in Turkey.

Table 4: Natural features

Features	Turkey		Australia	
	n	%	n	%
Sandpit	35	41.2	301	93.2
Digging patch	8	9.4	97	30.0

Bushy areas where children can play	20	23.5	183	56.7
Trees for climbing	25	29.4	55	17.0
Grassed areas for play	36	42.4	305	94.4
Flower garden area	46	54.1	239	74.0
Food garden area	34	40.0	231	71.5
Pond/water feature	8	9.4	54	16.7
Recycling facility	25	29.4	169	52.3
Nature trail	21	24.7	32	9.9
Bird box/table	5	5.9	44	13.6
Wildlife habitats	8	9.4	62	19.2
Weather station	-	-	42	13.0
Wildflower area	-	-	36	11.1
Composting area	-	-	189	58.5

Playground design

Table 5 shows that schools use a variety of approaches when planning their playgrounds. In Denizli "collaboration with teacher" is the most common way for planning playground improvements (64.7%). In contrast, most Victorian schools collaborate with community in designing playgrounds (81%). In both contexts there is collaboration with teachers; however, children are more often included in Victoria (77.2%) than in Denizli (16.5%).

Table 5. Playground design

Playground designed by	**Turkey**		**Australia**	
	n	%	n	%
Landscape architect	14	16.5	78	24.7
Collaboration with community	19	22.4	256	81.0
Collaboration with teachers	55	64.7	242	76.6
Collaboration with children	14	16.5	244	77.2
Decisions made by principals	31	36.5	97	30.7
School board	2	2.7		

Table 6 shows that the majority of schools in Denizli (61.2%) use fundraising for to improve playgrounds, but other forms of funding are also used, including parent-school association (n=6), school budget (n=6), donation by non-governmental organizations (n=3) and municipal (n=2). In Victoria, playground improvements are similarly funded.

Table 6. Funding playground improvements

Playground funding source	**Turkey**		**Australia**	
	n	%	n	%
Fundraising	52	61.2	274	87.0
Government grants	11	12.9	217	68.0

Community grants	17	20.0	96	30.0
Parent-School Association	6	8.0		
School budget (student fees and contributions)	6	8.0		
Donation of non-governmental organizations	3	4.0		
Municipal	2	2.7		

Rules of the playground

Table 7 shows that in almost half of the schools in Denizli (48.2%) the principals make the playground rules and "there is a consultative process involving teachers and children," in 28.2 percent of schools and in 27.1 percent of schools, teachers make playground rules. In Victoria, the most common approach to rule making is using a consultative process (82.8%), followed by teachers (35%) and principals (33.4%). In both contexts, the teacher on yard duty occasionally made rules, presumably to suit specific circumstances. Importantly, all schools use a range of rulemaking strategies.

Table 7: Creating playground rules

Playground rule makers	Turkey		Australia	
	n	%	n	%
The principals	41	48.2	105	33.4
The teachers	23	27.1	110	35.0
The teacher on yard duty	4	4.7	22	7.0
There is a consultative process involving teachers and children	24	28.2	260	82.8

Table 8 shows that in Denizli many schools consult with children and teachers before changing playground rules (43.5%) and in Victoria this most schools report that they consult with children (93.7%). In both contexts, requests by children, teachers and parents can result in changes to rules. The biggest difference is the response rate to accidents and injuries, which is higher in Victoria (62.9%) than in Denizli (29.4%).

A range of consequences exists when children break playground rules. As shown in Table 9, 'Children are required to walk around with the teacher on yard duty' is the most common consequence at 31.8 percent of Denizli schools and 85.0 percent of Victorian schools. Children are sent indoors in Denizli (25.9%) and in Victoria (53.4%), or they are required to sit in a designated place for a period of time in Denizli (25.9%) and in Victoria (83.1%). In Denizli there are also statements, such as "warning" (n=4) and "ignoring" (n=10), about consequences when children break playground rules. Overall it appears that in Australia there are more often consequences for breaking playground rules.

Table 8: Situations leading to playground rule changes

Playground rule change	**Turkey**		**Australia**	
	n	%	n	%
After an accident or injury in the playground	25	29.4	200	62.9

When requested by children	32	37.6	108	34.0
When requested by teachers	23	27.1	143	45.0
When requested by parents	17	20.0	106	33.3
After consultation with children and teachers	37	43.5	298	93.7

Table 9: Consequences for breaking playground rules

Consequences for rule breaking	Turkey		Australia	
	n	%	n	%
Children are sent indoors	22	25.9	164	53.4
Children are required to sit in a designated place for a period of time	22	25.9	255	83.1
Children are required to walk around with the teacher on yard duty	27	31.8	261	85.0
Warning	4			
Ignoring	10			

Supervision of the playground

As shown in Table 10, most teachers undertake playground supervision. However, in 38.8 perce3nt of Denizli schools, teachers do not undertake playground supervision before and after school whereas in 97.5% of Victorian schools they do.

Table 10: Playground supervision

Playground supervisors	Turkey		Australia	
	n	%	n	%
All teachers undertake playground supervision	75	88.2	315	98.4
All teachers undertake equal amounts of playground supervision	60	70.6	277	86.0
Teachers are on yard duty before and after school	33	38.8	311	97.5

As part of the survey, short answer responses were collected about the types of learning occurring in the playground.

In 72.3 percent of Victorian schools, teachers discuss the playground as a learning place and in 27.7 percent of schools they do not. When asked how teachers would describe the learning that occurs in the playground, 88.9 percent listed social skills, 80.2 percent said environmental understandings, 89.2 percent fitness, 95.7 percent sport skills and 96.6 percent said physical development. No schools mentioned the word “play” in their responses to this section. In 90.6 percent of the schools in Denizli, teachers discuss the playground as a learning place and in 9.4 percent of schools they do not. When asked how teachers would describe the learning that occurs in the playground, 84.7 percent

said sport skills, 76.5 percent stated environmental understandings, 64.7 percent physical development, 58.8 percent social skills and 42.4 percent said fitness. Similarly, no respondent from the Denizli survey mentioned the word "play" in their responses to this section.

DISCUSSION

While this study does not reveal how the age or size of a school impacts on their playgrounds, data in Table 1 shows that there have been many more new schools built in Denizli (41.2% respondents from schools between 10 and 30 years old) than in Victoria in the last thirty years (59.0% from schools more than 50 years old). In Denizli 27.1 percent are new schools less than 10 years old with a contrasting 6.2 percent new schools in Australia. In addition, Table 2 shows that respondents in Turkey are mostly from schools with 200 or more students whereas in Australia the split between large schools (52.0%) and smaller schools (48%) who responded to the survey is nearly the same.

The importance of recess breaks in the school day

Play researcher Joe Frost (2008) believes "If historical and research evidence for children's play, playgrounds and recess were taken seriously by adults, threats to their existence would soon be over. History and a century of scholarly research say that play is essential for healthy development. We must have playgrounds, free outdoor play and recess because they matter, for children's health, for their development and for their future" (p.139).

Johnson, Christie, and Wardle (2005) argued that outdoor play is essential for encouraging physical activity and social skills among children as much as cognitive skills. According to these researchers outdoor play should not become too academic and too teacher controlled In this regard, recess breaks have an important role in facilitating children playing independently, which is crucial for developing social, physical, cognitive and emotional skills. The importance of play during school recess breaks is visible in the Common Threads project, Playtime! 2 (2011), which focuses on putting play back into the school playground and has provided evidence that adults who understand children's play will make a huge difference to the learning occurring in school playgrounds (Common Threads, 2014). This program demonstrates that creatively solving problems, practicing negotiation skills, challenging themselves, collaborating on projects, learning to assess risk, and persisting to achieve goals are skills that children can learn and practise during play experiences in the playground.

As Pellegrini and Smith (1993) note, recess is the time when children have freedom to choose what they do and with whom they can play. Peter Smith (2010) comments that the more adult structuring of play there is, the more we get away from true play, and the more scope there is for manipulating activities in the interests of adults. "We should bear in mind that children enjoy and probably get benefits from the kinds of play that adults do not prefer" (Smith, 2010, p. 197). Smith points out, "there remain today a range of views on play: from the belief that it is vital for development, through to its being a useful discharge of excess energy" (p. 22).

While it is important to have recess breaks during the school day, the length of these breaks impacts upon the play children engage in. If children are interested in playing games or engaging in imaginative play scenarios, it takes time to develop and engage in such play. Those children wishing to burn off excess energy with a quick burst of high-level activity can do so in a short space of time. In a study by Özdemir and Çorakçı (2011), pupils preferred to stay inside when the recess break was short. In some schools, duration of recess may emerge as a significant factor for motivating children to go outside and be physically active.

Respondents demonstrate that recess is a valued part of the school day in Turkey and Australia. Schools in Victoria indicated that they have a morning recess break, a lunchtime break and, for many, an afternoon recess break also, with all recess breaks determined at the local school level. In Turkey there is a recess break of 10 minutes between every 40-minute class and a 40-60 minute lunch break, regulated by the government. In both countries, children can go outdoors to play during recess breaks.

Whilst it is widely thought that an afternoon recess break has gone from Australian schools, 55.4 percent of survey respondents indicate their school still has one. In nearly every school the playground is used before and after school. Recess breaks in primary schools in Turkey are determined by national education regulations, whereas in Australia, individual schools are responsible for planning breaks during the day.

The playground as a learning space

The scholarly body of play research illustrates not only the various ways children learn as they play, but also the diverse ways children play. In school playgrounds, children engage in many types of play which can be loosely categorized as formal and informal games with rules, imaginative play, scientific/sensory, rough and tumble, and chants and rhymes. While these categories have been determined for the purpose of making efficient playground observations during research, children's play is ever changing and almost never fits neatly within one category. The other important point worth noting is that children's play choices change; some play lasts moments, other play can go on for hours, days or weeks (Chancellor, 2007). Some types of play are easily identified and others are not, but all are equally important in the lives of the children who play.

In primary schools, the outdoor environment provides children with risky play opportunities that are important for making choices, learning about their capabilities and limits, developing risk management skills and avoiding injuries (Little & Wyver, 2008; Little & Eager, 2010). Developing these capabilities during childhood is directly linked to resilience building (Gleave, 2008; Gill, 2010).

Peter Smith (2010) reminds us of the importance of physical play, in particular rough and tumble play, explaining its importance to social development. He (Smith, 2010, p. 99) notes that physical activity play has been relatively neglected in the research literature and by educators, but that we know children spend a lot of time running around, jumping, climbing, skipping, and play fighting – often just for fun .

According to Speedlin (2010), teachers usually send their students outside when they are unruly in class. However, outdoor play is important not only for burning off energy but also for learning and development. As Davies (1996) emphasized, outdoor environments provide larger spaces and freedom of action for children. Thus children

have opportunities for interacting with various objects and equipment, exploring new things, learning about themselves and the environment.

In previous research, teachers listed the benefits of recess in two ways, either harking back to Spencer's surplus energy theory (Spencer, 1896 [1855], in Chancellor, 2007)) or valuing it for social development in line with Slukin's descriptions (Slukin, 1981, in Chancellor, 2007).

Results from both Denizli and Victoria show that teachers describe the playground as a learning place with physical and social skills very highly rated. Teachers also describe the playground as a place for formal lessons, but they do not make direct links between play and children's learning and wellbeing.

Table 3 shows that basketball and netball courts are common in Denizli and Victoria. These areas are where children play formal games with rules and practice skills associated with those games. They are also places where younger children often play nearby in games they invent to imitate the formal games played on court. This play "around the edges" is important because during these informal games, children negotiate, problem solve and find creative solutions to the challenges they face (Chancellor, 2007).

Children engaged in physical play activities are easily observed. However, much of the play occurring in school playgrounds is less visible but no less important. Common Threads project Playtime! 2 (2014), has shown that adults who understand children's play make a huge difference to the learning occurring in school playgrounds. As noted from short-answers discussed above, teachers in this survey seem to have a limited understanding of the diverse learning that occurs during children's play although they consider playgrounds as learning places.

Connecting with the natural world

To develop their imagination and creativity, children need to interact with a range of activities, in well-designed spaces (Sanoff, 1995). Fjortoft and Sageie (2000) point out that the natural landscape has qualities that meet children's needs for diverse and stimulating play environments. Furthermore, risk-taking in natural environments has been linked to the development of children's learning paths and dispositions (Waller, 2005). For this reason, outdoor playgrounds should have natural elements such as grass, trees, gardening areas, digging areas and water resources (Sciarra, Dorsey and Lynch, 2009). Nicholson (1971) states that in any environment both the degree of inventiveness and creativity, and the possibility of discovery, are directly related and proportional to the availability of loose objects, for example, stones, sticks, leaves or pipes, which children can manipulate in their play. Sharon Danks (2010) notes that children's play opportunities are enhanced in school playgrounds where existing single purpose designs are replaced with aesthetically beautiful, ecological school grounds. Furthermore, research showed that naturally enhanced playgrounds: develop a sense of responsibility and engagement in play and various activities (Arbogast, Kane, Kirwan & Hertel, 2009); foster peer relationships (Moore & Wong, 1997); increase and vary physical activity (Bell & Dyment, 2008); and enhance spatial-cognitive awareness and physical competence (Herrington & Studmann, 1998).

The respondents in Denizli and Victoria describe many natural features in their playgrounds, such as sandpits and digging patches. Not all schools ban tree climbing and playing in bushy areas where supervision is more difficult with 17.0 percent of Victorian schools and 29.4 percent in Denizli saying they have trees for climbing. In Victoria, 56.7 percent of school have bushy areas, and 23.5 percent of Denizli schools have bushy areas, where children can play. In Victoria, flower and food gardens exist in many schools and a small numbers of schools have water features and nature trails.

Interestingly, respondents describe environmental understandings as an important aspect of recess time and many Australian schools have created playgrounds with natural features to facilitate this. Importantly, in Turkey, 76.5 percent, and in Australia 80.2 percent of participants, stated that they believe that in the playground children develop environmental understandings. These figures are reassuring because they indicate schools will be motivated to develop playgrounds to enhance the quality of that learning by increasing natural features.

In Turkey, a wide range of schools in several cities has been examined in terms of landscape planning and design. Some of the research has shown that primary schools playgrounds do not contain adequate natural elements (Kelkit and Özel, 2003; Aksu, Demirel and Bektaş, 2011; Muhacir and Özalp, 2011; Şişman and Gültürk; 2011).

Who designs the playgrounds?

Designing educational environments is influenced by several factors, such as the educational approach of a school, economic and socio-cultural factors.

The results in Table 5 show that schools use a variety of approaches when planning their playgrounds. In Denizli “collaboration with teacher” is the most common approach (64.7%). Two of the schools plan playground improvements with the school board. In contrast, most Victorian schools collaborate with the community in designing playgrounds (81%). Collaborative processes involving children are more common in Victoria (77.2%) than in Denizli (16.5%).

As Özdemir and Çorakçı (2011) stated, design components of school grounds predict children’s patterns of behaviour, learning, playing and communication with others. Therefore, school playgrounds should be designed carefully. Ideally collaborative processes involving professionals, such as educators, designers, school principals, architects and contractors, as well as parents and children, is recommended.. The importance of children’s participation was emphasized by White and Stoecklin (1998) so that outdoor playgrounds would be rich and age-appropriate learning environments where children want to stay. In parallel, Waller (2006; cited in Little & Eager, 2010, p. 502) noted “children can provide valuable perspectives about their environment to help implement changes to practice and design.” However Özdemir and Çorakçı (2011) found that adults plan school environments in Turkey so that children’s opinions and choices are often ignored. There was a similar finding in Victoria where no respondents described children as being genuinely involved in the design process.

In Scandinavian countries, such as Norway, Denmark and Sweden, there is an emphasis on risky and adventure play in the outdoors (New, Mardell & Robinson, 2005; Little, Sandseter & Wyver, 2012). Research showed that children prefer challenging play that allows taking risks, testing limits and feeling excitement and joy (Stephenson, 2003;

Sandseter, 2010; Little & Eager, 2010). Therefore, as White and Stoecklin (1998) stated, design processes that include participation of children, teachers, parents and maintenance staff are essential to the success of any discovery play garden. A previous study (Chancellor 2012) has shown that this is because school playgrounds are often viewed as community resources and are used on weekends and out of school hours by local communities for activities such as sport and social functions.

In the study of Chakravarthi (2009), teachers stated that the main barrier to designing an ideal outdoor playground was lack of money. Interestingly, in Australia teachers are increasingly encouraged to use natural materials and recycled items as provocations for play. This is due to the influence of the Reggio Emelia approach and other influences such as the Common Threads Playwork (2012) model for schools. This is not only considered best practice but also proves to be much less expensive than prefabricated play equipment and commercially produced toys. It is possible that many teachers are unaware of the benefits of this inexpensive approach in schools.

Rules of the playground

How school playgrounds are utilised and managed is important in terms of reaching the schools' learning goals (Maynard & Waters, 2007). In addition, features of school ground and perceptions of practitioners and children have impact on quality of school life and education (Malone & Tranter, 2003).

Any attempts by adults to manage and control children's play will always be problematic (Wood, 2012). In Chakravarthi's (2009) study, teachers reported that they could not use the same discipline strategies during outdoor play as they used indoors. The design and management of the playgrounds generally determine what children do outside, despite the fact that children can and do respond to restrictive rules by trying forbidden behaviours (Evans, 1995). A strong focus on preventing injury is not always balanced against the benefits provided by child-directed play. In Australia, schools sometimes remain influenced by out-dated government directives such as, Playground Supervision of Students in the 1997 Schools Bulletin No. 668 that warns teachers to be aware of unsafe activities in the playground, including games with sticks.

Interestingly in almost half of the schools in Denizli (48.2%) the principals make the playground rules, in 28.2 percent a consultative process involving teachers and children and in 27.1 percent teachers make playground rules. In Victoria the most common approach to rule making is using a consultative process (82.8%) with teachers (35%) and principals (33.4%). In both contexts, the teacher on yard duty occasionally makes rules as they feel necessary, and previous research supports that this approach is common (Chancellor, 2007).

Another important factor to emerge in this survey is the direct link between teacher attitudes to play and the quality of the playground experiences of children. Evans first discussed this in relation to Australian schools, finding that yard duty was something many teachers could do without (Evans, 2003) with supporting evidence found in case study schools (Chancellor, 2007). However in both of these studies, data was collected from a small number of Australian schools. Opening up this survey to all government primary schools in Victoria, Australia, and to all schools in Denizli, Turkey, has shown that in many schools, yard duty is something teachers enjoy. Many playgrounds are inviting, not only to children, but to teachers also. A playground environment that is

aesthetically appealing and pleasant for teachers and children will be less problematic. In 70.6 percent of respondent schools in Denizli, all teachers undertake an equal amount of yard duty, whereas in Victoria, 88.2 percent of teachers of respondent schools undertake yard duty.

CONCLUSION

This study is the beginning of a research-based conversation investigating primary school playgrounds in two very different contexts, Turkey and Australia, to learn more about the differences and shared challenges in school playground provision. Important factors for schools to consider regarding the design and management of their playgrounds have been identified. Future case studies of individual schools will target specific challenges for schools, providing more detailed information about ways individual schools meet these challenges. While it is widely agreed that school playgrounds are essential parts of educational settings, many schools are unsure about what makes a high quality playground. For children, teachers and the wider community, school playgrounds can be a valuable asset that enhances many aspects of education and wellbeing to all who use them.

A difference between schools surveyed in Turkey and Australia is that in Australia, local communities are more active in designing, building and maintaining school playgrounds than in Turkey. This may be because in Australia local communities use school playgrounds after school hours and also on weekends and, therefore, have a vested interest. These strong links with the local community enhance opportunities for playground improvements through local fundraising activities.

IMPLICATIONS FOR FURTHER RESEARCH

Future research can monitor how individual schools and their communities undertake challenges identified in this study, playground rule making, playground design processes and teacher understandings of the learning occurring in the playground. Research could also address specific limitations due to geographical and cultural variables, in a wide range of contexts to further understandings of school playgrounds and their significance in the lives of children, teachers, schools and communities.

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