

## ***Stemming the decline in playground activity***

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Prue Walsh is an early childhood professional whose work specialises in advising on early childhood facilities. This work covers site assessment and design of buildings and playgrounds in early childhood centres. Prue's initial training and subsequent work as an early childhood educator means that in approaching her work, children's needs and development are seen as paramount. Apart from advising on individual child care services, Prue has also been involved in the development of public policy documents, most significantly the Best Practice Guidelines in Early Childhood Physical Environments.

### ***1. Introduction***

Australia has one of the world's most user-friendly outdoor play environments: climatically, culturally and in terms of resources richness. Yet, as a community, we see less and less outdoor play. Even in our own field of early childhood teaching, there is a worrying lack of focus.

It is well recognised that outdoor play provides opportunities and experiences not available indoors. As early childhood professionals, we need to ask where children will have the opportunities to experience seasonal changes; to notice the weather; to observe the wildlife; have the space to run and move with speed; find nooks and crannies to share with friends; have the materials to manipulate and alter to fit in with their play schemes; and find the spaces that will excite and motivate them on to new levels of learning-through-play.

One would expect that early childhood playgrounds would be able to provide such opportunities but, unfortunately, many playgrounds are not designed to deliver this. Not through lack of good will, more a case of insufficient depth of understanding of the planning and design which underpins playgrounds that support children's play and development. This depth of understanding exists at many levels, in training with other disciplines, in Government documentation and amongst many childhood educators.

This paper looks at the principles underpinning the design of playgrounds based on research and known effective practice. These principles that acknowledge child development interaction

underpin effective playground design and can be applied in a site specific context.

### ***2. The role of physical environment in teaching***

Over the past 20 years there has been a rapid period of expansion in the number of early childhood centres. The quality of the outdoor areas as playscapes can have a positive or negative impact on the users.

A lot is asked of an outdoor teaching program, not just the traditional competency development. Teachers are also required to provide environmental education, to counter obesity concerns by increasing the children's physical activity, to ensure playground safety and understand changes in legislative requirements. There is a barrage of information (some factual, others limited, others constraining) often based on a limited perception of the implications of the overall physical environment. Often implementation of these requirements has not been carefully thought through in terms of the physical environment and can impact negatively on the layout and level of play provision within a playground. At best the intent of some of these program aspects are sound but may do not effectively address the implications to available space.

Using the wrong information can lead to adverse impacts on children's play. Factual information on settings is not easy to find (or evaluate). For example, as teachers, where do you go for definitive information on safety, on development of children's risk assessment skills, of whether seven square metres is adequate outdoor space, of what is "usable" space — and so it goes on.

In terms of child behaviour, there is an obvious link between the physical environment (the settings) and outdoor play opportunities. This has been well recognised in the research findings (for example) of Kritchevsky & Prescott, Weinstein & David and in the work at Reggio Emilia. Unfortunately, the emphasis on individual aspects, without keeping an overview of the entire playground, is leading to a real decline of understanding in outdoor teaching practice, particularly with new graduates — leading to a critical need for more mentoring by experienced early childhood professionals on how to create more an effective outdoor program.

In the literature (and in government policy), the word “environment” tends to be loosely defined and the clear distinction that needs to be drawn between physical and social environment is not fully perceived. Looking hard at the physical environment is central to the Reggio Emilia (1998) publication *Children, spaces, relations: Metaproject for an environment of young children*, where it emphasised that understanding of the play outcomes is dependant on an in-depth understanding of the space/behaviour interactions:

*We should make the maximum effort to be more aware of the space and the objects we place there knowing that the spaces in which children construct their identities and personal stories are many — both real and virtual.*

Good design [of space and the objects we place there] must be based on the users’ needs. The setting should be supportive of the users’ needs; in this context Vygotsky (1981), talks of scaffolding to encourage reaching the next developmental stage. This is also what a supportive outdoor teaching program does. Or, in other words, there is an interaction between a supportive setting and a supportive teaching program. There is the potential for teachers to shift and rearrange play items using loose parts and different settings, but this also reflects the initial planning and design. Unless we can define the type of usable spaces that we need, we cannot transfer our intent effectively to other disciplines, such as architects, town planners, legislative review committees etc.

### **3. Physical environment of playgrounds in context**

Interaction with teachers and individual centres over the last 20 years shows just how common it is to have a pattern of continual frustration — particularly in terms of the playground provided, the implications to teaching practice, and the constraints it is placing on meeting children’s needs. I suspect many people who work in the field of early childhood will have experienced this.

The positive aspect of my work has been that, after the playground has been redeveloped, to see how the children are using the space. I also hear from the teachers about children’s expanded usage; the joy they have in observing developmental patterns they have not noticed before; the greater emphasis being given to the outdoor program; the motivation of all the staff; and the achievement of skill levels beyond what many of them have perceived as being possible. I wish all teachers could have this experience.

If not, why not?

#### **3.1 How well is your playground working?**

When assessing what needs to be done in the playground, the most pertinent questions teachers should be asking are two-fold: child usage and physical environment (which involves the interaction of course).

Firstly, the issues relating to child usage. Some of the basic questions are:

- Are the children running around aimlessly?
- Are they remaining focussed within an activity or distracted?
- Is there a high level of antisocial, aggressive behaviour?
- Are you finding that there are children who are withdrawn, not participating and who actively seek to go inside?
- Are you finding that it is much harder for your staff to manage the children outside?

If there is a negative response to some or all of these, it is a clear indication that the playground is failing to meet children’s needs from both a design and programming perspective.



After assessment of the child usage, the physical environment needs to be analysed. Some of the most pertinent questions a teacher should ask are:

- What size is the playground?
- What shape is the playground?
- Can you visually and physically readily access and support children within the space? In particular, are there changes in levels which limit supervision and competency support?
- Do you have items that can be adapted and altered by you or the children to fit in with the play scheme?
- Can children experience different forms of space: open, encapsulated, elevated?
- Can children access and independently utilise every item within the playspace?
- Is the space invitational, visually attractive and enticing to the children?
- Do you have a well-designed storage shed that can be safely accessed by staff and older children to seek loose parts, play equipment, junk materials?
- Are there climatic intrusions, like too much sun or cold winds?
- Is safety dominating at the cost of play?
- Do you have a separate (but connected) toddler/baby outdoor playground?

If there are negative factors in the setting, what do you do?

In practice, many teachers who are experiencing frustration with their playgrounds are extremely creative in coping with constraints—particularly from a programming perspective, which at times is a true inspiration.

There is a real downside to frustration: a high-level of burnout of creative, sensitive and capable teachers; or that their energies are being directed towards indoor programming at the cost of outdoor programming; or seeking ad hoc alternations and implementations within the playground area. All of these reactions are costly to the individuals involved, the centres they run and in the long-term to the wider community.

#### 4. Finding solutions

The solutions required need to be achieved on two levels:

- The first is ensuring the potential of the existing playground has been met from a planning perspective.
- The second is ensuring that easy manipulation of the environment can occur by the teachers to assist teaching practice geared towards meeting individual children's needs.

To demonstrate this approach, I am using a recently completed inner city playground on the south side of Brisbane.

#### CASE STUDY #1: KURILPA COMMUNITY CHILDCARE CENTRE

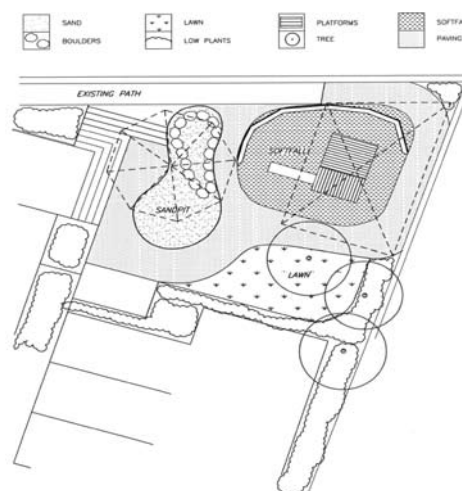
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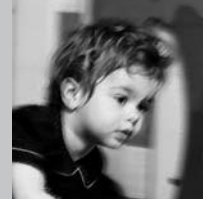
This was an existing centre, catering for 58 children (2½ to 6 years old). The existing playground was to be extended and facilities upgraded (due in part to the Queensland prep year). The area involved was 480sqm (or 8.4sqm/child).

If you were given the challenge to redevelop this playground, you should consider the process outlined here. The original playground is shown in the first of the two diagrams. What sort of outdoor teaching program would this playground support? Does this look like a playground with which you are familiar?

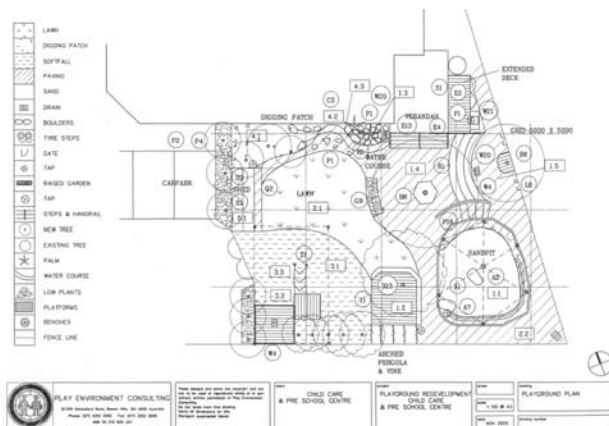
#### CASE STUDY #1: BEFORE AND AFTER SKETCHES

##### BEFORE





## AFTER



### 4.1 What happened here?

In consultation with the staff, the following concerns about the existing situation were expressed.

- The existing playground was only just larger than the regulatory minimum of seven square metres per child. As can be seen from the plan, it had a large shady tree, sandpit, large softfall area with a low deck, but insufficient lawn area. They even had a verandah and storage shed.
- The teachers were concerned about the quality of play, the level of distraction and even the antisocial behaviour. They felt, particularly, that the older children were bored and this was contributing to the negative behaviour.
- The next step was to find out what the teachers did and didn't like about the current physical setting. They really understood their playground.

#### Positive features identified:

1. They found that the change in level of the pathway between the fence and what was the climbing equipment area was actually a wonderful get-away point where children thoroughly enjoyed riding around on wheeled toys.
2. The verandah's large space and its siting between the playroom and playground were seen as beneficial to running an outdoor program.

3. Provision of large shade trees and an excellent stand of paperbark trees adjoining the fence.

#### Negative features identified:

1. Activity-related features: too few pockets of space for groups of children to congregate in recognition of the type of spaces needed for children's social development; insufficient open running space; the sound flexideck climbing structure had insufficient softfall surface around it to be able to interlink with moveable equipment (e.g. trestles and planks); insufficient nooks and crannies for children to get away; little to inspire children's creative, imaginative play.
2. Movement-related: there were tree roots exposed that were acting as a trip hazard; problems of natural progression and flow of play occurring; and intrusive access all around the sandpit.

Clearly, this feedback came from committed teachers who had very skilfully assessed the playground.

### 4.2 Developing solutions

After assessment of user needs, the planning process began. Prior to my visit they had been successful in acquiring an extra 3m strip of land adjoining the carpark area. This had prompted the teachers to seek my help in assisting them to design a playground aimed at maximising play usage within a constrained playground space.

Initial planning decisions agreed upon were:

- shifting the deck to an expanded softfall surface area and linking it with a larger deck
- shifting the sandpit to an uninterrupted space adjoining a compatible play facility, in this case, a large, low bench seat placed around the tree to support a progression and flow of play, integrating it with a ramped, wheeled vehicle track
- creating more open space
- maximising use of the tree by means of a bench seat
- introducing a raised garden bed and increasing the trees/shrubs by 100%

- installing five taps to add a play dimension as well as watering plants and cleaning up after messy play
- creating a small amphitheatre/stage (i.e. maximising use of a change in level)
- creating a narrow watercourse and digging patch
- upgrading the storage shed to allow for easy supervision viewing and access to loose parts

All of these changes were discussed carefully with the staff and agreed upon.

## 5. Feedback after redevelopment

This playground has now been in place for over twelve months. Has it delivered on the potential?

The most heartening feedback was that the facilities incorporated were being well-utilised in a multitude of different ways. Extensive use of the watercourse, particularly during the hot weather was noted; the upgrading of the climbing equipment with the cubby space underneath being a markedly preferred play space; the provision of a larger softfall surface which was producing a far more challenging obstacle course, often constructed with the children; the inclusion of the low deck around the big tree that invited dramatic play and instigated almost daily uses, including group stories/ setting up of different play facilities as intended; the retention of the bicycle path with improved drainage was a very much preferred space; the interplay between the sandpit and the adjoining low tree bench were emphasised; the proximity to the storage shed and ease of access to movable equipment. This was just some of the feedback teachers gave.

### 5.1 Keys relating to improved function

In terms of activities, the key was flexibility of the setting. The playground now had an abundance of open-ended activities which could be adapted or changed. The principle that I work on is:

*If a play element cannot be used in 20 different ways, why have you got it?*

In terms of efficiency and effectiveness, staff members were also finding the day-to-day

management of the outdoor play program far easier to achieve. It was easier to set up a range of movable equipment which could be used in defined areas and on specific items. Behaviourally, they found that children's play was more focussed, more cooperative and sharing. There was far less negative behaviour.

A teacher reported to me that it freed up the teachers, making it much easier for them to observe the children. They were also able to have a high-level of one-to-one interaction in terms of listening to or supporting children with their endeavours. They stated that the combination of the physical environment and the social environment were better able to meet individual children's needs.

### 5.2 Children's response to the redevelopment

This was interesting. Perhaps you would expect the children to be grumpy about the dislocation caused by the playground redevelopment. Not so. The feedback was that, during the period of construction, the children had responded very positively to seeing the playground being reconstructed. Observations and questions were asked; there was joy in looking at bobcats; carpenters at work and talking to them. They even made an indoors project about the development. This was a great response. A teachable moment well-maximised.

*The final outcome of redeveloping this playground was that it was stemming the decline in outdoor activities.*

## 6. Playground parameters for redevelopment

Redevelopment of playgrounds is not easy — it requires a depth of thinking and collaboration because in reality, as Hart (1994) said:

*Most people who care about child development know nothing about design, and most people who design know nothing about child development.*

Too often, I have seen playgrounds where the main plan has been to purchase fixed equipment from a supplier without any child development or programming knowledge; or of getting the

playground designed by a landscape contractor or a landscape architect — none of whom have any training in early childhood. Often a committed early childhood educator takes the situation in hand for this reason. At best, this results in some inspired interaction of physical environment changes and teaching practice (i.e. a wonderful vegetable garden, the provision of a shade tree with attractive, flowering petals). But not always.

Absolutely, the worst approach to trying to fix the playground shortfalls is to place elements in it in an ad hoc fashion; these just add layer on layer of compromise until the playground becomes unworkable. Here are just a few of the many stories that flood into my work on a weekly level: the tree that was planted has suddenly spread so far that the lawn does not survive; the weeping willow tree has blocked the sewerage line and shifted the paving in the process; the teacher who developed the vegetable garden has left and now the garden is in rack and ruin; or the mulched, softfall surface added for safety reasons didn't have the base preparation and it has flushed down and blocked up against the fence; or the storage shed that has been put in is structurally not strong enough to provide the needed shelving for access to stored items within it. For effective implementation it needs to be remembered that it is a team effort. It should be remembered that a landscape contractor is not necessarily a playground designer; that a fixed equipment supplier is just that and not a playground planner. It is essential to find the right team to work together collaboratively.

A desirable playground will consider all of the factors summarised in this figure:

### **Characteristics of a playground**

1. Playscape is a rich play environment that ignites the will to explore and learn in each child.
2. Space ( $15\text{m}^2/\text{child}$ ) to allow sufficient variety of play opportunities.
3. Organisation of space into quiet, active, open, nature areas with clusters of related activities within each.
4. Access/partial access/supervision needs require both rapid access routes (a child in difficulties) and uninterrupted play (especially in quiet play like a sandpit).
5. Design objectives
  - Scale: An appropriate scale of elements helps children develop a mastery and control over their environment and a greater sense of self-esteem. Scale also affects a child's feeling of well-being and safeness. Adult-scaled items also need to be considered both to acclimatise children and to assist adult use.
  - Sensory stimulation: All senses have a role to play when children are exploring their environment: sight, touch, taste, hearing and smell. Being able to engage all of their senses heightens children's awareness, their skills of observation, their willingness to explore and their sense of enquiry, as advocated in Reggio Emilia "the use of soft qualities, light, colour, materials, smell, sound, microclimate".
  - Variety and diversity: The greater the variety and diversity of play facilities, the richer the potential for accommodating children's varied interests and developmental levels. Variety enhances the potential of the play environment to attract and elicit a play response from every individual child, as it provides freedom of choice designed to match their interest level.
  - Invitational space: Invitational space encourages and supports children's active involvement and participation in the daily happenings of the centre. It shows that their wishes are respected with active participation encouraged. This is best achieved through interaction between the physical and social environments.
  - Play value: Play value is best assessed by the capacity of play elements to sustain children's usage at a daily level over several years. An essential component of play value is the complexity of the activity so that layers of interest exist (discovered as the children's interest changes).



- **Flexibility:** Flexibility is the property by which manipulation of elements within the environment can occur. This is particularly useful for fitting in with children's own ideas as well as teachers being able to change elements within the environment to enhance the play value and the capacity of elements to sustain children's interest. When selecting items for a play area, the question that needs to be asked is: can you work out 20 different ways of using this one play element. It is an essential provision for enhancing play value and the capacity of elements to sustain children's interest.
- **Giving children choices:** Keeping children constructively occupied for the time they use the centre is one of the key objectives of a good early childhood program. If children become bored, overtired, or frustrated, their behaviour will become disruptive. But choice depends on the amount to do.
- **Safety and supervision:** Good planning and design is needed to ensure that play opportunities are managed safely. Whilst this means meeting the safety regulatory standards, it also means being able to assist children's usage by providing supervision and support from both the physical environment and the social environment. Children need to learn risk assessment skills.

The benefits to the child can be profound, affecting the overall development of children that includes aspects of social, cognitive, physical and emotional development. These not only benefit the individual child but flow on to the wider community.

### 7. Delivering solutions

An exciting playground is only delivered through putting a great deal of effort into the process.

In the case study above, a measured approach was taken. There was no "single" portion of the playground which was used to its maximum advantage (even the excellent shady tree).

The process is usually a professional interaction between the staff (site-specific child behaviours and teaching program shortfalls) and an

experienced designer with a play and child development background. It takes into account:

- Step 1: Assessing the site characteristics, its strengths and weaknesses.
- Step 2: Assessing the usable space, organisation of space and access routes.
- Step 3: Assessing the play opportunities according to the desirable characteristics of a playground summarised earlier.

To the extent that a playground falls short of delivering these characteristics, then both the users and the teaching program will be adversely affected. Imaginative loose parts can overcome some (not all) disadvantages.

Finally, I do not want you to see this approach to development of a playground as one which stops and starts with the implementation of the plan. That would be an underestimation. It is an ongoing process but the planning provides the scaffolding needed so that the play provision can be provided through an enriching program.

To quote from Reggio Emilia (1998):

*As you can see, the world is a never finished sketch. Always brazenly and wonderfully fresh.*

Aim to define and understand what the physical setting can do for you. In terms of Reggio Emilia/Vygotsky: you can deliver improved outdoor teaching programs — if you approach it in the right way.

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