Developing pedagogically appropriate practice

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A Scandinavian tradition

Depending upon who you ask, the forest and nature nursery tradition started in Norway, Sweden or Denmark – all stake a claim to being the originator. What can be said is that it is a Scandinavian tradition. In Denmark it started in the 1960s as good pedagogical practice to use nature and the outdoor environment with young children, giving them freedom and space to play and discover natural phenomena. By the 1980s it also made economic sense as a rapid increase in the numbers of working mothers and created more demand for child care places; by having outdoor groups the nurseries could offer more places.

Today, no two Early Years’ settings use the outdoor environment in the same way. Practice and provision depend on where the settings are situated – in rural, semi-rural or urban areas - and on the people using them – educators, children and parents. There are nurseries situated in woodland, usually referred to as wood or nature nurseries. In these the natural surroundings provide the starting point for activities inside and outside for the whole or much of the day, every day, all year round. Sometimes things are discovered and investigated by the children and educators in the natural surroundings outdoors and other times things may be brought inside for investigation and discussion. Most of these wood and nature nurseries are small, with twenty to thirty children and four or five educators; a few are much larger with a hundred or more children.

Another common type of provision are nurseries that have ‘wood groups’ - groups of children and educators who go out for part of the week or the whole week to a woodland area, often by bus. These nurseries usually have a permanent or semi-permanent shelter in the wood. Wood groups in urban areas where woodland is too far away rent allotments in town and develop them into an outdoor environment.
Not all nurseries in Denmark are specific wood or nature nurseries, nor do all have wood groups. Many nurseries just use the outdoor area they have available, but even in these the children are outside for part of each day all year round.

The curriculum, competence and the outdoors

In the Early Years’ curriculum in Denmark, emphasis is on nurturing children’s social and emotional development, inter- and intra- personal. Formal pre-school teaching of children, in the traditional sense of classroom learning, is generally frowned upon by educators and parents alike. The central aim of the Danish Early Years’ curriculum is to create a ‘competent child’ and regular access to the outdoors is seen as a key means to achieving this.

Competence, in terms of the Danish curriculum, represents the abilities - social, emotional and cognitive - and proficiencies that can be fostered and developed in children. A list of competences would include literacy, numeracy, logical thinking, physical education and a range of dispositions such as: to attend, concentrate, co-operate, reason, imagine possibilities and be inquisitive. The view is that it isn’t enough to have ‘knowledge’ - know how to read, write and add - alongside knowledge, children need the skills and competences to use the knowledge they have.

The curriculum for pre-school institutions in Denmark is less formally presented than in the UK, but every institution has to develop an institutional curriculum that covers six areas of learning:

- The child’s all-round personal development
- Social development
- Language
- Body and movement
- Nature and natural phenomena
- Cultural expression and values

Within these areas are four learning processes: ‘to be able’, ‘to experience’, ‘to enjoy’ and ‘to understand’ (Hansen 2003).
In order ‘to be able’ to develop physical skills children need opportunities to climb, jump, run, cycle etc and these processes include the sensory, bodily, social and intellectual competences that children develop through such opportunities. Children develop positive self-image by using the outdoor environment because they can test themselves in the physical activities in which they participate. They develop important self-regulatory skills by learning to take turns and follow routines.

‘To experience’ in nature means that children can feel wonderment in the outdoors, joy and happiness, as well as experiencing the potentially frightening, in the knowledge that others around them are keeping them safe.

‘To enjoy’ means that children, through nature, take pleasure in sensory experiences – the smells, sounds, tastes and touch that being in an outdoor environment brings. Sitting round a fire, feeling its warmth on a cold day, listening to the trees rustling in the wind and tasting the pancakes made on the fire, all give enjoyment that is part of the learning process.

‘To understand’ means that the outdoor environment is the natural arena for children to learn about some of the mysteries of life – life-cycle processes, ethics and morals can be discussed by the educators and children in their natural context. Finding a dead animal, for example, raises many discussions on life and death, and the fascination the next day on discovering that the animal has disappeared or been partly eaten, deepens understanding of the forces of nature and gives children the chance of talking about their feelings – sympathy, fear etc.

These four learning processes are crucial if the child is to develop the skills and competences of being a whole person.

The careful balance between the curriculum, the activities and the educators’ awareness of facilitating children’s emerging skills and competences is the key to developing pedagogically appropriate practice. To develop pedagogically appropriate practice it is essential that the adults trained to work with young children are themselves competent and are disposed to be inquisitive and ready to take challenges. They need to be creative, imaginative and resourceful and alert, informed and
observant. In Denmark trained educators are called ‘pedagogues’, a term derived from the Greek paidagogos, a slave who took boys to school and on the way discussed the natural phenomena around them and helped the children develop a wonderment of the world.

The pedagogical training of educators combines the theoretical and the practical with the development of the educator’s own self-awareness through physically and mentally challenging activities. A good educator is one who can point out interesting things to children, focusing their attention on the details of nature and natural phenomena. Communication is vital: the educator should talk to the children, explaining, questioning and discussing everything wherever and whenever possible. Educators also have to be prepared for the unprepared – the weather, or an unexpected find. The best tenet is to expect the unknown, because unlike the indoor classroom which can be planned, the outdoor classroom is natural, ever-changing – we cannot control nature!

Challenge and risk

Much is written about risk and the dangers and fears of adults about young children using real tools, playing freely outdoors and facing the risks or challenges the outdoor environment might present (Williams-Siegfredsen 2005). Physical safety must certainly be taken seriously, but allowing children opportunities to assess risk for themselves avoids over-reliance on the control of others, which may prove more hazardous in the longer term. Children need to experience real-life materials at first hand and learn how to use them – tools, fire, trees etc respectfully, efficiently and confidently. Accidents are more likely to occur if children only start using natural materials and tools at the age of eight or nine. Or take the activity of climbing for example: very young children generally only climb to a height they are comfortable with, a height that challenges them but does not threaten them, such as clambering onto an upturned log. Success in learning to climb in small stages encourages children to gradually develop their confidence and competence to climb higher – and climb down again - safely.
Using real tools such as knives, axes, saws etc, in the same small stage approach also encourages children’s confidence and competence safely. The pedagogically appropriate practice used to teach young children to use tools is this:

- first children watch the educator using real tools and the educator and children talk about the actions and why it is important to use the tools safely
- next the child uses the tools alongside the educator
- when the children have mastered using the tools and have shown the educator that they are using the tools confidently and safely, they begin to use them alone.

If we presuppose that children will harm themselves or others when using natural materials and tools, we are disabling them. We make them feel unsure, frightened and incompetent – and therefore more likely to have an accident.

Although the health and safety regulations for child care institutions throughout Europe are the same, there are cultural differences between the attitudes, understandings and interpretations of practitioners and parents in Denmark and those in other European countries (Cameron 2005). Most Danish local councils regularly conduct surveys of parents and practitioner values and thoughts about the activities and experiences provided by the council’s child care institutions. A recent survey in Copenhagen’s local council shows that parents and practitioners agree that the most important values that children need to develop are:

- self-worth
- independence
- consideration for others
- tolerance

And that the most important experiences children should have in institutions are:

- experiences of, and in, nature
- experiences with animals
- experience of peace and tranquillity (Copenhagen Council 2003)

Parental involvement in nurseries and schools is high in Denmark; all establishments have committees of parents which meet regularly. Most preschool institutions have working weekends two or three times a year when the parents, the children and the
educators spend the weekend tidying, cleaning, building and mending at the nursery. It is as much a social occasion as a working one and a time when all can get to know each other in ways outside the usual roles and routines. And it gives children the chance to show their parents their favourite things and, importantly, be actively involved in the physical development and construction of the nursery.

Underlying all this is the importance of practitioners and parents working together and agreeing the activities and experiences that are important for children. Positive attitudes about children’s experiences outdoors and their learning how to take risks and face challenges in safe circumstances have to be developed collaboratively.

Just fresh air?

Why has using the outdoors as an everyday learning environment for children become popular in the past couple of decades? Is it just because it’s a good place to let off steam? We know that exercise and fresh air are healthy and that children enjoy being outside during playtime and their free time, but is an outdoor environment really better for children to develop and learn in? Underpinning pedagogically appropriate practice is research that shows how exposing children to learning and playing in the fresh air is beneficial in many ways. Research in Sweden by Grahn et al (1997) has significantly influenced using the outdoor environment with children in educational institutions. It was one of the first to show that children who are outside for a large part of every day all year round are better developed socially and physically, use more complex and imaginative play, have better levels of concentration and are ill less often than children in traditional nurseries. The research showed dramatic differences between the children from the two nursery schools used in the study. One was a ‘nature nursery’ where the children were outside practically all day every day, the other a traditional town nursery where the children were out for short periods during the day. The study showed that:

- The children in the outdoor nursery had measurably better abilities in concentration. Using a form of the Attention Deficit Disorders Evaluation Scale (ADDES), the educators in the two nurseries observed the children over the one year period of the study. The data showed that the outdoor nursery
children were more attentive, had better powers of memory, were less easily
distracted and concentrated on activities for longer.

- The children in the outdoor nursery had better physical and motor
development. Using the Eurofit test recommended by the European Council
in 1993, tests were given to representative groups of children in each nursery.
The data showed that the children from the outdoor nursery had better
balance, agility and strength in their hands, arms and bodies.

- There were differences in types of play used by the children, the outdoor
nursery children showed more varied and imaginative types of play, had more
complex procedures and roles and seldom disturbed each others’ games and
activities. The children also spent longer on an activity, often continuing and
developing the activity over periods of days.

- The children from the outdoor nursery were less often ill. Children’s absences
because of illness were compared and it showed that these children were
absent 2.8% of the year compared to 8.0% in the traditional nursery.

The results of this research were widely disseminated and promoted a wider research
interest in children and nature.

More recent research shows that physical activity is essential for our well being and
that modern societal trends of people taking less exercise and the increase in
sedentary occupations and hobbies all lead to health problems that affect us physically
and psychologically. Every four years Copenhagen University undertakes a national
survey of school children in Denmark. This indicates that on average children are
becoming more obese, which may lead to health and economic problems for society
as a whole in the near future. It has been shown that overweight children are more
likely to become overweight adults and are therefore more likely to contract diseases
such as type two diabetes, high blood pressure and heart disease.

Bente Karlund Pedersen, professor of internal medicine at Rigshospitalet and
Copenhagen University, has researched the muscle hormone Interleukin 6, which
keeps our bodies strong, healthy and slim, but also has an effect upon our brains,
increasing learning and memory. Professor Pedersen has also measured and compared
the length of the hamstring muscles of children in traditional and outdoor nurseries
and found that the children in outdoor nurseries have longer hamstring muscles and that there is a close correlation between muscle development, the brain and social behaviour (Pedersen 2005).

Swedish physician Britt-Louise Theglander has researched the connection between traditional methods of teaching indoors and learning methods outdoors. She concluded that children learn better outdoors because movement and activity are essential for their brain function (Theglander 2001). She points out that it isn’t enough that we learn – we need to remember also what we have learned. And we remember mostly the things that interest us, things that give us pleasure or pain – not physical pain but also pain from the possibility of danger. Theglander recommends that children who are in a learning situation should have movement every ten minutes to achieve optimum brain function in both learning and memory.

There is also evidence that learning outdoors stimulates language development (Herholdt 2003). Children use more complex language and construct longer sentences outdoors. For one thing, the children outdoors are usually in pairs or groups, so interaction, together with learning first hand from real-life materials and experiences, significantly enhances their language development.

We learn most when we are motivated and our motivation has a good deal to do with how we feel in and about the learning environment we are in. Being happy in learning situations is about doing something that not only gives pleasure but also absorbs one’s time in an enjoyable way and leads to deeper fulfilment. Csikszentmihalyi (1992) calls this feeling of happiness ‘being in flow’. The theory of ‘flow’ and learning through optimal experience is widely used in Denmark, especially in trying to understand what motivates and develops children’s learning and competences. When we are ‘in flow’ our skills and competences are well matched to the challenges we face. The situation may test us but by using our skills and competences we can achieve our target. If the challenges are too great, we feel frustrated and anxious; if the challenges are too meagre for our abilities we become bored and easily distracted. Csikszentmihalyi calls these three regions the ‘flow’ zone, the ‘panic’ zone and the ‘drone’ zone. Pedagogically appropriate practice will ensure that children are in their ‘flow’ zone to maximise their learning potential. This requires giving children clear
goals so they know what needs to be done, and ensuring that they receive immediate feedback about their actions. To find the balance between challenges and children’s skills, educators have to be observant and be aware of each child’s abilities. In the outdoor environment the natural materials help children develop their skills in a realistic, hands-on manner and the environment supplies the degree of challenges. Thus, with help and guidance from the educator, children can always find challenge in their ‘flow’ zone when they are outdoors.

A case to conclude with

Observations of young children in Denmark over the past nine years have noted many aspects of using the outdoor environment. One is in children’s development of social competences. Because children play more co-operatively out of doors, a different hierarchy pertains, one in which each child brings their own skills to the group. Children seem more tolerant outdoors and more open to mixing with children they don’t mix with indoors. It is interesting to observe the different ways children engage with each other and resolve conflicts outdoors as opposed to indoors. One observation involved going out on a daily walk through the woods with the children and educators in a nature nursery. Most of the children were in groups, running, playing and talking. One little boy, Hans, was at the back alone, dragging his heels and going slower and slower, so I slowed down and walked with him. He told me he didn’t want to talk because his best friends had left the nursery to start school and he missed them. Half way through the walk we stopped for a short break and two boys started to build a den out of pieces of wood and branches. Hans stood close by watching them, but they didn’t speak to each other. After a while Hans walked away and returned with a piece of wood and stood holding it close by the boys, still silent. After a bit one of the boys looked at Hans and said ‘that’s a great piece of wood for our den, come and put it on’. Within moments the three were playing together. At the end of the break they left the den, saying they would return to it the next day to continue their work. The three boys walked back together talking about their den and what other things they could do to it.

It was interesting that Hans didn’t push himself onto the two boys but, by quietly observing what they were doing, he found a way to join them. It was clear also that
the boys were impressed with the piece of wood Hans had found and valued his contribution. The educators watched it all but did not intrude, they understood Hans’s predicament: on one hand he was missing his best friends but on the other he wanted to play with the other children, but needed time and space to find his own way to solve his dilemma. The outdoor environment gave him the space and peace to use his developing skills and competences of co-operating, reasoning and communicating, and the natural material - the piece of wood - acted as a bridge for him to communicate his needs to the boys without words. This kind of collaboration, showing fellowship and respect, is commonplace in the outdoor environment and illustrates the ability of children to grow and learn to their fullest in their uniquely experiential way through the joy of exploration and discovery in the natural environment.

Pedagogically appropriate practice is a careful balance, somewhere between art and science. It’s rather like what Einstein meant when he said that imagination is more important than knowledge. Not that knowledge is unimportant, but rather that without imagination, knowledge cannot be used effectively or meaningfully. Educators need to be constantly mindful of their role as facilitators of children’s learning and development.