

Heuristic Play

Play in the EYFS



- **Activities for all age ranges in the early years**
- **Observation and assessment suggestions**
- **Links to the EYFS, schemas and child development**

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What is Heuristic Play?



Play can and does, take many forms. It changes as we grow and develop. In the first instance play enables us to learn about things and objects in our environment, then later through play, we learn about people, thirdly play makes it possible for us to learn about ourselves. Whether play is alone or in groups, messy, noisy and energetic or quiet, all children benefit from it. Play can be a solitary or social experience, we can be fully involved or just watch and observe, but whatever form it takes it is of immense value and fundamental to learning.

It is widely accepted that play is the primary way that babies and young children develop and learn. Learning is about being able to do something by oneself, such as reaching out and grasping an object, writing your name, understanding the difference between hard and soft, fastening a button. This is often referred to as 'learning through first-hand experiences'. When babies and children learn through play they feel free to experiment, are in control of their own learning and find ways of managing situations, both real and imaginary. Learning through play is fundamental to all areas of a child's development.

Think about it

Think about your own learning experiences at school. What learning can you remember that was really effective and why do you think this was? Can you think of any learning experiences that you had that were not successful for you and can you think why this might be? For example, someone can tell you how to drive a car, and you can read up on the subject and look on the internet, but unless you actually get behind the wheel of a car and drive, you will not be successful. Learning to drive requires first hand experiences.

Heuristic play is a very simple approach to helping babies and young children learn. The approach uses natural and household objects presented to babies and children so that they can experiment and discover independently. The term 'heuristic play' is often confused with 'holistic play' but the two terms are quite different. Holistic play is when you plan for and meet the needs of the whole child; as in holistic therapies which aim to treat the whole person rather than just the symptoms. For example taking an aspirin may temporarily cure a stress headache, but a holistic treatment would treat the cause, that is to say deal with the stress. The word 'heuristic' originates from the Greek 'eurisko' which means 'I discover' or 'I find'. You may recall the ancient story of Archimedes who leapt out of his bath shouting 'Eureka' as he discovered that his body caused the water level to rise. 'Eureka' simply means 'I have discovered', or 'I understand'.

Heuristic play is an approach for practitioners to follow. It is not a prescription or instruction, in short it is unrestricted and totally child-led. Heuristic play uses natural, recycled household objects that can be found in the home and in the environment. Babies and young children who are engaged in heuristic play explore, find out, investigate and discover for themselves, without active adult intervention. Heuristic play allows babies and young children to make

choices and develop preferences and experience play opportunities that are both spontaneous and focussed. The guidance for the Early Years Foundation Stage tells us that *'when children have opportunities to play with ideas in different situations with a variety of resources, they discover connections and come to new and better understandings and ways of doing things'* (Principles Into Practice Card 4.3- Creativity and Critical Thinking). Heuristic play is one such very effective play opportunity if planned and resourced appropriately.

Heuristic play is open-ended, items and objects can be used and played with in any imaginative way that the child chooses and so there is no 'wrong' or 'right' way to play. Heuristic play can be totally individual as babies and young children react and respond in their own unique and distinctive ways. Children with special needs can engage successfully in heuristic play as it stimulates their senses and is open-ended, rather than prescriptive. What it is not is an opportunity for the adult to sit back and let the children get on with it. As with any play opportunity it needs careful planning, consideration of health and safety issues and appropriate resources.

Think about it

In a way heuristic play continues throughout our lives as we discover and make sense of new things in our physical world. What do you do when faced with a vegetable or a fruit that you have not seen or even tasted before? You probably touch it with your fingers, turn it over in your hands and feel its texture, you smell it, maybe shake it and listen if it rattles or makes another noise, and you look at it carefully and perhaps taste it. Isn't this heuristic play? It is learning about the fruit from your own first-hand experiences. In fact, any form of scientific enquiry could be described simply as heuristic play.

Some people also think that heuristic play and treasure baskets are the same thing, when in fact treasure baskets are only one aspect of heuristic play. Treasure baskets amongst other aspects will be discussed in more detail in the next chapter.



Heuristic play for mobile babies and toddlers (Approx.) 9 to 22 months

What do they need?

As soon as babies begin to make independent attempts to move and crawl the world becomes a very different place. Crawling is not just a physical activity; the brain and therefore cognitive development, is also stimulated. New possibilities present themselves; the baby can not only move themselves about, but can also move objects from one place to another. They can see the world from a different perspective and can begin to develop spatial awareness. Their explorations and investigations will require more space, and this will have implications for adults' planning and resourcing.

Obviously the point at which a baby begins to move about depends on their own individual rate of development. Not all babies go through a crawling on all fours stage, some shuffle, and some may have a very short period of crawling before they attempt to walk. You will need to use your own professional judgements based on observations as to when you need to offer more than a treasure basket.

A treasure basket can still be offered to a toddler in this age group; perhaps when a child is feeling tired or not particularly well they will often benefit from playing with something familiar. At times such as these, all children need the reassurance of a sensitive and caring adult and so the treasure basket can be a source of comfort, especially if it is used on a one-to-one basis. In these circumstances you could talk to the toddler about the objects and interact more than you would normally do if the basket was being offered to a baby.

Sometimes early years practitioners can find it a challenge to plan appropriate activities and experiences for this age group. Many toddlers have become disinterested in 'baby toys', but are not yet mature enough to be involved in activities planned for older children. The second year of a baby's life is one of extraordinary growth and development; but Elinor Goldschmied believed that sometimes the experiences and activities offered at this time, especially in group care, can be limiting. This is where heuristic play can really be very beneficial.

Heuristic play for this age group requires collections of recycled and household objects, a variety of sizes, shapes, textures and materials. In this way the toddler will still continue to explore and investigate through their sensory experiences but will also be able to extend their learning. This form of play is quite active compared to treasure basket play, but with the same purpose and concentration.

In the first instance you can offer the treasure basket together with some large tins, boxes or similar containers. You will find that the baby will independently discover that they can drop things into the containers. If you watch the baby, they will probably tip them out again and so discover the concept of 'in and out' and 'here and there'; schemas of positioning, enveloping and cause and effect.

As with the treasure basket there is no place for plastic toys. Most plastic toys offer very limited sensory experiences and also will frequently have a single or correct way of playing with them. For example, a plastic shape sorter will only have one place where each shape can be posted. What often happens is that the toddler will transport the shape to a different place and post it somewhere that an adult may consider inappropriate or 'wrong' and then the whole toy could become uninteresting to the child.

With heuristic play there is no right or wrong; there is no sense of failure. The toddler is able to experiment and

Case Study

Lucy, aged 15 months, took a little while to begin to explore the heuristic play materials and returned several times to the adult nearby for support. She discovered that she could pile several different objects on top of each other; she used different sized tins, plant pots and plastic bottles. She squealed in delight as the pile of objects fell over, but immediately started rebuilding her pile.

investigate freely as to what they can do with the objects. They will learn and discover different outcomes to their experiments, for example a cork may fit into a plastic bottle, but may not come out very easily, whereas the same cork can be put inside a tin and taken out again with little effort. These different outcomes will stimulate the toddler's thinking and so help them develop a greater understanding of the objects and their characteristics.

In a heuristic play session a toddler needs to be able to do the following:

- Move or transport objects from one place to another in a variety of ways.
- Put objects inside other containers and take them out again, including smaller objects inside bigger ones.
- Roll objects across the floor or over different surfaces
- Bang objects together, sometimes connecting, sometimes not.
- Make piles of objects and then knock them over, sometimes similar objects sometimes just random choices.
- Make collections of similar objects.
- Turn and twist objects either inside each other or in their hands.
- Wrap objects up in materials, including putting things over themselves.



Not only can all of the above be recognised as schemas as discussed earlier in the book, or learning tools, the basis of problem solving can be identified as well. For example, when a toddler bangs two or more objects together, they will initially use one hand. This later develops into a two-handed action which is often rhythmic and involves large body

Case Study

Lucy and Oliver explored the heuristic play materials at the same time. Lucy, the younger toddler, watched Oliver intently and copied some of his actions. She picked up a tube copying Oliver and made noises down the tube as he had done. She watched as he put plant pots on his head and tried to copy him. Although very aware of each other, neither toddler made any attempt to play together.

movements. This will eventually lead to the use of tools, and later to writing and drawing.

As with a treasure basket, heuristic play does not depend on adult intervention and can be a solitary activity. Toddlers will play and explore independently but at the same time will probably be aware of the actions of others. They may play and explore in parallel. They may well copy each other's actions, such as banging two objects together and may laugh at the noise they are making, but will not play together.

Levels of concentration, because of the wealth of experiences and opportunities for exploration are vast, are usually high. This is often regarded as unusual as toddlers of this age are easily distracted. Children with special or additional needs may also lack the ability to concentrate and can be easily sidetracked or have their attention diverted. Heuristic play for these children can be especially valuable and meaningful as the very act of exploring the range of materials can be absorbing and so promote concentration skills.

During heuristic play sessions the baby and toddler will move through various stages:

- The first stage is: what is this object? What is it like? At the stage the treasure basket can meet this level of enquiry as the baby touches, feels, smells, mouths objects. This stage will also occur in a heuristic play session, especially if new materials are offered.

- During the second stage the baby has a good idea of the characteristics of the objects and materials and so begins to consider what they can do with the objects. This could for example involve a toddler putting a tube to their mouth and making noises, putting smaller objects into a big tin and shaking it, putting corks in a bottle etc.
- Finally, as language begins to develop a toddler will engage in what Piaget called 'symbolic play' as they become, interested in what an object could become. This could be a length of chain becoming a necklace, or chains in a tin becoming a drink. (Both evident in the DVD *Heuristic Play with Objects* (1992 NCB).

What do you need to collect?

Before you begin to make your collection you will have to decide how and where you will store the objects. For many settings storage is an issue and 15 large tins can be quite a challenge to store safely. In the DVD *Heuristic Play with Objects* you will see that the adults have several large, fabric drawstring bags in which collections of objects are stored. These bags are then hung on hooks, which keeps them clean and dust free. Large tins and containers are stored on shelves. When I began my collection, I made several fabric bags and stored items in them. I did not have room for another shelf in the storage area and so bought some large stacking plastic boxes with lids. We, or rather the toddlers, put all the containers inside each other to save space

Think about it

If you have toddlers in your setting observe them during a non-heuristic play session. Make a note of how long they play with the toys provided, or how many different toys that access in say, 45 minutes. Then set up a heuristic play session and compare the concentration levels of the toddlers.

and we put everything, including the drawstring bags, in the boxes which could then be stacked on top of each other and so save space. Not really ideal, but a solution to our storage problem. The toddlers could still be involved in clearing away the objects and materials and the drawstring bags kept each collection separate.



You will need to collect about 50 of the same type of object and about 15 different collections, for a group of 5 or 6 toddlers to play at the same time; that means 50 wooden pegs, 50 shells, 50 containers of different sizes and material and so on. Elinor Goldschmied suggested that three large tins for each toddler was probably sufficient. (Ref DVD *Heuristic Play with Objects*)