A basic introduction to child development theories

Developmental perspectives

The NSW Office of Child Care (Department of Community Services, DoCS) published a document in 2002 called the *NSW Curriculum Framework for Children's Services: A practice of relationships* (.pdf 1.4 MB). This document has some interesting perspectives of the role of child development and developmental norms. It is important to consider multiple perspectives in relation to children's development.

Contents

Child development theorists

There are a number of different theorists associated with child development. The table below lists those most well known.

Table 1: Major theorists

Theoretical approach	Principles of the theory	Theorist
Maturation	Growth and development occur in orderly stages and sequence. The individual genetic timetable affects rate of maturation.	Arnold Gesell (1880–1961)
Psychodynamic	Behaviour is controlled by unconscious urges. Three components of the mind are id, ego and super ego.	Sigmund Freud (1856–1939)
Psychosocial	Personality develops in eight stages throughout a lifetime. Development is influenced through interactions with family, friends and culture.	Jean Piaget (1896–1980) Lev Vygotsky (1896–1934)
Cognitive	Qualitative changes in the way children think. The child is considered an active learner going through stages.	Erik Erikson (1902–1994)
Behaviourist	Learning is gradual and continuous. Development is a sequence of specific conditional behaviours. Main emphasis is on the environment, not heredity. Observable behaviours are considered most important.	John Watson (1878–1958) BF Skinner (1904–1990) Albert Bandura (1925)
Ecological	Balance between nature and nurture. Child is placed in the middle of concentric factors which all influence the child. Emphasis is placed both on environment and heredity.	Uri Bronfenbrenner (1917–2005)
Information processing theory	We all have an innate learning ability. Children are born with specialised information processing abilities that enable them to figure out structure of development.	Noam Chomsky (1928–

Use of theories

All of the above theorists have valid views that can be useful to consider. Many children's services professionals believe in taking an eclectic approach to theory. By understanding each theoretical approach, you can use parts of the theory, if the context—the child and the situation—seem appropriate, and if it is a useful way to further your understanding.

Theories can help you interpret your observations, but are of little or no use without your observations and knowledge of each child's behaviours, abilities and personality.

Emotional and psychological development

Three theorists specifically associated with emotional and psychological development are Erik Erikson, John Bowlby and Mary Ainsworth.

Erik Erikson

Erik Erikson built upon Sigmund Freud's work. He identified eight separate stages across the lifespan. He believed that in each stage we face a crisis that needs to be resolved in order for us to develop socially and emotionally. Each stage has a positive or negative outcome, though we tend not to be at either end of the spectrum. The outcome of the stage is determined by our environment, and the care giving strategies or experiences to which we are exposed.

John Bowlby

John Bowlby examined the attachment relationship between parents and their children. He identified four phases in which attachment develops. He believed that children are born with a variety of behaviours that encourage parents and others to be near to them. These proximity-seeking behaviours include laughing, gurgling and crying. Attachment of the child and parent develops over a period of time and is mainly achieved by the routine care giving tasks that parents and children are involved in (Berk, 1996).

Mary Ainsworth

Mary Ainsworth built upon Bowlby's work in the 1970s. She developed an experiment to test the quality of the attachment relationship between mothers and their children. The 'Strange Situation' will determine whether the infant is securely attached, insecurely attached or avoidant of the parent (Berk, 1996).

Cognitive development

Theorists such as Piaget, Vygotsky and Skinner developed theories based on research around cognitive development, and a variety of approaches to teaching have since grown from that work and the work of other theorists. Other approaches concerned with cognitive development include 'behaviourism', 'information processing', and 'constructivism'.

Jean Piaget

Jean Piaget, a Swiss theorist who died in 1984, believed that children's thinking passed through four separate stages and changed qualitatively in each of these stages. He emphasised the importance of maturation and the provision of a stimulating environment for children to explore. He believed children were active learners. Piaget's stages are:

- Sensory-motor stage — Birth to 2 years. This stage consists of six sub-stages that also show significant gains in the child's thinking as they progress through infancy. Children are using their physical or motor skills and their senses to explore their world and develop their cognitive understandings.

- Pre-operational stage — 2 to 7 years. In this stage children are less reliant upon senses and physical exploration and, according to Piaget, are 'illogical' thinkers. During this stage, for example, children can be shown that two balls of dough are exactly the same size, and they will agree that the balls are the same size, but when one is flattened, they will usually tell you that one of them is now bigger. This inability to conserve is a feature of the preoperational stage.

- Concrete operations — 7 to 12 years. In this stage, which aligns with middle childhood, children are beginning to be able to demonstrate much more logical thinking, although they need concrete materials to help them reach the correct conclusions. Thus in this stage you will see children working on mathematical problems but using blocks, counters or even their fingers to help them work out the answer.

- Formal operation – 12 years and over. This final stage encompasses the rest of our lives. Piaget believed that once we reached the age of 12 we were capable of much more abstract thinking and able to solve problems in our 'heads'. We can deal with much more complex issues.

Piaget has been, and continues to be, an important influence on how we think about children's thinking skills. He was important because he saw children as active participants in their own learning. Lev Vygotsky also saw children's thinking developing in stages, but he emphasised the social and cultural influences on a child's learning.

Lev Vygotsky

Lev Vygotsky's sociocultural theory relates to both cognitive and social development. While this Russian theorist died in 1934, his work only found a broader audience in the 1990s. Vygotsky developed his theories around the same time as Jean Piaget yet he emphasised the importance of relationships and interactions between children and more knowledgeable peers and adults. He believed that children's cognitive understandings were enriched and deepened when they were 'scaffolded' by parent, teachers or peers (Berk, 1996).

Unlike Piaget, Vygotsky did not see the child as a solitary discoverer of knowledge, but as learning within social interactions that involve communicating. Vygotsky therefore also emphasised the role of language in the development of thinking processes.

Like Piaget, he saw children as active partners in their own learning, and increasingly so as their ability to interact with others develops. He therefore emphasised the importance of language development, learning and teaching to the child's cognitive development.

It was Vygotsky's view that thinking in concepts was not possible without verbal thinking. While thought and language initially develop independently, they are merged once language is developed to create verbal thought. Speech and thought change over time and become more internalised.

Vygotsky saw the adult as vital to the process of 'scaffolding' the child's behaviour. When you scaffold a building, you support it structurally while internal developments occur. It is a common sight on building sites. We scaffold children's development almost without thinking. Consider this example:

> Bonnie is completing a three-piece puzzle with knobs on top. She has the last piece over the space, but it is upside down. She pushes harder. Her caregiver says, 'Try turning it, Bonnie', but Bonnie looks confused. The caregiver puts her hand over Bonnie's, and turns the piece slightly, saying, 'See, Bonnie? Turn it'.

Vygotsky's Zone of Proximal Development

Vygotsky also saw the child's ability to think logically as developing in stages. He outlined four different stages of conceptual development, as in Table 2 below.

Table 2: Vygotsky's four different stages of conceptual development, adapted from Nixon and Aldwinckle (2003)

Stage	Characteristics
1. Thinking in unordered heaps	- Preschool stage of development - Beginnings of conceptual thought· - Children use trial and error - Children use problem-solving techniques - Three sub-phases
2. Thinking in complex stage	- Children begin to make connections between objects, but not in a consistent manner - Five sub-phases
3. Thinking in concepts stage	- Children are able to think in more abstract concepts and make associations - Cannot see two associations simultaneously
4. Thinking in true concepts stage	- Mature thinking - Children can manipulate a number of abstract concepts

While Piaget felt there was no use in presenting materials and problems to children beyond their developmental capacity, Vygotsky saw an important role for adults in extending children's learning beyond areas in which they are independently capable. Vygotsky used the term 'Zone of Proximal Development' to describe the extension of skills a child is capable of with adult help. Consider this example:

A toddler has a large knob puzzle with a simple bear shape. The toddler tries to put the teddy in the hole, but has it upside down. He tries to get it in, cannot and moves away. This child, operating independently, is unable to complete the puzzle. A caregiver might then help the toddler with the puzzle and say, 'Look, here are his ears, see, here is the space for the ears'. The caregiver then puts the teddy bear the right way up and just to the side of the hole. The toddler slips the puzzle into place. Now the toddler is capable of doing the puzzle. By careful scaffolding, the child's Zone of Proximal Development has been expanded.

Other theories of cognitive development

Jerome Bruner (b 1915) also emphasised the connection between language and thought. He saw children as active participants in making sense of their world. Like Vygotsky, he saw cognitive development to be a social process and he promoted the idea of discovery learning, where the environment provides the answers but the child makes the connections. He also used the term 'scaffolding' to describe the role of others in fostering a child's social development (Nixon and Aldwinckle, 2003).

Information processing theory

This theory sees the mind's structure as similar to a computer, with information going in through the senses, being processed, and memory skills being used to decide if the material is retained or lost.

Learning theories

Behaviourists, or learning theorists—Bandura, Skinner and others—emphasise the importance of reward or punishment in shaping a child's learning, as well as the importance of role models and caregiver input (Nixon and Aldwinckle, 2003).

Physical development

The American theorist and researcher Arnold Gesell (1880–1961) was an early proponent of maturational theory. He identified the role of nature or heredity in children's development. There is a long-running debate about whether our biological heritage ('nature') is more important than the environment we are brought up in ('nurture'). In this context, environment or 'nurture' is seen to be everything external that contributes to our development, such as care giving strategies, parenting styles and other influences. 'Nature' is considered to be our biological inheritance. The genes in our bodies determine what colour eyes we have, for instance, and also at what age we start walking.

Gesell gathered normative data on a range of children and made this information accessible to the general public. He firmly believed that each child's development unfolded according to a genetic timetable. He developed a timetable of developmental events which we still use today.

Language development

Understanding theories of language can form a foundation for your own views and beliefs on how you think children develop their language and communication skills. The theories discussed here are those by Lev Vygotsky, BF Skinner, John Watson, Albert Bandura and Noam Chomsky.

Lev Vygotsky

Vygotsky identified four different stages of speech development.

- Primitive speech stage — Birth to 2 years. During this stage, the child is beginning to learn to speak, mainly imitating words and naming objects, or responding emotionally (crying) or socially (laughing).

- Naïve psychological stage — 2 to 4 years. The child in this stage is beginning to realise that words are symbols for objects. They have a great curiosity as to what objects are called.

- Egocentric or private speech stage — 4 to 7 years. Children often talk aloud to themselves as they perform tasks or solve problems in this stage of development. This 'private speech' is the child's demonstration of their thinking.

- Ingrowth or inner speech stage — 8 years on. During this stage children's private speech declines and becomes much more internalised. They solve problems 'in their head' or using inner speech; however, you will still hear people using private speech when faced with unusual or complex problems (Nixon and Aldwinckle, 2003).

BF Skinner, John Watson and Albert Bandura

Skinner, Watson and Bandura belong to a group of theorists called the behaviourists, or 'learning theorists'. The behaviourists have played an important role in our understanding of language development. One main premise of behaviourism is that if behaviours are rewarded, they will be repeated, but behaviours that are ignored or punished will decrease. For example, when a child says 'Da, da' for the first time, we promptly get very excited and repeat the sounds to the child, reinforcing the behaviour so the child is more likely to try to reproduce it. Behaviourists focus on the process of how language is acquired. The emphasis is on environmental factors of imitation, learning and conditioning.

Noam Chomsky

Noam Chomsky developed the nativist approach. Proponents of this approach believe that children have innate abilities to learn language—an in-built 'language acquisition device' (LAD) which is 'wired' to help them learn language. Once they begin to hear language around them, nativists suggest that children are 'programmed to understand the structure of that language' (Nixon and Gould, 1999). Nativist theory focuses on biological dispositions, brain development and cognitive readiness. It emphasises the need for language in the environment to stimulate children's innate abilities.

Other language theories

'Interactionists' see language development as a result of the interaction between both 'nature' and 'nurture' (the environment and experiences of the child).

Social development

There are a number of theorists who are clearly linked with social development. In addition to Erik Erikson, John Bowlby and Mary Ainsworth—whose ideas were discussed under 'Emotional and psychological development', above—the following theorists contributed greatly to this field of theory.

Uri Bronfenbrenner

Bronfenbrenner developed the ecological systems theory. He emphasised a balance between nature (heredity) and nurture (environment). To illustrate his theory, he depicts the child as surrounded by four concentric circles, each representing a different set of factors that influence the child. The four sections, from the innermost to the outermost, are:

- Microsystem — This represents the child's immediate family and surroundings.
- Mesosystem — The broader surroundings and influences on the child's development are represented here, including the preschool, doctor's surgery, and other influences on the life of the child and their family.
- Exosystem — This is a broader circle of people who indirectly influence the child. Things in the exosystem include the parent's workplace, the services available to the family and the support networks they are involved in.
- Macrosystem — This is an even broader system that includes the values, customs and attitudes of the cultural group the child belongs to (Berk, 1996).

Lev Vygotsky

Vygotsky is not only an important theorist in cognitive development theory, but in social development theory as well—particularly through his sociocultural theory.

As mentioned under 'Cognitive development', above, Vygotsky emphasised the importance of relationships and interactions between children and more knowledgeable peers and adults. He believed that children's cognitive understandings were enriched and deepened when they were 'scaffolded' by parents, teachers or peers (Berk 1996).He believed that the environment plays an important role in a child's development, particularly in the social aspects of development. He focused on the notion that children internalise feelings, emotions and ideas and language is a 'key factor in the development of concepts'.

Albert Bandura, like Skinner and Watson before him, was a behaviourist. Behaviourists believed that learning is gradual and continuous; that development is a sequence of specific conditional behaviours. The main emphasis is on the environment, not heredity. Bandura's social learning theory focuses on the imitation of behaviours by children, imitating caregivers and peers, thus learning much about society and how it operates.

Social play

Play promotes both mental and social abilities in the child, and Piaget, Vygotsky and other theorists have all made contributions in this area.

Jean Piaget and Sara Smilansky

Both Piaget and Sara Smilansky developed categories of play, as follows:

- Sensory motor play — Here an infant up to two years of age will use various senses and motor skills to explore objects and their environment.

- Symbolic play — In this type of play, symbols are much more evident. Children can pretend that one object is another, the cubby house becomes a rocket. This type of play is usually seen during Piaget's preoperational stage.

- Games with rules — In this stage, children are able to follow rules of games, changing their understanding of the purpose of rules as they get older. Children in the concrete operations stage are usually also in this play stage (Nixon and Gould 1999).

Note that Piaget did not tend to see play as learning through the accommodation of new information, but rather the assimilation of new materials into existing cognitive structures. In his view it is relaxed practice time rather than the challenging learning time for taking in completely new information.

Sara Smilansky

Smilansky developed three stages of play based her work with Piaget's, but expanded to include:

- Functional play — which occurs in the first two years of life. Infants explore objects using their body (sucking and touching) and progress to other physical activities such as throwing.

- Constructive play — which occurs when children begin to manipulate materials to create objects and patterns. They may not be representational at first but are the child's attempts at working with the materials to produce an effect.

- Dramatic play — Here children imitate the world around them through their role play. This leads to cooperative dramatic play around agreed-upon themes (Nixon and Gould 1999).

Further developments of social play behaviour are outlined in Table 3.

Table 3: Simlansky's characteristics of dramatic and sociodramatic play

Play behaviour	Characteristics	Examples	Levels/ages
Imitative role play	Child assumes a make-believe role of a person or object and expresses it in imitation and/or verbalisation.	Child places doll over shoulder and pats the back (burping),	**Beginning:** Role relates to the familiar world (such as mummy, daddy, bubba) **Advanced:** Role relates to world outside the family (such as doctor, teacher)
Make-believe with regard to objects	Child substitutes movements, verbal declarations, and/or materials or toys that are not replicas of the object itself or real objects.	Uses spoon as a phone. Places plastic plates and cups in swing and pushes it back and forth.	**Beginning:** Real objects or replicas used (eg. real toy car) **Advanced:** Uses prop as part of play scenario (eg. uses tea towel as wrap for the doll)
Verbal make believe with regard to actions and situations	Child substitutes descriptions or declarations for actions and situations.	Uses blocks to build a house and says 'this is where Mummy and Bubba live'.	**Beginning:** Imitates simple actions of adult (eg. takes a kitchen sponge to wipe things) **Advanced:** Actions are integral to the play episode (eg. 'I'm cleaning so sissy can play')
Persistence in role play	Child stays within a role of play theme for at least 10 minutes.	Plays role of mother, father and daughter within a family play theme for 10 minutes.	**Beginning:** Short, sporadic involvement (eg. child enters area, picks up doll and leaves) **Advanced:** Child stays involved in area and the theme for more than 10 minutes.
Interaction	At least two players interact within the context of a play episode .	Preschoolers building a castle from blocks and wooden people. Sharing the equipment and discussing where specific people should be placed.	**Beginning:** Plays alone with no obvious awareness of others nearby. **Advanced:** Cooperative effort to work together around a common theme.
Verbal Communicat-ion	There is some verbal interaction related to the play episode.	Older preschoolers discussing how to redesign a bed and dolls cot for arrival of 'Nanny and Poppy'.	**Beginning:** Simple dialogue around the use of toys (e.g. 'there, there sissy') **Advanced:** Dialogue about the roles, props, plot of play scenario.

This table is adapted from Smilansky (1968) and Dodge and Colker (1992), citied in Isenberg and Jalongo (2001, p.75)

These categories are generally viewed as age-related, with functional play appearing first in infancy and games with rules appearing last around age six or seven. Smilansky's work highlights the importance of considering cognitive development (particularly the inspirational work of Jean Piaget) when we look at the levels of play.

Piaget, along with socio-emotional theorists such as Erikson, believed that children could use play to act out unpleasant experiences or experiences where they had very little power.

This explains why children entering school play teachers over and over again with younger children, acting out teachers who are ferocious in their ability to order and command. The child can imagine themselves in the position of power and this helps them to deal with being powerless. This is also common with children witnessing or involved in violent households.

Vygotsky saw play as much more significant than Piaget. He saw it as crucial to learning in the preschool period, particularly imaginative play. Vygotsky saw play as a major contributor to the development of the zone of proximal development—if children can imagine themselves doing something, they are closer to doing it. Play also fosters the separation of thoughts from actions and objects (symbolic function).

Mildred Parten

Mildred Parten focused on social play and its development.

The ability to join groups of other children, and the desire to do so begins, at an early age and progresses through a developmental sequence. Parten focussed on the different types of social play. In her research she discovered that children of different ages actually played together differently. They were capable of different levels or categories of social play. Her categories of social play are still a useful tool to help focus us on how social play changes and develops at different stages of our lives.

Remember that the stages identified by Parten are not always followed in a linear fashion by all children—in other words, a child may not progress directly from one stage to another. You might also find that a child will often engage in different stages of social play depending on factors such as the child's familiarity with either the situation or their 'playmates' or the child's temperament.

Unoccupied play

Generally the very young infant will engage in this type of play. They tend to be looking at their hands or other body parts or cooing to themselves. They do not seek contact with others or appear to have a purpose.

Solitary play

Usually seen during infancy. Infants tend to play by themselves totally unaware of others around them. They will move quite quickly from one activity to another.

Onlooker play

This can occur across many stages of development. Evidence of onlooker play is seen when children are near a group of other children and are often following the actions or copying what is happening in the play. The children, however, do not usually want to participate or are waiting for someone to aid their participation.

Parallel play

This is usually seen during toddlerhood. During parallel play toddlers will play alongside each other and with similar materials but don't interact with each other.

Associative play

This is first seen usually in the early preschool years. Children will begin to play and talk with each other in dramatic play situations where roles may be taken on. However, these roles are usually not sustained for any length of time. There doesn't seem to be a common purpose to the play.

Cooperative play

Cooperative play occurs in the later preschool years. Children are able to take on roles and sustain them for the duration of the play. The group of children have agreed upon goals and roles for the play.

Kenneth H. Rubin

Kenneth H. Rubin and his associates have been working since the mid-1970's studying the development of children's social, dramatic and cognitive play. Their studies have been successful in combining both the Parten and Smilansky categories in observing the relationship between social and cognitive play.

The results of Rubin's and his associates studies have done much to clarify the developmental levels of children's play in light of our knowledge about children. They also have identified "how" children play and how it correlates with Parton's Stages of Social Play. The stages of the theory are briefly outlined in Table 4.

Table 4: Rubin's stages of dramatic and imaginative play

	Solitary Play	**Parallel Play**	**Group Play**
Functional Play	Child plays by self with or without objects.	Child plays parallel to others with or without objects.	Child plays with a group with or without objects.
Constructive Play	Child plays by self constructing or creating something.	Child plays parallel to others constructing or creating something.	Child plays with a group constructing or creating something.
Dramatic Play	Child plays by self in pretending-type activity.	Child plays parallel to others in pretending-type activity.	Child plays with a group in pretending-type activity.

Jerome Singer

Jerome Singer highlights the importance of children's imagination and curiosity developed through dramatic and socio dramatic play.

> '[Singer]…describes the ability to engage in make-believe play as essential to children's developing ability for internal imagery, stimulating curiosity, and experimenting with alternative responses to different situations. This capacity, practiced in play settings, enhances children's ability to engage successfully in new situations.' (Isenberg & Jalongo, 2001, p. 68).

Singer also found that the development and demonstration of a young child's imagination can also be influenced by a range of environmental facets. These include:

- the development of a child's language development
- the young child's family situation
- exposure to stressful situations
- opportunity to role play and immerse themselves in make believe and dramatic play
- the development of a child's cognitive skills
- the development of the physical skills
- the development of the social, emotional and moral skills
- the play environment
- opportunities for different types of play and play experiences
- the human environment such as the adults.

Development of autonomy and independence

Children need autonomy and independence in order to function in the world, make appropriate decisions and solve daily problems and challenges. Four of Erik Erikson's eight stages across the lifespan (mentioned above under Emotional and psychological development) are usefully summarised here:

- trust versus mistrust: 0–18 months
- autonomy versus shame and doubt: 18 months–3 years
- initiative versus guilt: 3–5 years
- industry versus inferiority: 5–12 years.

Trust versus mistrust

In this first stage the infant is beginning to interact and engage with the people they come into contact with, to deal with the first 'crisis' identified by Erikson. This crisis is to determine whether the infant should trust the world and the people in it or mistrust the world and its people. Trust or mistrust in the world will be determined by the type of care the infant is receiving from the adults. Trust, like attachment, is built through our basic care giving strategies. Feeding a hungry baby, cuddling and soothing a fearful baby and allowing the tired child to sleep helps build trust.

Autonomy versus shame and doubt

In toddlerhood, the child is now moving to a new stage in their development. Erikson describes a new crisis that must be dealt with. Again, the real usefulness of this theory is in what it tells us about the appropriate care giving strategies to help each child reach their full potential.

Erikson describes this crisis as being one of autonomy versus shame and doubt. During this stage the toddler will learn that they are an autonomous, independent person who has control in their world, or they will learn that making independent decisions is something to be ashamed of. This is often a challenging stage for many parents and guardians. Our first word is often 'No'. Being told 'no' all the time leads to feelings of shame and doubt. We need to ensure that we give toddlers the opportunity to make limited decisions.

Initiative versus guilt

The preschool child, Erikson tells us, is moving into the initiative-versus-guilt stage. In this stage the child will either gain a sense of initiative by being able to make decisions, plan activities and events and see them carried through, or a feeling of guilt as they are continually told 'no' or have their ideas squashed. Caregivers need to ensure they allow the children in their care the opportunities to make plans and see them carried through to fruition.

Erikson stresses that a person's personality emerges from the child's interactions and experiences with significant people. Much of this interaction occurs around all the different skills that are developing during the preschool years.

During the preschool stage we find that children are ready and eager to learn and achieve goals. They learn to plan and to carry out these plans. They are also developing a sense of right and wrong. They see themselves as being able to do more things but realise there are limits — if they go beyond these limits, they will feel guilty. By four years of age the preschooler should be able to formulate a plan of action and carry it out. The positive outcome is a sense of initiative — the sense that one's desires and actions are good and OK.

Industry versus inferiority

School-aged children between six and 12 years of age are beginning to settle down to the serious business of learning to read and write, as well as the many other skills that are being developed at this stage. They are often in a routine involving school and their peers. Erikson's fourth stage, industry versus inferiority, is usually being demonstrated at this time.

Erikson saw this stage as the time when children will begin to be industrious and work towards their future careers and lives. They will learn the skills associated with their society. Children who are reared in a positive, appropriate way will navigate through this stage with positive outcomes. They will feel good about themselves and their abilities. Children who are receiving negative messages from the people around them will feel inferior to those around them and thus will come through this stage with negative thoughts.

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