CIRCLE OF LIFE REDISCOVERY SUMMARY OF LEARNING THEORIES

Learning theories address how people learn. They tend to fall under one of several perspectives or paradigms, which include behaviourism, cognitivism, constructivism, humanism and experientialism.

It is necessary to note that because theories grow, evolve and overlap, it can be difficult to decide if theories sit under a particular paradigm or not. And in Forest School we draw on many perspectives.

Until more recently education has been concerned with how we learn from a rational perspective and less about the place of emotion and well-being in this process.

For the purposes of this course it is not necessary to be concerned with definitions as such. Rather it is the application of these theories in practise, in the Forest School setting, which concern us.

Behaviourism.

Behaviourists emphasise the role of the environment in directing behaviour and learning. They believe that learning takes place through conditioning and responding to outside stimuli. The learner is essentially passive. He/she starts off as a clean state and behaviour is shaped through positive reinforcement or negative reinforcement.

In schools we see the behaviourist model in practice when educators specify clearly what is expected of learners, set clear targets and then reward attainment extrinsically.

At its best behavioural psychology has helped to make education more effective, more accountable, and more humane. In special education settings, especially, behavioural principles have provided an effective set of tools for teaching that simply did not exist before. This approach ignores thought processes and emotions and has little input from the learner.

An example of a behaviourist is B.F. Skinner, J.B Watson, I Pavlov.

Cognitivism.

Cognitivism replaced behaviourism in the 1960's as the dominant paradigm.

Cognitivists emphasise the role of understanding internal mental processes, such as thinking, memory and problem solving.   The learner is viewed as an information processor (like a computer). Information goes in, is processed and learning occurs. Unlike behaviourist ideas, we are not 'programmed animals' and require active participation in order to learn, and actions are a consequence of thinking.

An example of a cognitivist is Noam Chomsky.

Constructivism.

This worldview suggests that learning is an active, constructive process. The learner actively constructs or creates their own subjective representations of objective reality.   Learners continually test their hypotheses through social negotiation. Past experiences and cultural factors are brought to a situation.

Knowledge is seen as symbolic mental constructions (or schemata) within the learner's mind. Learning occurs when change happens in a learner's schemata. Knowledge is not passively received

but actively constructed by individuals based on their stage of development and their experiences. By reflecting upon present experiences in the light of past knowledge, the learner constructs his or her own understanding of the world.

An example of a constructivist is Jean Piaget. Piaget was a biologist who became interested in children's minds. He investigated how children were learning things and created a very scientific rational theory – the basis of our education system today.   It correctly identified building blocks but didn't account for what happens to children who have not had the fortune of a loving and supportive home life. Those children who don't follow the building blocks got labelled as stupid.

Social constructivists emphasise the important of social, environmental and cultural influences on these internal mental processes.

In schools we see the constructivist model in practise when educators plan engaging activities which facilitate the learners' active participation in problem solving and critical thinking, encouraging metacognitive processes for judging, organising, and acquiring new information. Teachers may use verbal assistance, questioning, suggestions, directions all aimed at extending a learner's activities where the learner can't do this alone.

Examples of social constructivists are Vygotsky and Bruner who both placed importance on how others can lead and/or support the learner.

Humanism

This approach emphasizes the study of the whole person (known as holism). Humanistic psychologists look at human behaviour not only through the eyes of the observer, but through the eyes of the person doing the behaving.

The humanistic perspective suggests that we are each responsible for our own happiness and well-being as humans. We have the innate (i.e. inborn) capacity for self-actualization which is our unique desire to achieve our highest potential as people.

Because of this focus on the person and his or her personal experiences and subjective perception of the world the humanists regarded scientific methods as inappropriate for studying behaviour.

Humanistic educators believe that both feelings and knowledge are important to the learning process. Unlike traditional educators, humanistic teachers do not separate the cognitive and affective (values, attitudes, beliefs, feelings and emotions) domains.

This aspect also relates to the curriculum in the sense that lessons and activities provide focus on various aspects of the student and not just rote memorization through note taking and lecturing.

The tutor or lecturer tends to be more supportive than critical, more understanding than judgmental, more genuine than playing a role. Their job is to foster an engaging environment for the students and ask inquiry-based questions that promote meaningful learning.

Examples of key theories include: C. Rogers; A. Maslow, Steiner, Montessori.

Experientialism

The experiential view of learning is considered more sophisticated than pure behaviourism or constructivism because it represents a more holistic view of the learner. Like constructivism experiential learning draws on the learner's personal experience.

In experiential education, the student becomes more actively involved in the learning process than in traditional, didactic education. For example, going to a zoo and learning through observation and interaction with the zoo environment is experiential and in contrast to reading and talking about

animals in a classroom. The main difference here, from a pedagogical point of view, is that the educator who takes his/her students to the zoo rather than stay in the classroom probably values direct experience more highly than abstract knowledge. In the early 1980's, Mezirow, Freire and others stressed that the heart of all learning lies in the way we process experience, in particular, our critical reflection of experience.

Key theorists include D. Kolb; D. Goleman, H. Gardener.

Social Learning Theory.

The social learning theory is a good example of behaviourism and constructivism coming together. It has its roots in behaviourism, but its exponents argue that a sole focus on stimulus and response is too simplistic to explain the complexity of human thought, behaviour and learning. Thus the social context of learning is recognised as important and it is acknowledged that individuals influence their environment as well as being moulded by it.

An important element of the social learning theory is that of self-efficacy. This suggests that people are more likely to engage in certain behaviours when they believe they are capable of success. Self-efficacy is, therefore, closely linked with how engaged pupils are in their learning, along with their persistence and determination to complete a task.

Albert Bandura is a prominent theorist in social learning.

Examples of educational theories which combine features of the above paradigms include:

Guy Claxton suggests that 4Rs are involved in exercising the brain:

1. **Resilience** – (sticking at things) which involves curiosity, risk-taking, persistence, flexibility being observant and focused;
2. **Reflection**- (taking stock of you own learning) which involves opportunities to decide what, when and how they will go about learning, and to think about the effort they have contributed to the task or activity;
3. **Reciprocity**- (being able to learn alone and with others) powerful learners, Claxton suggests, need to be able to work independently;
4. **Resourcefulness**- (being able to learn in different ways) which might include daydreaming and analysis; questions and silence; being poetic and scientific, playing, exploring and experimenting.

He also identifies eight building blocks of learning power:

1. **Curiosity**- since children are born curious the role of adults is to nurture their interest and help them to develop what Claxton calls "healthy skepticism"
2. **Exploration**- involves wanting to know and problem-finding but it also involves the enjoyment of slow thinking or daydreaming.
3. **Courage**- being a courageous learner involves taking risks, getting things wrong and sticking at things.
4. **Experimentation**- involves getting things wrong and being prepared to take a long time to work things out.
5. **Imagination**- involves making unusual connections, and young children make more and more unusual connections than anyone else. This is an ability that should be nurtured and encouraged.
6. **Discipline**- in addition to imagination, Claxton maintains that effective learners need both imagination and the ability to plan and act rigorously.
7. **Sociability-** learning to share their ideas with others involves learning how to listen, who to listen to and when.

8. **Thoughtfulness**- Claxton believes that learning is better and more creative when we take time and give learners space. Rushing children causes them to think in a rut and can prevent them from thinking the unusual of less obvious thoughts, that are only the ones that can arise in unhurried contexts.

Maria Montessori.

Maria Montessori developed her education method in Italy in the late 1800s. It encompasses free choice for the child but within an educational environment that is prepared along Montessori lines.

Schemas   A schema is a pattern of repeated behaviour, usually observed in young children, which indicates the learner's interest and need to explore a particular concept. Examples of schemas include trajectory, enveloping, transporting, connecting and rotation.

JEAN PIAGET 1896 -1980: Piaget was a biologist who studied molluscs for many years becoming interested in child development following the birth of his own children. He is known for his ideas on the role of maturation - the child cannot undertake certain tasks until they are psychologically mature enough.
He saw there were 4 stages of cognitive development:
  • Sensori motor – birth – 2 years
  • Pre-operational -   2-7 years
  • Concrete operational – 7-11 years
  • Formal operational – 11+
Piaget's theory believes that child's cognitive development is about a child developing or constructing a mental model of the world.

Children do not all learn in the same way. As practitioners of young children it is good practice to be aware of the ways different children learn.
Schemas are patterns of repeatable behaviour which can often be noticed in young children's play.
Some easily identifiable schemas are:
Transporting : child is focused on activities which involve moving objects
Enveloping ; child is focused on wrapping objects
Enclosure/containing ; child focuses on filling containers,or containing himself – eg in a box
Trajectory:diagonal/vertical/horizontal ; child may focus on lining things up, throwing balls
Rotation ; child focus on things with wheels, spinning
Connection ; child focuses on joining things up
Positioning ; child focuses on placing objects in specific orders
Transforming ; child focuses on changing things , making things

How are schemas useful?
Understanding schemas are useful for **helping to understand a child's motivation** for doing something.
From there, we can **extend their learning by matching curriculum content** based on their individual interests
For example, take a child who's interested in transporting and exhibits the Transporting Schema.
During sand play, you'd have greater success at engaging his interest by having him move sand in buckets and trucks, as opposed to asking him to dig or bury objects

Chris Athey In the 1970s when Athey (with Tina Bruce as her research assistant) was researching aspects of young children's development, her analysis of observations, drawings and paintings led the project team to identify a number of schemas.

Athey identified four stages that children go through in exploring and using schema:

1. a period of physical action where the movement does not carry any real significance.
2. using schema to symbolise something.
3. beginning to see the functional relationship between two things.
4. using schema to support thought.

Take as an example, a child interested in rotation:

Stage 1 The child twirls around and around.
Stage 2 The twirling is used to symbolise a carousel.
Stage 3 The child becomes interested in a yo-yo in that it can be shortened or lengthened when the string is wound around the yo-yo.
Stage 4 The child puts all of these ideas into words and expresses the reasoning behind rotation.

During the research project, Athey and her team identified a number of schema including:

- vertical
- back and forth and side to side
- circular or rotational
- going over, under and on top of
- going around a boundary
- containing and enveloping
- going through a boundary.

Schemas are happening in practice all of the time. Children's dominant interests of the moment will provide ways for them to represent their ideas in which they will include their preferred schema.

Schema-spotting has become an analytical tool in many early years' settings. Practitioners often think that very young children are acting in a random manner but once they scrutinise what is happening, a schema pattern may begin to emerge.

Tina Bruce (see 10 Principles of Play)

She describes herself as, ' a social learning theorist' influenced by the work of Froebel. She favours a holistic approach to teaching young children which focuses on creativity, play and first-hand experiences. She is a leading figure in early childhood education and an expert in children's learning.

Early in her writing, Tina identified ten principles of early childhood education. These drew on pioneering philosophies including the work of Froebel, Montessori and Steiner. This was in itself a pioneering approach- showing clearly the legacy left by the earlier theorists and thinkers. The ten principles are widely quoted and include the consideration of:

- A child's need to be a child;
- The holistic nature of development and integrated nature of learning;
- The importance of opportunities to act as an independent learner, making choices and mistakes with an emphasis on self-motivation;
- Receptive learning periods- practice won't help until the brain and body are sufficiently developed;
- A focus on what children are able to do- taking that as the starting point for learning;
- Imagination and symbolic representation which support development;
- The central role of relationships with others in children's development.

Another key element to Bruce's theory is the value of what she terms "free-flow" play. For her children's play is at its richest when children are able to "wallow" in. She identifies twelve characteristics, which mark this out from other forms of play. These include:

- First hand experience
- Developing rules and props
- Freely chosen activity
- Rehearsing recent learning and celebrating learning, imagining the future, pretending
- Deep involvement and "personal play agenda"
- Co-ordinated ideas and feelings

Cathy Nutbrown is also a leading theorists.

John Bowlby

John Bowlby (1907 - 1990) was a psychoanalyst (like Freud) and believed that mental health and behavioural problems could be attributed to early childhood. He believed that attachment is a deep and lasting emotional bond that connects one person across time and space (Bowlby, 1969).

Bowlby's evolutionary theory of attachment suggests that children come into the world biologically pre-programmed to form attachments with others, because this will help them to survive.

Bowlby suggested that a child would initially form only one attachment and that the attachment figure acted as a secure base for exploring the world. The attachment relationship acts as a prototype for all future social relationships so disrupting it can have severe consequences.

Steiner-Waldorf Education.

An approach to education based on the philosophy of Rudoph Steiner. It emphasises creativity, imagination, social responsibility, respect, compassion and cooperation. The curriculum is organised according to stages of development, beginning with practical, hands-on experiences and leading to abstract and conceptual knowledge in adolescence.

This theory was designed to enrich the developmental phases of childhood. Steiner believed in 3 distinctive phases, each lasting about 7 years. He believed that each stage must be experienced fully and not cut short.
0-7 years – this stage is extremely vital to the child.   Children at this stage master the skills of movement, speech, gesture, communication and many more. At this stage, a child will learn through mimicking and learning by doing.
7-14 years (Heart of childhood)
This stage bridges infancy and adolescence and develops imagination. This part of their journey, the child lives in a world of pictures and if supported well in this stage, their thinking will develop their feeling.
14-21 years (adolescence)
This final stage is built around a wish to make their life their own. They begin to discover themselves in the world and ideas are explored, enjoyed, argued and absorbed. They seek truth and question and think. During this phase they seek role models to show them what adulthood is like.

Ultimately, this theory was developed around play, storytelling, creative activities and the need to develop a bond with one key teacher. During this development, a child should be treated as an individual and allowed to learn at their own pace.

The Reggio Emilia Approach.

This approach was developed by Loris Malaguzzi, who was a teacher himself, and the parents of the villages around **Reggio Emilia** in Italy after World War II. Designed for preschool and primary aged children, it emphasises the critical role of families and the learning environment. The teacher is seen as a partner in the learning process, not a director of it. In its most basic form, it is a way of observing what children know, are curious about and what challenges them. Teachers record these observations to reflect on developmentally appropriate ways to help children expand their academic and social potentials. Long term projects connect core academic areas in and out of the classroom.

Multiple Inteligences.

The theory of multiple intelligences was proposed by Howard Gardner in 1983. This theory proposes that there is not just one form of intelligence and that individuals can be more or less intelligent in a number of different ways. David Beckham, for example, displays bodily-kinesthetic intelligence. Gardner's theory challenges both the conventional ideas of academic attainment and the linear structure of stages of childhood development.

He suggests the following intelligence types:
Linguistic – capacity for words and language
Logical-Mathematical – logic and numbers
Musical – music, sound, rhythm
Bodily-Kinaesthetic – body movement control
Spatial-Visual – images and space
Interpersonal – other people's feelings
Intrapersonal – self awareness
Naturalistic – awareness of the natural environment.

Gardner considered also a Spiritual/ Existential intelligence, and a Moral intelligence, but considered that these do not fully fit the criteria for definition as an 'intelligence' that the others do.

Embodiment, Projection, Role play: EPR

Dr Sue Jennings through drama therapy has created a simple and effective theory on developmental stages in play. Her theory seems to sit well with the findings of current neuroscience and reflects the concept of the brain as an organ which has certain inbuilt circuits. These circuits need to be fired at the right time and connect with the physical growth the infant child is making. Mind and body grow together and if given the optimum conditions will flourish.

E – Embodiment play (birth – 12 months) – sensory tactile exploration of the world. The infant embodies the experience.
P – Projection (13 months – 3 years)– as the child becomes more confident in how she can experience the world , has familiarised with some of its marvels – and dangers… she can begin to take more command and become constructive in how she manipulates and experiences the world and begin to construct STORY.
R – Role play (3 -7 years). Once the child is confident she can construct things to please herself and others she begins to practice the roles she sees around him … mummy and daddy, teacher, nurse/doctor, fireman, astronaut, etc. The stories become more complex, with a good imagination in place the child can be whatever they want to be – superhero, monster , pirate etc.

Jennings claims that children need to experience all 3 stages before they reach 7 years. The stages intertwine and are not isolated from each other. The child may have a favourite type of play and this can go on into adult hood and affect the job/career we choose.

Learning Styles.

Proponents of learning styles argue that most people have an inclination to one or other way of processing and assimilating information. One the most common categorisation is that of VAK, or visual, auditory and kinaesthetic learning. Theorists argue that effective learning is the best achieved when a student is using his or her preferred learning style.

Many educationalists currently favour the idea that people have different learning styles and hence will benefit from different teaching approaches. This develops the previously dominant model of 'one size fits all' – ie mostly auditory approach to teaching (lectures). A number of models proposing different categories for learning styles have been put forward. The **VAK model** is one that has been widely used – VAK stands for 'Visual', 'Auditory', 'Kinaesthetic'

- Visual learners think visually and learn best through visual information – eg. diagrams, or watching how something is done.
- Auditory learners respond best through listening – eg. an explanation.
- Kinaesthetic learners favour trying things out, getting hands on and respond to things they can touch, feel and manipulate – eg. practical activity.
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The model is useful as it is simple and relatively easy to implement on practice – ie. session leaders can use picture, verbal explanations and practical 'try it out' elements in a lesson or session. The model is advocated by the Department for Education, yet it has been criticised as lacking any solid research basis, and also as an approach that may label children. Teachers may be less concerned with the research, but like the model because it offers a range of methods for imparting information.

Alistair Smith is a researcher and writer who has been fundamental in developing the concept of **'accelerated learning'** – an approach which is research based, and considers how learning takes place – taking into account how the brain works, rather than what is to be learnt.

Key features of the model include its use of awareness of how the brain works, the importance of relaxation to learning, methods for learning to capacity, use of VAK methods and activities relating to MI, and working with 'BASICS':
B – Belonging – cultivating a feeling of belonging to the school community
A – Aspirations – raising aspirations, and setting realistically ambitious goals
S – Safety – making sure pupils feel safe
I – Identity – a strong sense of identity is a support in times of stress
C – Challenge
S – Success – pupils should experience success to raise their self esteem

Reviewing information is also considered critical to ensure retention.
Creating a supportive learning environment is key, and something than can be implemented outside the classroom – ie. in Forest school.

Neuroscience and Play

Modern neuroscience is revealing through MIT and other brain research that we are essentially driven by our emotional sensory brain. The future is to better understand the parts of us that is non-logical and non- rational. In the time of early childhood, we explore ourselves through our sensory experiences and attaching emotional memories to those experiences.

Play creates a firm foundation. The secure base (Bowlby) means that the brain is ready to work on those building blocks which create the bridge of networks into the rational logical thought process. Those infants who have an insecure and 'wobbly' base then need an education system which creates experiences to reduce the wobble! Play is a very small word that describes a huge learning, it is an experiential activity through which we experience the world, ourselves, our feelings and begin to make sense of it and even discover extraordinary new facts and skills. If a child has lots of exposure to a diversity of free and directed play experiences their brain will grow, imagination will be sparked and curiosity will enrich and sustain throughout their life.

Emotional intelligence

 Howard Gardner defined emotional intelligence as intrapersonal and interpersonal. These are the capacity to have an accurate model of oneself and to be able to operate effectively and to understand others and co-operate with them (Gardner, 1993). Daniel Goleman (1996) stated that inappropriate behaviour was often due to lack of emotional intelligence and that having emotional intelligence was when a person knew their own feelings and could make decisions in life, were able to manage moods and is someone who is motivated and effective in working towards goals. Emotional intelligence also includes empathy towards others. When someone is suffering with low emotional intelligence they can often appear disruptive, intimidating, inappropriate and unable to regulate themselves.   As a consequence they can find learning activities difficult to attend to as having a low self-esteem can often lead to the lack of belief that they have the ability and the fight, freeze and flight reactions can often be a consequence.

Claude Steiner, 1997, devised the idea of developing emotional literacy to enable people to understand their feelings and those of others and to be able to use dialogue and self-control to avoid

negative arguments. When teaching emotional literacy the emphasis is therefore on the individual and to look inward and deal constructively with emotional difficulties.

Self esteem - A child's self-esteem can have a significant influence on their life and ability to learn. Self-esteem is concerned with the way we feel about ourselves and the need for respect from others and self-respect, Maslow determined this as one of human's basic needs (Maslow, 1987).

A good self-esteem means that we feel we are worthwhile and unique. A person determines this by evaluating their capabilities and reflecting on the feeling of value and acceptance. For children with low self-esteem often feel that they fail and that their achievements are not as valuable as others. Positive self-esteem is hugely important as it enables us to make positive relationships, have less stress , feel happier, manage problems better, attempt new things and not be afraid to feel challenged. Those that have a low self-esteem within a learning context are likely to exhibit sensitivity, indecision, feeling cautious, envy, frustrated, negative outlook and defensive. They can be very critical of themselves and look for approach of others and take any feedback very personally.

Self-esteem needs to be cultivated and handled with great care in learning to enable a positive self-image to be fostered.