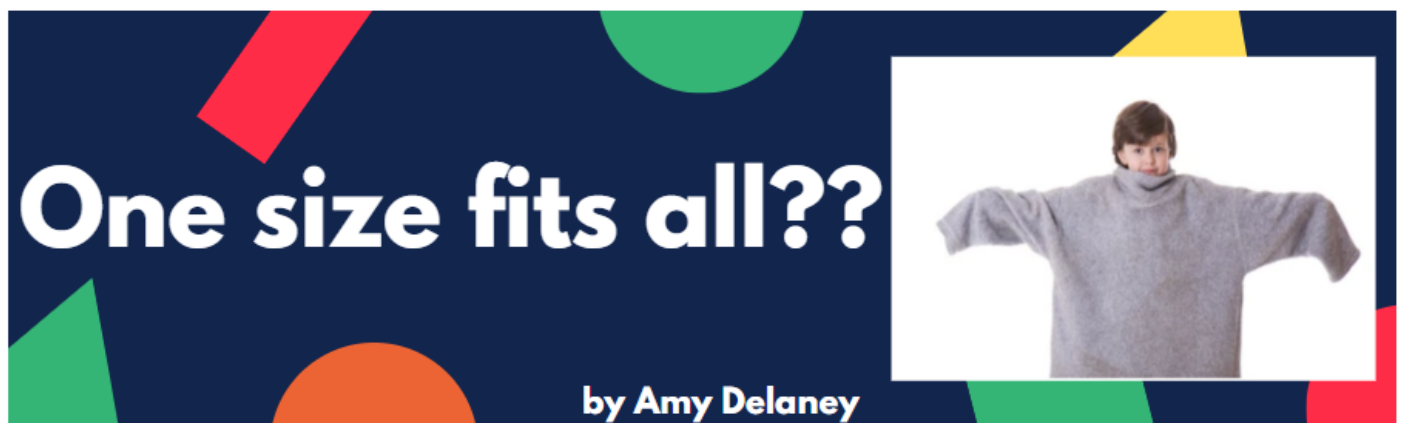


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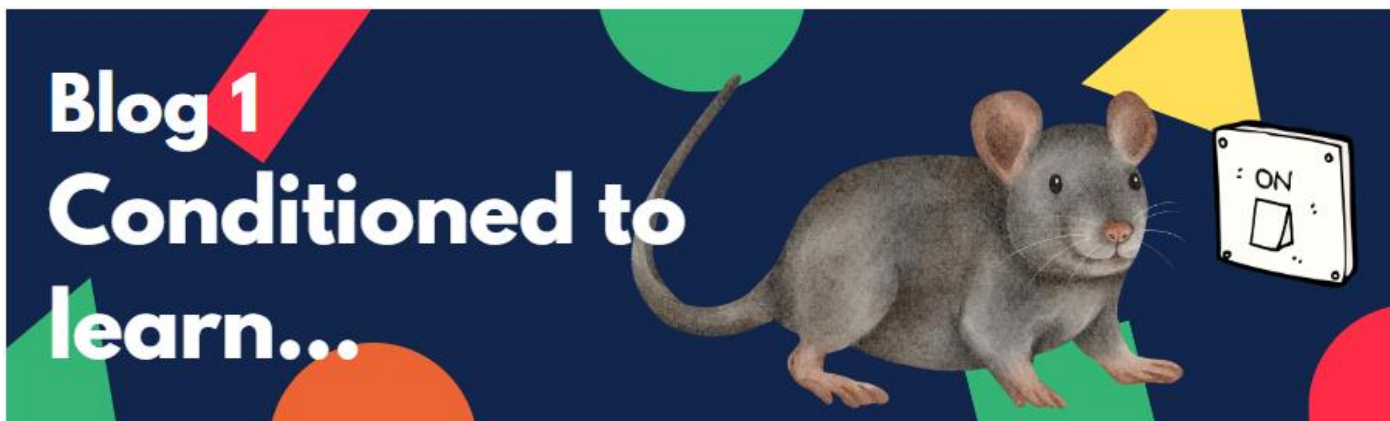
The Principles of Learning and Teaching

Portfolio

Student Number:2217692



Whether you're a newly qualified teacher about to embark on the wonderful world of education, or an experienced educator looking for ways to support that hard to reach learner. The following blogs will show you how different theories of education can be utilised to provide inclusive education for EVERY student!



Do you use positive and negative consequences in your teaching?

Whether it's a reward chart for good behavior or loss of "golden time" for negative behavior most teachers will use consequences within the classroom. But did you know that this practice stems from one of the most influential learning theories of the 20th century? Based on Thorndike's (1898) law of effect, which highlighted the importance of reinforcement and punishment in developing behavior, American psychologist B.F Skinner developed the concept of operant conditioning, a form of behaviorism that has shaped many practices within the classroom today (McLeod, 2023). Let's look at Skinner's theory and how it applies to education.

What is operant conditioning?

The concept of classical conditioning had been made popular in the 19th century by Psychologists such as Pavlov and his experiment using dogs which concluded that unconscious or automatic learning takes place when an individual is exposed to a stimulus. Skinner introduced operant conditioning which involved associating a behaviour with a consequence, this is sometimes referred to as the ABC Model. This theory focused on the idea of voluntary behaviours being an important factor in behaviourism (Poling, Carr and LeBlanc, 2002).



(TLC, 2022)

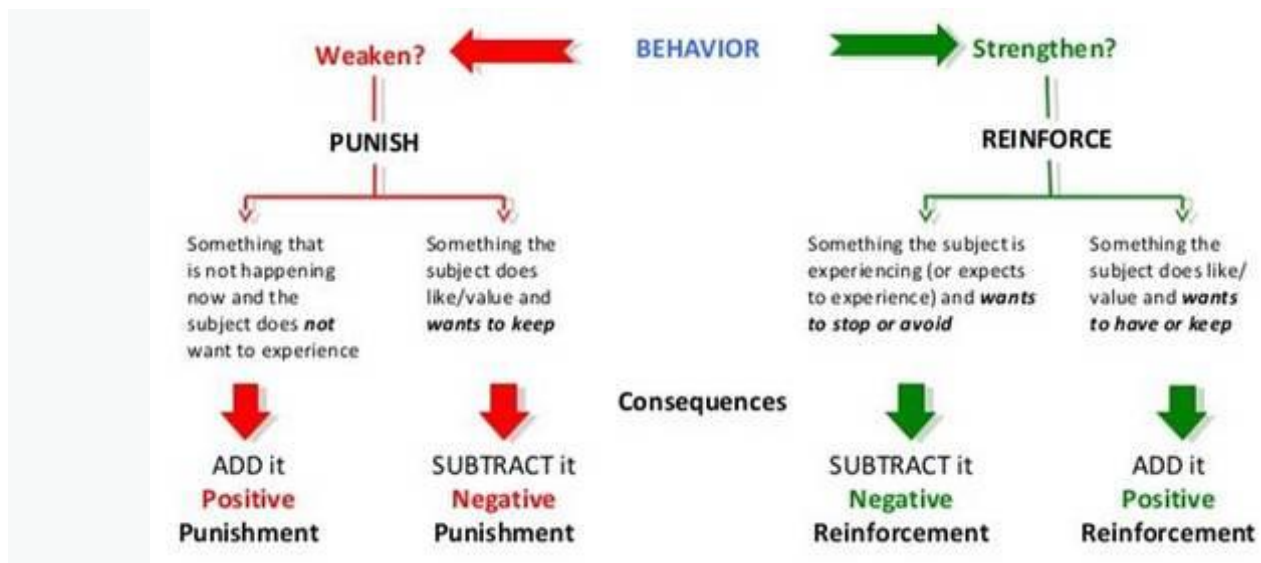
As the behaviour occurs after the antecedent, it is easier to change the consequence to influence behaviour.

Skinner further developed his theory by experimenting on rats and pigeons, placing them inside a box fitted with a lever that when activated would produce a reward of either food or water, as the experiment developed he added electric grids that shocked the animals which acted as negative reinforcement (Bates, 2016).

Learn more about Skinner boxes here <https://youtu.be/X-lgMnvPDQ0> (Scott, 2012)

Let's look at the ways in which operant conditioning is used to influence our behaviour.

Consequences can be divided in to quadrants, two of these are punishments which lead to weakening of unwanted behaviours by either adding in something negative or taking away something positive. Alternatively to reinforce positive actions something negative can be taken away or something positive can be given as a reward.



(Psychology Wizard, n.d.)

Some examples within the classroom could be.....



Additional homework (positive punishment)



Removing golden time (negative punishment)



House points (positive reinforcement)



No homework given on weekend (negative reinforcement)

How do we know which of these four strategies to use in the classroom? Should we be rewarding our students or punishing them to get the learning outcome we desire? Skinner argued that the greatest impact on our learning was through positive reinforcement and that negative reinforcement could actually be counter-productive (Bates, 2016). This information has been used by many professionals to develop positive ways of supporting learning within the classroom. Psychologists Wheldall and Merrett (2017) promoted positive teaching schemes that encourage staff to use praise, rewarding good learning behaviour and ignoring bad behaviour (Bartlett and Burton, 2020).

**I see these
practices in my
learning
environment on
a daily basis.
Do you?**



(Child Feeding Guide, n.d.)

Should I be rewarding all the time?

Continuous reinforcement in the classroom can be useful when learning a new skill and can really help speed up the learning process, but rewarding every good learning behaviour can not only be



time consuming but also result in extinction of that behaviour if the reward is stopped. Once a behaviour has been learnt, intermittent reinforcement can be sufficient to ensure the behaviour continues. This can also encourage learners to persist hoping that they will eventually be rewarded (Ferster and Skinner, 1997).

(The Sun, 2017)

But can the four walls of the classroom really be compared to the four walls of Skinner's box?

Do you find reward and consequences work for every learner? I've definitely come across individuals who don't respond to reinforcement learning. What Skinner's theory does not consider is the influence of inherent and cognitive factors in learning, we all know the impact that emotions and motivations have on our learners. Generalisation between the hungry animals used in Skinner's experiments and the complex minds of humans raises questions over the use of reinforcement in our pedagogy. According to Baron, Perone and Galizio (1991) "Contradictory results from human and animal experiments have been attributed to the complex social and verbal history of the human subject".

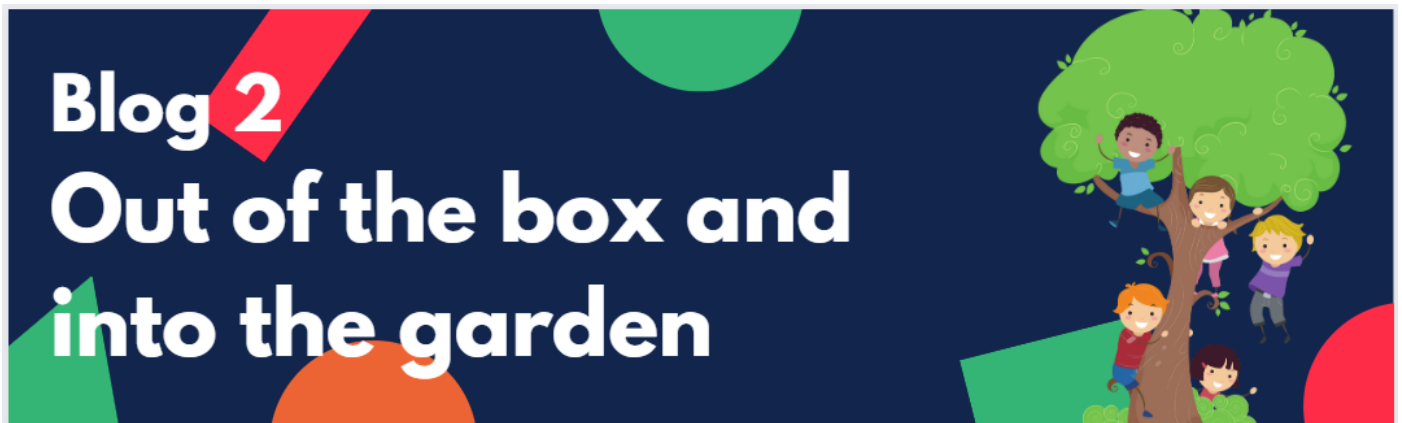
It's clear to see that operant conditioning has a place in the classroom, however it's important we understand that this method of learning does not work for everyone. Here's some points to consider when introducing it in to your learning environment.....

- ✓ Rewards offered should be things the learner values
- ✓ Positive reinforcement is more effective in the long term
- ✓ Use intermittent reinforcement to avoid extinction of learnt behaviours

So whether you're already using reinforcement in your classroom or if it's something you're just beginning to explore, use these methods to support as many learners as you can in a positive and effective way!

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In the last blog we looked at how behaviourism and specifically Skinner's theory of operant conditioning can be used to reinforce learning, but as educators shouldn't we also be considering free will and the development of problem solving skills, independence and social interactions?

Constructivist theorists believe that children learn through constructing meaning with their world, through his work under the influential theorist Pestalozzi in the early 19th century, German pedagogue Friedrich Fröbel (1782-1852) developed a way of teaching with his Kindergarten philosophy that can be seen not only in many of our education settings today but also as the basis to many aspects of curriculum and the policies that support it (LeBlanc, 2012).

Read on to see if you can identify ways in which this theory of learning could help your learners...

In the 1830's Froebel identified the importance of play as the leading form of development particularly in the first three years of life. He developed the idea of Kindertgartens (garden of children) where uniquely for that era, men and women worked together to provide education that focused on a connection between the child and the natural world around them. Teachers were seen as the gardeners and the children the plants growing within the garden, the adults role was to encourage growth through self-expression and self-directed learning in play. This was encouraged both individually and communally (University of Edinburgh, n.d.) this was in stark contrast to the passive learning that was being used elsewhere.

Let's look at the key principles of Froebel's theory....

- ✓ Freedom with guidance
- ✓ Unity, connectedness and community
- ✓ Engaging with nature
- ✓ Learning through self-activity and reflection
- ✓ The central importance of play
- ✓ Creativity and the power of symbols
- ✓ Knowledgeable and nurturing educators

(Tovey, 2017)



(FROEBEL TRUST, 2022)

Gifts and occupations

Froebel used a range of simple items to encourage construction, exploration and manipulation through a series of tasks such as weaving, clay work, woodwork, drawing and cutting. This encourages fine motor skills, spatial awareness and allows children to develop an understanding of how things work. "Each gift was meant to help the child begin to understand the properties or affordances of objects in relation to him/herself and the surrounding world" (Quinn, 2013).



Through play with these resources children could simultaneously explore and represent

- **Forms of life**, creating and representing things and experiences from the world around them.
- **Forms of beauty**, aesthetic aspects of pattern, order, symmetry and harmony.
- **Forms of knowledge**, exploring mathematical forms and scientific concepts.



(Tovey, 2017)

Freedom with guidance is said to be the key principle of Froebel's theory, but what does it actually mean?

Ensuring children are leaders of their own learning, having the right to choose what and where they play is key in this approach. Froebel believed education was freedom to explore individuality whilst also considering the community and environment around them. But then what is the role of the teacher? Gaining skills takes practice and perseverance, support from adults is key. Parents and teachers are encouraged to observe the child in play and to encourage learning opportunities. When invited the adults can join the child without changing the child's chosen use of the gifts and occupations (Tovey, 2017). Froebel also identified the importance of the mother's role in a child's learning and the role of women in education, another unique view at the time!

A step too far?

Following a crackdown on new democratic ideas Froebel's Kindergartens were banned partly in response to the increased involvement of women in the running of these educational establishments. This ban stayed in place until after Froebel's death in 1852. Although never to be witnessed by the Froebel himself, his theories have continued to influence early year's education globally (Koblin, 2021).



“If I had announced that I would educate specifically to be servants, shoemakers or tailors... then I should certainly have won praise. But I wanted to educate them to be free, to think, to take action for themselves” (Friedrich Fröbel and Lilley, 1967, p41)

Read my next two blogs where I will further evaluate the theories of Skinner and Froebel and how their theories can be used to support your learners in the modern classroom!

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We've explored both the Behaviourist theory of Skinner and the constructivist theory of Froebel. But which one of these theories should we be using in the classroom today? Let's remind ourselves of the key points to these theoretical approaches and how they can be applied within the classroom.

Operant Conditioning in the classroom

Positive/ Negative reinforcement

Offering rewards to strengthen positive behaviours, this can be in the form of verbal praise, token economy, or desired activities. Removing negative activities such as homework or chores for children who demonstrate good learning behaviour.

Punishment

Consequences for demonstration of undesired behaviours, these could include "time out" or loss of "golden time".

Shaping

More complex ideas can be broken down in to manageable steps through task analysis to ensure opportunities for the learner to succeed and receive reinforcement before progressing to more advanced concepts.

Cueing

Using prompting and fading ensures that learners initially receive support in demonstrating the correct behaviours which gradually reduces allowing the learner to demonstrate that behaviour independently (tprestianni, 2023).

Kindergarten theory in the classroom

Play

Encouraging learning through play and a connection with nature by providing the opportunity to move freely indoors and outdoors, providing activities that allow creativity and the opportunity to explore and to think for themselves.

Guidance

Observe and offer appropriate guidance when needed to support the learner's experience. This can include providing appropriate and open ended resources and joining a child in an activity when invited.

Community

Encouraging links between school family and community

Reflection

Providing opportunities for children to reflect on their learning through questioning and discussion.

So what are the pros and cons? Here are some examples of the positives of each theory and some of the perceived negatives.

Skinner Operant Conditioning

- ✓ **Works well with younger children**
- ✓ **Can work well for children with autism**
- ✓ **Can motivate children to learn**
- ✓ **Can improve classroom behaviour**
- × **Shallow learning**
- × **Does not tackle cause of behaviour**
- × **Motivation is extrinsic**
- × **Does not consider human complexities or cognitive processes**
- × **Punishment can have negative emotional impact**



- ✗ **Can limit autonomy and Creativity**
- ✗ **May not be suitable for complex learning** (Drew, 2023)

Learn more about the pros and cons of operant conditioning here

<https://www.youtube.com/watch?v=OLpsVp7d34c>

Froebelian Theory

- ✓ **Encourages independence**
- ✓ **Develops fine motor skills in preparation for writing**
- ✓ **Encourages abstract thinking for better understanding**
- ✓ **Strengthens relationship between the child, community and family**
- ✓ **Children learn to persevere**
- ✓ **Children discover concepts and ideas at their own pace**
- ✗ **Limited focus on academia**
- ✗ **The use of gifts and occupations is too rigid** (Spielgaben, 2015)

Do you agree with these pros and cons? It is clear to me that the benefits of the Froebelian approach out way any perceived negatives. Let's take a look at the criticism that there is a limited focus on language, reading and writing. There is pressure for early year practitioners to introduce early academic programmes to attempt to give children a head start in mastering required skills. Theorists such as Hirsch (2014) developed early education programmes that ignored the child's developing mental abilities. The logical structure of academic subjects requires syllogistic reasoning abilities which does not develop until the age of 5 or 6 and even then certain concepts within the learning of numerical understanding and reading ability is acquired in stages related to age. (Elkind, 2006).



(Freepik, n.d.)

This is supported by the findings of Blanden et al (2014) who's large study found no

long term academic benefit to early academic training. According to Brosterman and Togashi (2014) kindergartens result in a creative child with the ability to reason and later learn many things including the reading and writing without any problems (Spielgaben, 2015).

The best of both worlds....

Are you wondering which of these theories you should be using in your classroom to get the most from your learners? Promoting Froebel's kindergarten theory and play will definitely allow your younger learners to learn independently and effectively, however Skinner's theory can also help to promote a positive learning environment where expectations on behaviour are clear. Using elements from multiple learning theories in your classroom can create an effective environment to promote comprehensive learning outcome (tprestianni, 2023).

Can you identify the way these theories have influenced the curriculum, education policies and best practices in recent years. Click on these links to find out more....

United Nations Convention on the Rights of the Child

<https://www.unicef.org.uk/what-we-do/un-convention-child-rights/>

Forest Schools

<https://www.forestschoools.com/>

Curriculum for Wales

<https://www.gov.wales/curriculum-wales-overview>

Foundation Phase Learning

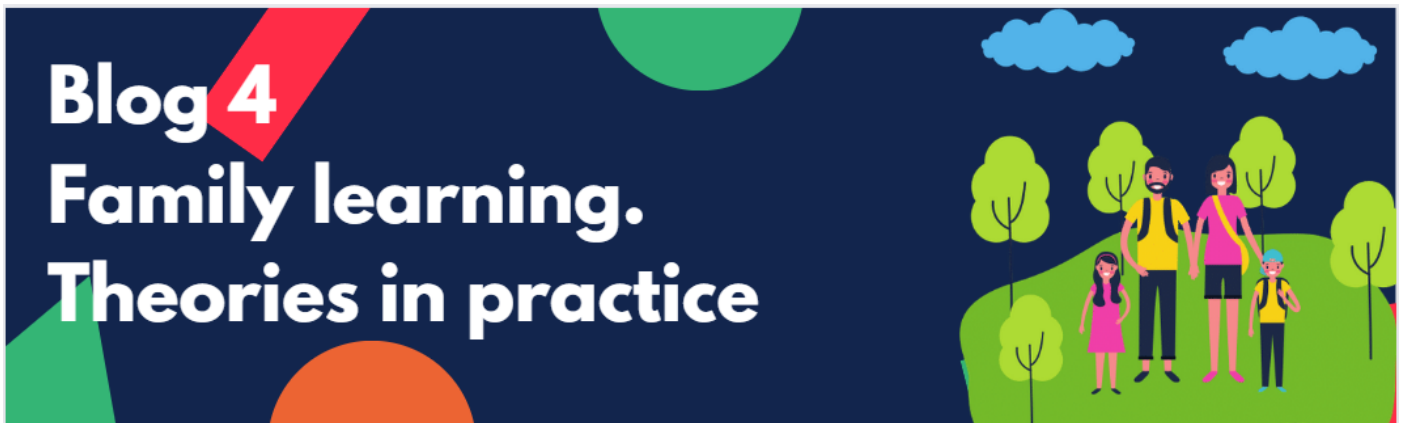
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Why don't you explore even more learning theories that you could use in your classroom to support effective learning?

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Over the last three blogs we have looked at the learning theories of Skinner and Froebel. Why have I chosen these theories to discuss?

As an extremely passionate family learning practitioner I am always looking at ways to support both the adult and child in my sessions. Froebel's kindergarten theory is reflected in many elements of our sessions to promote not only the learning of the child but also the family relationship and progression of the adult. Family learning is an extremely positive environment that focuses on recognising and rewarding achievement and good learning behaviours in order to engage learners in further learning opportunities and progression. This definitely reflects the theories of Skinner and his operant conditioning.

“Play is the highest level of child development. It is the spontaneous expression of thought and feeling – an expression which his inner life requires” (Friedrich Fröbel and Lilley, 1967).

Our family sessions particularly for younger children always focus on play. Our tutors work with the adults initially to discuss the importance of play and how adults can support their child's learning and allow freedom with guidance, whilst giving children ownership of their play and to experience enriched learning opportunities (Froebel Trust, 2022).



(Family Action, 2022)

We run many creative sessions where the focus is on process rather than end results, we always provide a range of resources that may be different to those offered within the classroom. Learners are encouraged to explore different mediums and tools with guidance from an experienced tutor.

This supports Froebel's idea that "play was not located in discourses of outcomes or accountability" (Bruce et al., 2017, p29). I also regularly deliver Samba drumming sessions to families often outdoors in the natural environment, this also supports Froebel's view that music is key in a child's development (Gray and Macblain, 2015).



(Mosaic Collective, n.d.)

Let's get outside!

My greatest passion is outdoor learning and the benefits it can bring the adult, child and wider community. Engaging learners with nature and the environment is something I would actively encourage any educator to try! Whether it's getting children to grow plants from seed, or wood carving during a bushcraft session. The understanding of how things are interconnected in our universe can easily be demonstrated through play in the outdoors. This extends further than learning how things grow. Science, storytelling, art and music are just a few concepts that can be explored through outdoor learning (Tovey, 2017).

I have supported families through many experiences from short outdoor play workshops, to the John Muir Award where learners discover, explore, conserve and share their own local wild spaces over a six week period. I have recently supported learners to build Celtic roundhouses at several of our partner schools where children have the opportunity to use traditional building materials and tools with support from their family and tutors to build outdoor learning spaces to be used by the whole community. This traditional way of building allowed children to be guided by the tutor on the skills required but to make their own decisions on how the cordwood walls would look.



(Amy Delaney, 2023)

My role in these sessions is vital in offering continual reinforcement to the whole family, rewarding learning activities and achievements with praise and encouragement has a positive impact on the learner (Morin, 2019). Scheduled reinforcement is used to support learners on their learning journey, Families will often begin their engagement with one off sessions where the family will receive praise and reward through both the learning outcomes and an attendance certificate immediately after the session. As families progress to longer courses the rewards become less frequent, with accreditations, award ceremonies, improvement in family relationships, self-esteem and improved progression opportunities.

Being aware of the different theories of education has helped me ensure my sessions are offering the best learning experience for everyone involved. Give some of these theories a try, think of new ways to take teaching out into nature, or look at a new way of positive reinforcement for your learners?

Use these and other theories to offer an inclusive and effective learning environment for all!

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