

CCT College Dublin

ARC (Academic Research Collection)

Certificate in Teaching and Learning

CCT Centre for Teaching and Learning

10-21-2019

Introduction to Learning Theories

Graham Glanville
CCT College Dublin

Follow this and additional works at: https://arc.cct.ie/cert_tl



Part of the [Scholarship of Teaching and Learning Commons](#)

Recommended Citation

Glanville, Graham, "Introduction to Learning Theories" (2019). *Certificate in Teaching and Learning*. 3.
https://arc.cct.ie/cert_tl/3

This Presentation is brought to you for free and open access by the CCT Centre for Teaching and Learning at ARC (Academic Research Collection). It has been accepted for inclusion in Certificate in Teaching and Learning by an authorized administrator of ARC (Academic Research Collection). For more information, please contact jsmyth@cct.ie.

LEARNING TO LEARN

Graham Glanville

Certificate in Teaching & Learning, October 2019

graham.Glanville@cct.ie



What the lecture is about...

- Firstly, I don't know what you know about learning or learning theories already.....however, be open to challenging what you know.
- This is a mixture of my sensory experience, my opinions, my 24 years of teaching experience, my 7 years of PhD work in Education and unfortunately.....I don't know very much about this stuff.
- We will dip into philosophy, psychology and educational learning and learning engagement theories.
- Part 1 – We look at learning and consider Knowledge
- Part 2 – We will look at seminal learning theories



Annabelle's Learning Journey

2 Year old, no known learning disability

Situation 1

Now Annabelle, play with these (I wonder will she figure it out!)

I need to show Annabelle what I WANT her to do

Now Annabelle, play with these (I HOPE she figures it out!)

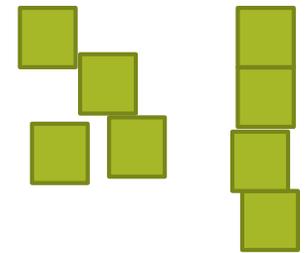
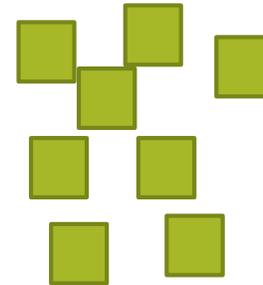
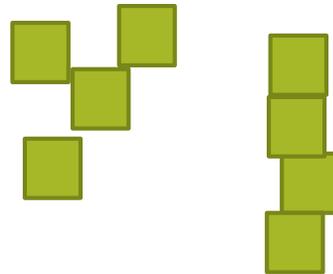
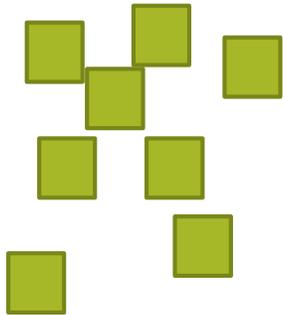
Go Annabelle (clap clap), what a clever girl you are! I'm so proud of you....

Stage 1 (Examine)

Stage 2 (Teach)

Stage 3 (Re-introduce)

Stage 4 (Reward)



Yippee, go me!
So...how do I get more of this reward stuff.....



Situation 2

Now Annabelle, play with these (I wonder will she figure it out!)

I need to show Annabelle what I WANT her to do

Now Annabelle, play with these (I HOPE she figures it out!)

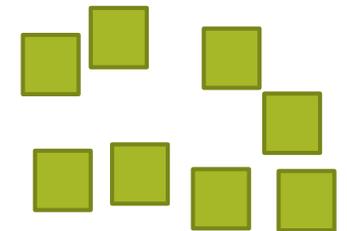
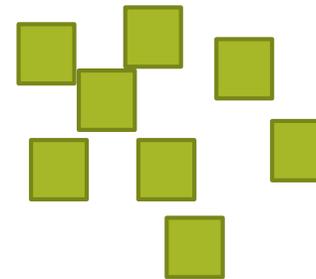
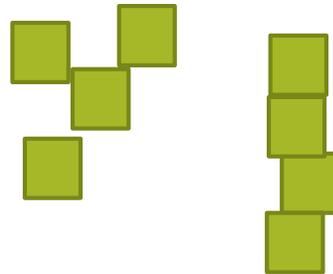
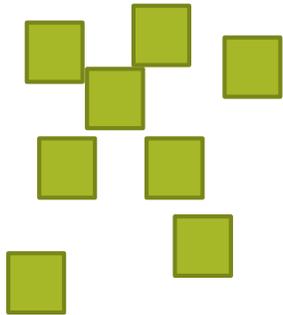
Hmm, why isn't she following what I showed her? I'll have to start again...

Stage 1 (Examine)

Stage 2 (Teach)

Stage 3 (Re-introduce)

Stage 4 (Re-Examine)



These bricks are cool!
(Mammy and Daddy
are playing too!)



Situation 1 – Analysis

- Annabelle followed the instruction and built a mini tower. Annabelle felt good by getting big smiles and clapping from mammy and daddy, even though she doesn't know **WHY** this is important, she has learned something – she has learned how to get a response from mammy and daddy by following their instruction. However, we will label this as 'Annabelle can build a min-tower out of bricks'.
- Annabelle will build the mini-tower again, and receive a response. Eventually mammy and daddy will stop clapping because **they are satisfied** that Annabelle has built a tower (learned something). However, Annabelle doesn't understand **WHY** this is important, but is still seeking a response. She continues to experiment.
- All parties have learned something today, but perhaps not questioned **WHY** this activity is important other than this is 'normal' or 'expected' behaviour.

Situation 2 - Analysis

- Annabelle did not follow the instruction to build a mini-tower. Annabelle did not receive a positive response from mammy and daddy but Annabelle played with the bricks by moving them around into different positions. However, we will label this as 'Annabelle cannot build a mini tower'.
- Annabelle will play with the bricks again but FAIL to build the mini-tower. No response is provided by the parents other than further instruction on how to build the tower they WANT her to build. Annabelle will continue to play with the bricks by moving them into different positions, she will feel the texture of the bricks, she will examine the colour and size of the bricks, and even the weight. Eventually mammy and daddy will become concerned because they are NOT satisfied that Annabelle can follow simple instruction to build the tower (learned nothing). However, Annabelle doesn't understand WHY this is important, other than interruptions from mammy and daddy in her play activity (response from doing the activity incorrectly). She experiments anyway (but for how long?).
- All parties have learned something today, but perhaps the parents have not questioned WHY this activity is important other than this is 'abnormal' or 'unexpected' behaviour.

Let's look at the steps of Annabelle's Journey

Situation 1



Learning



Situation 2



Learning



Let's look at the steps of Annabelle's Journey

We can now start labelling Annabelle in these two situations, we can classify her if we wish, i.e. fast or slow learner, or she has a preference for an approach to learning, or she is more suited to different types of output formation.

Question:

1. In which situation did Annabelle learn more about the bricks?
2. Is the most important part the speed at which Annabelle learned the ability to build the bricks?
3. Is it important for Annabelle to engage in activities that she does not understand?
4. Is it important to measure the output, the process or both?

Learning

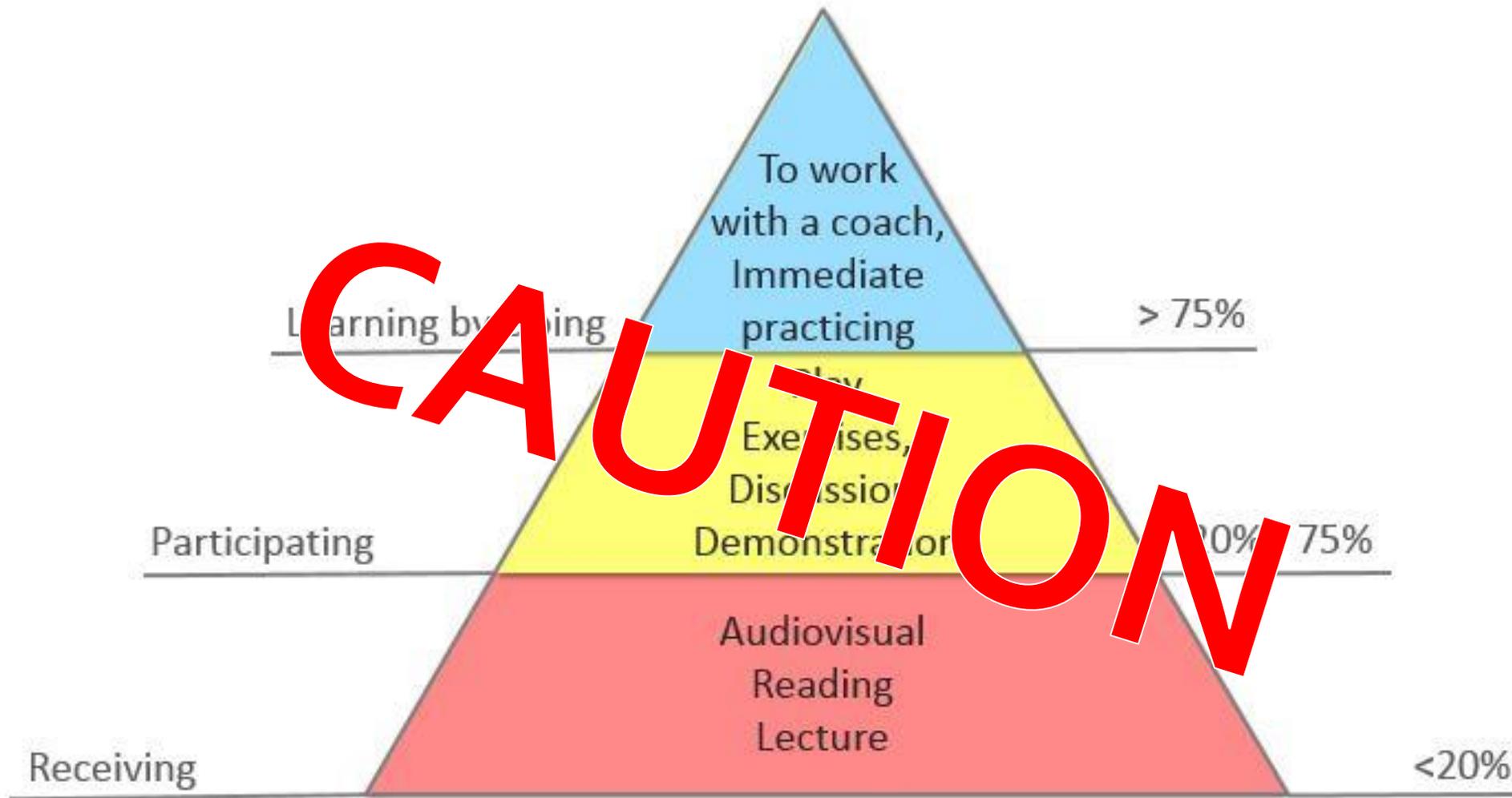
- Ok, so what is learning? What would you say it is?

'Learning is the process of acquiring new, or modifying existing, knowledge, behaviours, skills, values, or preferences'.

Gross, R. (2015). Psychology: The Science of Mind and Behaviour 7E, ISBN 978-1-4441-6436-7.

- How do we know if we've learned something? Who decides?
- **Non-associative learning** (*Habituation - decrease in response to stimulus*)
- **Associative learning** (*Conditioning – reward/punishment*)





CAUTION

Retention of Learning

Learning Styles

VERBAL

Words are your strength!
You prefer to use words both
in speech and in writing!

VISUAL

You prefer to use pictures,
diagrams, images and spatial
understanding to help you
learn.

MUSICAL / AUDITORY

You prefer using sounds or
music or even rhythms to
help you learn.

PHYSICAL / KINAESTHETIC

You use your hands, body
and sense of touch to help
you learn. You might 'act
things out'.

LOGICAL / MATHEMATICAL

Learning is easier for you if
you use logic, reasoning,
systems and sequences.

SOCIAL

You like to learn new things
as a part of a group.
Explaining your
understanding to a group
helps you to learn.

SOLITARY

You like to work alone. You
use self-study and prefer your
own company when
learning.

COMBINATION

Your learning style is a
combination of two or more
of these styles.

WHAT'S YOUR LEARNING STYLE?

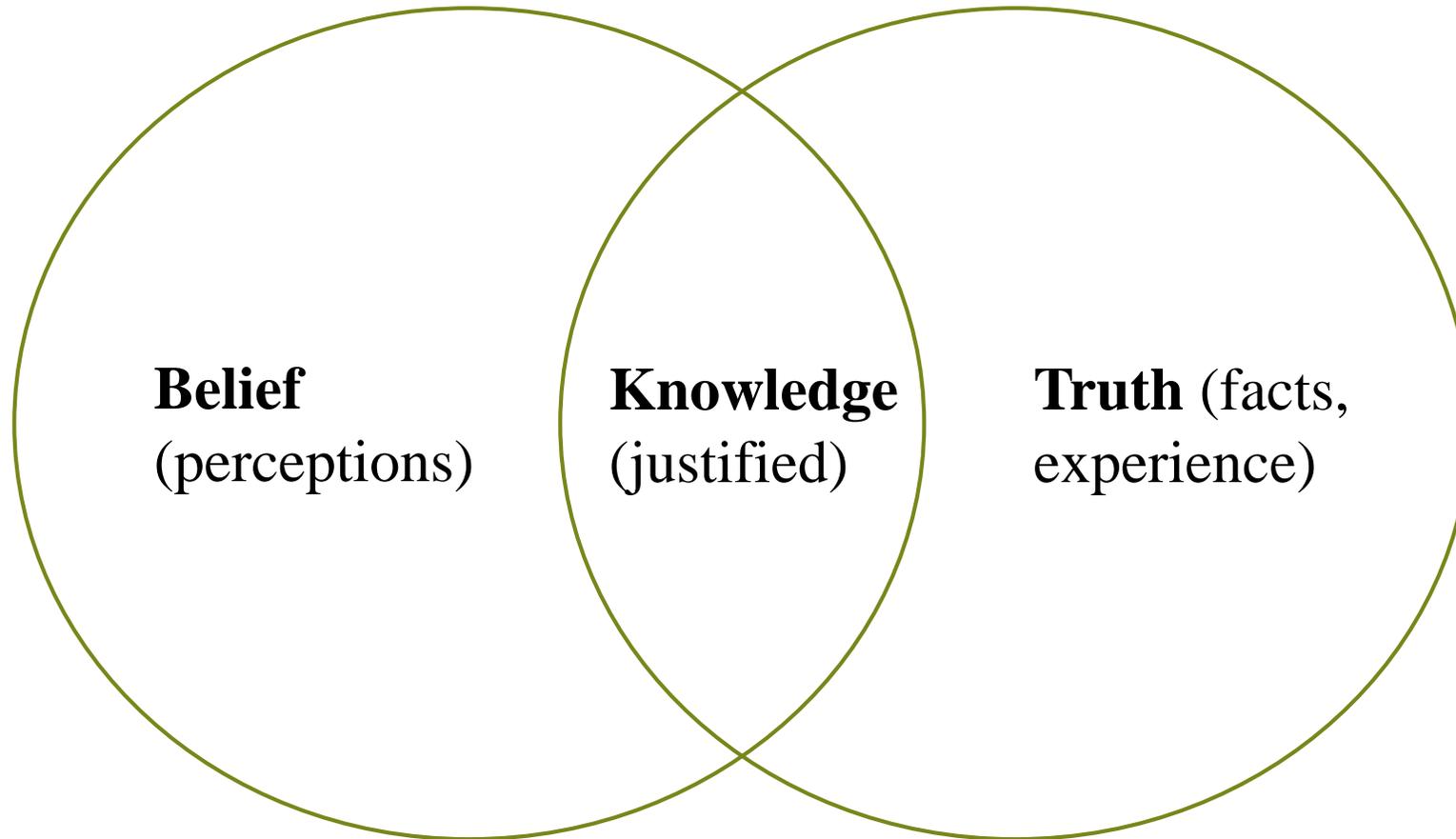
CAUTION

Pedagogy vs Andragogy

- **Children** – willing participants, influential, fast learners, acceptance without understanding, lack of experience/knowledge 'Blank Canvas'
- **Thought and Language** (egocentric speech (up to 8 years of age....))
- **Adults** – questioning, purposeful, existing knowledge (Student Centred Learning)



Epistemology



Levels of Knowledge

- **Level 1, pre-conventional knowing**
(high degree of disorganisation, makes many mistakes)
- **Level 2, conventional knowing**
(Performance becomes habituated and automatic)
- **Level 3, post – conventional knowing**
(Exploration, creativity, new standards of performance)

Christensen, J.E. (1981). Education and Human Development: A study in Educology, Sydney, Educology Research Associates.

LEARNING THEORIES

Shortcut

The Landscape

- Theories formed in a time very different from today
- Majority focused on Pedagogy (Children)
- Male dominated
- And obviously, without the technologies we have today
- So, are they still relevant? Let's find out....

Educational Philosophy

Nature	Nurture
Plato (400BC)	Aristotle (400BC)
Student of Socrates. Wrote 27 books about questioning (Socratic Method). Plato's 'Theory of Forms' - we are born with innate knowledge.	Student of Plato. Aristotle believed we were born without innate knowledge – we form knowledge by experiencing and comparison. 'Taxonomy of Animals'.
Descartes (1600s)	Locke (1600s)
<ul style="list-style-type: none">- Rationalist view (reason/logic)- 'in-born knowledge'	<ul style="list-style-type: none">- Pragmatist view- 'Child's mind is a blank canvas'
Freire (1960s)	Dewey (1900s)
<ul style="list-style-type: none">- Critical Consciousness- Action Learning – Reflective Processes	"equality of learning"

Educational Psychology

Nature	Nurture
Behaviourism (Stimulus and Response)	Cognitive Constructivism (Knowledge construction through experience)
Behaviours are either reflexes produced by a response to certain stimuli in the environment, or a consequence of that individual's history.	Learners must construct their own knowledge. They build their knowledge through experience. (Jean Piaget (1930's) a big player in this field)
Thorndike (1900s)	Köhler (1920s)
- Connectionism (reward response)	- Gestalt Psychology (perception, learning, understanding and thinking as interacting relationships, not separate entities)
Skinner (1950s)	Vygotsky (1920s)
- Positive/Negative reinforcement	- <i>Scaffolding</i> (supportive, layered development through smaller tasks to accomplish goal)

Educational Psychology

Nature	Nurture
Gagné (1960s)	Piaget (1960s)
- 'Conditions of Learning' Expectancy – apprehension – acquisition (lower order parts are mastered before moving to next level)	- Constructivist Thought (learn through constructing knowledge (experience), individually and through others)
	Bruner (1960s)
	- <i>Discovery learning</i> (active participation in the learning process).

Social Psychology (Motivation)

- **Atkinson (1957)**

- *Expectancy-value Theory* (individuals' anticipations that their performance will be followed by either success or failure, and defined value as the relative attractiveness of succeeding or failing on a task).

- **Weiner (1972)**

- *Attribution Theory* (attempts to explain the world and to determine the cause of an event or behaviour, e.g. why people do what they do).

Social Psychology (Social Constructivism)

- **Vygotsky (1930)**

- *Most Knowledgeable Others (MKO's)* (individual learning versus learning with a skilled peer)
- *Zone of Proximal Development (ZPD)* (The distance between actual development level based on independent problem solving and the level of potential development as determined through problem solving in collaboration with more capable peers).

- **Miller and Dollard (1940)**

- *Social Learning Theory* (Their proposition posits that if humans were motivated to learn a particular behaviour that particular behaviour would be learned through clear observations. By imitating these observed actions the individual observer would solidify that learned action and would be rewarded with positive reinforcement)

Social Psychology (Social Constructivism)

- **Rotter (1950)**

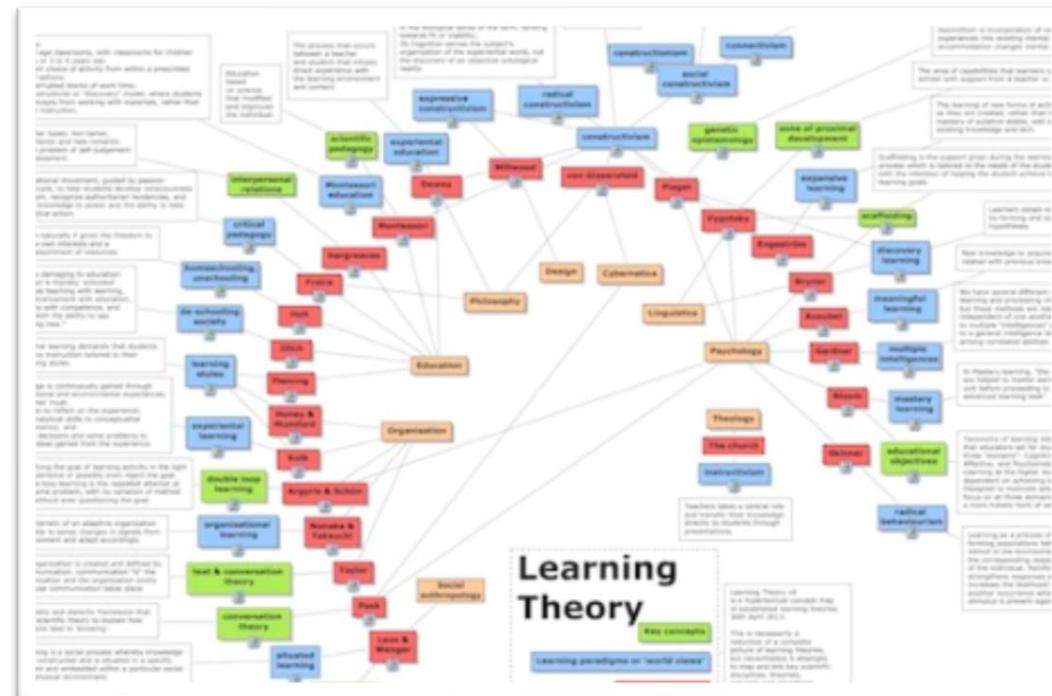
- *Social Learning Theory* (Social learning theory suggests that behaviour is influenced by social context or environmental factors, and not psychological factors alone).
- *Locus of Control* (achievement motivation (internal locus of control) and outer-directedness, or tendency to conform to others (external locus of control)).

- **Bandura (1980)**

- *Social Cognitive Theory* (people can learn through observation alone)
- *Self-Efficacy* (beliefs and thoughts – capabilities)

Support Resources

- Moodle: eBook: Learning Theories – An Educational Perspective
- And this PDF link 



Activity

$$\text{~} = \mathbf{1}$$

$$\text{~} = \mathbf{2}$$

Now that you know this, complete the following....

$$1. \quad \text{~} + \text{~} = 2$$

$$5. \quad \text{~} / \text{~} = 1$$

$$2. \quad \text{)} - \text{~} = 1$$

$$6. \quad \text{~} - \text{~} = 0$$

$$3. \quad \text{)} \times \text{~} = 2$$

$$7. \quad \text{)} * \text{~} = 2$$

$$4. \quad \text{)} / \text{~} = 2$$

Purpose?

- What If I had a symbol for every number – would you like to learn them all?
- Think about your classes, how can you engage them in learning beyond the first two symbols.....

That's all folks!

Any questions?