

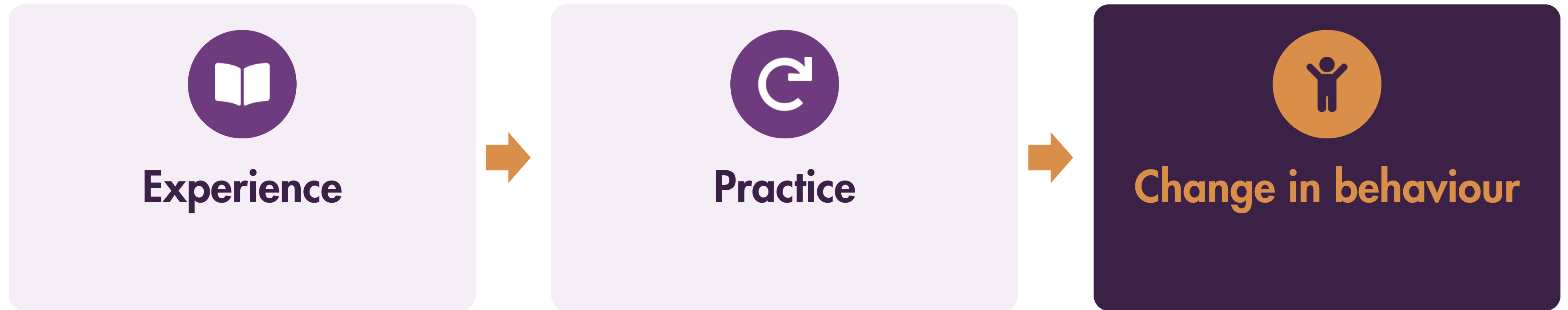
Methods and Laws of Learning

Unit III: Learning and Motivation

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Learning: A Quick Recap



 **Method = HOW we learn. Law = WHY it works.**

Learning is a relatively permanent change in behaviour through experience.



Main Methods of Learning



Trial and error
Thorndike



Conditioning
Pavlov and Skinner



Insight
Köhler



Observation
Bandura



Learning by doing
Dewey



Memorising
Whole, part, spaced



Method 1: Trial and Error

1

Setup: a hungry cat in a puzzle box, food outside

2

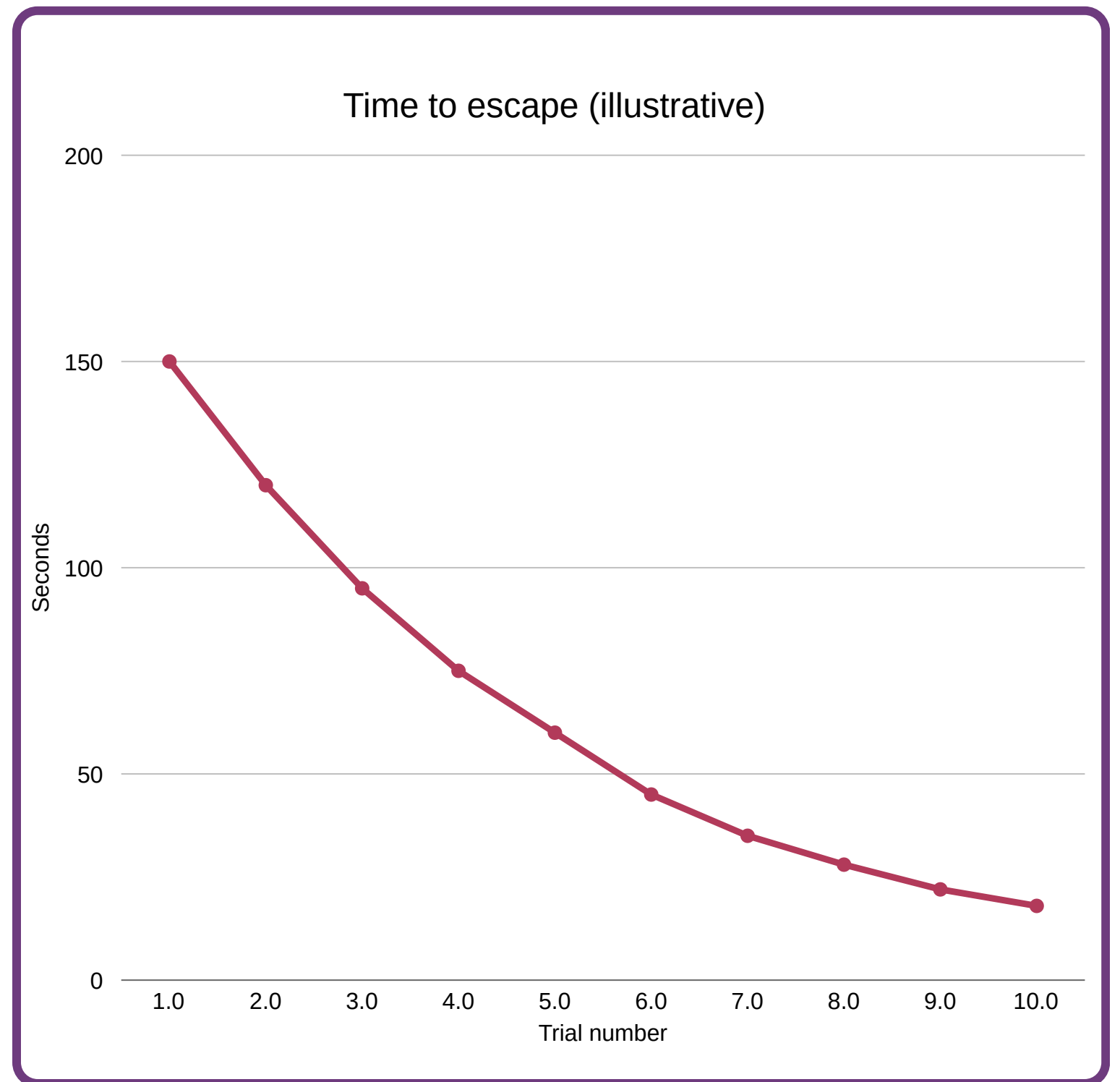
Attempts: random clawing and pushing

3

Success: an accidental press opens the door

4

Result: fewer errors and less time on each trial





Method 2: Conditioning



Before

Food (UCS) causes salivation (UCR)



During

Bell and food are paired again and again



After

Bell (CS) alone causes salivation (CR)



Skinner's operant conditioning: behaviour followed by reinforcement is repeated. A rat presses a lever and gets food.



Method 3: Insight



Köhler: the chimpanzee Sultan stacked boxes to reach a banana



Sudden: the solution appears after studying the whole situation



Best for: concepts, problem solving and discovery



Method 4: Observation and Imitation

Bandura (1961): children imitated an adult with a Bobo doll



Attention: learner notices the model



Retention: remembers what was seen



Reproduction: tries to copy the action



Motivation: wants to repeat it after seeing a reward



Method 5: Learning by Doing



Experiments

Science lab work



Projects

Build a model or run a survey



Practice teaching

Learn teaching by teaching



Dewey: we learn best by doing and then reflecting on the experience.



Method 6: Ways of Memorising



Whole: study the full lesson at once; best for short passages



Part: learn small parts, then join them; best for long, hard content



Massed: one long session; quick gains, faster forgetting



Spaced: short sessions with rest gaps; better long-term memory



Methods at a Glance

Method	Key person	Core idea
Trial and error	Thorndike	Gradual, through attempts
Conditioning	Pavlov, Skinner	Stimulus, response, reward
Insight	Köhler	Sudden understanding
Observation	Bandura	Learning from a model
Doing	Dewey	Learning by activity



Laws of Learning

Laws of Learning

Primary Laws

- Law of Readiness
- Law of Exercise
- Law of Effect

Secondary Laws

- Law of Primacy
- Law of Recency
- Law of Intensity of Stimulus
- Law of Multiple Response
- Law of Set or Attitude
- Law of Analogy and Assimilation
- Law of Associative Shifting
- Law of Partial Activity

Law of Readiness

Readiness: when a learner is ready to act, acting is satisfying; when not ready, being forced is annoying.



Ready and allowed to act: satisfaction



Ready but stopped: annoyance



Not ready but forced: annoyance

Classroom example

A learner curious about a science demonstration learns far more from it than one who is distracted.



Law of Exercise

Exercise: connections grow stronger with use (practice) and weaker with disuse.



Law of use: practice strengthens learning



Law of disuse: neglect weakens it



Practice works best with feedback

Classroom example

Revising multiplication tables daily keeps them fresh; a skill unused for months fades.



Law of Effect

Effect: responses followed by satisfaction are strengthened; those followed by annoyance are weakened.



Reward, praise and success strengthen



Failure or discomfort weakens



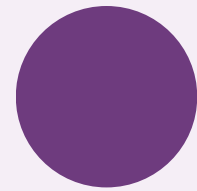
Reward works better than punishment

Classroom example

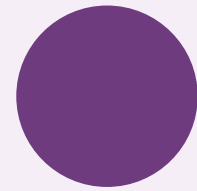
A teacher's smile and 'well done' makes a learner repeat the correct method.



Secondary Laws of Learning



Law of Primacy: The primacy effect means that we remember best what we see or hear first — this becomes primary. In learning, this means that we remember best what we learn first.



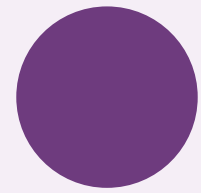
Law of Recency: The principle of recency states that things most recently learned are best remembered.



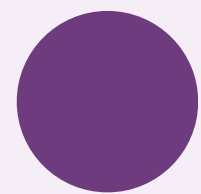
Law of Intensity of Stimulus: The principle of intensity states that if the stimulus (experience) is real, the more likely there is to be a change in behaviour (learning). A vivid, dramatic or exciting learning experience teaches more than a routine or boring experience.



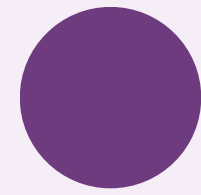
Law of Multiple Response: The law of multiple responses states that learning involves responding in a variety of ways if the first response is not immediately reinforced or satisfied.



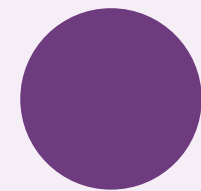
Law of Set or Attitude: This law means learning is affected more in the individual if they are prepared or motivated to learn more or to excel.



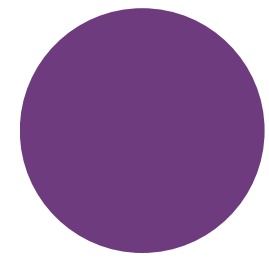
Law of Analogy and Assimilation: The organism makes responses by comparison or analogy and assimilation. When a learner finds similarities and dissimilarities between the lesson and daily experiences, they learn better.



Law of Associative Shifting: This law describes a process whereby a response may shift from one stimulus to another. Learning consists of the formation of connections between stimuli and responses. In Pavlovian conditioning, a dog that salivates in the presence of food gradually learns to salivate in the presence of a bell.



Law of Partial Activity: This law states that teaching should be done in parts. It is more applicable in the case of children's education.



More Principles Teachers Use



Primacy

First learning leaves a strong impression



Recency

Recent learning is recalled best



Intensity

Vivid experiences are learned better



Educational Implications



Readiness

Prepare learners
before teaching



Exercise

Plan regular practice
and revision



Effect

Give praise and quick
feedback



Small steps

Move from easy to
difficult



Variety

Mix methods to suit the
lesson



Enjoyment

Make learning
satisfying



Laws in the Classroom

1

Readiness

Begin with a question, story or demo that sparks curiosity

2

Exercise

Use drills, quizzes and weekly revision

3

Effect

Praise correct answers; give gentle, specific feedback

4

Attitude

Build a positive mood before each lesson



Criticism of Thorndike's Laws



Too mechanical: treats the learner like a machine



Based mostly on animal experiments



Law of effect is circular reasoning



Ignores understanding and insight



Practice alone does not guarantee learning



Underestimates motivation and thinking

Thank You



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