

Skills Teaching Using Systematic Instruction

Callan Institute

Saint John of God Community Services clg



Hospitality Compassion Excellence Justice Respect

Layout of the Course

Day 1:

- Active Support
- How do we learn?
- Getting to know the learner
- Selecting a Skill

Day 2:

- Principles of Systematic Instruction
 - Target
 - Prompt
 - Fade
 - Reward
- Writing a Skills teaching procedure

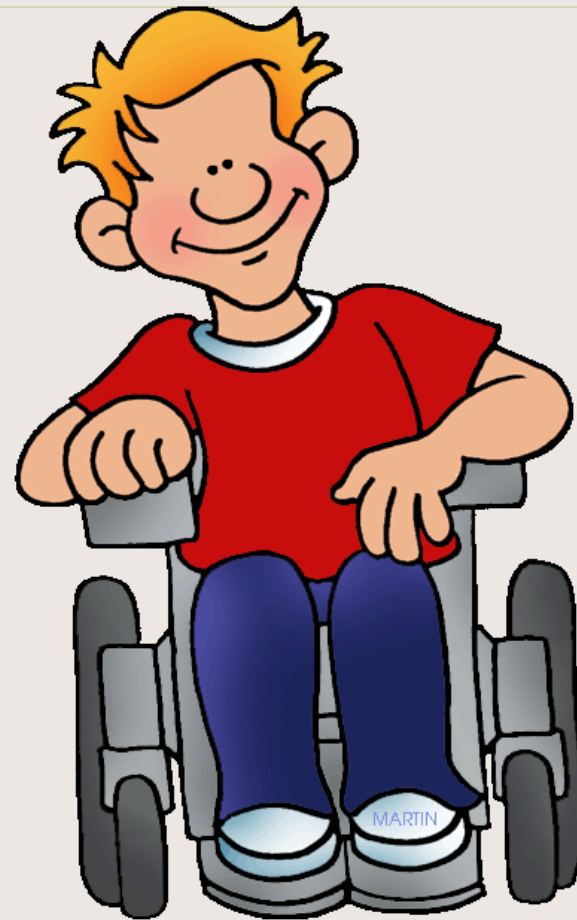
Day 3:

- Measuring skills
- Developing skills

Active Support and Participation

The primary focus is on **participation** with *whatever support is needed* ("partial participation") so the person can take part in life *now*.

- There is no necessary expectation that the person will become more skilled or independent (a key difference from Active Treatment).



Research Findings Underpinning Active Support

- Direct observation in group homes shows that many people with severe intellectual disability spend lots of time doing *little or nothing*.
- These people need support to initiate and participate in activities.
- Staff can be trained to provide the support needed and so substantially increase residents' participation

Active Support: Strengths

- Well researched, evidence based, and has been shown to be effective in real group homes with real staff and residents
- Research mostly reports directly observed **outcomes** for staff and residents (benefits are directly measured and do not have to be inferred)
- Focuses on day-to-day reality, not one-off events or “pie in the sky”

Active Support Videos

Active Support

- Active Support focuses on **what staff do** to support resident participation in individually meaningful activity.
- Staff plan and monitor daily activity with residents and interact with them in a way that encourages and supports their participation.



Doing *with*, not doing *for*

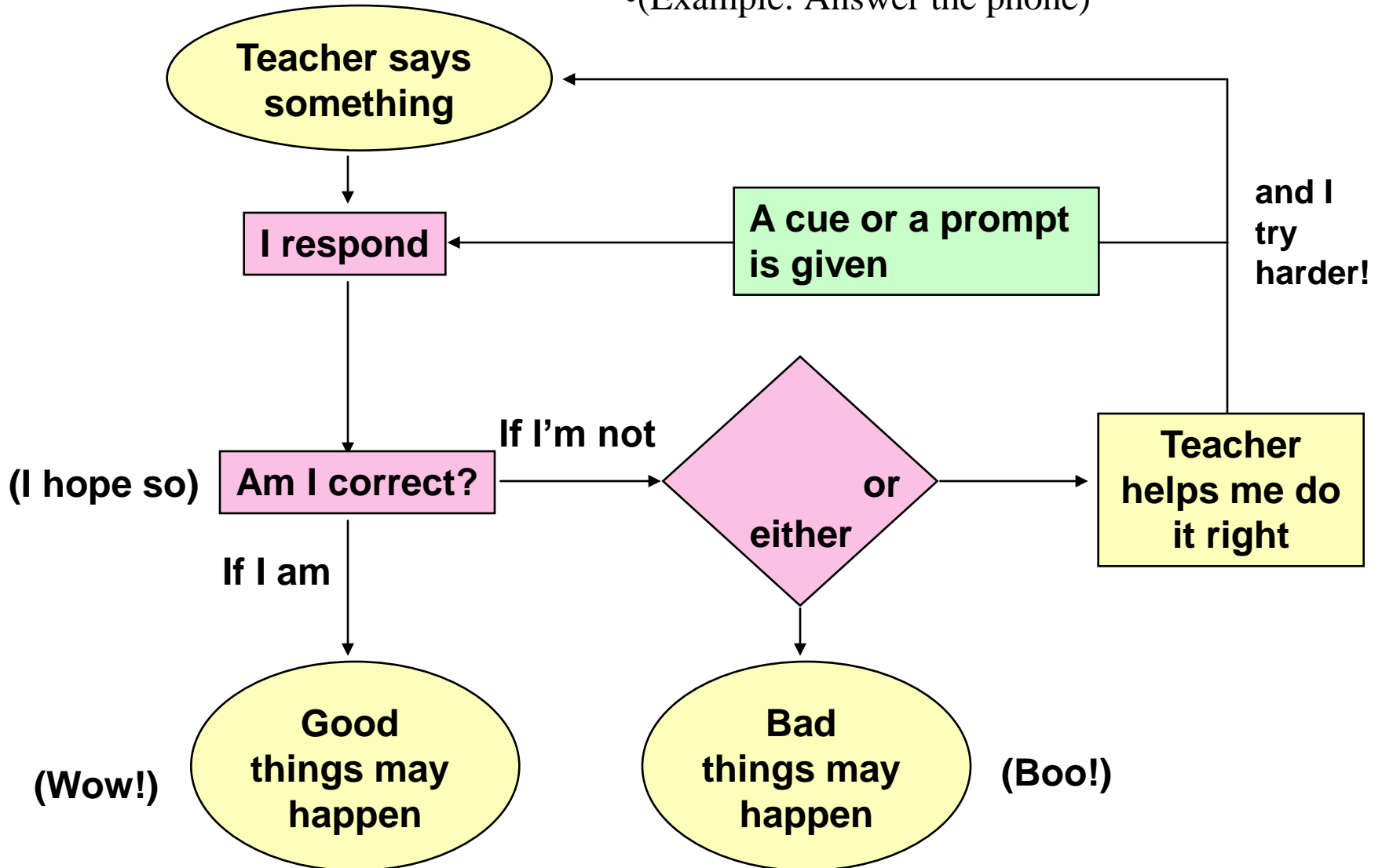
- Staff members' main job should be to **work directly with residents.**
- Active Support helps us refocus on this.
- Active Support is designed to provide a bridge to participation in everyday activities for people who lack the skills to participate independently.

A spiral-bound notebook with a light beige, textured cover. The metal spiral binding is visible on the left side. The text "HOW DO WE LEARN?" is printed in the center in a black, serif font.

HOW DO WE LEARN?

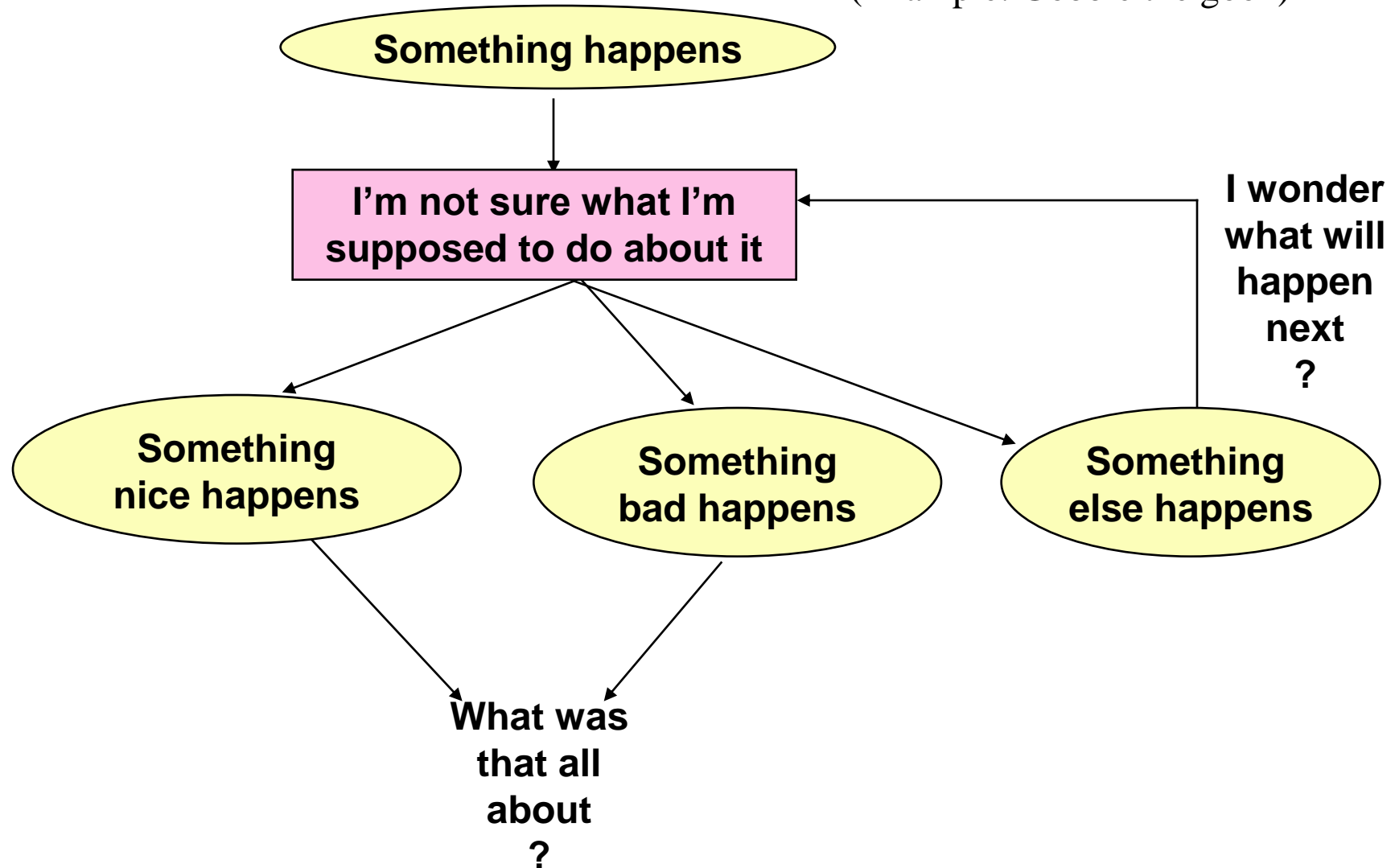
Natural learning diagram

•(Example: Answer the phone)



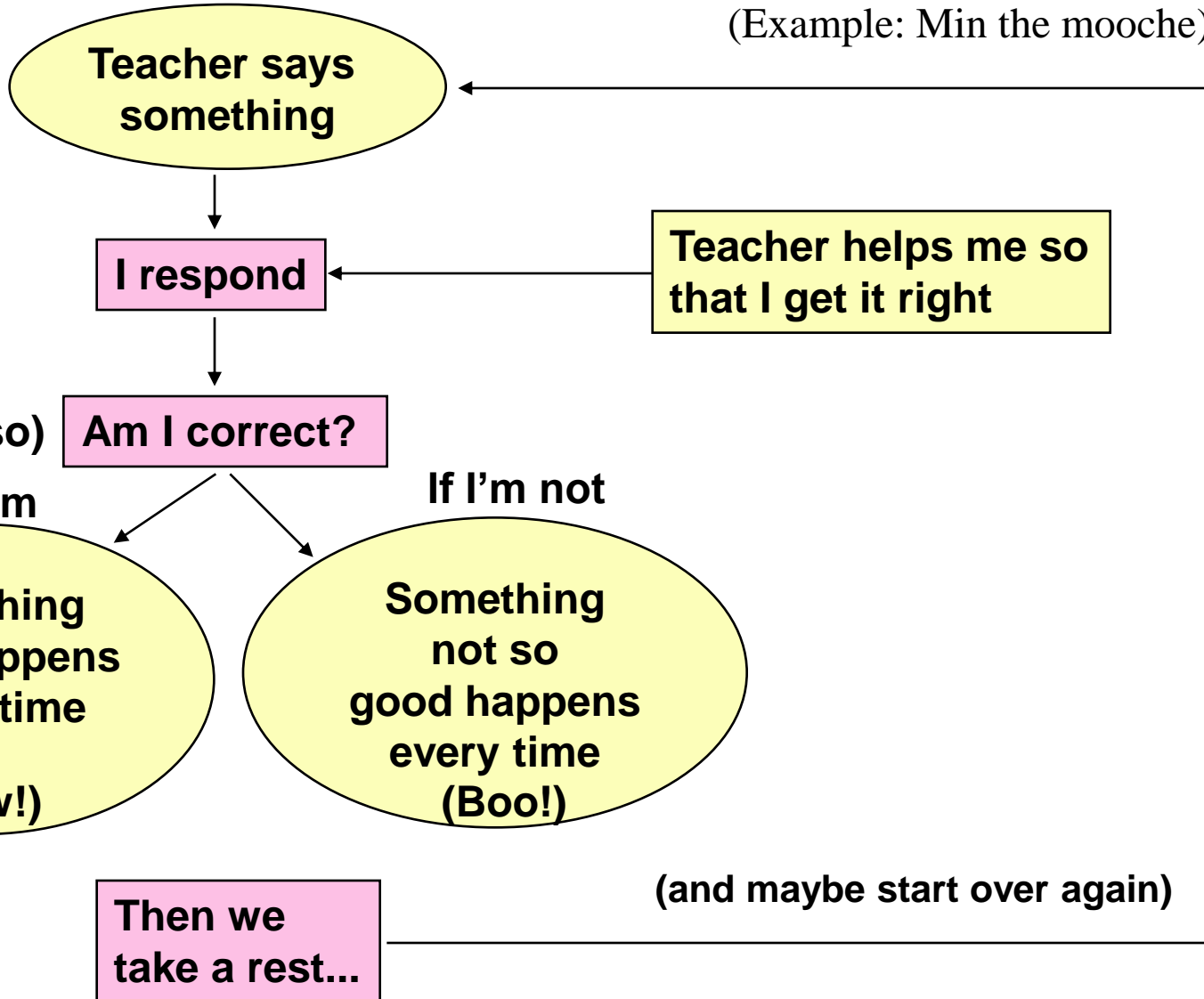
The perspective of the person with severe learning or communication difficulties

(Example: Gobble the gook)



Systematic Instruction

(Example: Min the mooche)



The difference

- The help given to ensure the correct response is given *before* the response occurs
- Reinforcement is clear, obvious and predictable
- A pause at the end of each trial

Systematic instruction

- Skills selection
- Target response stated as a performance
- Good task analysis
- Cue to show reward is available
- Prompts to ensure error free performance
- Reward
- Explicit teaching for generalisation
- Recording

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GETTING TO KNOW THE LEARNER

Communication Assessment

- Receptive
- Expressive
- Function of Communication

Motivational Analysis

- Rewards
- Why do we reward?
- Selecting a reward
- How often to we reward?

A spiral-bound notebook with a light beige, textured cover. The spiral binding is on the left side. The text "SELEECING A SKILL" is printed in the center in a black, serif font.

SELEECING A SKILL

Skills Selection (Target)

- Age Appropriate
- Community Participation
- Choice or Communication
- Functional Analysis
- Quality of Life
- Fun

Age appropriate

- Get inside the person's shoes!
- What are appropriate for same aged peers?
- What is their developmental profile?

Community participation

- What will help the person get on with their friends?
- Will this skill help them to get out and about in the community?
- Will this skill help them with their family?

Quality of life

- Lou Brown's Maxim; Would someone else need to do it?
- How will the skill benefit the person?
- Does the person have an opportunity to use it?
- Will the person's use of this skill increase the amount of dignity and respect that the person is given?

Choice and communication

- Interview the person
- Communication assessment

Functional analysis

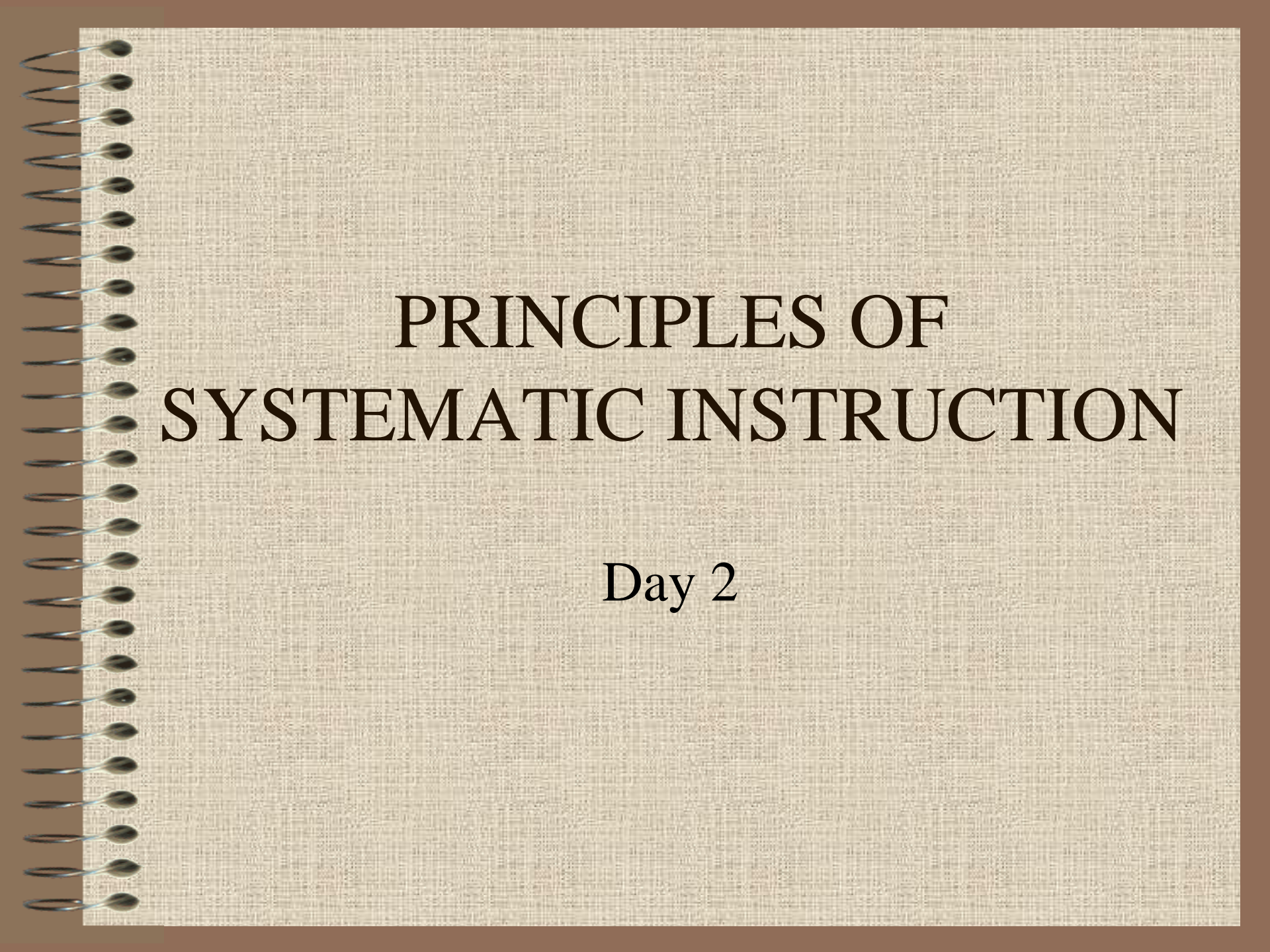
- Challenging behaviours
- The constructive approach
- Function
- Functionally equivalent skills training
- Functional analysis questionnaire

Fun

- Culturally valued means
- Mastery
- The Reinforcement Inventory

First Assignment

1. Select a skill for teaching.
2. Complete three observations.
3. Complete Section A and Section B of the Skills Teaching Report (Pg1-6)

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PRINCIPLES OF SYSTEMATIC INSTRUCTION

Day 2

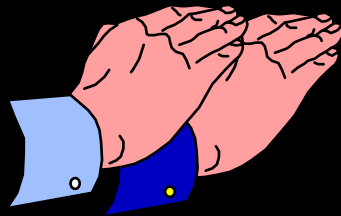
Basic Principles of Systematic Instruction

- Target
- Prompt
- Fade
- Reward

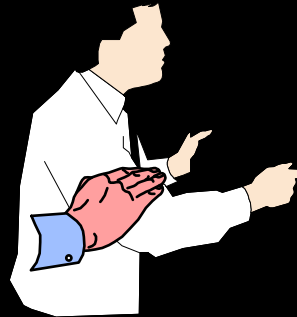
Principles of systematic instruction



Target



Prompt
(Co-Trainer)



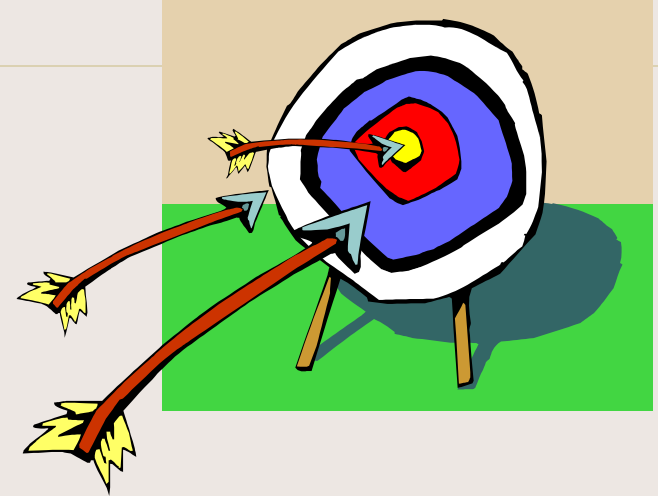
Fade



Reward

Target

- Who?
- Will Do What?
- Under What Conditions?
- With what supports?
- To what criteria?
- E.g. Jane will learn to walk whilst sitting on the horse when in the arena, independently on 3 out of 4 occasions.



Examples of skills targets

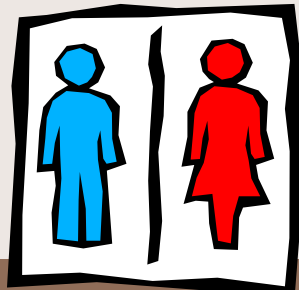
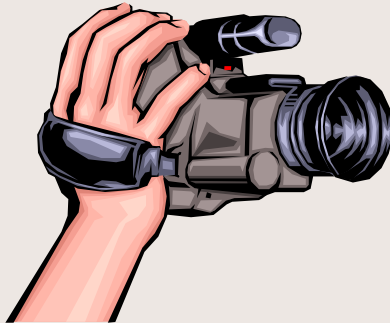
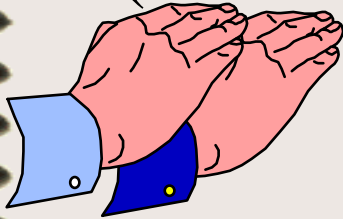
- Sarah will do aerobics at the local health club with staff accompaniment on five consecutive occasions
- Jane will wait (i.e. will not show self-injurious behaviour) for three seconds when asked to on five consecutive occasions
- Ruth will serve herself an additional portion of food from the saucepan using the ladle when she has finished all of the food on her plate

Prompting and correcting

- **Learner learns to respond to the first cue, does not have to wait**
- **Learner is reinforced only for distinctly correct response**
- **Fading is planned: prompt dependence is unlikely**
- **Learner sees that actions have effects**
- Learner does not know which is the real cue, and may learn to wait for assistance or correction
- Learner may be not be sure what is being reinforced
- You cannot fade a correction
- Learner experiences failure

Prompts

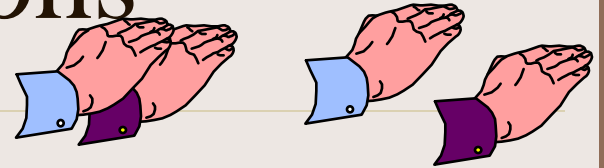
- Verbal, Physical, Gestural, Modelling (Video), Role Play



Prompts

- Be sure that the prompt gives sufficient help to produce the correct response.
- Be sure the prompt is not unnecessary or confusing .
- Be sure the prompt can be faded.
- Use one prompt type, either physical, verbal or visual. (if more than one prompt used, a prompt fading strategy is needed for each one.)

Prompt Options



- Verbal prompts(Auditory)
 - Fade with time interval(s)
 - Audio- IPod, mobile phone head set, church bells
- Physical prompts (Touch)
 - Hand over hand, elbow, shoulder
 - (H/H, H/E, H/S)
- Visual prompts(Vision)
 - Gestures
 - Pictures (picture strips)
 - Demonstration
 - Proximity

Teaching methods

- Modelling
- Chain interrupt
- Picture / Object Exchange
- Co-trainer prompting
- Forced Choice
- Facilitate

Modelling

- Demonstration
- Use of video

Chain Interrupt

- Definition:

Interrupt the steps in a task sequence to teach communication in context.

Picture/Object Exchange

- Mobility
- Self Initiation

Co-trainer Prompting

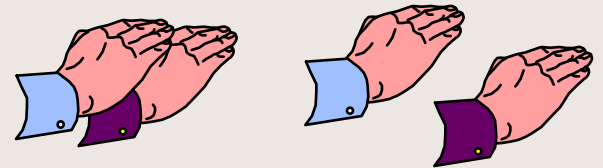
- Discriminates between initiator and responder.
- Easy to fade.
- Physical, verbal, visual prompts.

Forced Choice Test

- Identify a range of potential reinforcers
- Person told “Pick one”
- Response defined
 - grasp
 - gaze
 - smile
- Remove other items
- Record: Item chosen, length of use, reaction
- Remove item and repeat presentation of all items
- Simplified forced choice
 - Two way choices

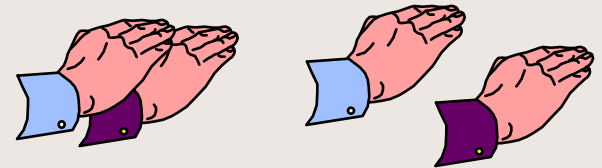
Prompt fading method

- Verbal prompts
- Physical prompts
 - Hand over hand, elbow, shoulder
 - (H/H, H/E, H/S)
- Visual prompts
 - Gestures
 - Pictures
 - Demonstration
 - Proximity



Prompt fading method - example

- Mark will sit in his own seat when arrives in the classroom without reminder from his teacher
 - Arm around shoulder
 - Hand on back
 - Hand on elbow
 - Walk over together

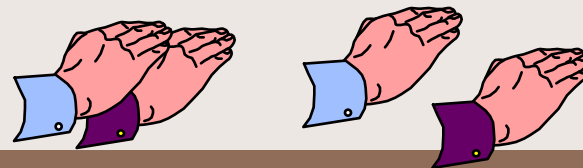


Fade



Prompt fading method - examples

- Gemma will say “Can I have some help please” without reminder when she cannot get the tape into the tape recorder on five consecutive occasions
- David will produce a red card from his pocket, to ask for a task to be removed on five consecutive occasions
- Jeff eat sausages, chips and carrots without help on five occasions (Jeff currently only eats semi - solid foods, although he can chew and swallow chocolate and toffee)



Format

- Continuous
- Momentary
- Discrete trial

Inter-trial interval

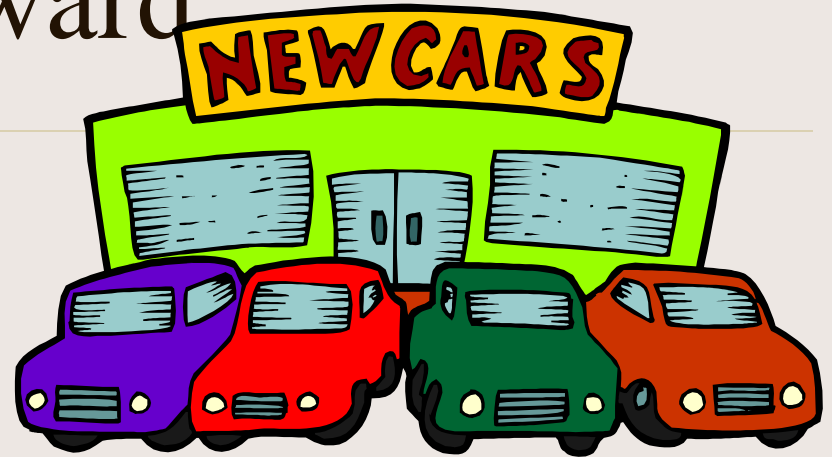
- Reason for pause
- Base length of pause on needs of learner
 - Attention span
 - Stamina
- Use the Pause for conversation, recording reinforcement usage or teaching someone else

Within trial fading

- Probe with ‘within trial fades’
- Silent trials



Reward



- Learning Is Hard!

- It gets easier as we get better at the skill, so we can fade the reward too
- Make sure that we're accessing natural reinforcers instead

Reward / Reinforcement

- Why do we do something again??
- Types of Reinforcement
 - Primary (deal with primary human drives & necessary for life e.g. food, hunger, comfort, sex)
 - Secondary (associated with the above, e.g.. Soft voice, praise, chocolate, pillow, hugs, tea, etc.)
- Pairing Reinforcement
 - Motivation Analysis
 - Creating secondary reinforcers
- Contact Natural Reinforcement where possible

Reward

- Defined as a performance
- Clearly different from the consequence given to a incorrect response
- Look for ways that the artificial reward can be faded to the natural environment
- Use a natural reward

Reward

- Artificial Reward
- Natural Reward
- Fade reward


Examples: Signed Card/ Cup of tea/Road map/A photograph

Motivation Profile

- Rationale
 - Identify events with sufficient motivational characteristics to outweigh the reinforcement associated with non-performance of the target skill.
 - Consent/social validity

Guidelines for designing token schemes

- Individualised
 - concept of number
 - developmental level
 - age appropriateness
 - visual / tactile / auditory systems
- Ease of administration and mobility
- Demonstration of progress
 - filling space
 - DROP schedules
 - jigsaw puzzles
 - reward-o-meter

- 
- Novelty of delivery enhances reinforcement
 - game like quality
 - wheel of fortune
 - lucky dip box
 - lottery ticket
 - token tree
 - clown
 - pick a card
 - A reward culture
 - Review the rules for reinforcement regularly
 - Proactive: Review the deal at the beginning of each interval
 - Reactive: Review the deal at the first sign of behavioural precursors
 - Prompts positive reactions
 - Helps establish self-monitoring

Token systems

- Tokens can overcome satiation
- Consider
 - Happy faces with no exchange
 - Points for the sake of getting points
 - Money that cannot be spent
 - John never remembers to take his tokens
 - Can of Coke
 - Bill loses his tokens every day
 - Annie can earn a maximum of 1,024 tokens every day

Video Work

- Can you identify the target, prompt, fade & reward in the following clips.

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WRITING A SKILLS TEACHING PROCEDURE

Steps

- Communication & Motivation Assessment
- Skill Selection
- Task Analysis
- Practice it yourself!
- Write Systematic Instruction Procedure

Task Analysis Report

- Practice Task
- Break down into 5 – 8 steps

Writing A Skills Teaching Procedure

Shaping

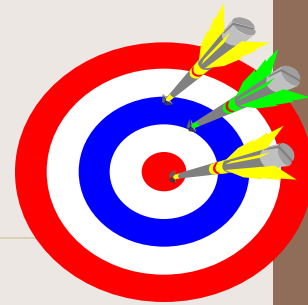
- Start where the person is at, and support them to get to where you want them to be
- (Do something!)

Shaping method -example



- Janet will wait for five minutes without showing self-injurious behaviour when asked to wait for her cup of tea
 - 0 seconds
 - 1 second
 - 3 seconds
 - 5 seconds
 - 10 seconds
 - 20 seconds
 - 30 seconds
 - 45 seconds
 - 1 minute
 - 1 1/2 minutes
 - 2 minutes
 - 3 minutes
 - 5 minutes

Shaping method exercises



- Harry will speak in a normal tone instead of shouting loudly enough to be heard in another room
- Charles will engage in rough and tumble play for three minutes without hitting on three successive occasions
- Sarah will talk to her landlord about getting some work done on her apartment
- Derek will only spit into a waste paper basket
- John will drink four ounces from a cup without spilling

Task Analysis & Chaining

- Break down Skill into it's individual tasks
- Backward chaining
- Forward Chaining
- Whole task presentation

Adapting Skills Teaching

- Selecting the appropriate prompts for your learner
- Motivational Analysis – select rewards that will appeal to them
- **KNOW YOUR LEARNER!!!**

Second Assignment

1. Complete the skills teaching report for the first learner.
2. Select 1 more skill for 1 different individual and complete a second Skills Teaching Report.
3. Complete 2 skills teaching procedures.
4. Begin to teach 1 skill

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MEASURING SKILLS PROGRAMMES

Day 3

Observation & Data Collection

- Baseline Data Collection

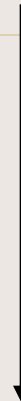
Recording

Date

Step

Correct / Needed extra help

Comments



Programmes on file for months (years!) not reviewed, not active

**Progression criterion reached?
Need to revise task analysis?
Slow or rapid progress?**

**Progression
Revision
Prompts sufficient to ensure correct response**

Codes

- 1 = Correct response
- 0 = Opportunity to try again
- R= Refused to participate

Staff/Family Training

- Verbal Competence
- Role Play Competence
- In vivo competence

S/F	Joe			Mary			Ben		
Skill	VC	RPC	InV	VC	RPC	InV	VC	RPC	InV
DVD	√	√	√	√	√	√	√		
Drink	√	√	√				√	√	√
Bus				√	√	√			

Programme Monitor

- The KISS principle
- Graphs
- Informing significant others

Programme Monitor

- The KISS principle
- Graphs
- Informing significant others

Graphs

- Total number of teaching sessions
- % of successful /effective teaching sessions
- % of teaching sessions occurring in the community
- % of refusals in teaching sessions
- % of opportunities to try again

Generalisation

- Teach it as it is going to be used (e.g. different instructors? Different places?)
- Make sure the skill accesses natural reinforcement
- Teach the learner to access natural reinforcement

Generalisation

- Development of ‘Skill’
- Generalisation of skill across different people, settings, etc.

Generalisation

Preferred Item/Event	Person alone development of this interest	Person with others development of this interest	Person in community development of this interest	Ideas around developing this interest into a business/ Money earner
Fishing	Go Fishing. Look at fishing video; Magazine on Fishing Cook fish for dinner	Go on fishing trip with friend, self selected	Join angling club, go on fishing holidays with group.	Sell fish to local shop/ supermarket, neighbours etc.

Maintenance

- Skills teaching practice
- On-going Data Collection
- Use it or lose it – links right back to skills selection!

Review the Process

- Consent
- Skill Selection(Assessment)
- Target Skill
- Task Analysis(to include 3 observations)
- Complete Skills Teaching Report
- Skills teaching procedure
- Programme Monitor
- Review

Final Assignment

1. Submit 2 Skills Teaching Report with 2 skills teaching procedures with two individuals.
2. Submit a 2-3 minute video clip on one skills teaching procedure.
3. Submit a Programme Monitor for 1 week