Chapter 2: Identifying and Assessing Target Behaviours

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GOALS AND TARGET BEHAVIOURS

- ***Target Person =*** *a person whose behaviour is the target for change*
- Broad characteristics don't specify the behaviours that need to pinpoint more specific characteristics of a person's behaviour to find the target behaviours, which you want to fix
    - ***Target Behaviour =*** is objective and unambiguous
        - So it identifies exactly what the person does that constitutes the behavioural excess or deficit you want to change
        - The definition should be stated in a way that someone who doesn't know the targeted person would understand what the behaviour is & identify the same instances of the behaviour if you were observing independently
        - Some target behaviours are ***behavioural deficits*** (i.e. being late, poorly done reports) and ***behavioural excesses*** (i.e. joking at staff meetings)
        - Once target behaviours have been determined, we can identify & define specific goals for any program we design

Identifying and Defining Behavioural Goals

- Goals behaviour analysts want to achieve by applying a behaviour change program can be of 2 types:
    1. **Outcome Goals** = are broad or abstracted results we want to achieve
        - Are very obvious and straightforward, relating directly to the broad characteristics we've noticed about the person
        - These goals are meant to help more conscientious, cooperative, & productive people
        - **Ex.** Improving students' grades in school
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    2. **Behavioural Goals =** is the level of the target behaviour we hope to achieve in a program
        - Sometimes behavioural and outcome goals are the same
            - This can happen when both goals simply involve quitting a particular behaviour

- Very often they are different, ***outcome goals (^)*** are broader or less directly tied to the specific behaviours
    - **Ex.** Dietary Target Behaviour: Outcome Goal – lose weight, Behavioural Goal – reduce snacking to 2 servings per day

- Not identifying a target behaviour could present a problem because individuals can try to meet the goal in many different ways which aren't the most effective in the long run or is unethical
    - **Ex.** Improving student learning (outcome goal) which focuses on usually only the grades not the behaviour needed to help enable attainment of the goal. Therefore students can cheat to increase their grades

- Once the target behaviour and behavioural goal is determined as well, we need to define them very clear and in ***measurable terms***
    - If not we sometimes assume the behaviour occurred when it didn't or the opposite

- Another good idea is to identify ***behavioural subgoals*** = intermediate levels of the behaviour to be achieved by specific dates during the program

Defining Operant Target Behaviours

- Defining target behaviours clearly and in measurable terms are really important
    - Ex. Target Behaviour – to eat healthier
        - What does that mean? It has to be more specific b/c that could be interpreted in many different ways
        - To change operant behaviours such as eating you need to alter its antecedents & consequences
            - If the target behaviour is too vague, you'll be uncertain when, where, and how to introduce appropriate antecedents & consequences
        - To determine how detail the definition of the target behaviour should be it depends on what you're trying to achieve – definition must match the goal

Defining Respondent Target Behaviours

- Behaviour analysts tend to focus on changing overt behaviour b/c defining it is easier to define external behaviours more clearly and measure them more objectively than internal behaviours
    - **Ex.** Jogging, studying, being assertive

- Defining & measuring covert behaviours – thoughts, feelings, and physiological changes are more problematic but still possible
    - **Ex.** Negative thoughts of one self can be defined by typical words/phrases the person thinks (i.e. lazy / stupid)
    - Measuring behaviour is a very subjective process
    - w/o some independent way of substantiating the person's self-reports, any progress that is made will be unclear
- Defining & measuring internal changes in physiology (i.e. heart rate or blood pressure) often require special apparatus / biochemical analyses

Complex Behaviours

- Operant target behaviours that we want to teach or improve involves a complex set of responses
    - It is useful to determine what these responses are & whether they need to be performed in a certain sequence
- ***Behavioural Change =*** is a motor activity that consists of a sequence of antecedents (Stimuli) and responses
    - ***Link =*** each antecedent-response pair making up the chain
    - **Ex.** Washing your hair: see shampoo bottle (antecedents) → reach & grasp bottle (responses)
    - To perform a chain correctly, the links must be done pretty much in a particular order
        - Learning a chain can be difficult for those w/ limited learning abilities or if the task is extremely complicated
    - Once the component links of a complex tasks are identified, a program can be designed to train the person to perform each component & put all the links together

Defining Respondent Target Behaviours

- Since we learn CRs (i.e. fears & dislikes) they can be targets of change programs
- Respondent behaviours can be overt or covert, often they are both
    - **Ex.** When we are afraid → show external signs of fear (facial expressions) & experience internal behaviours (negative thoughts)
- When designing a program to change a respondent behaviour we need to define the behaviour in terms of internal & external responses or both

Prioritizing: Which Behaviour to Address First

- Clients who have 1 behaviour they want to change don't need to make a decision on which behaviours to address
- Often a target person has many behaviours they need to improve & the behaviour analysts needs to decide how to sequence the changes which is based on the extent to which changed behaviour is likely to contribute to the person's behavioural & social functioning
- To make decisions, behaviour analyst can try to answer the following questions:
    - *"Is the new or changed behaviour likely to …."*
        - *Lead to reinforcement in the target person's everyday environment?*
        - *Reduce the occurrence of harm or damage?*
        - *Be a prerequisite for learning a skill that enables the person to function better?*
        - *Affect in positive ways important individuals in the client's life?*
        - *Be a behavioural cusp?*
            - ***Behavioural Cusp =*** a behaviour that has benefits beyond its direct effects b/c it exposes the person to new & richer environments, learning opportunities, and consequences that would not be available otherwise
        - *Show response generalization?*
            - ***Response Generalization =*** altering one behaviour leads to similar changes in another, unaddressed response, usually one that is similar or related to the target behaviour
        - *Take the place of or interfere with performing a problem behaviour?*
    - If you answer **yes** to any of these questions it supports giving priority to changing the behaviour in question
    - Other factors analysts consider are the likely degree of success in changing the behaviour with the particular client & how much money/resources the change will cost
    - Not all the questions can be answered unambiguously but educated guesses can help set priorities

HOW TO ASSESS TARGET BEHAVIOURS

- Behaviour analysts need to be able to measure the target behaviour at diff pts in the process to see whether efforts are working
    - When problems involve…

- Behaviour deficit → want the measure to show an increase
- Behaviour excess → want the measure to show a decrease

- When assessing behaviour we require the collection of data

Types of Data

1. **Frequency =** of a behaviour refers to the # of times the response was observed
    - Is an appropriate measure when the behavioural goal involves *changing how often* the behaviour occurs & each instance of the target behaviour is *discrete* (= clear start & end) & takes about the *same amount of time* to perform
2. **Duration** = refers to the length of time each instance of the target lasts from start to finish
    - This type of data is appropriate for assessing instances of a target behaviour that last for *varying periods of time* & are subject to a *behavioural goal* that involves either *increasing/decreasing that time*
3. **Magnitude =** its intensity, degree, or size
    - Using this type of data is appropriate if the behavioural goal involves *changing the intensity, degree, or size* of an action or its product & if that measure *can or does vary*
    - It is important to use a magnitude measure when changing emotional behaviours such as overt & covert expressions of anger, jealousy, fear, & depression
        - Most common way to measure emotion magnitude is to use a *rating scale* w/ discrete numerical values

Data of Other Types

- ***Latency*** = The amount of time a person takes to initiate the appropriate response to an antecedent
- ***Quality*** – behavioural goal involves improving *how well* the person performs a target behaviour
    - Quality is often assessed w/ a rating scale
    - Quality may be a useful measure include drawing pictures, playing a musical instrument, & performing athletic skills
- ***Trials-to-criterion*** = involves tallying the # of trails the target person needed to achieve a specific level of performance
    - ***Trial*** = an opportunity to perform a particular behaviour in a certain time period
- ***Percentage =*** the proportions of behaviours or individuals performing behaviours that meet some criterion multiplied by 100

- Are especially useful measures when ppl have *many opportunities to respond* or when the *opportunities to meet a behavioural criterion vary* across time/circumstances

- **2** issues to consider when collecting data"
    - Often necessary to collect more than one type of data to reflect changes in a target behaviour
    - Useful to design & record data on carefully structured ***data sheets***
        - Can incorporate a lengthy checklist of behaviours to be assessed w/ 2/more types of data

Strategies for Assessing Behaviour

- Overt target behaviours can & should be assessed directly but covert behaviours are often assessed indirectly, supplemented w/ direct measures when possible

Direct Assessment Methods

- **Direct Assessment Methods =** observers measure instances of the actual target behaviour in a straightforward manner, usually by seeing / hearing them
    - W/ this method, observers may measure the behaviour in 3 ways:
        - While in the same room/setting as the target person
        - By watching secretly from an adjacent room, perhaps through a one-way mirror
        - By making a video/audio recording of the behaviour & scoring it later
    - ***Structured tests*** of the behaviour = specific events are arranged to occur during the test
    - Direct assessment methods often use devices to measure physical characteristics or dimensions of behaviour
    - Are the preferred approaches for collecting data in applied behaviour anaylsis programs to change overt behaviour
    - Drawbacks:
        - Time consuming & expensive to use if observers are needed
        - Sometimes assess only a sample of the target behaviour & the sample may/may not be representative of the person's behaviour in everyday life

Indirect Assessment Methods

- **Indirect Assessment Methods =** use abstract/roundabout ways to measure the target behaviour, usually by having the client or others who know him or her well complete interviews, questionnaires, or rating scales
    - ***Interviews*** – are the most widely used assessment procedures in behaviour therapy
        - Identify the client's behavioural deficits & excesses, as well as existing antecedents & consequences for the problem behaviours & potential consequences to use in treatment
        - Help in assessing related issues, such as important cultural norms that exist in the client's life & persons who will be affected by changes in the client's behaviour
        - Therapist try to establish w/ interviewees a relationship of mutual trust called ***rapport***
    - ***Questionnaires & Rating Scales*** → these self- report instruments can provide info about the client's background
    - Physiological measures are the only objective approaches available to assess covert events & these assessments can produce data on frequency, duration, and magnitude of the target behaviour

Timing and Accuracy of Behavioural Assessments

Timing Behavioural Assessments

- **Continuous Reading =** involves designating a specific period of time & trying to observe and record every instance of the target behaviour during that time
    - can include all types of data – frequency, duration, magnitude, and latency
    - can be difficult to use at extremely high rates or is the observer must monitor other events
- **Interval Recording** = designate a # of specific observation periods, divide each period into fairly short intervals of equal length, and record whether the target behaviour occurs in each internal
- **Time Sampling** = designate one/more observation periods of equal length, divide each period into subperiods of equal length, and designate a short interval at the start reach subperiod for collecting data

Accuracy and Validity of Behavioural Assessments

- In order for assessments to be useful they must be reasonably accurate & valid
    - ***Accurate =*** to the extent that the recorded value is the same as the true value
    - ***Valid*** = to the degree that it reflects what it is intended to measure

- Direct assessment methods generally measure the actual behaviours they are intended to examine
    - Accuracy of these measures depends on how carefully the behaviour has been defined and thoroughly the observers have been trained and how precise the measure are if scales & devices are used to assess
- Indirect assessment methods (i.e. interviews, questionnaires) generally involve subjective estimates and rely on ppl's memories, which may impair the validity & accuracy of the assessment
    - We can enhance the validity by seeking corroboration from other ppl (i.e. family members)
    - Accuracy is enhanced when questions are asked & answered clearly & when the person who administers interview or physiological tests is highly trained
- **Reactivity =** a phenomenon wen observing behaviour can affect its performance
    - Usually makes a person's behaviour more desirable or socially acceptable
    - Effects of reactivity can be short lived if the observee "gets use to" being observed
    - When s***elf-monitoring*** techniques are used = the observee and the observer are the same person

Developmental and Normative Comparisons

- Normal or acceptable behaviour changes w/ age
- Strategies used when assessing behaviour & the way data is interpreted should be sensitive to the individual's developmental level → was is normal for that age

Assessing Data Reliability

- ***Reliability*** = refers to the degree of consistency or dependability of the data a measurement procedure produces
    - Data 1 observer records are accurate & reliable, a 2nd observer who watches simultaneously & independently for the same behaviour should produce very similar records
- **Interobserver Agreement (IOA)/ (*Interrater Reliability or Interobserver Reliability)* =** the degree of consistency of the data independent observers record when measuring the same events
    - Data is more reliable if it is accurate
    - <u>2 Methods Used to Evaluate the Consistency of the Data Different Observers have Collected:</u>

        - ***Session Totals Method -*** all data collected by each of the 2 observers in an observation session or period are added, the smaller total is divided by the larger, and a percentage of agreement or consistency s obtained by multiplying by 100

        - ***Point-by-point Agreement Method / (interval by interval method) –*** *only one instance of the target behaviour is recorded for each particular, specified time interval in an extended observation period even if many more instances occurred*

    - Many researchers don't include data for non-occurrences of the behaviour b/c these data are more likely to be faculty or inaccurate than data for occurrences

    - One exception to the rule is when the target is a behavioural excess and the observers need to determine if they agree that the behaviour no longer occurs when the antecedent cues are present

- Some evidence indicates that letting observers know their records will be checked against those of other observers appears to increase their accuracy

- Methods to test IOA can be used in training observers before they begin to collect data for the research itself

- 80% agreement is the minimum agreement is the minimum acceptable level if reliability

- Data collected w/ indirect assessment methods can be compared for IOA in a similar manner