UNIT 10
OBSERVATION AND PHYSIOLOGICAL MEASURES

1. WHAT IS OBSERVATION

Observation is the systematic process of recording the behavioral patterns of people, objects, and events without directly questioning or communicating with the subjects. The required information is obtained by observing and recording relevant phenomena.

Instead of asking consumers *why* they bought a product (which is self-report/survey data), observation involves silently watching what they actually do (e.g., how long they spend looking at a display, which products they pick up, the path they take through a store).

2. BEHAVIORAL AND NON-BEHAVIORAL OBSERVATION

Observation can be classified based on whether the observer is watching actions or recorded states.

Type	Focus	Examples
Behavioral Observation	Watching actions, body language, nonverbal cues, spatial relationships, and temporal events.	**Actions:** A child opening a cereal box. **Spatial:** Observing traffic flow patterns. **Nonverbal:** A consumer frowning while reading a price tag. **Temporal:** The time taken to complete an online checkout.
Non-behavioral Observation	Recording inanimate objects, past analytical records, or mechanical/physical conditions.	**Record Analysis:** Counting inventory in a store. **Physical Condition:** Checking the quality of a road surface. **Content Analysis:** Counting the number of times a brand logo appears in a movie.

Observation can also be classified by method:

- **Structured vs. Unstructured:**
    - **Structured:** The researcher clearly defines what to observe and how to record it (e.g., checking off specific behaviors on a checklist). Used when the problem is clearly defined.
    - **Unstructured:** The observer records all relevant phenomena without pre-defined rules. Used in exploratory research where all facets of the behavior are important.
- **Natural vs. Contrived:**
    - **Natural:** Observing behavior as it takes place in its natural environment (e.g., watching shoppers in a grocery store).
    - **Contrived:** The researcher creates an artificial environment to observe behavior (e.g., setting up a mock store or lab to test product use).

3. EVALUATION OF OBSERVATIONAL METHOD

Category	Advantages	Disadvantages
Accuracy	Eliminates response bias and social desirability bias (people behave naturally when they don't know they are being watched).	Cannot observe underlying motivations, beliefs, attitudes, or intentions (i.e., you see *what* they do, but not *why*).
Data Quality	Provides accurate data on behavior, especially for unconscious or fleeting actions.	Observation is selective—if the behavior occurs infrequently or is of short duration, it might be missed.
Time & Cost	Can be faster and cheaper than surveying a large population if the target behavior is common.	Can be very time-consuming and expensive if the desired behavior is rare.
Depth	The only way to accurately record behavior when the subject is unwilling or unable to report it (e.g., children).	Ethical concerns, especially when using hidden (unobtrusive) techniques.

4. THE OBSERVER-SUBJECT RELATION

This refers to whether the subject is aware that they are being observed, which dictates how natural their behavior will be.

Relation Type	Term	Explanation
Open (Known)	Undisguised Observation	The subjects are aware they are being observed (e.g., focus groups, in-store researchers wearing badges). This may lead to the Hawthorne Effect (subjects change behavior because they know they are being watched).
Hidden (Unknown)	Disguised Observation	Subjects are unaware that observation is taking place (e.g., hidden cameras, one-way mirrors). This leads to more natural, valid behavior but raises serious ethical concerns.

5. CONDUCTING AN OBSERVATIONAL STUDY

The process for designing and executing an observational study:

1. **Define the Objectives:** What specific behavior or non-behavioral element needs to be measured (e.g., "Measure the time spent deciding between competing detergent brands").
2. **Select the Method:** Choose between human observation (fieldworker) or mechanical/electronic observation (cameras, eye-tracking).
3. **Create the Observation Form:** Develop a clear, structured document or checklist specifying the **categories of behavior** and the **time intervals** for recording.

4. **Select the Site/Sample:** Determine the location and when the observation will take place (e.g., Tuesday mornings at three specific mall locations).
5. **Train the Observers:** Ensure human observers are highly consistent (reliable) in how they record the data.
6. **Data Collection and Analysis:** Execute the observation and analyze the recorded data (often simple counts, frequencies, or duration measurements).

6. UNOBTRUSIVE MEASURES

Unobtrusive measures are methods of data collection that involve no direct interaction with the subjects. They are entirely disguised and typically rely on physical traces or archival data. These are methods that collect data without the people being studied ever knowing they were part of the research. They are often used to measure the results of past behavior.

- **Examples:**
    - **Garbage Analysis (Physical Traces):** Looking at household trash to determine actual consumption patterns (e.g., counting empty beer cans versus self-reported drinking habits).
    - **Erosion:** Measuring the wear on floor tiles in a museum to determine the popularity of exhibits.
    - **Accretion:** Counting the number of fingerprints on a glass display case to see how many people touched it.
    - **Archival Records:** Analyzing company sales data, public records, or content found online.

7. PHYSIOLOGICAL MEASURES

Physiological Measures are mechanical or electronic recordings of involuntary biological and physical reactions of consumers to marketing stimuli (e.g., advertising, product packaging). These measures capture the affective (emotional) component of attitude.

These tools measure subconscious changes in the body that indicate interest, arousal, or emotional response, bypassing the person's ability to lie or consciously edit their response. This area is often called Neuromarketing.

Measure	What is Measured	What it Indicates
Eye Tracking	Eye fixation and pupil dilation.	**Fixation:** Attention and interest. **Dilation:** Arousal, cognitive effort, or emotional response.
Galvanic Skin Response (GSR) / Skin Conductance	Electrical resistance of the skin (sweating).	Emotional Arousal (excitement, tension, shock, or high engagement).

Electroencephalography (EEG)	Electrical activity in the brain (brain waves).	Engagement, memory formation, and relative emotional valence (positive/negative response).
Facial Coding	Analysis of micro-expressions (subtle, involuntary facial muscle movements).	Specific emotions like joy, disgust, or surprise, often used to evaluate ads.
Voice Pitch Analysis	Changes in voice frequency.	Emotional stress or excitement when talking about a product.