ST3004: Research Methods

Data Collection - Observation
Observation

- **Observation**: the systematic observation, recording, description, analysis and interpretation of people’s behaviour.

- If your research question(s) and objectives are concerned with what people do, watch them do it!
Observation

- **Participant observation**
  - Qualitative
  - Derives from the work of early 20\textsuperscript{th} century social anthropology
  - Emphasis is on discovering the meanings that people attach to their actions.

- **Structured observation**
  - Quantitative
  - More concerned with the frequency of those actions
Participant Observation

- The researcher participates in the lives and activities of subjects/becomes a member of the group, organisation or community sharing experiences not just by observing but also feeling 'What is going on'.

- Has roots in social anthropology but is not much used in management and business.

- Involves immersion by the researcher to discover the delicate nuances of meaning of those observed.

- Ethical issues?
Participant Observation

- Researchers going 'under cover' as members of 'street society' in USA. Similar strategies have been used in making documentaries for TV/film (inhabitants of the NY subways)

- Mong (1997) – Business graduate used meetings to investigate cross-cultural power
Strengths of Participant Observation

Learning from Researcher
Subjectivity

Discovering Meaning behind Actions
Insider Research

Insider research is research by complete members of organisational systems in and on their own organisations.

Participant Observation - Roles

Researcher Roles  
(Gill & Johnson, 2002)

- Complete Participant
  - Participates
    - Identity concealed
- Complete Observer
  - Observes
    - Identity concealed
- Observer as Participant
  - Observes
    - Identity revealed
- Participant as Observer
  - Participates
    - Identity revealed
Complete Participant

- You attempt to become a member of the group in which you are performing research.

- You do not reveal your true purpose to the group members.

- You may be able to justify this role on pure research grounds, but ethical considerations...
Complete Observer

- Acting as observer but not participating in the activities of the group studied.

- E.g. consumer behaviour in supermarkets by researcher being located at the checkouts

Sample Questions:
- Which checkouts do they choose
- How much interaction with fellow shoppers
- How do they appear to be influenced by the attitude of the cashier
- What level of impatience is displayed when delays are experienced?
Observer as Participant

- Researcher as spectator - your identity as a researcher would be clear to all concerned.

- E.g. You observe an outward bound course for team building without taking part in the activities

- Advantage: you can focus on your researcher role

- Disadvantage: Loss of the emotional involvement
Participant as Observer

- You reveal your role as observer.

- You are particularly interested to gain the trust of the group.

- E.g. This was the role adopted by the sociologist Punch (1993) in his study of police work in Amsterdam.
How to Chose your Role

- **The purpose of your research**
  - Is your research question something that your participants might not want to be open about?
  - Is it important that you undergo the experience yourself?

- **The time you have to devote to your research**
  - Some of the roles may be very time consuming especially if you’re looking for a rich understanding
How to Chose your Role

- *The degree to which you feel suited to participant observation*
  - Not everybody is suited to this type of research.
  - Much of it relies on the building of relationships with others. A certain amount of personal flexibility is also needed.

- **Organisational Access**

- *Ethical Considerations*
Types of Data

- **Primary observations** - where you would note what happened or what was said at the time (often keeping a diary)

- **Secondary observations** - statements by observers of what happened or was said (necessarily involves those observers’ interpretations).

- **Experiential Data** - on researcher's perceptions and feelings in a diary
Data Collection

- Recording must take place on the same day as the fieldwork in order that you do not forget valuable data.
The Mindcam methodology:
perceiving through the native's eye

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University of Auckland, Auckland, New Zealand

Abstract
Purpose – Consumer researchers and marketing practitioners increasingly appreciate the potential of videography to generate better insights into consumers’ behaviours. The purpose of this paper is to introduce the Mindcam research methodology as an addition to the videographers tool-kit, which uniquely records and interprets videographic data from a first-person perspective.

Design/methodology/approach – The philosophical rationale for collecting observational data from the informant’s perspective is presented. A full description is provided of an innovative research method that allows market researchers to observe, record and interpret consumers’ experiences from the informants’ literal and figurative viewpoints. The technical and ethical issues that should be addressed when using this methodology are specified.

Findings – Observational research presently shapes and edits data as it is collected, filtering others’ behaviour through the researcher’s perspective to generate interpretive insights. Recording consumers’ lived reality, from their own unedited perspective, allows the consumer experience to be re-lived by the researcher. This assists in generating a negotiated interpretation of the consumer’s reality. Findings are not constrained by the researcher’s perspective of the informants’ reality.

Originality/value – This new method integrates own-perspective videography with post-hoc visual elicitation, thereby generating informant-driven perspectives of their own lived consumption reality. Dual-mode presentation of the data (original experience with the informant’s interpretation) enables viewers to judge the truthfulness of the interviewer-informant negotiated interpretation of the informant’s lived consumption reality. Enough information is provided for others to employ
The Mindcam methodology:

Starr Fernandez (2007) - Perceiving through a native’s eye

- Ethical issues
- Doesn’t capture informant’s facial expressions
Data analysis

- in participant observation research your data collection and analysis activity may be part of the same process.

- That is, you will be carrying out analysis and collection of data simultaneously.
### Participant Observation: Advantages and Disadvantages

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>It is good at explaining ‘what is going on’ in particular social situations</td>
<td>It can be very time consuming</td>
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<tr>
<td>It heightens the researcher’s awareness of significant social processes</td>
<td>It can pose difficult ethical dilemmas for the researcher</td>
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<tr>
<td>It is particularly useful for researchers working within their own organisations</td>
<td>There can be high levels of role conflict for the researcher (e.g. ‘colleague’ versus researcher)</td>
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<tr>
<td>Some participant observation affords the opportunity for the researcher to the experience ‘for real’ the emotions of those who are being researched</td>
<td>The closeness of the researcher to the situation being observed can lead to significant observer bias</td>
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<tr>
<td>Virtually all data collected are useful</td>
<td>The participant observer role is a very demanding one, to which not all researchers will be suited</td>
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<td></td>
<td>Access to organisations may be difficult</td>
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<td></td>
<td>Data recording is often very difficult for the researcher</td>
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</table>
Challenges

- Site Access
- Role acceptance (colleague vs. researcher)
- Data Collection can be difficult
- Controlling of effect of researcher
- Ethical Dilemmas
- Objectivity
Threats to Reliability and Validity

- The greatest threat to the reliability of your research conclusions produced as a result of a participant observation study is that of observer bias.

- Ask yourself questions about your conclusions: Did she really mean that? What other interpretations could I have put on this?

- Informant verification
Structured Observation

- Systematic

- High level of predetermined structure.

- Adopting a more detached stance.

- Concern would be in quantifying behaviour - how often things happen rather than why they happen.

- E.g.: Self completion diaries, TV/Radio channel watching/listening, Time budget surveys…
In practice....

- Most common example is of the 'time and motion' expert (arising from Scientific Management who stalked the factory floor with clipboard and pencil making notes on tasks performed by machine operators and how long these took).

- Another example was by management researcher H. Mintzberg who used structured observation to study the work of senior managers. He exploded the myth of managers as involved in strategic planning, controlling and directing by observing and recording/coding what managers ACTUALLY did.
Indirect observation via internet forums, newsgroups

Data Collection – Coding Schedules

- Design your own or ‘off-the-shelf’?

- E.g. there are established coding schedules in management and business is for recording interpersonal interactions in social situations such as meetings or negotiations.
## Pharmacotherapy Task

<table>
<thead>
<tr>
<th>No.</th>
<th>Task Description</th>
<th>0 NA</th>
<th>1 Not Done</th>
<th>2 Done with suggestions for improvement</th>
<th>3 Done well (meets expectations)</th>
<th>4 Done extraordinarily well - inspires me to do the same!</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Reviews chart</td>
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<tr>
<td>2</td>
<td>Greets patient with respect &amp; warmth</td>
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<td>3</td>
<td>Begins on time</td>
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<td>4</td>
<td>Maintains frame</td>
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<td>5</td>
<td>Establishes rapport</td>
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<tr>
<td>6</td>
<td>Initial open ended question</td>
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<td>7</td>
<td>Obtains interval history with focus on target symptoms, medical or medication changes, intercurrent psychosocial stressors, progress in therapy.</td>
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<td>8</td>
<td>Assesses treatment response</td>
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<tr>
<td>9</td>
<td>Encourages ventilation of feelings related to illness.</td>
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<td>10</td>
<td>Inquires about other treatments/treaters</td>
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<tr>
<td>11</td>
<td>Assesses substance use/abuse</td>
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<td>12</td>
<td>Assesses adherence, including number of doses missed in past week and barriers.</td>
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<tr>
<td>13</td>
<td>Monitors for adverse effects (Sg/Sx, Labs, AIMS, Wt., BP), specifically for those associated with prescribed medications.</td>
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<td>14</td>
<td>MSE appropriately focused</td>
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<tr>
<td>15</td>
<td>Assesses risk for violence to self and others</td>
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<td>16</td>
<td>If response less than expected, systematic approach to DDx</td>
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<tr>
<td>17</td>
<td>Updates treatment plan based on diagnosis, phase of illness, efficacy and response, adverse effects, &amp; risk assessment</td>
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<td>18</td>
<td>Modifies treatment plan for less than expected responders</td>
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<td>19</td>
<td>Develops plan to address adherence if needed</td>
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<td>20</td>
<td>Develops plan to manage adverse effects, if applicable</td>
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<tr>
<td>21</td>
<td>Educates patient about diagnosis, prognosis, treatment, and/or adverse effects.</td>
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<td>22</td>
<td>Provides patient with simple advice on what can do to help self (e.g., exercise, sleep hygiene).</td>
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<tr>
<td>23</td>
<td>Solicits and addresses patient's questions</td>
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<tr>
<td>24</td>
<td>Conveys hope and optimism and provides reassurance</td>
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<tr>
<td>25</td>
<td>Appropriate follow up, including labs/tests, consults, next visit</td>
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<tr>
<td>26</td>
<td>Documentation sufficient</td>
<td></td>
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<td>27</td>
<td>Informs other tx team members of plan, esp. therapists.</td>
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</tbody>
</table>

Key feedback points, including what done well and at least one task to work on:
Data Collection – Coding Schedules

- No ‘off-the-shelf’ coding schedule may be suitable for your purposes. In this case you will need to develop your own schedule.

- The observation categories in your schedule should be devised to be consistent with your research question(s) and objectives.

- It is also possible to combine the two. E.g. adapt or add to an existing schedule.
Designing a Schedule

- **Focused** Do not observe and record all that is going on. Concern yourself only with what is strictly relevant.

- **Unambiguous** Therefore requiring the absolute minimum of observer interpretation.

- **Non-context dependent.** It may be essential for your research question(s) and objectives to record contextual data but keep to a minimum.

- **Explicitly defined** Provide examples of behaviours that fall into each category and those that do not.
Designing a Schedule

- **Exhaustive** Ensure that it is always possible to make a coding for those behaviours you wish to observe.

- **Mutually exclusive** Ensure that there is no overlap between behaviour categories.

- **Easy to record** The observer must be able to tick the correct box quickly without having to memorise appropriate categories.
## Data Collection – Coding Schedules

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Was the behaviour observed?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smiles and makes eye contact with the customer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greets the customer in a friendly manner</td>
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<td></td>
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<tr>
<td>Gives the customer undivided attention</td>
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<td></td>
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<tr>
<td>Suggests extra items that have not been ordered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains reasons for any delays</td>
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<td></td>
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<tr>
<td>Price of order is stated</td>
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</tr>
</tbody>
</table>
Advantages of Structured Observation

- Used can be delegated, after training in the use of the measuring instrument, saving time and ability to collect data across locations

- Should yield reliable results by virtue of its replicability

- Records not only frequency of events but the relationship between them, e.g. shopping patterns

- Data collected in natural setting - not dependent on 'second hand' accounts from respondents

- Captures information that might have been thought of as too mundane/irrelevant
Disadvantages of Structured Observation

- Observer must be in the research setting

- Results are limited to overt action or surface indicators

- Data are slow and expensive to collect
Recording sheet for observing behaviour in groups


<table>
<thead>
<tr>
<th>Nature of group:</th>
<th>Nature of activity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>Name of observer:</td>
</tr>
</tbody>
</table>

Initial arrangement of group:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name of group members (or reference letters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>-----</td>
</tr>
</tbody>
</table>

- **Taking initiative** – e.g. attempted leadership, seeking suggestions, offering directions
- **Brainstorming** – e.g. offering ideas or suggestions, however valid
- **Offering positive ideas** – e.g. making helpful suggestions, attempting to problem-solve
- **Drawing in others** – e.g. encouraging contributions, seeking ideas and opinions
- **Being responsive to others** – e.g. giving encouragement and support, building on ideas
- **Harmonising** – e.g. acting as peacemaker, calming things down, compromising
- **Challenging** – e.g. seeking justification, showing disagreement in a constructive way
- **Being obstructive** – e.g. criticising, putting others down, blocking contributions
- **Clarifying/Summarising** – e.g. linking ideas, checking progress, clarifying objectives/proposals
- **Performing group roles** – e.g. spokesperson, recorder, time-keeper, humorist
- **Other comments**
Data Analysis

- Complexity of analysis depends on research questions and objectives

- E.g. to identify 'positive' communication behaviours (brainstorming) versus negative (obstructive) behaviours in which case a simple analysis is sufficient OR more complex patterns may be explored.
Threats to Reliability and Validity

- **Subject Error**
  - E.g. observing the output of sales administrators by orders per day but this could be distorted if a section was selected which was short-staffed due to illness - more time spent answering telephones, less for processing orders.
  - Need to choose subjects under 'normal' conditions as possible.

- **Time Error**
  - Risk of getting data that are untypical of the total time of interest, e.g. before lunch/end of working day.
  - In a retail environment need to observe customers at different times/days to get a valid picture of customer flow.
Threats to Reliability and Validity

- **Observer Effect**
  - Can change the behaviour by 'being observed' (Hawthorne Effect).
  - Therefore in secret? **Minimal interaction** 'melt into the background 'unobtrusive avoiding eye contact etc. OR
  - **habituation** - becoming so familiar that researcher is taken for granted e.g. audio/video tapes machine.
Mix it up…

- In practice you will often use both. E.g. Geiger (2007)

- Night-time shopping in Ireland

- Type: Qualitative and quantitative

- Methods:
  1. Structured observation
  2. Unstructured participant observation
  3. Questionnaire – sampling methodology of every 4th person
Questions about the Assignment

Length?
- The Business plan should be around 10-15 pages long.
- The length of the research report is not important but I would say it would need to be at least 3 pages in order to cover the relevant content.

How to discuss your primary research
- Stuff that you planned but haven’t done:
  - In the research report you can put it in your research methodology section
  - In the business plan you can talk about this in terms of future research plans

- Stuff that you did do but not with the sample population that you would have liked
  - When you are outlining your research plan in your methodology you should outline your sampling strategy (so what you would have liked to do).
  - When it comes to your findings section you can talk about the limited sample that you actually used. You should add your survey and documents as appendices to your report.
  - In your business plan you can frame it as a pilot survey/focus group.
Questions about the Assignment

- **Presentations:**
  - We have 9 groups so we will do 4 on Monday xth and 5 on Wednesday 29th. There will be 10 minutes available for each group. So 7-8 minutes for the presentations and a couple of minutes for questions.

  - I need to confirm with Accenture but given the allocated time I think the presentation of the business plans should be in 20 min slots. I'd say each presentation will be 10-15 mins with time for questions.