

Case study

Data Collection Method

RSM 321 (Lecture 13)

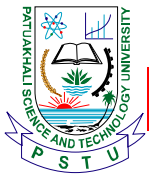
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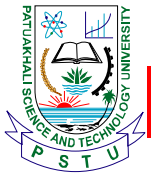
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Jennifer Barrett (WUR)



Outline

- ❖ Case study design
- ❖ Data collection methods
 - Observation



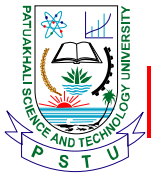
Case study research design



Characteristics of a case study



- Case study = phenomenon + case(s)



What is a phenomenon?

■ Processes

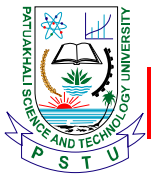
- Decision making
- Production, manufacturing
- Delivery, distribution, administration (e.g., of new product)
- Learning, acceptance, adoption (e.g., of a new technology)
- Relationships (instigation, development, maintenance, dissolving)
- Disintegration, destruction

■ Historical outcomes

- Natural disasters
- War, revolution, social movements, riots

■ Anomalies

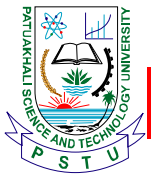
- “Black swans”, i.e hard to predict, and rare events that are beyond the realm of normal expectations in history, science, finance and technology
- Unusual/unexpected observations (e.g., return of Salmon in the Rhine)
- Clinical deviations (e.g., Elephant Man)
- Rituals (e.g., birth, wedding, funeral, coming of age rites)



What is a case?



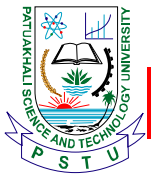
- The case is the subject/situation bounded in time and place, where the phenomenon of interest can be studied, e.g.:
 - Place or location (village, island, residential area, lake)
 - Organization or group (company, elder's home, school class, (Dutch royal) family, Ajax football hooligans)
 - Happening or event (carnival celebration, diploma ceremony)
 - Program or process (marketing campaign, free trade label production)
 - Person (Gandhi, Madonna, Stalin)
 - Etc.



Characteristics of a case study



- Case study = phenomenon + case(s)
 - A “full” understanding of a phenomenon is to be achieved
 - Holistic (idiographic) approach as opposed to reductionism: focus on understanding and interpretation of the whole phenomenon
 - One case or a few cases is/are investigated
 - Multiple sources of data are used



Example of case and phenomenon (1)



RQ: How do different stakeholders experience the use of environmental facilities (e.g., water saving car washes, solar energy heating) in ecological neighborhoods (“eco villages”)?

What is the phenomenon of interest?

Experience of the use of specific environmental facilities in ecological residential areas

What is a relevant type of case?

- One or more ecological residential areas, e.g., Kernhem in Ede

Example of case and phenomenon (2)

Data sources:

Inhabitants

Civil servants working at municipality's spatial planning office and environmental office

City planners / Real estate developers

Advertising materials such as brochures, websites, newspapers, etc.

Etc.

Methods of data collection:

Observations of behavior of inhabitants

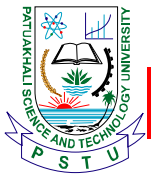
Interviews with inhabitants

Content analysis of advertising materials

Interviews with officials (civil servants, city planners, etc.)

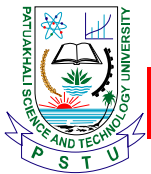
Sampling in case studies

- Sampling takes place at two levels:
 - selection of the case(s)
 - selection of the data sources within each case (people, documents)
- There should always be a rationale behind the selection of cases and data sources (strategic selection)



Selection of a case

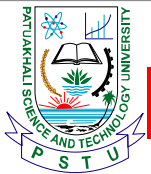
- Typical case: a normal or average manifestation of the phenomenon
 - Example: If interested in tourism along the Red Sea (in general): select an average tourist village
- Deviant case: a highly unusual manifestation of the phenomenon
 - Example: Natural selection in the Galapagos Islands
- Intensive case: many manifestations of the phenomenon
 - Example: New Railway (Betuwelijn): influence of new infrastructure on social action
- Critical case
 - Example: recycling of bicycles in eco-villages



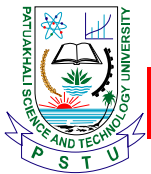
Single and multiple case studies



- Single case study: case study in which only one case is investigated
- Multiple case study: a study where the investigation covers several cases
 - Parallel (all cases selected at once) – more appropriate for theory testing
 - Sequential (selection of next case based on results previous case) – more appropriate for theory building

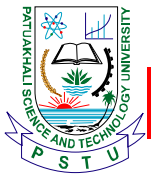


Data Collection Methods



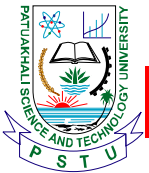
Observation

- Observation: method of data collection in which the researcher 'watches' people, animals, situations, natural occurrences (e.g., hurricanes, volcanic dust clouds) or objects (e.g., stars/planets)
- Observation is not restricted to watching! You may listen, smell, taste, touch (depending on your research unit)



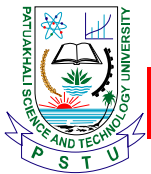
Recording of observations

- As soon as possible after doing the (f)actual observation, you work out your scratch notes in **field notes**.
- **Components of field notes:**
 - Observation notes: description
 - Theoretical notes: interpretation
 - Methodological notes: reflection on research choices
 - Reflective notes: feelings and experiences



When to use observation?

- Topics about behavior, interactions, processes, events, etc.
- Observing in the natural setting could be important
- The objects of interest are readily found/accessible
- Situations/events/interactions of interest occur frequently or at particular times and places
- Other means of measuring the phenomenon are not available, e.g., when
 - Communication is impossible or problematic (animals, children, volcanic clouds)
 - Human observation is the only available research instrument



Observation (example)

Aim:

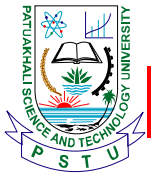
- To assess the quality of the landscape in this particular area.
(Thus: 'What is 'attractive' and what is 'unattractive' landscape in this particular area?)

Design: cross sectional study

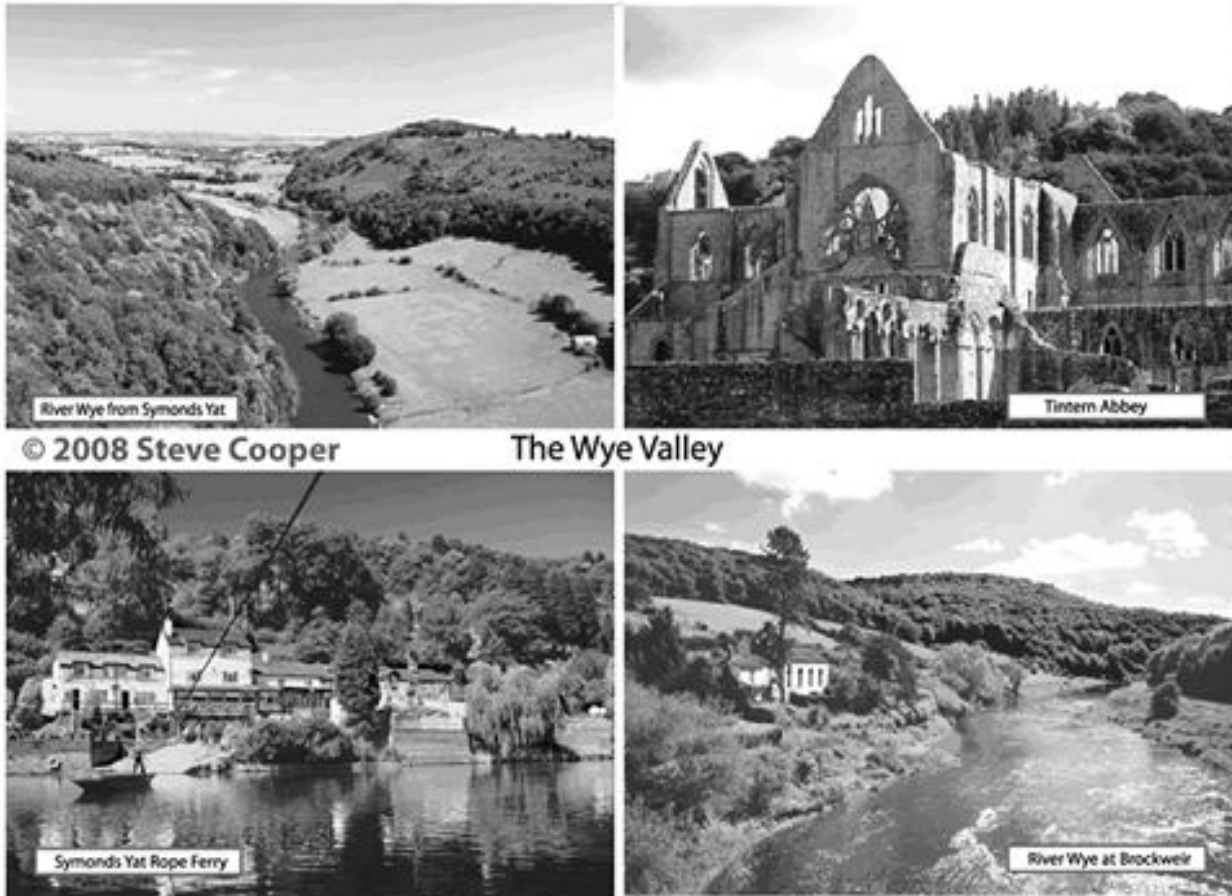
- Area was divided in quarter kilometer grid squares.

Method of data collection: observation

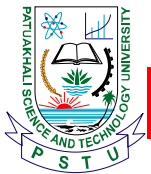
- In the field, each grid was assigned to one of the four classes of a landscape evaluation technique.
- Three different techniques were compared.



Observation (example)



Landscape
evaluation
and planning
policy in the
Wye Valley
(England)



Observation (example)



Measurement instrument 1: Subjective assessment

Each grid unit was assigned to one of the four following categories:

Grade 1: Extremely attractive

(landscape which by reason of its special characteristics, impact and beauty to the beholder, should be preserved in its existing condition at all costs);

Grade 2: Attractive

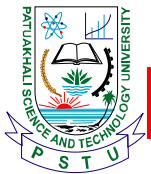
(beautiful areas, which should be protected against detrimental use but where carefully controlled development for rural areas and recreational provision would be permitted);

Grade 3: Average

(reasonably pleasant areas but without any striking features);

Grade 4: Poor

(areas which are of no special landscape interest).



Observation (example)



Measurement instrument 2: Fines' model:

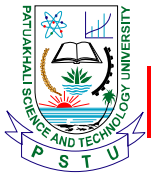
Each grid unit was assigned to one of the four following categories:

Grade 1: Hilly country, low hills, downs, wooded hills;

Grade 2: Woods and forest (lowland), flat or gently rolling heaths and commons, villages of architectural or historic interest;

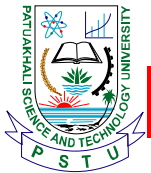
Grade 3: Flat or gently rolling 'humanized' countryside;

Grade 4: Countryside spoilt by excessive clutter, derelict land, modern residential or industrial areas.



Some problems with observation

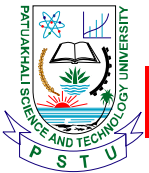
- Getting **access** to the situation
- **Unobtrusiveness** and disturbance of the situation
- **Subjectivity** of observers
- **Ethical concerns** (privacy)



Thank YOU



Questions??



Faculty of Disaster Management