Using case study research as a rigorous form of inquiry

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Aim of Session

To describe and discuss how case study research (CSR) has been used inductively as an all encompassing theoretical framework to examine learning in the workplace.
“Case study research is a systematic investigation of a unit of analysis that is conducted over a period of time where in-depth data is obtained” (Walsh 2000).
Yin (2009) “the guru” of CSR

“An empirical inquiry that investigates contemporary phenomena within its real-life context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used”.
History of CSR

Widely used yet remains elusive in terms of a consensus of what it means

1930s – period of poverty and immigration in USA

Made famous by Chicago Dept. of Sociology

Scientific worthiness led to its decline

1960s – peaked in nursing research

Rapid decline

Revival!
Defining case study research (CSR)?

Design or research method???

Frustrating literature

Case studies focus on specific situations, describing one or multiple cases

“Everything” in that situation can be investigated

Number of cases small, but variables large

Terms case study, case study method, case method used interchangeably
“Workplace learning – an examination of healthcare landscapes” Cronin (2012)

Case study design

Longitudinal study over 2 years

Five students studying on 2yr BND Health Studies programme

Each student completed work placements as part of vocational practice
Learning contexts observed:
Nurseries, nursing homes and hospitals (n=15)

Through interviews:
critical learning incidents have been examined (n=60)

Documents:
Learning journals (n=9), course material and placement information
The CSR Investigator

should be able to ask good questions – and interpret the answers

should be a good listener and not be trapped by his or her own ideologies or preconceptions.

should be adaptive and flexible, so that newly encountered situations can be seen as opportunities, not threats.

should be unbiased by preconceived notions, including those derived from theory, and be sensitive and responsive to contradictory evidence.
Why choose case study?

Suited practical nature of study

Fitted well with the health care settings under investigation

Systematic way of collecting data in the naturalistic setting

Works well with grounded theory as a conceptual framework for analysis
## Data Set Grid

<table>
<thead>
<tr>
<th>N = 5</th>
<th>Placement 1</th>
<th>Placement 2</th>
<th>Placement 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student 1</strong></td>
<td>1hr ob ✓✓ S1P1Ob1 4x CIAs (INT) Nursery ✓✓ S1P1CIA ✓✓ S1P1Diary ✓ info</td>
<td>1hr ob ✓✓ S1P2Ob1 4x CIAs (INT) Nursing Home ✓✓ S1P2CIA ✓✓ S1P2Diary ✓ info</td>
<td>1hr ob ✓✓ S1P3Ob1 4x CIAs (INT) H – Mixed medical/surgical ward ✓✓ S1P3CIA ✓ X diary ✓ X info n/a</td>
</tr>
<tr>
<td><strong>Student 2</strong></td>
<td>1hr ob ✓✓ S2P1Ob1 4x CIAs (INT) Nursery ✓✓ S2P1CIA ✓✓ S2P1Diary ✓ info</td>
<td>1hr ob ✓✓ S2P2Ob1 4x CIAs (INT) Learning Difficulties ✓✓ S2P2CIA ✓✓ S2P2Diary ✓ info</td>
<td>1hr ob ✓✓ S2P3Ob1 4x CIAs (INT) H – Orthopaedics Ward ✓✓ S2P3CIA ✓✓ S2P3Diary ✓ info</td>
</tr>
<tr>
<td><strong>Student 3</strong></td>
<td>1hr ob ✓✓ S3P1Ob1 4x CIAs (INT) Nursery ✓✓ S3P1CIA ✓✓ S3P1Diary ✓ info</td>
<td>1hr ob ✓✓ S3P2Ob1 4x CIAs (INT) Nursing Home ✓✓ S3P2CIA ✓ X diary ✓ info</td>
<td>1hr ob ✓✓ S3P3Ob1 4x CIAs (INT) H - medical ward ✓✓ S3P3CIA ✓ X diary ✓ info</td>
</tr>
<tr>
<td><strong>Student 4</strong></td>
<td>1hr ob ✓✓ S4P1Ob1 4x CIAs (INT) Nursery ✓✓ S4P1CIA ✓✓ S4P1Diary ✓ info</td>
<td>1hr ob ✓✓ S4P2Ob1 4x CIAs (INT) Nursing Home ✓✓ S4P2CIA ✓✓ S4P2Diary ✓ info</td>
<td>1hr ob ✓✓ S4P3Ob1 4x CIAs (INT) H - medical ward ✓✓ S4P3CIA ✓ X diary ✓ info</td>
</tr>
<tr>
<td><strong>Student 5</strong></td>
<td>1hr ob ✓✓ S5P1Ob1 4x CIAs (INT) Nursery ✓✓ S5P1CIA ✓✓ S5P1Diary ✓ info</td>
<td>1hr ob ✓✓ S5P2Ob1 4x CIAs (INT) EMI Unit for dementia ✓✓ S5P2CIA ✓ X diary ✓ info</td>
<td>1hr ob ✓✓ S5P3Ob1 4x CIAs (INT) H – Surgical ward ✓✓ S5P3CIA ✓ X diary ✓ info</td>
</tr>
</tbody>
</table>

30 hours of Observations (ob) plus some long observation pieces

Interviews (INT) CIAs (5 students x 3 sites) = 15 X 4 CIAs = 60

Documents – diaries (9/15), placement info (14/15) and course documents ✓
Stages of explanation building used in this CSR

<table>
<thead>
<tr>
<th>Stages</th>
<th>Activities</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review background</td>
<td>Review background literature</td>
<td>Provide focus</td>
</tr>
<tr>
<td></td>
<td>literature</td>
<td>Put together proposal (LREC)</td>
</tr>
<tr>
<td></td>
<td>Develop a research question</td>
<td></td>
</tr>
<tr>
<td><strong>Sample</strong></td>
<td>No theory or hypothesis Specified population</td>
<td>Focus on the research question and sample is essential at the start.</td>
</tr>
<tr>
<td><strong>Develop protocol</strong></td>
<td>Select cases Employ multiple data collection</td>
<td>Increase reliability &amp; increase construct validity. Triangulation</td>
</tr>
<tr>
<td></td>
<td>methods</td>
<td>strengthens evidence. Protocol essential for gaining access and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>credibility in research activity.</td>
</tr>
<tr>
<td><strong>Fieldwork</strong></td>
<td>Continuous data collection &amp; analysis (from day1)</td>
<td>Facilitates process of analysis and allows for adjustment in data</td>
</tr>
<tr>
<td>Collect data</td>
<td>Flexibility essential in health care, capture</td>
<td>collection. Development of emergent themes and unique cases.</td>
</tr>
<tr>
<td></td>
<td>opportunistic data</td>
<td></td>
</tr>
<tr>
<td><strong>Collate data</strong></td>
<td>Arrange all activities chronologically. Tabulate and record data in a grid.</td>
<td>Eases data analysis. Data trail clear. Clear pathway seen for data analysis.</td>
</tr>
<tr>
<td><strong>Analysing Data</strong></td>
<td>Within method analysis (Multi-methods of data collection used).</td>
<td>Gains familiarity with data and preliminary theory generation. Allows investigator to look beyond initial impressions and see evidence through the lens/voice of others. Also allows us to see developmental themes over time.</td>
</tr>
<tr>
<td>Analysing data (multi-layering approach)</td>
<td>Cross-case analysis</td>
<td></td>
</tr>
<tr>
<td><strong>Explanation building</strong></td>
<td>Iterative tabulation of evidence Searching evidence for “why” and relationships/patterns</td>
<td>Moves towards sharpen definitions, concepts and meanings. Confirms or extend theory. Builds internal validity</td>
</tr>
<tr>
<td><strong>Comparative Literature</strong></td>
<td>Compare emergent theory with literature. Compare with conflicting literature. Compare with similar literature.</td>
<td>Builds internal validity, raises theoretical level, and sharpens construct definitions. Increases generalizability, improves construct definitions and raise theoretical level.</td>
</tr>
<tr>
<td><strong>Closure</strong></td>
<td>Theoretical saturation</td>
<td>Process ends when there is little or no improvement.</td>
</tr>
</tbody>
</table>

Adapted from Eisenhardt (1989)
3 advantages of using CSR

1. Case studies can take us to places where most of us would not have access or the opportunity to go providing enriched experiences of unique situations “in the field” (Yin 1994).

2. Case studies allow us to look through the eyes of the researcher … we share the researcher’s perspective of the theoretical position in the study.

3. The “vivid experience provided by case studies might be preferable to direct experience, it is less likely to produce defensiveness and resistance to learning” (Gomm et al 2007:65).
So why bother…?

A crucial factor is the unit of analysis

Deciding factor can be individual or group

CSR have multiple perspectives; handles complex situations

Triangulation of data – creditability & completeness

CSR considers not just the voice and perspective of the actors, or relevant groups of actors and the interaction between them but also the context in which this happens.

CSR gives a voice to the powerless and voiceless.

And this is the crux of this piece of research; the context in which learning occurs.
Implications for practice and research

- With CSR real life settings can be studied
- Done systematically and rigorously
- A way of offering real life examples of healthcare practice
- Transferrable to a range of settings
Conclusions

- In this study …
  - CSR has embraced qualitative research methods in a rigorous and systematic way
  - There is a clear audit trail
  - Each step of the research protocol was addressed
  - CSR can be both qualitative and rigorous
  - A good example of a rigorous qualitative design using it to its full potential