QUALITATIVE METHODOLOGY

QUALITATIVE METHODOLOGIES

Qualitative research is an inquiry approach in which the inquirer:

- **explores a central phenomenon (one key concept)**
- **asks participants broad, general questions**
- **collects detailed views of participants in the form of words or images**
- **Not measurements, but WORDS!**
  - **Instead of asking how many times someone purchased an item, you ask "WHY...?"**
  - **Typically the samples are small, and not "random"**

QUALITATIVE METHODOLOGIES

STRENGTHS

- **Good for examining feelings and motivations**
- **Allows for complexity and depth of issues**
- **Provides insights**

WEAKNESS

- **No generalization for the whole population**
- **Volume of data**
- **Complexity of analysis**
- **Time-consuming nature of the clerical efforts require**

QUALITATIVE APPROACH

- Unstructured, open, flexible
- Based on "empiricism" which is human learn from sensory experiences (observe, feel, perceive)
- Aims to explore diversity rather than quantify
- Narration and description rather than measurement
- No/Less emphasis on generalization

EXAMPLE OF QUALITATIVE RQ

◦ How do parents fell about the use of English as the medium of instruction in mathematics and science?

◦ How does the degree of diversity in a university affect students' openness to people who are not like them in terms of race, ethnicity, gender and home culture?

QUALITATIVE STUDY DESIGN

- CASE STUDIES
- OBSERVATION
- FOCUS GROUP
- ACTION RESEARCH
- GROUNDED THEORY

Case Study

- Predominantly a qualitative study design, but is also often used in quantitative study
- A case can be an individual, a group, a community, an event
- An in depth, holistic exploration of the aspects of study
- Although assumed as typical case, hence can provide insight into similar cases

Focus Group

◦ An open discussion about an issue, product, service between members of the group and the researcher

◦ Economical and save stime

◦ Optimal size: 8 – 10 members in a group

◦ Examples of a group:

       - a group of educational experts

   - a group of adolescents ranged 9-11 years old

Observation

◦ Close interaction with members of the group to be studied

◦ With consent, keenly observed the situation

◦ Also can be used in quantitative study

◦ In qualitative study, observation are recorded in a descriptive format

◦ In quantitative study, observations are recorded in categories or scale

Action research

- Two components: action and research
- Aim to improve service quality
- Identify areas of concern, develop and test alternatives and approaches

DATA COLLECTION PROCEDURE & METHOD –
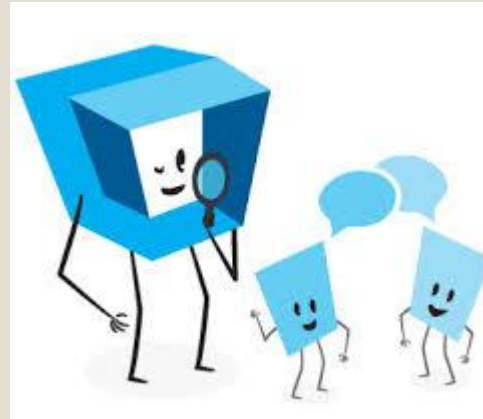
QUALITATIVE

DATA COLLECTION - QUALITATIVE

◦ Qualitative nature:
  ◦ Emphasis on seeing the world from the eyes of the participants
  ◦ studying the person, group, culture in the natural setting
  ◦ Data is collected in the "field" – the natural world where people live and experience life
  ◦ Investigator should:
    ◦ be nonintrusive
    ◦ spend a prolonged time in the field

Meaning: how people see the world

Context: the world in which people act

Process: what actions and activities people do

Reasoning: why people act and behave the way they do

TYPE OF DATA

❑ Structured Text – writing, survey comments, essay, and etc.

❑Unstructured Text – transcription, focus group, interview, conversation

❑ Audio – music, audio recording

❑ Video - recording

❑ Images – picture, art, and etc.

EXAMPLE: INTERVIEWS

A conversation on a given topic between a respondent and an interviewer

○ **Used to obtain detailed insights and personal thoughts**

○ **Flexible and unstructured, but usually with an interview guide**

○ **Purpose: to probe informants' motivations, feelings, beliefs**

○ **Lasts about an hour**

○ **Interviewer creates relaxed, open environment**

○ **Wording of questions and order are determined by flow of conversation**

○ **Interview transcripts are analyzed for themes and connections between themes**

TYPES OF INTERVIEWS

1. Informal, conversational interview
   - no predetermined questions are asked, in order to remain as open and adaptable as possible to the interviewee's nature and priorities; during the interview the interviewer "goes with the flow".

2. General interview guide approach
   - to ensure that the same general areas of information are collected from each interviewee; this provides more focus than the conversational approach, but still allows a degree of freedom and adaptability in getting the information from the interviewee.

3. Standardized, open-ended interview
   - the same open-ended questions are asked to all interviewees; this approach facilitates faster interviews that can be more easily analysed and compared.

4. Closed, fixed-response interview
   - where all interviewees are asked the same questions and asked to choose answers from among the same set of alternatives. This format is useful for those not practiced in interviewing.

EXAMPLE: FOCUS GROUP Process

|	Phase	Action
1.	Opening	Ice-breaker, explain purpose, ground rules; Introduction
2.	Warm up	Relate experience, stimulate group interaction; start with least threatening and simplest questions
3.	Main body	Move to more threatening or sensitive and complex questions; broad participation connect emergent data to complex
4.	Closure	End with closure-type questions, summarize and refine; invite final comments or insights, thank participants

DELPHI METHOD

- Delphi is an expert survey in two or more "rounds".
  - widely used and accepted method for gathering data from respondents within their domain of expertise

- Delphi process: Round 1 -> Round 2 -> Round 3 -> Round 4

- **Round 1**: the Delphi process traditionally begins with an open-ended questionnaire. The open-ended questionnaire serves as the cornerstone of soliciting specific information about a content area from the Delphi subjects

- **Round 2**: each Delphi participant receives a second questionnaire and is asked to review the items summarized by the investigators based on the information provided in the first round.

DELPHI METHOD

◦ **Round 3**: each Delphi panellist receives a questionnaire that includes the items and ratings summarized by the investigators in the previous round and are asked to revise his/her judgments or "to specify the reasons for remaining outside the consensus"

◦ **Round 4**: is often as the final round, the list of remaining items, their ratings, minority opinions, and items achieving consensus are distributed to the panellists. This round provides a final opportunity for participants to revise their judgments.
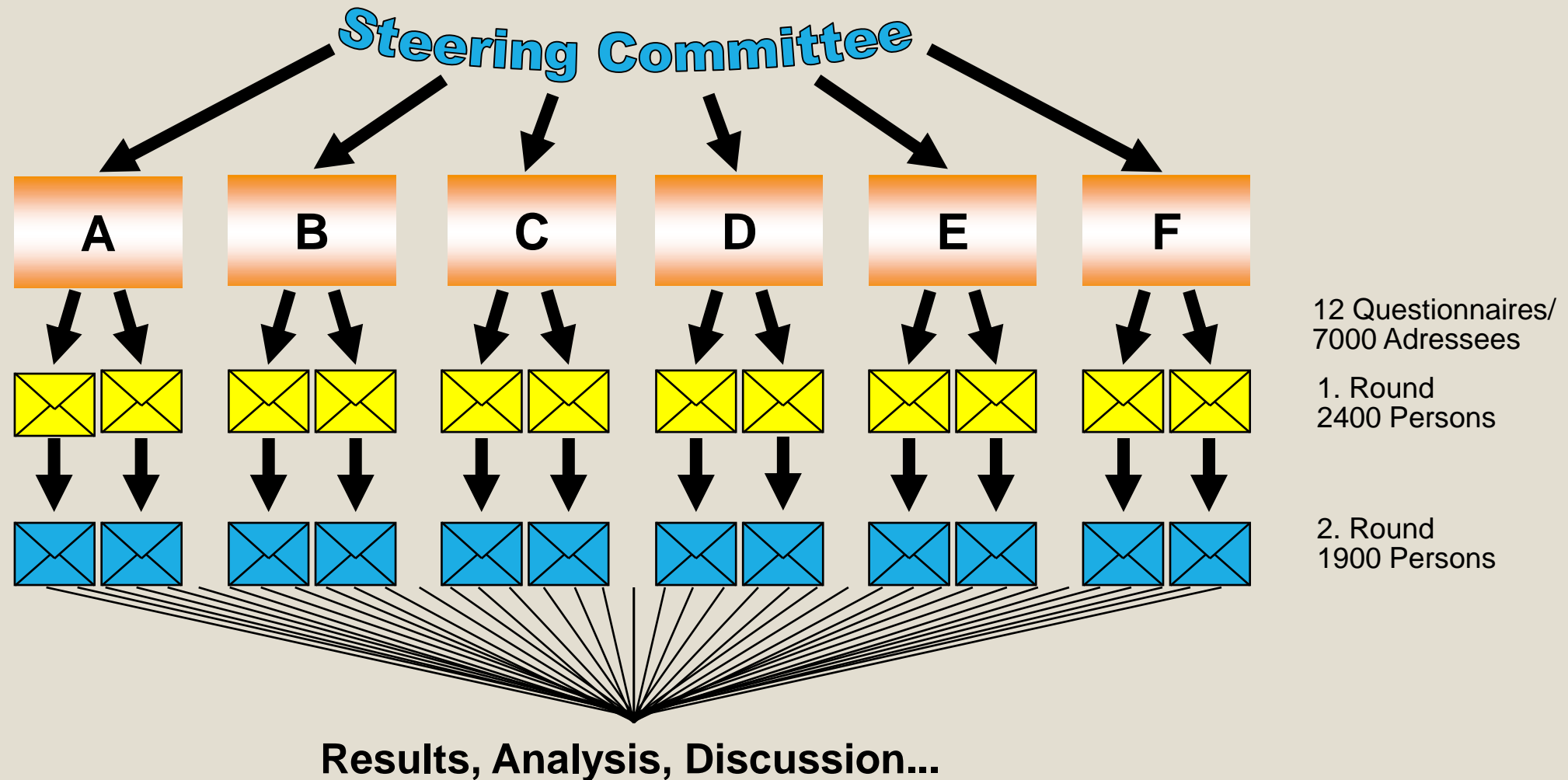
Who is an expert?

○ Broad definition versus high expertise

- Define how broad your expert definition is
  - ask them in the questionnaire about their expertise
  - laymen for crosschecking?
- Define where your experts are from
  - which sectors
  - branches
  - thematic fields or disciplines...
- Define how many experts you need
  - sample must be large enough for the analyses planned
  - the more you need, the more expensive it will be

Think about your experts!

PROJECTIVE METHOD

- Projective techniques are _unstructured_ and _indirect_ forms of questioning which encourage the respondents to _project_ their _underlying_ motivations, beliefs, attitudes or feelings regarding the issues of concern.

- Techniques in projective method:
  - Word Association: asks the respondents to give the first word or phase that comes to mind after the researcher presents a word or phrase
  - Completion Test: asks the respondents to complete sentences, dialogs, or stories, etc.
  - Picture Drawing and Interpretation
  - Third Person Techniques
  - Role Playing

Example: Word Association

Results of a Word Association Test with Alternative Brand Names for a New Fruit-Flavored Sparkling Water Drink

Possible Brand Name	Associated Words
Ormango	Green, tart, jungle
Tropical Fruit	Juice, sweet, island
Orange Sparkle	Light, bubbly, cool
Paradise Passion	Fruity, thick, heavy

Example: Completion Test

Investigate teenagers' attitudes to tea

Someone who drinks hot tea is _____

Tea is good to drink when _____

Making hot tea is _____

My friend thinks tea is _____

PROJECTIVE METHOD

ADVANTAGES

- May elicit responses that subjects would be unwilling or unable to give if they knew the purpose of the study. non-threatening

- Helpful when underlying motivations, beliefs and attitudes are operating at a subconscious level.

DISADVANTAGES

- Require highly trained interviewers and interpreters of results

- Serious risk of misinterpreting.

- Subjectivity

- Is the psychological material uncovered related to the topic or to the person?

QUALITATIVE DATA ANALYSIS

◦ Not limited to:
  ◦ Open Coding
  ◦ Affinity Diagramming
  ◦ Grounded Theory
  ◦ Narrative Analysis

Analyzing qualitative data

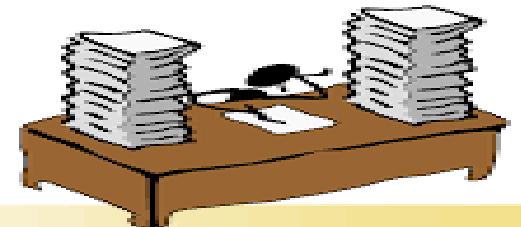How do I summarize and make sense of all these words?
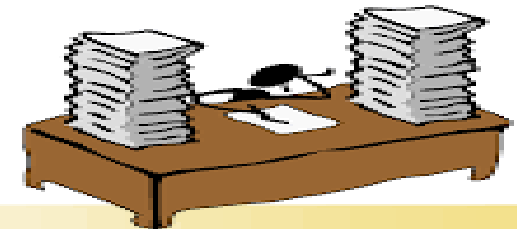
DATA ANALYSIS – OPEN CODING

◦ Treat data as answers to open-ended questions

◦ ask data specific questions
◦ assign codes for answers
◦ record theoretical notes

Analyzing qualitative data

How do I summarize and make sense of all these words?

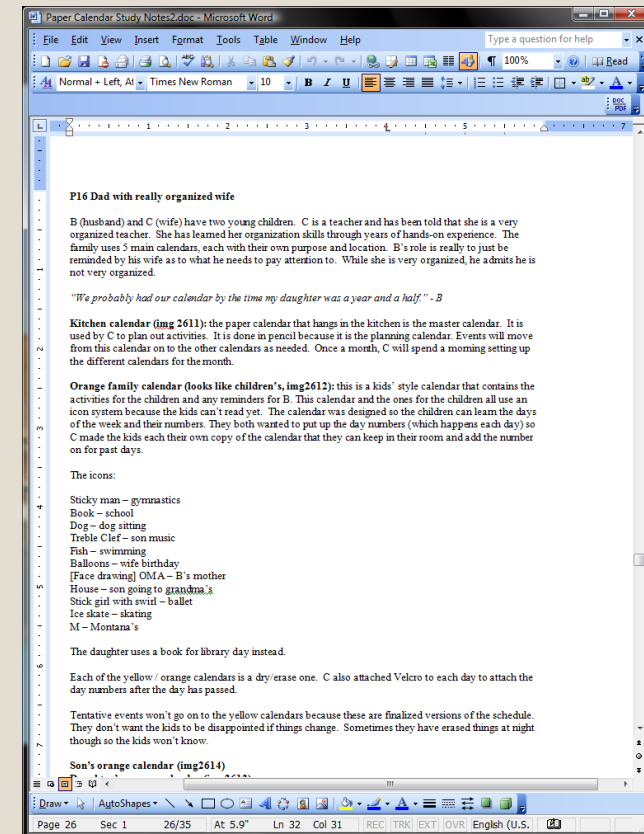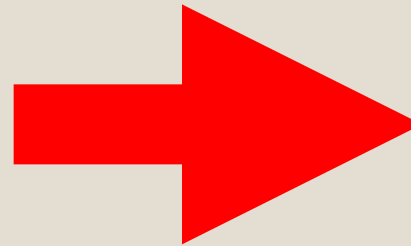# OPEN CODING – AN EXAMPLE: Calendar Routines (Neustaedter, 2007)

◦ Families were interviewed about their calendar routines

  ◦ What calendars they had
  ◦ Where they kept their calendars
  ◦ What types of events they recorded
  ◦ …

Example: Calendar Routines

○ Step 1: translate field notes (optional)

paper

digital

Example: Calendar Routines

◦ Step 2: list questions / focal points

Where do families keep their calendars?
What uses do they have for their calendars?
Who adds to the calendars?
When do people check the calendars?
…

(you may end up adding to this list as you go through your data)

Example: Calendar Routines

◦ Step 3: go through data and ask questions

B (husband) and C (wife) have two young children. C is a teacher and has been told that she is a very organized teacher. She has learned her organization skills through years of hands-on experience. The family uses 5 main calendars, each with their own purpose and location. B's role is really to just be reminded by his wife as to what he needs to pay attention to. While she is very organized, he admits he is not very organized.

"We probably had our calendar by the time my daughter was a year and a half." - B

Kitchen calendar (img 2611): the paper calendar that hangs in the kitchen is the master calendar. It is used by C to plan out activities. It is done in pencil because it is the planning calendar. Events will move from this calendar on to the other calendars as needed. Once a month, C will spend a morning setting up the different calendars for the month.

Orange family calendar (looks like children's, img2612): this is a kids' style calendar that contains the activities for the children and any reminders for B. This calendar and the ones for the children all use an icon system because the kids can't read yet. The calendar was designed so the children can learn the days of the week and their numbers. They both wanted to put up the day numbers (which happens each day) so C made the kids each their own copy of the calendar that they can keep in their room and add the number on for past days.

Where do families keep their calendars?

Example: Calendar Routines

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Calendar Locations:

[KI] – the kitchen

Where do families keep their calendars?

Example: Calendar Routines

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[CR]

Calendar Locations:

[KI] – the kitchen
[CR] – child's room

Where do families keep their calendars?

Example: Calendar Routines

◦ Step 3: go through data and ask questions

B (husband) and C (wife) have two young children. C is a teacher and has been told that she is a very organized teacher. She has learned her organization skills through years of hands-on experience. The family uses 5 main calendars, each with their own purpose and location. B's role is really to just be reminded by his wife as to what he needs to pay attention to. While she is very organized, he admits he is not very organized.

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Calendar Locations:

[KI] – the kitchen
[CR] – child's room

Continue for the remaining questions....

Example: Calendar Routines

◦ The result:
  ◦ list of codes
  ◦ frequency of each code
  ◦ a sense of the importance of each code

  ◦ frequency != importance

OPEN CODING - EXAMPLE 2: CALENDAR CONTENTS

(Neustaedter, 2007)

◦ Pictures were taken of family calendars

Example: Calendar Contents

◦ Step 1: list questions / focal points

What type of events are on the calendar?
Who are the events for?
What other markings are made on the calendar?
…

(you may end up adding to this list as you go through your data)

Example: Calendar Contents

◦ Step 2: go through data and ask questions

What types of events are on the calendar?

Example: Calendar Contents

◦ Step 2: go through data and ask questions

Types of Events:

[FO] – family outing

What types of events are on the calendar?

Example: Calendar Contents

◦ Step 2: go through data and ask questions

Types of Events:

[FO] – family outing
[AN] - anniversary

What types of events are on the calendar?

Example: Calendar Contents

◦ Step 2: go through data and ask questions

Types of Events:

[FO] – family outing
[AN] - anniversary

Continue for the remaining questions….

Reporting Results

◦ Find the main themes

◦ Use quotes / scenarios to represent them

◦ Include counts for codes (optional)

Dad's role. "*I'm pretty used to our schedule so I don't need to check it that often. As sad as it is, I work full time so a lot of activities don't pertain to me. But Fridays change because I may be home. I may also glance at it because the activities end at regular periods. I look for the ends of things because I'll try to make it to the last class so I can make it to at least one of their classes during that activity. And I'll glance at it to see if anything is out of the ordinary. I get used to the pattern so if there is something that is out of the ordinary I'll take a closer look to see what's going on...I don't have to do much. If I have something that is coming up, I'll just tell [my wife] then she'll know where I am and I'll know.*" - B
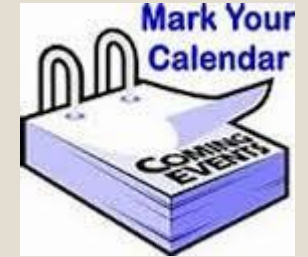
AFFINITY DIAGRAM

◦ Goal: what are the main themes?

◦ Write ideas on sticky notes
◦ Place notes on a large wall / surface
◦ Group notes hierarchically to see main themes
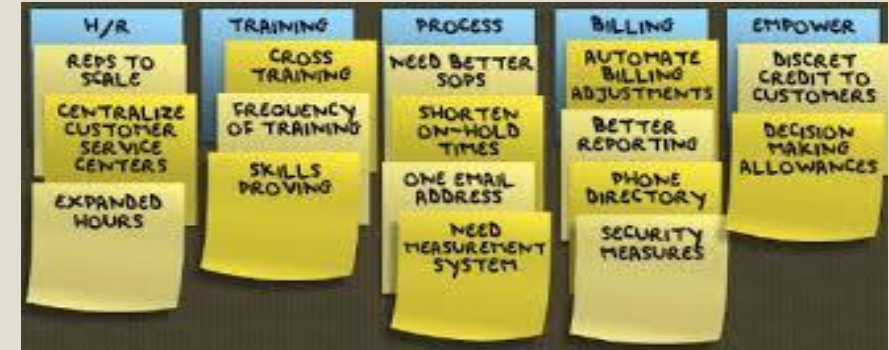
AFFINITY DIAGRAM - Example: Calendar Field Study (Neustaedter, 2007)

◦ Families were given a digital calendar to use in their homes

◦ Thoughts / reactions recorded:
  ◦ Weekly interview notes
  ◦ Audio recordings from interviews

Example: Calendar Field Study

○ Step 1: Affinity Notes
  ◦ go through data and write observations down on post-it notes
  ◦ each note contains one idea

It was really easy to check the calendar from work because of the web page.

The size of the writing was too small to read.

The colors on the events made it really easy to see who had events

we couldn't place the calendar in the spot we usually do in our home.

I check my calendar on my cell phone while driving.

Example: Calendar Field Study

◦ Step 2: Diagram Building
   ◦ place all notes on a wall / surface

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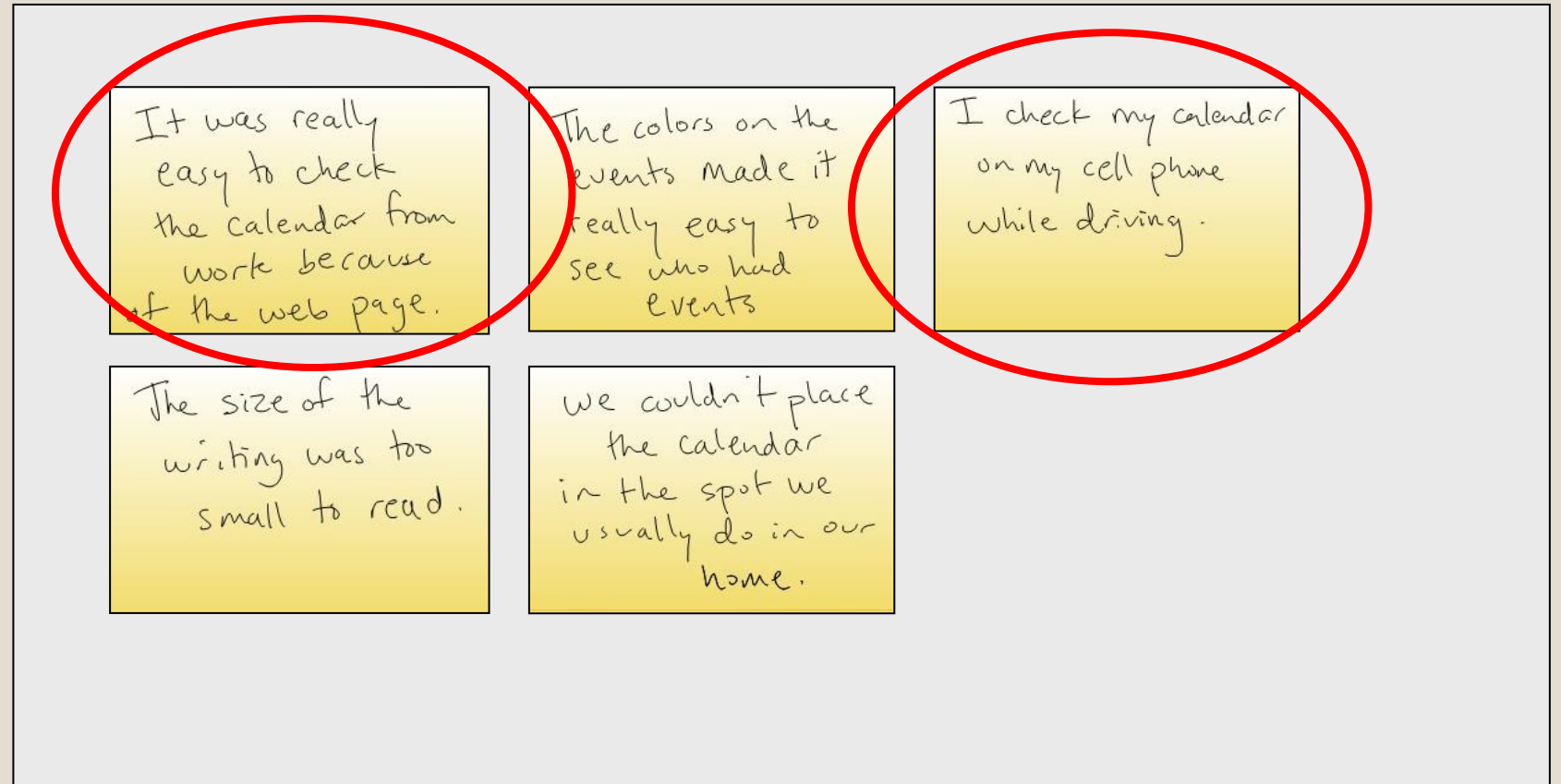The colors on the events made it really easy to see who had events

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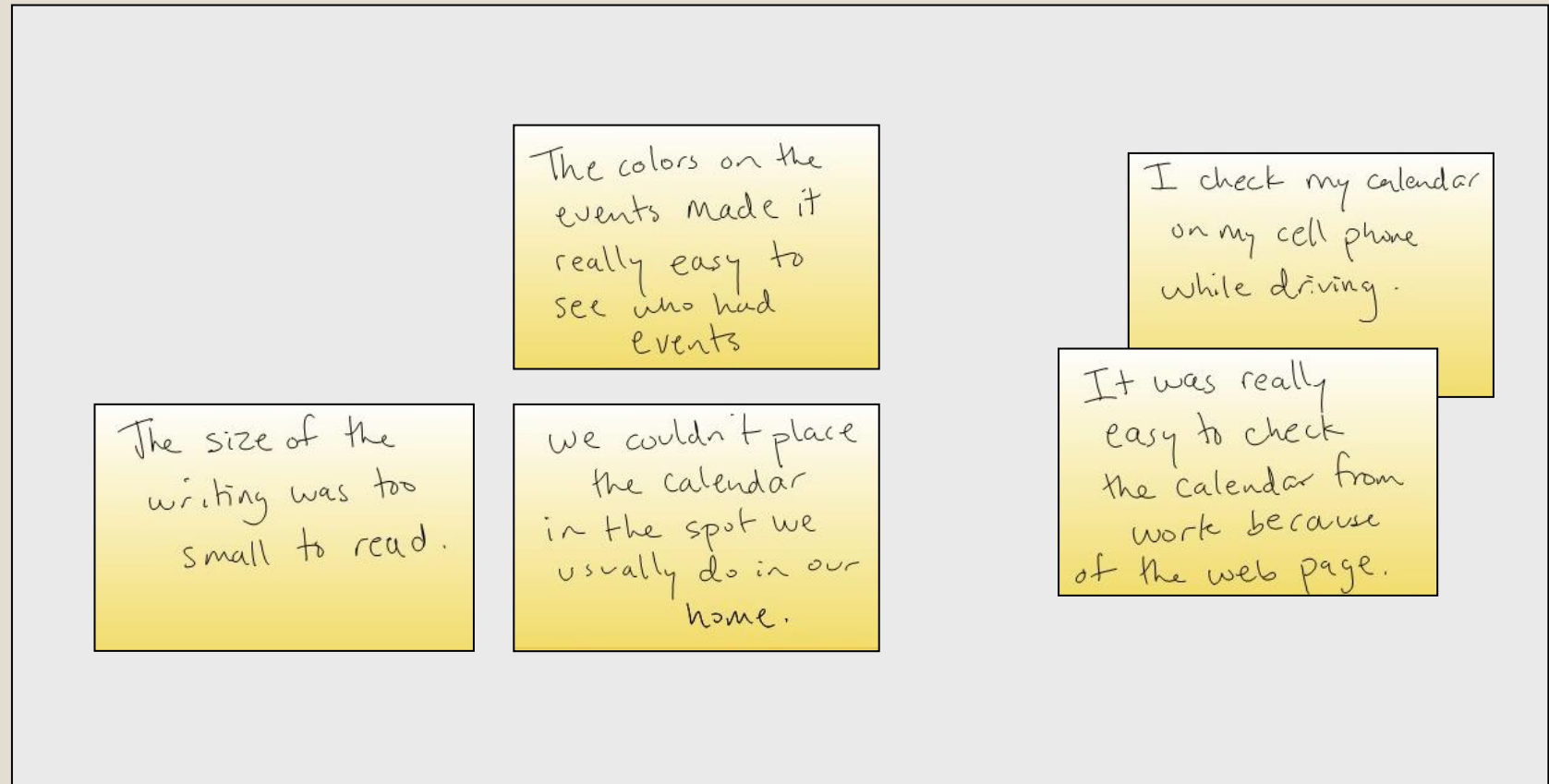we couldn't place the calendar in the spot we usually do in our home.

Example: Calendar Field Study

◦ Step 3: Diagram Building

◦ move notes into related columns / piles

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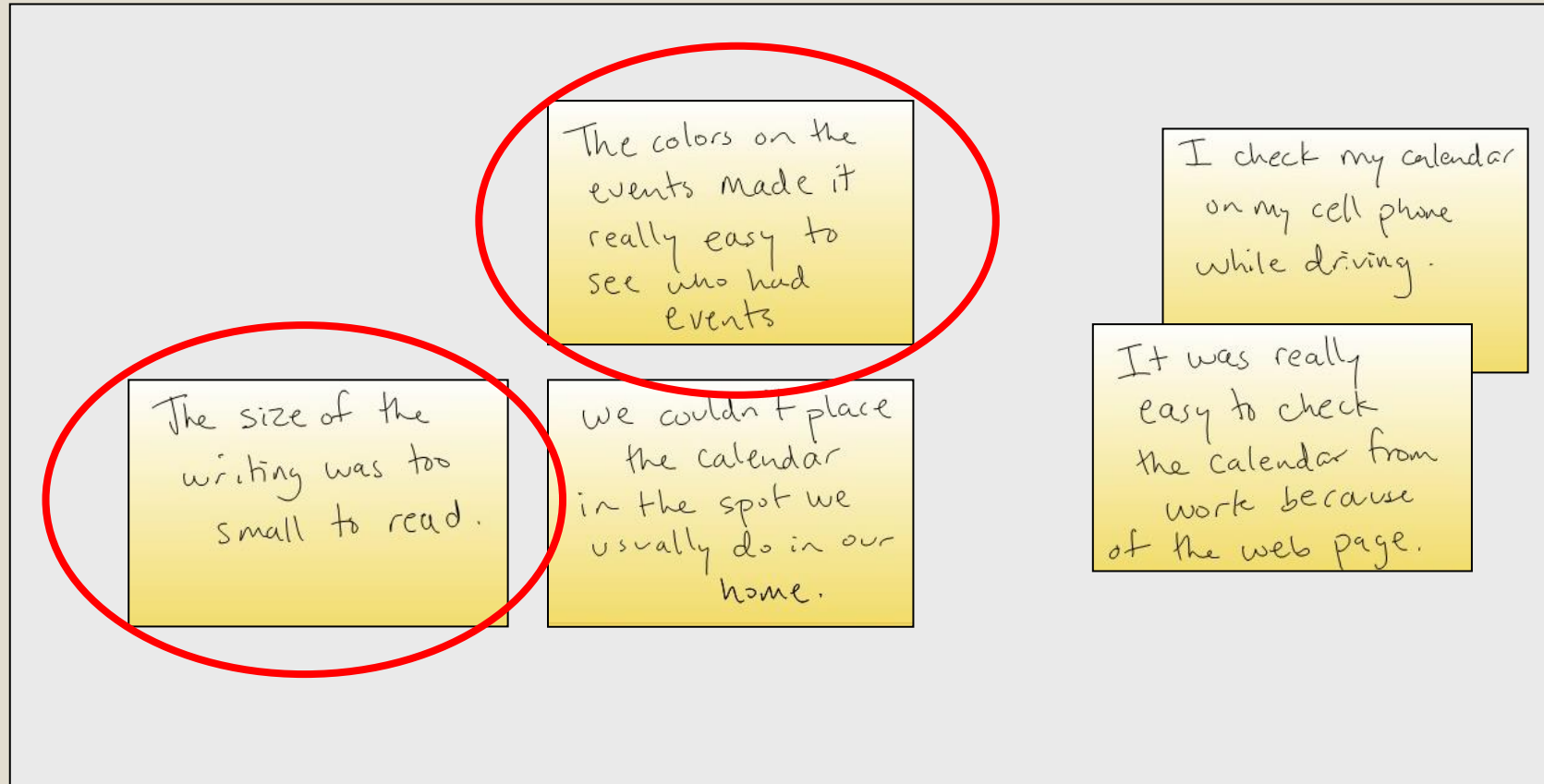 ◦ move notes into related columns / piles

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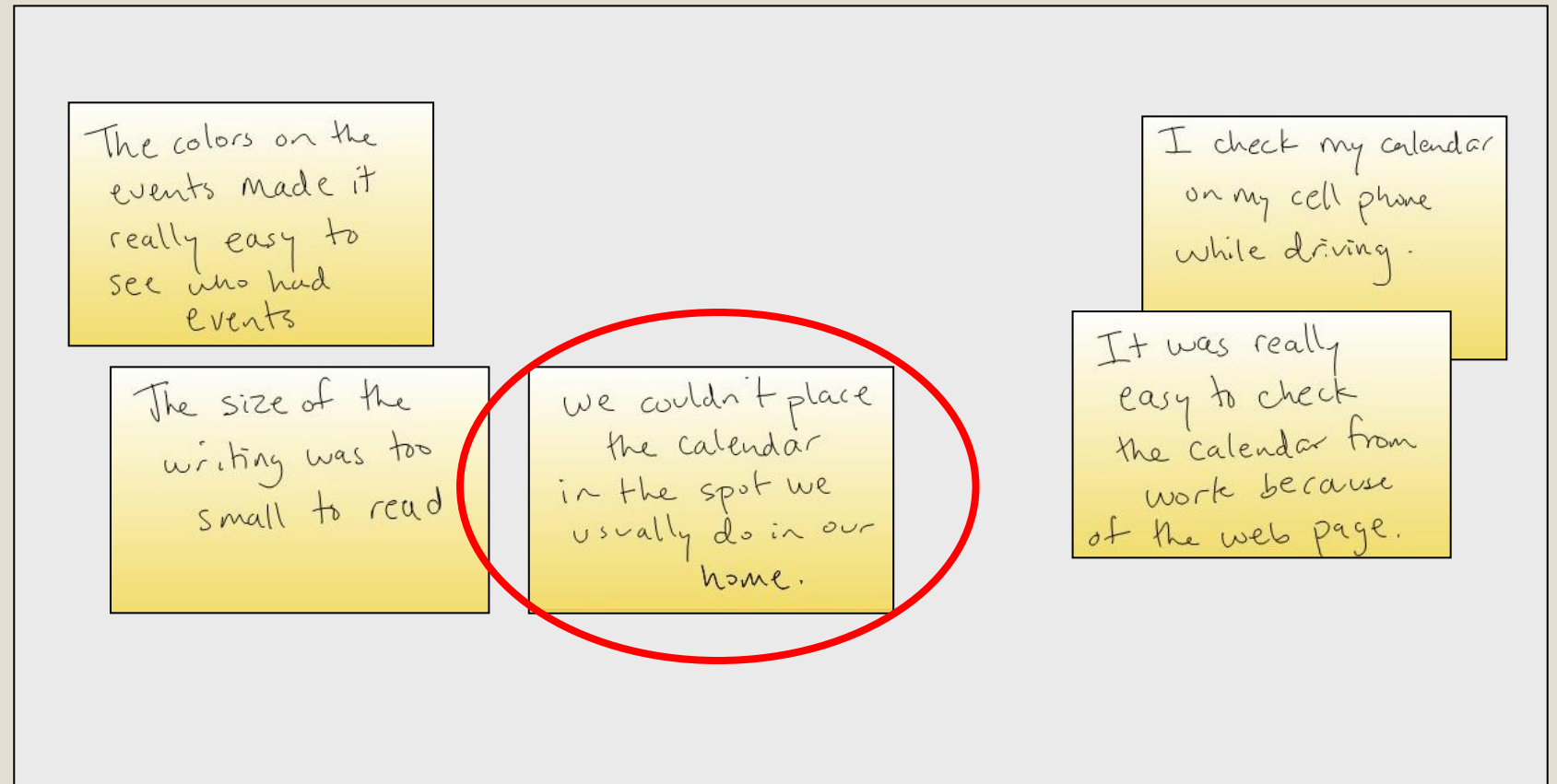
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Example: Calendar Field Study

○ Step 4: Affinity Labels
  ○ write labels describing each group

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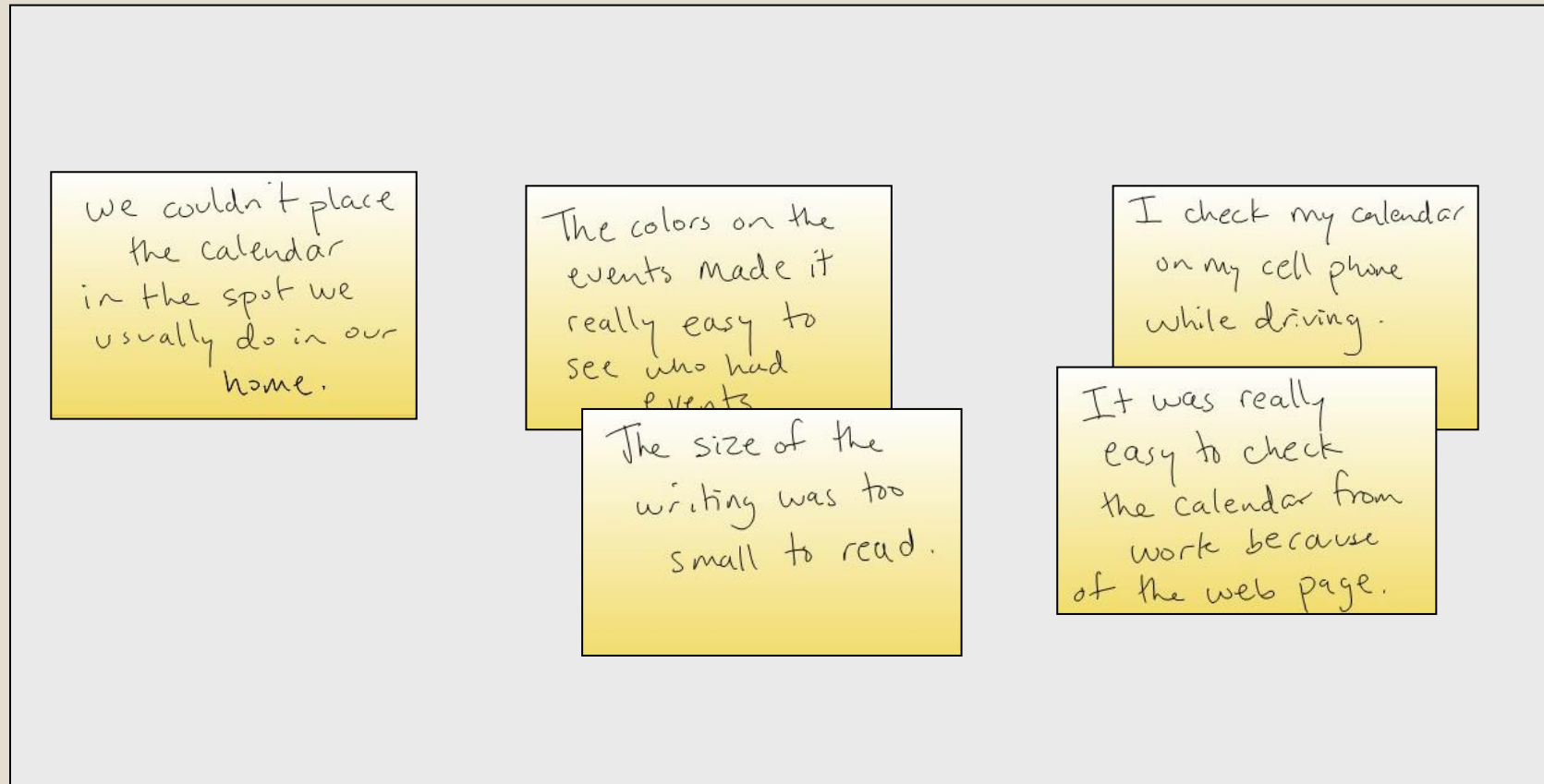The colors on the events made it really easy to see who had events.

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Example: Calendar Field Study

◦ Step 4: Affinity Labels

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Calendar placement is a challenge

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Example: Calendar Field Study

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Calendar placement is a challenge

We couldn't place the calendar in the spot we usually do in our home.

Interface visuals affect usage

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Example: Calendar Field Study

○ Step 4: Affinity Labels
  ○ write labels describing each group

Calendar placement is a challenge

We couldn't place the calendar in the spot we usually do in our home.

Interface visuals affect usage

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The size of the writing was too small to read.

People check the calendar when not at home

I check my calendar on my cell phone while driving.

It was really easy to check the calendar from work because of the web page.

EXAMPLE of CASE STUDY

Phase 4: The case studies (April 07-June 08)			
Activities	Objectives	Methods/Tools	Deliverables
Data Collection	• To conduct case studies • To gather data	• Interviews • Observations • Document analysis	• Interview transcripts • Document and observation memo
Analysis	• To analyse collected data to understand the overall studies context and to identify appropriation criteria	Nvivo 8	Analysis result
Findings	• To update the existing identified criteria from the pilot case study and preliminary survey		Updates of appropriation criteria

THANK YOU
END OF TOPIC 5