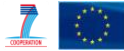




INTREC - INDEPTH Training & Research Centres of Excellence

Qualitative and quantitative research methods

Lecture 1



What is research?

Scientific research consists of an investigation that:

- seeks answers to a question
- systematically uses a predefined set of procedures to answer the question
- collects evidence
- produces findings that were not determined in advance
- produces findings that are applicable beyond the immediate boundaries of the study

Research methods

- Research methods are generally categorised as being either ***quantitative*** or ***qualitative***.
- What matters is that the methods used fit the intended purposes of the research!

Qualitative and quantitative paradigms

- The **quantitative** paradigm concentrates on what can be measured. It involves collecting and analysing objective (often numerical) data that can be organised into statistics. **NUMBERS**
- The **qualitative** paradigm concentrates on investigating subjective data, in particular, the perceptions of the people involved. The intention is to illuminate these perceptions and, thus, gain greater insight and knowledge. **WORDS**

CHOICE OF RESEARCH METHODS

- What you want to know decides your choice of method!
- Something best expressed in numbers – quantitative methods probably your choice
- Something best expressed in words – qualitative methods probably your choice
- Best choice might be to combine methods!



Traffic accidents are leading causes of death in Cambodia

Wearing helmet helps!



Research on helmet wearing

- **Overall research question:**
- How can head injuries from motorbike accidents be reduced?
- **More specific research questions:**
- To what extent are helmets used by all riders, including passengers?
- Why are helmets not used by all drivers and passengers?
- What can be done to have more drivers and passengers to use helmets?

Different research approaches

The purposes of research can be categorised as:

- Description (*fact finding*)
- Exploration (*looking for patterns*)
- Analysis (*explaining why or how*)
- Prediction (*forecasting the likelihood of particular events*)
- Problem solving (*improvement of current practice*)

Descriptive research

- Seeks to accurately describe current or past phenomena - to answer such questions as:
 - a) *What proportion of motorbike drivers use helmets?*
 - b) *What is the proportion of passengers using helmet?*
 - c) *Young people's view on using helmet ?*

Explorative research

- Seeks to identify patterns among phenomena – to answer such questions as:
 - a) *Is there a cultural pattern explaining for risk taking in traffic?*
 - b) *How does media discuss use of helmet among young people?*

Analytical Research

- Seeking to explain the reasons behind a particular occurrence by discovering causal relationships. Once causal relationships have been discovered, the search then shifts to factors that can be changed (variables) in order to influence the chain of causality. Typical questions are:
 - a) *Is helmet wearing related to decreased risk of mortality?*
 - b) *Are young age and male gender risk factors for not using helmet?*
 - c) *Does gender affect use of helmets? How?*

Predictive Research

- Seeks to forecast the likelihood of particular phenomena occurring in given circumstances. It seeks to answer such questions as:
 - a) *Will higher fines for not using helmet further increase helmet use?*
 - b) *Will stricter regulations on which sort of helmets to use reduce head injuries?*

Problem Solving Research / Action Research

- Action-research is a form of problem solving based on increasing knowledge through observation and reflection, then following this with a deliberate intervention intended to improve practice.
 - *Researchers being involved in school programs, youth activities, street activities to gain more knowledge, plan and conduct interventions*
 - *Participants in these actions are intricately involved with all of these activities.*

Different research approaches

:

- Description (*fact finding*)
- Exploration (*looking for patterns*)
- Analysis (*explaining why or how*)
- Prediction (*forecasting the likelihood of particular events*)
- Problem Solving (*improvement of current practice*)

Conclusion

What matters is that the methods
used fit the intended purposes of the
research!