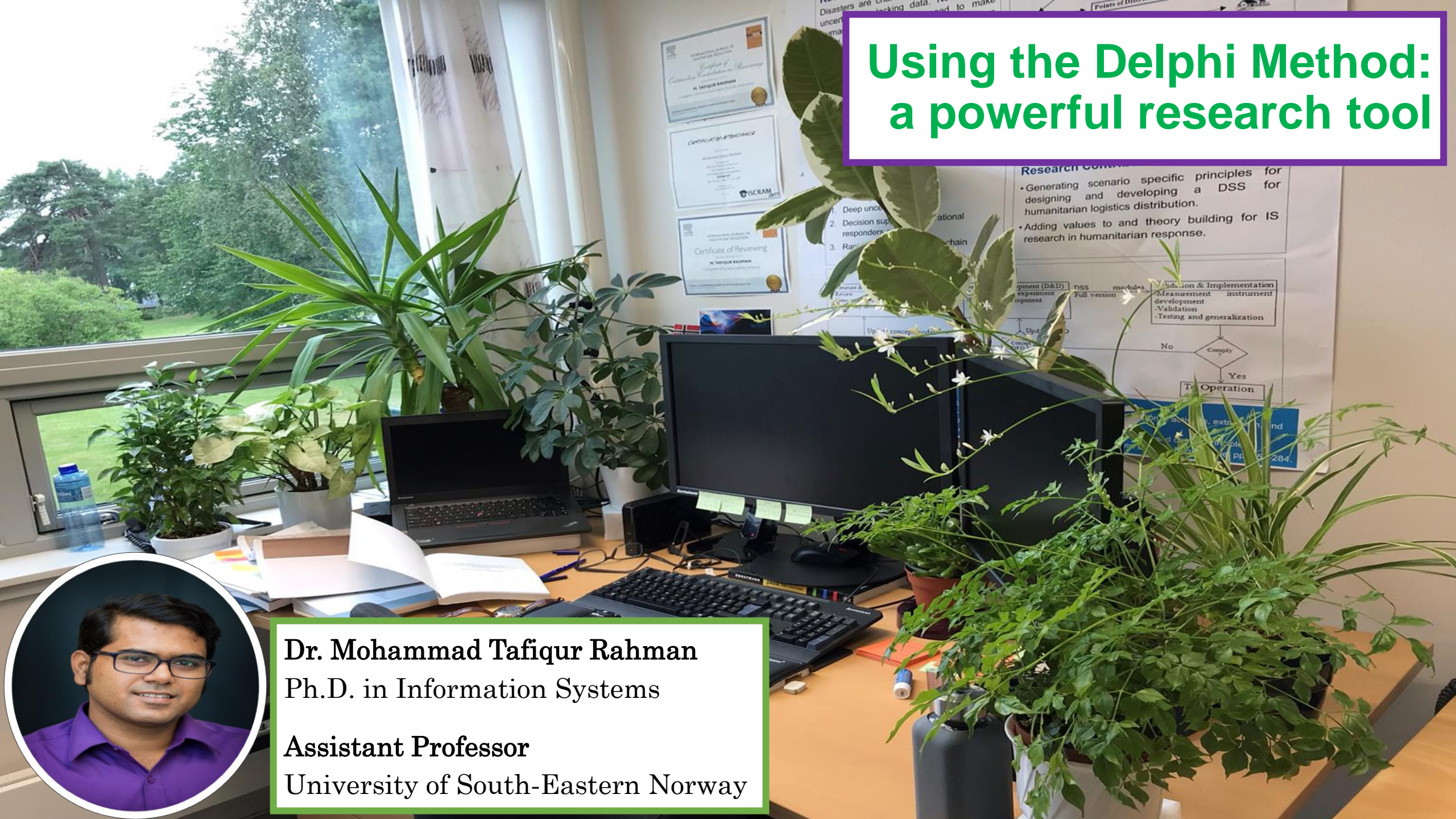


Using the Delphi Method: a powerful research tool



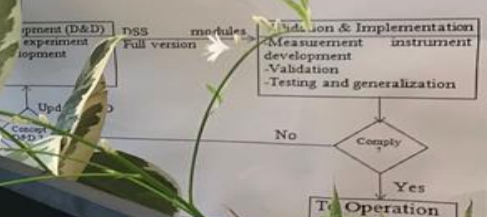
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Research Content
• Generating scenario specific principles for designing and developing a DSS for humanitarian logistics distribution.
• Adding values to and theory building for IS research in humanitarian response.



Module 1: Introduction to the Delphi Method

Module 2: How to do the Delphi study

Module 3: Data Collection

Module 4: Data Analysis & Delphi Rounds

Module 5: Results & Discussion

Module 6: Delphi Variants & Conclusion

Module 7: An example of the Delphi Study

Module 1

Introduction to the Delphi Method

History of the Delphi Method I

- First coined by Norman Dalkey for a U.S. sponsored military project.
- Developed at the RAND Corporation in the 1950s.
- Dalkey states the goal of the project was “*to solicit expert opinion to the selection, from the point of view of a Soviet strategic planner, of an optimal U.S. industrial target system and to the estimation of the number of A-bombs required to reduce the munitions output by a prescribed amount*”.

History of the Delphi Method II

- Usage of experts' opinions in policy-making and forecasting the future for making correct and timely decisions during waging war.
- Subject-matter experts could be solicited for their opinions or expectations.
- Starting from military-related projects, the Delphi Method has been used by various disciplines and organizations.
- Publishing in the open literature started in the early 1960s.

Characteristics of the Delphi Method I

Five major characteristics:

- Expert panel(s)
- Iterative process
- Controlled feedback
- Anonymity of participants
- Statistical aggregation of group response



Characteristics of the Delphi Method II

Expert panel(s) formulation:

- Expertise is defined within study context
- Criteria meeting experts are invited to participate
- The level of expertise varies according to the study's need
- The researcher define and justify the criteria for “expertise”
- Homogenous/heterogenous group of specialists can be used
- No prescribed numbers for the size of the panel(s)

Characteristics of the Delphi Method III

Iteration with controlled feedback:

- Questionnaire survey/interview approach
- Over one round of survey
- Responses are collated and fed back to the participants
- Collective group response
- Opportunity to amend their previous viewpoint

Characteristics of the Delphi Method IV

Participants' anonymity:

- Possible at varying levels
- Respondents can remain completely unknown
- Participants can logically be deducted sometimes
- Responses should be handled carefully
- Originator should not be identified



Characteristics of the Delphi Method V

Statistical group response:

- Linkage to iteration with controlled feedback
- Statistical summarization of information
- Presenting back to the participants
- Quantitative analysis of the ranking
- Conversion of qualitative interviews to quantitative ranking



Comparing with other methods

such as the nominal group technique (NGT) and the interacting group method (IGM)

- Idea generation: individual based, anonymous, independent
- Interpersonal conflicts and communication problems: virtually nonexistent
- Costing and coordination: not serious factors
- The use of successive rounds: build upon earlier results and stay focused

Concepts to consider

- Expert panel
- Iteration
 - Round 1, Round 2, and Subsequent rounds
- Participant feedback
- Consensus
 - Stability and validation
- Attrition





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Thank You!

Think **Green** - Grow **Green** - Live **Green**

Course Outline

Modules	Content
1. Introduction to the Delphi Method	History, Main characteristics, Comparing with other methods, Summary of areas to consider when designing the Delphi study.
2. How to do the Delphi study	Design and process of a typical Delphi study, Problem definition, Expert panel formulation.
3. Data Collection	Brainstorming, Literature study, Formulation questionnaire, Conducting interviews.
4. Data analysis & Delphi rounds	Consensus, Stability, Subsequent rounds, Stopping criteria.
5. Results & Discussion	Discussing the findings, Validation, Reliability, Strength, Limitation.
6. Delphi variants & Conclusion	Modified Delphi, Mixed-methods modified Delphi, e-Delphi, Conclusion.
7. An example of the Delphi study	The case of designing a decision support system for humanitarian relief distribution.