



ATLAS.ti Webinar Strategies for Data Analysis Using Networks to Obtain Meaningful Results Presented by Julia Gluesing, PhD & Ken Riopelle, PhD 12 October 2021 – 9 am PDT



Introduction

Who we are

Purpose: Demonstrate two strategies for using ATLAS.ti Network View to obtain meaningful results

Two real-world projects Theory-Driven (Top Down) Grounded Theory (Data-driven Bottom Up)



Project One – Theory Driven

NATIONAL SCIENCE FOUNDATION SUBCONTRACT TO AWARD # 9630951 GREENFIELD COALITION FOR NEW MANUFACTURING EDUCATION (2004)

Full report is available for download:



Project One - Theory Driven

- Examined the use of shareable learning resources in engineering education using Diffusion of Innovation Theory
- Three Types of Qualitative Methods
 - Interviews
 - Observation
 - Secondary data analysis

Five Research Questions

- 1. How do the perceived attributes of the sharable learning resources (SLR) affect their adoption?
- 2. How do perceptions of the faculty and students about the SLR decision affect the rate of adoption of an innovation?
- 3. How do mass media communication channels (such as advertising and direct mailings) and interpersonal channels of communication impact therate of adoption of an innovation?
- 4. How does the nature of the social system (network communication patterns) impact the rate of adoption of an innovation?
- 5. How does a change agent (e.g., an educator who demonstrates or teaches others about the SLR) impact the rate of adoption?



Socio-Technical Systems Framework





Coding Strategies

- Initial Codebook based upon Diffusion of Innovation Theory and interview protocol (with prefixes "F" and "M")
- Added new codes that emerged from the data in the coding process (with prefix "D")
- In Network View created unassigned codes to use as labels (with prefix "N")



Project One – Diffusion of Shareable Learning Resources **DEMONSTRATION**



Project Two – Grounded Theory (Data-driven Bottom Up)

CREATING A KNOWLEDGE BASE FOR PRODUCT DEVELOPMENT TEAMS



Project Two - Grounded Theory

- Consulting project to develop a knowledge base from executive coaches' stories of issues and their resolution
- Conducted semi-structured interviews with Executive Coaches
- Produced a hyperlinked knowledge base of issues describing issues and conditions, strategies/actions taken, and consequences that was designed for knowledge sharing among coaches



Coding Strategies

- Coding followed Strauss and Corbin's (1998) Grounded Theory approach
- Codes emerged from the data and were grouped according to the following:
 - Conditions/Context
 - Strategies/Actions
 - Consequences
- Also grouped codes to reflect the local context
 - Product Development Cycle
 - Context
 - People
 - Team Processes
- Used many in-vivo codes, keeping results grounded in organizational language



Project Two – Creating a Knowledge Base

DEMONSTRATION

Benefits of ATLAS.ti Network View

- Many codes provide very descriptive detail that can be managed using Network Views.
- Builds "pictures" of the conditions, strategies/actions, and consequences that are patterned, related to different contexts, and that impact work.
- Network Views enable writing up results and reports that are grounded with a lot of credibility.
- Network maps are valuable communication and sense-making tools.



Questions? Comments?

Q & A



Thank You!





gluesing@teamcci.com

riopelle@teamcci.com