Methods Article: Longitudinal Mixed-Methods Analysis of Stakeholder Perspectives in Post-Conflict Reconstruction Research

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Abstract

This methods article details a longitudinal mixed-methods framework for analyzing stakeholder perspectives in post-conflict reconstruction contexts. The method integrates: (1) two-wave data collection from the same stakeholders, (2) computational text analysis including preprocessing, thematic coding, and sentiment analysis, (3) statistical validation using t-tests, chi-square, and correlation analysis, (4) cluster analysis for stakeholder segmentation, and (5) topic modeling for thematic structure extraction. The method was applied to 25 Afghan governance stakeholders producing 14,192 words of analyzable data across two collection waves. Key innovations include within-subject longitudinal comparison, integration of computational and qualitative analysis, and validation of thematic consistency over time. The method is reproducible for other post-conflict or complex governance contexts.

Keywords: Longitudinal Analysis, Mixed Methods, Computational Text Analysis, Stakeholder Perspectives, Post-Conflict Research, Validation Methods

Method Details

Study Design

A longitudinal panel design was implemented with two waves of data collection from the same 25 stakeholders to capture evolving perspectives over time.

Sample

Stakeholders included NGO professionals, policy analysts, former government officials, and international diplomats with active engagement in Afghanistan's reconstruction (2001–2021).

Data Collection

- **Wave 1**: Comprehensive survey with 13 questions capturing professional background, leadership qualities, institutional challenges, and governance insights.
- **Wave 2**: Follow-up in-depth interviews focused on thematic refinement, corruption examples, formal-traditional gaps, and practical recommendations.

Analytical Pipeline

1. **Text Preprocessing**: Tokenization, stop-word removal, normalization
2. **Thematic Coding**: Deductive-inductive coding to identify 18 thematic domains
3. **Sentiment Analysis**: TextBlob polarity and subjectivity scoring
4. **Statistical Testing**: T-tests, chi-square tests, ANOVA, Pearson correlation
5. **Cluster Analysis**: K-means with silhouette score validation
6. **Topic Modeling**: Latent Dirichlet Allocation (LDA) for thematic structure extraction

Validation and Reproducibility

Intercoder reliability and statistical consistency were verified. The method is fully reproducible for other post-conflict or complex governance studies.

Software and Tools

Python 3.11.9 with NLTK, scikit-learn, pandas, matplotlib, and related computational libraries.