

DATA ANALYSIS AND INTERPRETATION

GATHERED DATA



PROCESSING TO FIND THEMES



**Synthesizing, Making Sense of, and Attributing
Meaning to the Data you gather**

DETERMINING
THE MEANING
OF PATTERN

THEMES CONNECTED TO
DISCOVER AND DISPLAY PATTERN



CONNECTING DATA THEMES



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Presentation Outline

- 1. Introduction: Importance/Necessity of Knowledge and Skills on data analysis and interpretation.
- 2. The Analysis Stage of Indigenous Research Proposal
- 3. Definitions of Data Analysis and Interpretation
- 4. Data Speak and Researcher Speaks
- 5. Major analytical, display and interpretation frameworks
- 6. Models of Data Analysis and Interpretation: Western versus Indigenous
- 7. Illustrations of Data Analysis and Interpretation: Qualitative and Quantitative

- MOTIVATE:
 - The importance of analytical and interpretive knowledge and Skills

INTRODUCTIONS:

Importance of Skills

- “In general, the U.S. appears to be shifting towards jobs that require workers with greater analytical and interpretive skills – skills that are typically acquired with some post-secondary education” (Executive Office of the President Council of Economic Advisors, July 2009, p. 21).

INTRODUCTION:

Necessity of Knowledge and Skills

- The most overwhelming stages of the research process to many research students are data analysis and interpretation. Some students quit the research at these stages.
- Data analysis and interpretation, however, shouldn't be necessarily a daunting task, if
 - a) you know the questions to ask about the data.
 - b) you have adequate analytical and interpretive skills

INTRODUCTION:

Necessary Questions

THE CENTRAL QUESTION:

- **WHAT DO YOU PLAN TO DO WITH THE DATA/INFORMATION YOU PLAN TO GATHER WITH YOUR RESEARCH PROPOSAL?**

- Sub-Questions:
 1. How will the data be analyzed and interpreted, and who will analyze them and interpret the pattern?
 2. What analytical frameworks will be used? Indigenous analytical/interpretive frameworks? Western/Conventional frameworks? A combination?
 3. Whose worldviews, philosophies and theories will be used to analyze the data for a pattern, display the pattern, and interpret the pattern?

INTRODUCTION: Main Thesis

- *After collecting a massive amount of information about the key concepts in your research statement what do you do with the information in order to answer your research question(s)?*
- 1. Analyze it: Process it, that is, Examine and synthesize or break down the data to discover the message or meaning units, category units, themes and patterns in them.
- 2. Display it: Create visuals (diagrams, flow charts, maps, taxonomies, tables, graphs, figures, images, etc.) to display the connections among the category units, themes and patterns.
- 3. Interpret it: make sense of (assign significance or coherent meaning to) the displayed integrated category units, themes and patterns the data reveal.

What will you do with the Data you plan to collect?

- WESTERN/CONVENTIONAL RESEARCH PARADIGM:
 - From the conventional research perspective, “crack the code or the shell” of, or “deconstruct or break up”, the gathered data and re-assemble or reconstruct them to reveal the pattern and meaning within.
 - <http://www.jigzone.com/puz/embed.php?c=Z&i=16055D5AE667&z=1>

What will you do with the Data you plan to collect?

- INDIGENOUS RESEARCH PARADIGM
- From the Indigenous research perspective, “respectfully enter the world of the data and discover the inherent relationships within the data” (Wilson 2008, pp. 116-122).
- **That is, listen deeply to the voices of the data to hear, understand and display these voices.**

What will you do with the Data you plan to collect?

- Indigenous researchers have struggled with the way that Western approaches to *[data] analysis* fail to respect the relational nature of Indigenous knowledge, by taking knowledge out of the context in which it was shared and reducing it into parts so that it be further manipulated. Kovach (2009) proposes *interpretation* as a method that is more congruent with Indigenous worldviews. She explains that interpretation reflects the subjectivity of the researcher and the research participants, and eventually of the audience to whom the interpretation is communicated, rather than pretending objectivity. Research subjectivity is made explicit in Indigenous research, whereas Western research approaches are often positioned as neutral and objective, and thus more valid. Owning one's subjectivity in research is critical in decolonizing research, especially for Western academically trained scholars who tend to privilege Western-produced knowledge over Indigenous knowledges (Mcgregor et al 2018, pp. 10-11).

- **EXPLORE:**
 - **Definitions of Data Analysis and Interpretation**

DEFINITIONS

- It is important to know that data analysis and interpretation aim at providing correct answers to the following pertinent questions:
- 1. ANALYSIS: *What do the data say? What message do the data communicate? Technically, what message or meaning units, category units, themes and/or patterns do the data reveal?*
- 2. INTERPRETATION: *What is the meaning of the voice/message/pattern the data reveal?*

Units and Themes



Pattern or Matrix



DEFINITIONS

- ➤ Data analysis = Data speak = allowing the data to speak for themselves.
- Data interpretation = Researcher speaks = the researcher speaks for the data.

DATA SPEAK: DATA ANALYSIS

- **DATA SPEAK = VOICES OF DATA**
- Every research data have two essential voices or features:
- 1. **Themes**: Categorical Labels (Burg and Lune 2012)
- 2. **Patterns**: Matrix of interconnected themes (Van Tyler 2012)
- **Question**: How do you discover or come to know the themes and patterns or voices of the data?

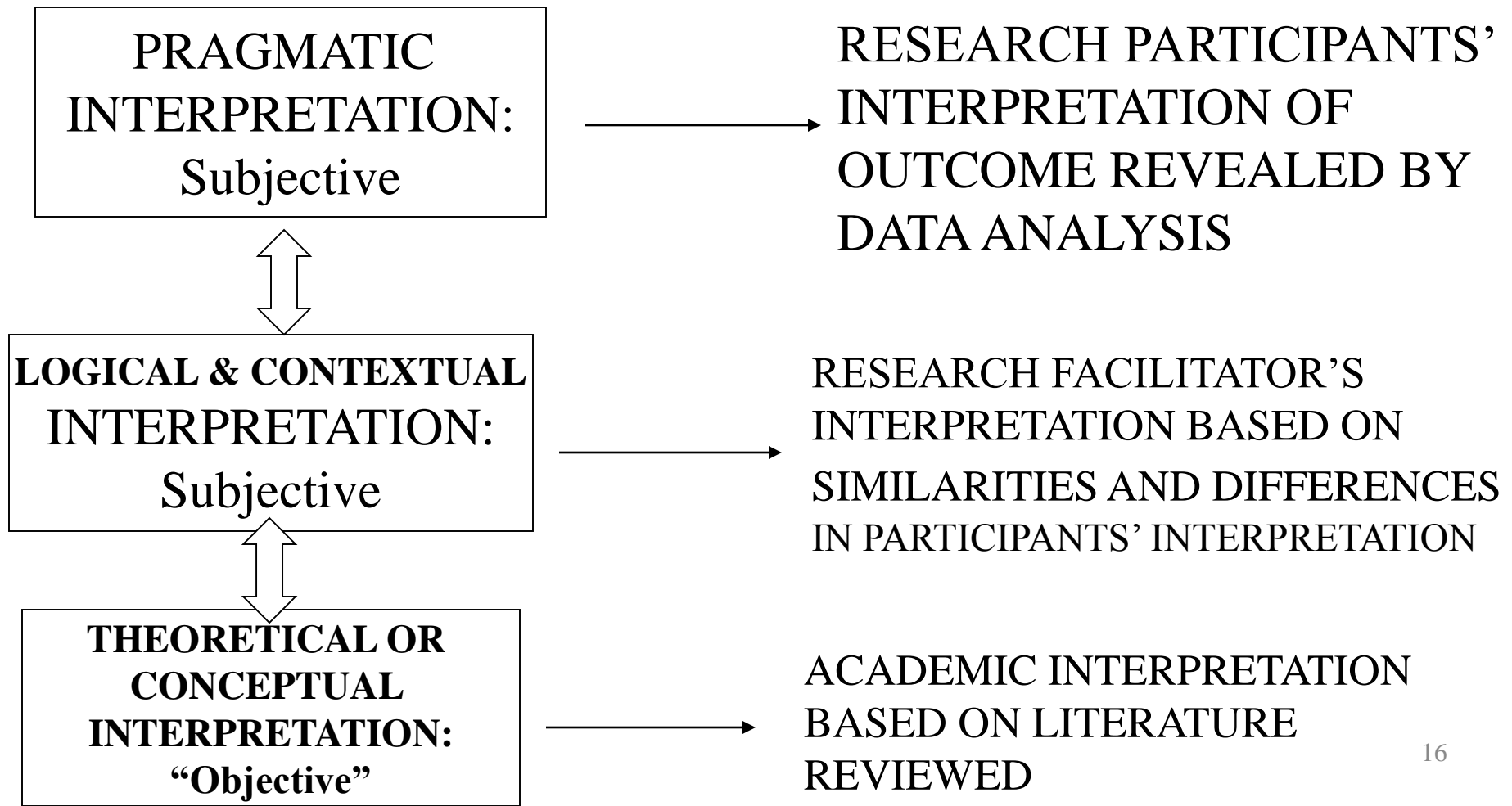
RESEARCHER SPEAKS: INTERPRETATION

Western Conventional Research Model

- RESEARCHER SPEAKS = VOICE OF RESEARCHER
- *Qualitative and Quantitative researchers both interpret data, but they do so in different ways:*
- A qualitative researcher gives meaning by discussing textual, visual or oral data in ways that convey authentic voices or stories that remain true to the research participants and situations the researcher and participants studied together to answer a research question.
- A quantitative researcher gives meaning by discussing the numbers, charts, and statistics to explain how these relate to the hypothesis of the research study.

INTERPRETATION OF PATTERNS:

Researcher – Participants Speak: IRM



- **MAJOR ANALYTICAL, DISPLAY AND INTERPRETIVE FRAMEWORKS**

MAJOR ANALYTICAL, DISPLAY AND INTERPRETIVE FRAMEWORKS

- Based on the research philosophy, research approach, logical reasoning, research method, and research techniques that would guide your data collection processes, your analytical, display and interpretation framework would be QUALITATIVE or QUANTITATIVE or a combination of both (*See Lecture 3: Major Research Decisions*).

- MODELS OF DATA ANALYSIS &
INTERPRETATION USING THE MAJOR
FRAMEWORKS

MODELS OF DATA ANALYSIS

- 1. Conventional/Western Model: A Focus on the Researcher as an Expert:
 - Deconstruction and Reconstruction or “Scientific Method” Style
- 2. Indigenous Model: A Focus on Researcher as a facilitator:
 - Synthesis or Relational Accountability Style

- WESTERN OR CONVENTIONAL ('SCIENTIFIC METHOD') STYLE OF DATA ANALYSIS

SCIENTIFIC METHOD STYLE: DECONSTRUCTION & RECONSTRUCTION OF DATA

- SCIENTIFIC METHOD STYLE: Researcher/Expert Analysis:
 - *Separates gathered data into its parts, until category units, themes and patterns or relationships among categories and themes are clear.*
- 1. DECONSTRUCTION:
- Break the data into bits and pieces to examine them in minute detail for their essential features.
- 2. RECONSTRUCTION:
- Reconnect the bits and pieces using linear logic to discover themes or rules that govern them and identify relationships among the themes to reveal patterns or laws of the whole.
- a) QUALITATIVE: The “scientific method style” focuses on the researcher’s story of informants/respondents’ stories
- b) QUANTITATIVE: The “scientific method style” requires academic skills and detached relationship with the data.



SCIENTIFIC METHOD STYLE: DECONSTRUCTION & RECONSTRUCTION OF DATA

- a) Qualitative data analysis involves “a process of breaking down data into themes, patterns, and concepts to create a meaningful story from the volume of data” (Chilisa 2012, p. 214).

SCIENTIFIC METHOD STYLE: DECONSTRUCTION & RECONSTRUCTION OF DATA

- “Shawn Wilson explains how the linear logic of dominant paradigms looks at, or ‘manages,’ a topic by breaking it down into smaller portions. This is a challenging for Indigenous research methodology, because by breaking things down into their smallest pieces you are destroying the relationships around those things. Rather than deconstruction, Wilson describes an Indigenous research methodology as synthesis (Wilson 2008, p. 121). One of the challenges with this style of Analysis is when you have to try to present your findings, particularly in academic institutions. Lavalee proposes weaving points and themes back together in a collective story, keeping individual stories intact and writing about participants as characters (2009, p. 34). Likewise, Wilson puts forward the use of metaphor and symbolism in both analysis and presentation. This is a way for the audience of the research to better form a relationship with findings that sometimes feel abstract (Wilson 2008, p. 124)” (Cited in McGregor et al 2018, p. 266)

SCIENTIFIC METHOD STYLE: DECONSTRUCTION & RECONSTRUCTION OF DATA

- EXAMPLE: The nine women in this study told me stories of their lives; narratives that spoke of past her/stories, stories of their present lives living in Kibera and stories of hope for a future. I listened to stories in the spoken words of the women, and when reading transcriptions of stories told, I sensed, in words that had no sounds, ripples of narrative sub-plots that moved like gurgling under-currents in the busyness of their daily mainstream lives. Having taken the liberty of deconstructing the storied lives of these women, and recognizing incongruency with an Indigenous, holistic view of analytical understanding, I have teased out, untangling and separating five knotty and messy warp and weft threads from the commonality within the complex, social fabric of these nine lives (Van Tyler 2012, my former PhD student).

APPLY

- **INDIGENOUS MODEL OF DATA ANALYSIS**

SYNTHETIC or RELATIONAL ACCOUNTABILITY STYLE

- How to practice this model of data analysis: (Wilson 2008, pp. 118-122)
- *Use your 1) Intuitive Logic, 2) life-long learning, 3) intimate relationships with the data, individuals, community, ecology, and cosmos involved in the research, and 4) the worldviews, philosophies or theories of the participating community to*
- 1. Collaborate with research participants to organize for synthesizing the data
- 2. Combine elements of the data to form a new entity.
 - That is, examine the whole data together carefully at once, using intuitive logic (combining your culture, head, heart and spirit) to reach for, restore, strengthen or build entire healthy and strong relationships as a whole in and around the data.
- 3. Coordinate the research participants' stories into a narrative.

A NARRATIVE



SYNTHETIC or RELATIONAL ACCOUNTABILITY STYLE

- EXAMPLE: Each thematic thread is pulled gently from deep within invisible systems inherent in the social fabric in which they are situated. Bringing them up to the surface from underground locations, I make them visible, and hold them in the light for examination purposes. Each thematic thread is supported by evidentiary quotes taken directly from the recorded conversation transcripts. Nevertheless, no matter how mindfully I have engaged in this process, it is impossible to segregate one thematic thread from the matrix of interconnectedness betwixt and between them all. Reading beyond a wordy surface, skeins of repetitious thought unravel from the thick threads of descriptive analysis (Van Tyler 2012, my former PhD student).

APPLY

- Display of Analyzed Data

DISPLAY

- Data display is a critical part of data analysis:
- a) Qualitative researchers have moved towards presenting their data analysis in the form of **DIAGRAMS** and **CHARTS**.
 - In addition to maps, taxonomies and lists, diagrams and charts help organize non-numerical data or ideas and systematically investigate them to **SHOW** relationships in the data.
- b) Quantitative researchers reconstruct their numerical data into tables, graphs, figures, charts, and pictorial devices to depict themes and patterns of correlations and *cause-effect* relationships in the data.

- **APPLY:**

- ILLUSTRATIONS OF DATA ANALYSIS, DISPLAY AND INTERPRETATION

- QUALITATIVE DATA ANALYSIS: ILLUSTRATIONS #1:
Primary Data

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #1: Primary Data

- **TOPIC:** Portraits of Decolonized and Indigenized Diversity Practices
- **RESEARCH QUESTION:** What are Indigenous peoples' stories, visions/re-visions, and strategies of decolonized and indigenized diversity practices?
- **THESIS (Initial):** Indigenous Peoples' stories, visions/re-visions, and strategies focus on relational connections with our common humanity in contrast to transactional connections with our differences.
- **THESIS (Revised):** Indigenous Peoples' stories, visions/re-visions, and strategies focus on going beyond transactional connections to relational connections with our common humanity in contrast to transactional connections with our differences.

QUALITATIVE DATA ANALYSIS: ILLUSTRATION #1: Primary Data

- In June – July 2017, I worked with three Indigenous research assistants to do video-recorded talking circles with six Indigenous groups in Victoria to gather information on Living Portraits of Decolonized and Indigenized Diversity practices. In June 2018, I set out to analyze the data. How did I do it? 1) Reflective reading and 2) Identified voices/message of meaning units, 3) Combined meaning units into category units, 4) Connected category units into themes, and 5) Constructed the themes into a narrative or pattern or matrix:
- 1. Reflective Reading of Data:
 - My reflective reading of the proposal's research statement, research question, and thesis as well as the conversations the talking circles generated revealed:
 - A) Message/Meaning units: Voices of:
 - The Eyē? Sqâ'lewen – The Centre for Indigenous Education & Community Connections (IECC)
 - Victoria Immigrant and Refugee Centre Society
 - Hulitan Family & Community Services Society
 - Surrounded by Cedar Child & Family Services
 - Songhees Nation
 - WSÁNEĆ First Nations

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #1: Primary Data

- **B) Category Units derived from message/meaning units**
 - Pan-Indigenous = Participants from Indigenous communities outside Canada
 - Academic Indigenous = Participants from Camosun's IST Department
 - NGO Indigenous = Participants from Non-Governmental Organizations providing services to Indigenous peoples
 - Community/Local Indigenous = Participants from local reservation communities
- **C) Themes: Connected category units**
 - 1. Stories, legends, symbols, and metaphors of diversity
 - 2. Visioning/Re-visioning of diversity
 - 3. Strategies to make diversity equitable and inclusive
- **D) Pattern/Rhythm/Matrix: Connected themes**
 - “Transactional Connections versus/and Relational Connections in a Diverse Society”

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #1: Primary Data

- **Meaning/Message Units, Category Units, and Themes emerged from:**
 - a) Etic Approach:
 - concepts in my initial research statement, research questions and main thesis statement
 - Concepts in the literature reviewed
 - c) Emic Approach:
 - stories, symbols, legends, analogies, proverbs, and metaphors used by the research participants
 - new thoughts/ideas stimulated by my immersion (reading, re-reading and reflecting) in the data.

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #1: Primary Data

- Connecting Revealed Themes to discover PATTERN or RHYTHM/MATRIX or NARRATIVE:
- Expected pattern: “RE-VISIONING EQUITY & INCLUSION: From Relational Connections through Transactional Connections to Relational Connections”
- Pattern revealed: “VISIONING EQUITY & INCLUSION: From Transactional Connections to Relational Connections” in the interaction between/among and within diverse groups in
 - countries/Nations
 - communities
 - Institutions and organizations

QUALITATIVE DATA ANALYSIS:

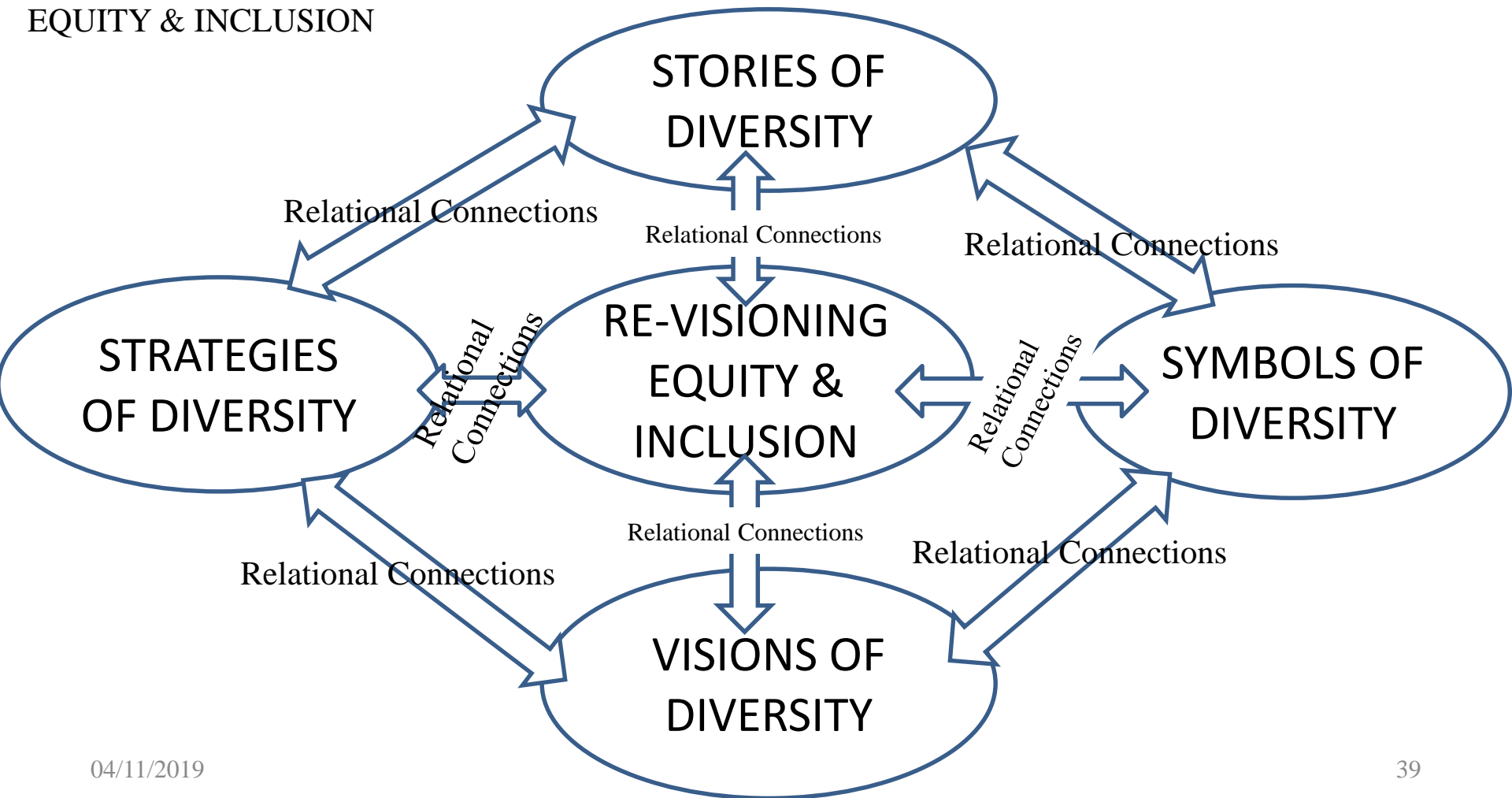
ILLUSTRATION #1: Primary Data

- I did my qualitative data analysis manually because my data set was too rich/complex for computer software programs to do a comprehensive and meaningful analysis.

DISPLAY OF EXPECTED THEMES & PATTERN:

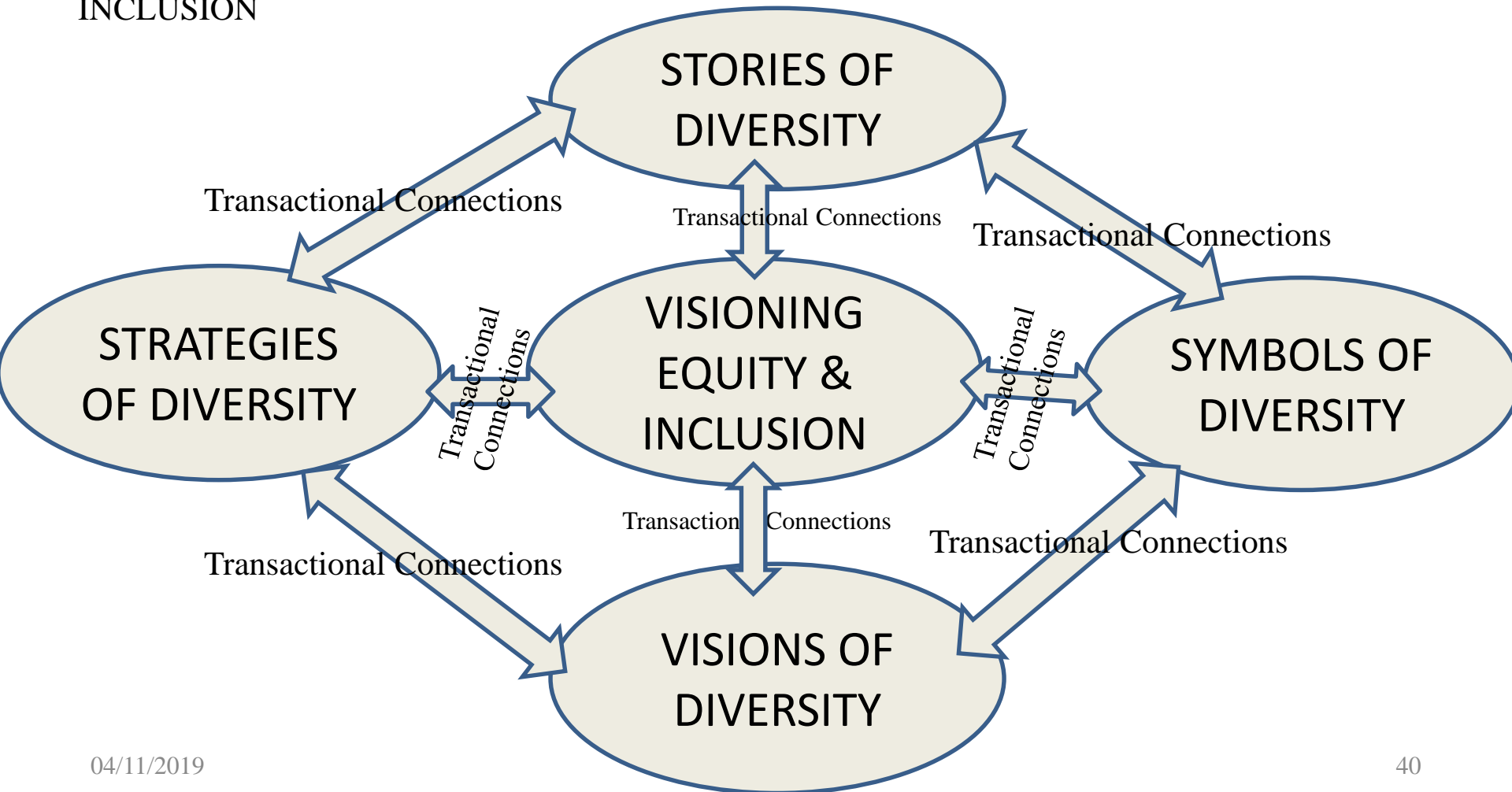
RELATIONAL CONNECTIONS THROUGH TRANSACTIONAL CONNECTIONS TO
RELATIONAL CONNECTIONS

PORTRAITS OF DECOLONIZED & INDIGENIZED DIVERSITY PRACTICES: RE-VISIONING
EQUITY & INCLUSION



DISPLAY OF REVEALED THEMES AND PATTERNS REVEALED: TRANSACTIONAL CONNECTIONS TO RELATIONAL CONNECTIONS

PORTRAITS OF COLONIAL DIVERSITY PRACTICES: VISIONING EQUITY AND
INCLUSION



INTERPRETATION OF REVEALED PATTERN

- RESEARCH PARTICIPANTS SPEAK

- QUALITATIVE DATA ANALYSIS: ILLUSTRATIONS #2:
Primary Data

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #2: Primary Data

- **TOPIC: DOMESTIC TOURISM**
- **RESEARCH QUESTION:**
 - How different are hosts – guests relationships in international tourism different from that of domestic tourism in the contrived – authentic relationships spectrum?
- **THESIS:**
 - Unlike in the contrived hosts – guests relationships in international tourism, social interaction in domestic tourism contexts may be authentic given the cultural connections between the hosts and the guests.

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #2: Primary Data

- After spending 6 months as a participant observer in popular tourist destinations and hotels in Ghana collecting massive primary qualitative information on touristic interaction, I set out to analyze the data. How did I do it? 1) Reflective reading and 2) Identified voices/message of meaning units, 3) Combined meaning units into category units, 4) Connected category units into themes, and 5) Constructed the themes into a pattern or rhythm or matrix:
- 1. Reflective Reading of Data:
 - My reflective reading of my research statement, research question, thesis, and the interview and observation data revealed:
 - A) Message/Meaning units: Voices of:
 - Hotel Workers
 - Hotel Management team
 - Local Community
 - Foreign Tourists
 - Domestic Tourists

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #2: Primary Data

- B) Category Units derived from message/meaning units
 - Hosts = workers, management and community
 - Guests = domestic tourists and foreign tourists
- C) Themes: Connected category units
 - i) Host-Guest Interaction
 - ii) Intermediaries and their interaction with guests
 - iii) Intra-host and Intra-guest Interaction.
- D) Pattern/Rhythm/Matrix: Connected themes
- “Contrived Relationships: Structure and dynamics of touristic encounters”

- Ref: Van de Sande, Adje and Karen Schwartz, 2011, pp. 122-124; Francis Adu-Febiri 1989

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #2

- **Meaning/Message Units, Category Units, and Themes emerged from:**
 - a) Etic Approach:
 - concepts in my initial research statement, research questions and main thesis statement
 - Concepts in the literature reviewed
 - c) Emic Approach:
 - terms, stories, analogies, proverbs, and metaphors used by the research participants
 - new thoughts/ideas stimulated by my immersion (reading, re-reading and reflecting) in the data.

QUALITATIVE DATA ANALYSIS: :

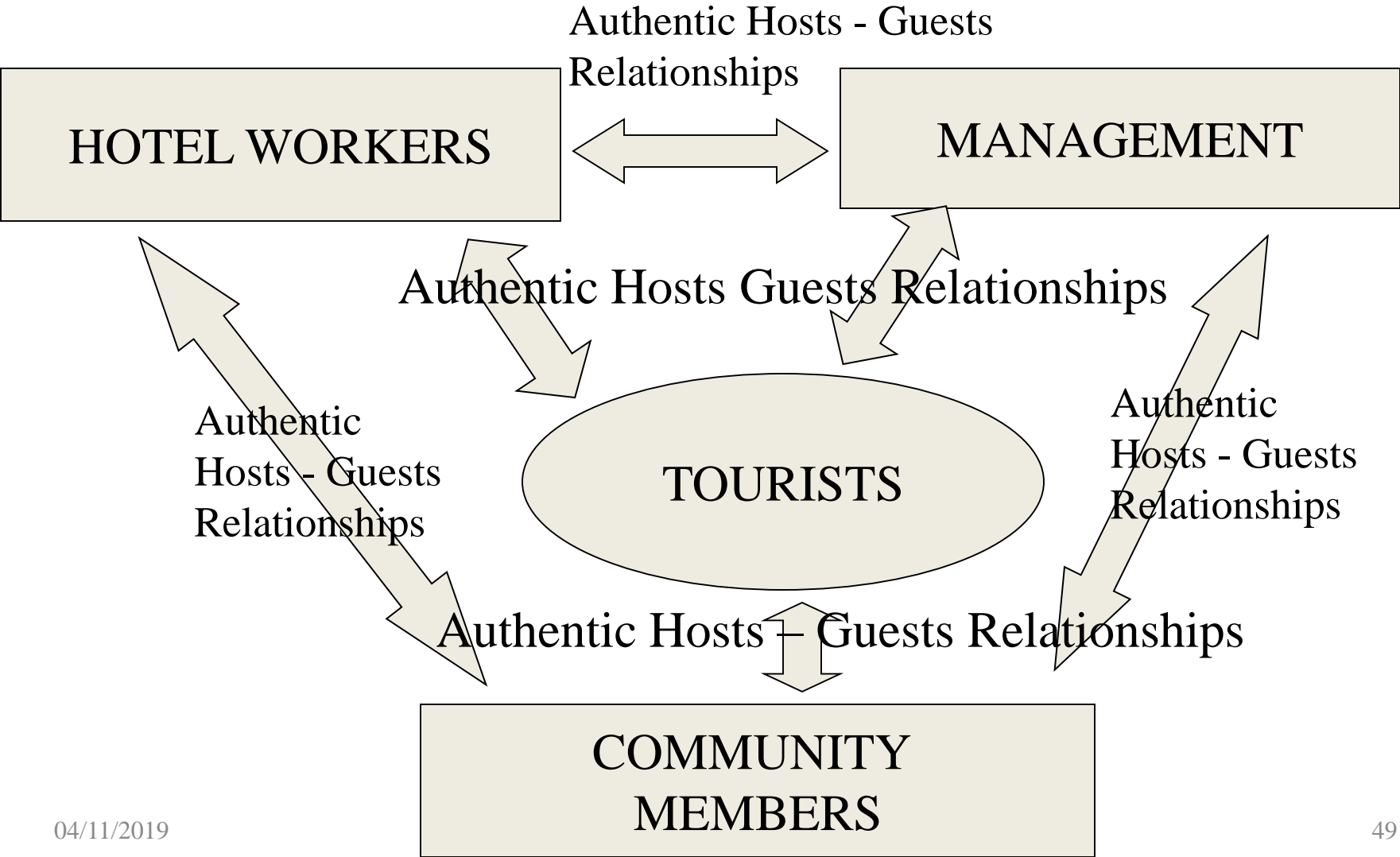
ILLUSTRATION #2

- Connecting Revealed Themes to discover PATTERN or RHYTHM/MATRIX:
- Expected pattern: “Authentic Relationships”
- Pattern revealed: “Contrived Relationships” in the interaction between/among and within
 - Tourists
 - management personnel of hotels
 - hotel workers
 - Local community members

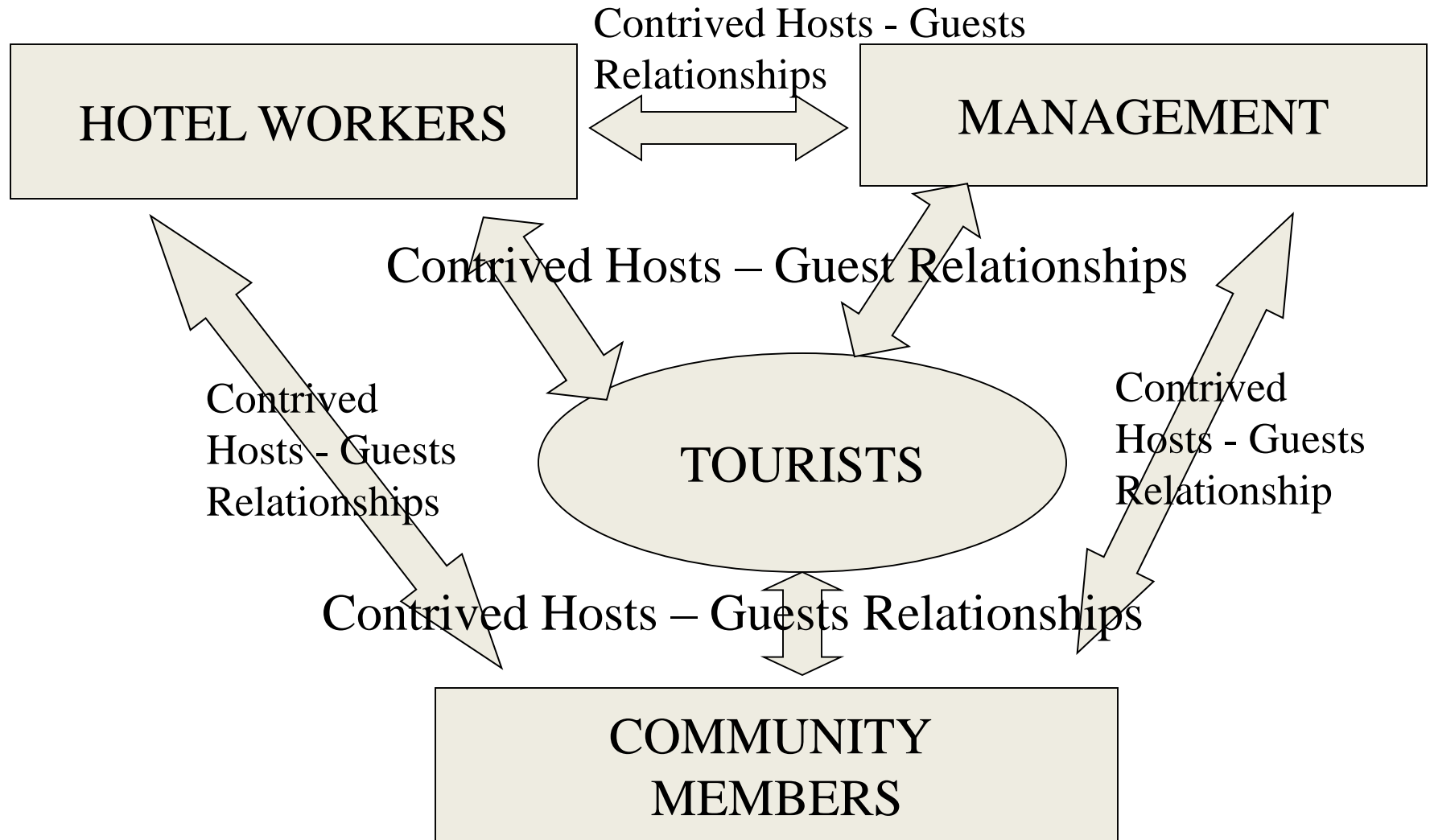
QUALITATIVE DATA ANALYSIS: ILLUSTRATION #2

- I did my qualitative data analysis manually because I was not familiar with and had no access to:
 - computer software programs such as INVIVO, DataEase, Ethnograph, Filemaker, Pro, HyperQual, HyperRESEARCH, NUD*IST, and QualPro could be used.

DISPLAY OF EXPECTED UNITS, THEMES & PATTERN AT THE PROPOSAL
STAGE OF THE RESEARCH: AUTHENTIC RELATIONSHIPS



DISPLAY OF REVEALED UNITS, THEMES & PATTERN FROM DATA ANALYSIS: CONTRIVED RELATIONSHIPS



INTERPRETATION OF REVEALED PATTERN

- **RESEARCHER SPEAKS:**
- Using the Western conventional interpretation model and reflecting on Conversations about money among the interacting parties in the relationships as well as reviewing the concepts and conceptual framework of my proposal, I interpreted the lack of authenticity in the relationships this way:
 - **Relationships in the Ghana tourist industry are not authentic because the interaction situations are commercialized.**

- **CREATE:**

CREATE

- Use the major concepts in the statement of your research opportunity, research question, and thesis statement in the initial stages of your research proposal assignment to create a display of your expected findings showing the themes and pattern and strategies of the interpretation of the pattern

- QUALITATIVE DATA ANALYSIS: ILLUSTRATION
#3: Secondary Data

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #3: Secondary Data

- **TOPIC: CANADIAN SOCIOLOGY AND TOURISM: ISSUES OF REPRESENTATION**
- **Research Question:**
 - What is the quality of representation of sociology of tourism in Canadian university undergraduate program—curriculum and textbooks?
- **THESIS:**
 - Canadian university undergraduate program underrepresents sociology of tourism. In order to be accurate, consistent, and inclusive, Canadian sociology needs to deconstruct and reconstruct this representation issue (Adu-Febiri 2018).

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #3: Secondary Data

- **CANADIAN SOCIOLOGY AND TOURISM: ISSUES OF REPRESENTATION**
- *© Francis Adu-Febiri 2018*
- **Content Analysis:** The undergraduate sociology curriculum and introductory sociology textbooks are selected for content analysis mainly because they are foundational to sociology education in Canada. It is through these two prisms that students initially encounter concepts, paradigms, and illustrations central to the discipline of sociology and the relevance of sociology to Canada is showcased. Sociology course offerings posted on the websites of Canadian universities were examined for inclusion of sociology of tourism. Qualitative codes used for the analysis are a) “Exclusion/Invisible = No course on tourism and tourism is not a topic in any of the courses”, b) “Marginalized = Tourism is a topic or a theme in a course”, and c) “Inclusion = There is one or more courses on tourism. A similar code is used in examining the recent sociology textbooks used as texts for teaching Introductory Sociology courses in Canadian universities, using their index sections for their tourism content: a) “Exclusion/Invisible = Tourism not mentioned in the textbook”, b) “Marginalization = Tourism is mentioned only in passing or briefly discussed in context of trade or globalization, and c) “Inclusion = Tourism is treated as a chapter or a section in the textbook”

QUALITATIVE DATA ANALYSIS:

ILLUSTRATION #3: Secondary Data

- **Voices: Message/Meaning Units**
 - Courses
 - Required Textbooks
- **Category Units**
 - Sociology Curriculum
 - Contents of Sociology Textbooks
- **Themes:**
 - Inclusion of Sociology of Tourism
 - Exclusion of Sociology of Tourism
 - Marginalization of Sociology of Tourism
- **Pattern or Rhythm or Matrix expected**
 - The Low Status of Tourism in Canadian Sociology

DISPLAY OF EXPECTED UNITS, THEMES & PATTERN:

Low Status of Tourism in Canadian Sociology: Courses

Number of Universities		Representation of Tourism in Sociology Departments		
		Inclusion	Marginalization	Exclusion
Province	Number			
Alberta				
British Columbia				
Manitoba				
New Brunswick				
New Foundland				
Nova Scotia				
Ontario.				
Prince Ed. Island				
Quebec				
Saskatchewan				
ALL CANADA				

DISPLAY OF REVEALED UNITS, THEMES & PATTERN:

Low Status of Tourism in Canadian Sociology: Courses

Number of Universities		Representation of Tourism in Sociology Departments		
		Inclusion	Marginalization	Exclusion
Province	Number			
Alberta	6	0 (0%)	0 (0%)	6 (100%)
British Columbia	18	2 (11.1%)	1 (5.6%)	15 (83.3%)
Manitoba	5	0 (0%)	0 (0%)	5 (100%)
New Brunswick	5	0 (0%)	0 (0%)	5 (100%)
New Foundland	1	0 (0%)	0 (0%)	1 (100%)
Nova Scotia	8	1 (12.5%)	2 (25%)	5 (62.5%)
Ontario.	21	1 (4.7)	14 (66.7)	6 (28.6)
Prince Ed. Island	1	1 (100%)	0 (0%)	0 (0%)
Quebec	7	?	?	?
Saskatchewan	2	0 (0%)	0 (0%)	2 (100%)
ALL CANADA	74	?	?	@

DISPLAY OF EXPECTED UNITS, THEMES & PATTERN:

Low Status of Tourism in Canadian Sociology: Textbooks

Number of Textbooks	Representation of Tourism		
	Inclusion	Marginalization	Exclusion
#	# and %	# and %	# and %

DISPLAY OF REVEALED UNITS, THEMES & PATTERN:

Low Status of Tourism in Canadian Sociology: Textbooks

Number of Textbooks	Representation of Tourism		
	Inclusion	Marginalization	Exclusion
12	0 (0%)	2 (16.7%)	10 (83.3%)

Source: Constructed from a content analysis of popular Introductory Sociology textbooks used
Canadian Universities, February 2016

INTERPRETATION OF THE REVEALED PATTERN

- **RESEARCHER SPEAKS:**
- Whatever the explanations Canadian sociologists give for neglecting tourism, the fact remains that, to borrow the phraseology of Wyllie (2011, p. 11), “This blinkered sociological ‘gaze’ [has] positioned tourism in the distant background”, a location that may limit the relevance of sociology in the postmodern society of Canada.

- Quantitative Data Analysis

Quantitative Data Analysis: Using Statistical Package Software

- PROCESSES:
- 1. Create a Code Book based on the questionnaire to guide the data entry
- 2. Enter the questionnaire responses into SPSS software program
- 3. Do a Single Variable Analysis:
 - a) Frequency Distribution
 - b) Measures of Central Tendency
 - c) Measures of Dispersion

Quantitative Data Analysis

- 4. Do a Two or More Variables Analysis:
 - a) Create Contingency Tables
 - b) Compare Percentages
 - c) Create Measures of Association
 - Correlation matrices
 - Regression
- **5. Test Hypothesis by doing appropriate Significance Tests**
 - T-Tests
 - Z-Tests
 - Cochran's Q test
 - Chi-Square
 - Friedman's and Kruskal–Wallis tests
 - *Fisher's* LSD and *Tukey's* test

- **QUANTITATIVE METHODOLOGY:
ILLUSTRATIONS**

QUANTITATIVE METHODOLOGY:

ILLUSTRATION #1

- **ABSTRACT: Workplace Diversity and Aboriginal people in Canada: Beyond the managerial Model**
- The Aboriginal population in Canada is growing extremely fast. According to Statistics Canada, from the period between 1996 and 2006 the Aboriginal population in Canada grew by 45%, which is nearly six times faster than the 8% rate increase for the non-Aboriginal population. In 2006, the number of people who identified as Aboriginal surpassed the one-million mark, reaching 1,172,790. This accounts for almost 4% of the total Population of Canada, up from 3.3% in 2001 and 2.8% in 1996. With a relatively young and growing population the Aboriginal people represent a young and vibrant aspect of the Canadian economy and their participation. In recent years, both the federal and provincial governments have attempted to engage in transformative change with respect to Aboriginal people and their participation in the Canadian economy. In fact, some employers are worried about longer-term structural labor shortages and are making efforts to connect with under-represented populations and groups such as Aboriginals. With this in mind, one can start to appreciate that research into Aboriginal people and the Canadian economy is becoming imperative if employers, researchers and even policy makers want to understand the extent to which Aboriginal people are represented in the workplace, and whether their representation is reflective of an equitable and sustainable model of workplace diversity. The paper examines the three standard labor force indicators: labor force participation rates, unemployment rates, and employment rates between the Aboriginal and non-Aboriginal population in 2006 (Adu-Febiri and Quinless 2010).

QUANTITATIVE METHODOLOGY: ILLUSTRATION #1

- **Data Analysis:**
- Examined Statscan 2006 census data and reconfigured them into tables and used SPSS to generate graphs based on data in the tables.
- HYPOTHESIS:
- The more the managerial or diversity-by-necessity model of workplace diversity becomes the default practice the more likely the inequities against Aboriginal people perpetuate.

QUANTITATIVE METHODOLOGY:

ILLUSTRATION #1

- DISPLAY OF EXPECTED UNITS, THEMES & PATTERN

Table 2:

Aboriginal and Non-Aboriginal Population in the Labor Force by Occupational Level, Canada 2006

Occupational Levels	Aboriginal population			non-Aboriginal population		
	Total	Male	Female	Total	Male	Female
Total Population						
Population in the Labour force						
Level A occupations						
Level B occupations						
Level C occupations						
Level D occupations						
Total Distribution in All Levels of occupations	100%			100%		

QUANTITATIVE METHODOLOGY:

ILLUSTRATION #1

- DISPLAY OF REVEALED UNITS, THEMES & PATTERN:

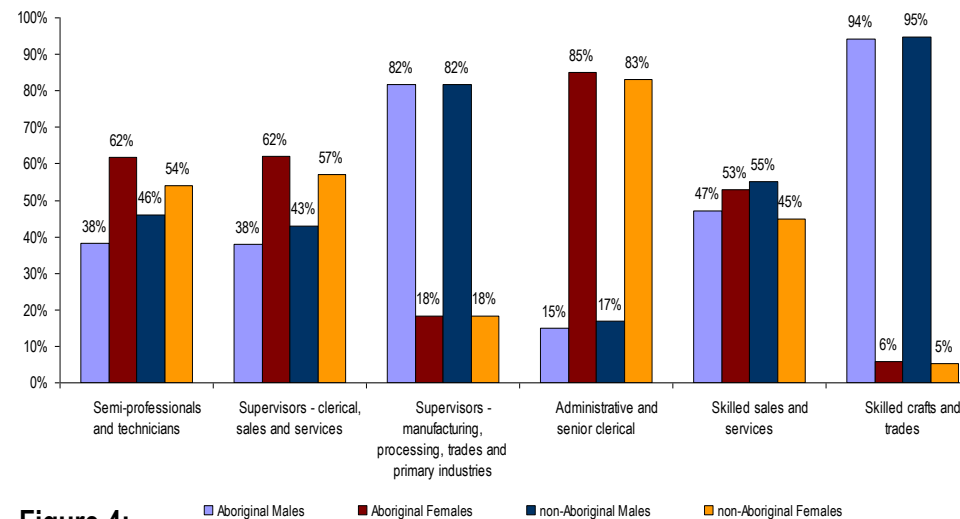
Table 2:
Aboriginal and Non-Aboriginal Population in the Labor Force by Occupational Level, Canada 2006

Occupational Levels	Aboriginal population			non-Aboriginal population		
	Total	Male	Female	Total	Male	Female
Total Population	823,890	393,680	430,210	24,840,335	12,077,105	12,763,235
Population in the Labour force	568,195	285,690	282,505	17,849,905	9,313,555	8,536,350
Level A occupations	15.3%	41.8%	58.2%	25.7%	52.3%	47.7%
Level B occupations	29.8%	58.0%	42.0%	29.4%	58.5%	41.5%
Level C occupations	32.7%	44.9%	55.1%	31.4%	46.0%	54.0%
Level D occupations	22.1%	53.7%	46.3%	13.4%	52.7%	47.3%
Total Distribution in All Levels of occupations	100%			100%		

QUANTITATIVE METHODOLOGY:

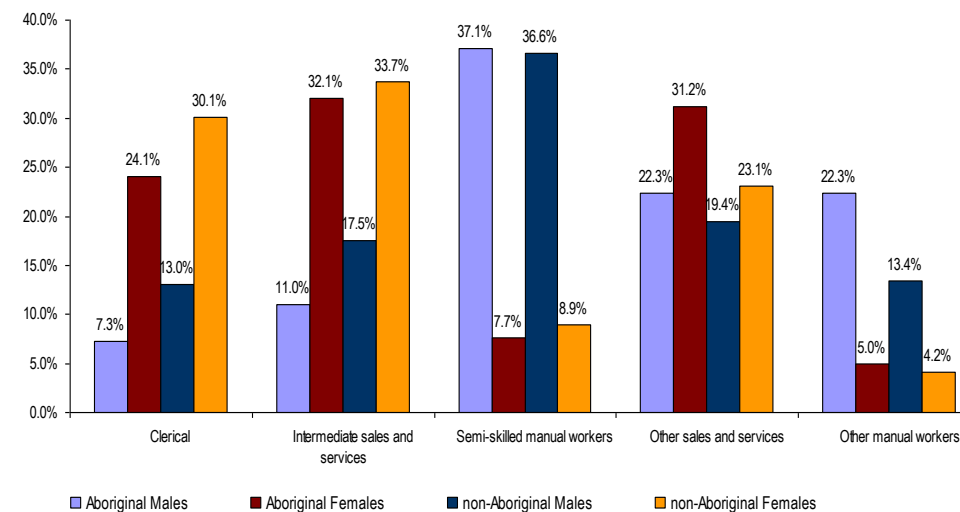
ILLUSTRATION #1

- DISTRIBUTION PATTERN:
- The data presented in Figures 3 and 4 in the next slide reflect the distribution of Aboriginal and non-Aboriginal men and women in various categories of Level B and Level C/D occupations. Again, while data from table 2 reveals that Aboriginal people are overrepresented in Level D occupations the overall pattern in both Figure 3 and Figure 4 shows that an important distinction among both populations within various occupational categories is also related to gender. Both Aboriginal and non-Aboriginal women are significantly overrepresented in administrative, clerical and sales positions while men tend to occupy the majority of jobs in the area of skilled trades, manual workers and in supervisory jobs in primary industry (manufacturing and trades) (ibid.).



GRAPHIC DISPLAY OF THE DISTRIBUTION PATTERN

Figure 4:
 Percent Distribution of Aboriginal and Non-Aboriginal Population in the Labor Force by Occupational Level C Categories and Gender, Canada 2006



GRAPHIC DISPLAY OF THE DISTRIBUTION PATTERN

INTERPRETATION OF PATTERN

- **RESEARCHER SPEAKS:**
- The managerial or diversity-by-necessity model of workplace diversity perpetuates inequities in workplace diversity created by default. This model is flawed as a guide to a transformative diversity practice because of its focus on legislating diversity, controlling conflict, and/or economic necessity at the expense of people and their human needs. This may be an underlying factor of the paradox of the Aboriginal Canadians marginal labor force participation in Level A occupations and middle level powerful positions in the workplace despite the over thirty years of implementing employment equity programs in the Canadian workplace. With the managerial model providing techniques for workplace diversity programming, status quo diversity is likely to remain in the workplace. The push for diversity in postmodern society like Canada, however, suggests that “the status quo is no longer an option” (Soto, 2000, p. 1) (Adu-Febiri and Quinless 2010).

QUANTITATIVE METHODOLOGY:

ILLUSTRATION #2

- **ABSTRACT: Media Globalization and Chinese Nationalism**
- ***This paper examines the impact of China's media globalization on the nationalistic orientation of individual members of Chinese society. Using a social survey method based on indices of globalization, the study measures the level of individual attachment to Chinese nationalism and correlates it with global content of TV programs accessible to sample of Chinese living in two cities in southern China. Specifically, the content of one local television channel (Zhongshan TV), a national television channel (China Central TV) and an international television channel (Star World) were analyzed for global content in their news reports, advertisements and entertainment programs. The level of respondents' nationalism was then correlated with the level of global content of TV channels they watched (Adu-Febiri and Pan Xiaohui, 2012).***

QUANTITATIVE DATA ANALYSIS:

ILLUSTRATION #2

- **Data Analysis:** Analyzed the data with SPSS to produce frequency distribution of nationalism and globalization, correlation (contingency tables & measures of association statistics) of nationalism and globalization, and the statistical significance (chi square and t Test) of the relationship between Chinese nationalism and globalization.
- **HYPOTHESIS**
- The more the Chinese people living in mainland China are exposed to global media the less nationalistic they become.

QUANTITATIVE DATA ANALYSIS:

ILLUSTRATION #2

- Data Analysis:
- The survey data, processed through the Statistical Package for the Social Sciences (SPSS) software, focused on two main variables, nationalism and media globalization. Univariate analysis was performed on the four items on the questionnaire that address some pertinent dimensions of nationalism on a Likert scale (ordinal level) to verify the extent to which the respondents are loyal to the Chinese nation state. This process was also applied to the three items relating to media globalization (two items on ratio level and one on ordinal level) to verify the degree of individual globality among the respondents. Further, bivariate operations were applied to measure the strength and direction of association between the dimensions of nationalism and those of media globalization. The results shown in the next section indicate that the greater majority of the respondents are very loyal to the Chinese nation-state whether or not they are exposed to the global media. The contingency table representing the measures of association between loyalty to the Chinese nation-state and individual globality of the sample population show some association. To verify the strength and direction of association, Spearman rho correlation was performed, revealing a very low and insignificant association between the variables. A linear multiple regression analysis was not run to ascertain the statistical significance because most of the variables were only at the ordinal level (Adu-Febiri and Pan Xiaohui, 2012).

Display of Expected Units, Themes & Patterns: ILLUSTRATION

Figure 7: Correlation Between Media Globalism and Nationalism Among Respondents

			Correlations						
			Will Buy Domestic Goods instead of Foreign Goods when Price and Function are Same.	Will Invest in National Industry rather than Foreign Industry .	Will Prefer Working for International Company to Domestic Company with Same Pay.	Loyalty to China Despite Deffects.	Frequency of E-mail Communicate with Friends/Relati ves in a Month	TV Stations Watched Most Often	Percentage Foreign TV Programs Watched
Spearman's rho	Will Buy Domestic Goods instead of Foreign Goods when Price and Function are Same.	Correlation Coefficient Sig. (2-tailed) N							
	Will Invest in National Industry rather than Foreign Industry .	Correlation Coefficient Sig. (2-tailed) N							
	Will Prefer Working for International Company to Domestic Company with Same Pay .	Correlation Coefficient Sig. (2-tailed) N			1				
	Loyalty to China Despite Deffects.	Correlation Coefficient Sig. (2-tailed) N							
	Frequency of E-mail Communicate with Friends/Relatives in a Month	Correlation Coefficient Sig. (2-tailed) N							
	TV Stations Watched Most Often	Correlation Coefficient Sig. (2-tailed) N							
	Percentage Foreign TV Programs Watched	Correlation Coefficient Sig. (2-tailed) N							

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Display of Revealed Units, Themes & Patterns: ILLUSTRATION

Figure 7: Correlation Between Media Globalism and Nationalism Among Respondents

Correlations									
			Will Buy Domestic Goods instead of Foreign Goods when Price and Function are Same.	Will Invest in National Industry rather than Foreign Industry.	Will Prefer Working for International Company to Domestic Company with Same Pay.	Loyalty to China Despite Deffects.	Frequency of E-mail Communicate with Friends/Relatives in a Month	TV Stations Watched Most Often	Percentage Foreign TV Programs Watched
Spearman's rho	Will Buy Domestic Goods instead of Foreign Goods when Price and Function are Same.	Correlation Coefficient Sig. (2-tailed) N	1.000 .000 372	.183** .000 369	.159** .002 370	-.019 .721 370	.013 .802 367	.024 .646 355	.034 .534 339
	Will Invest in National Industry rather than Foreign Industry.	Correlation Coefficient Sig. (2-tailed) N	.183** .000 369	1.000 .000 369	-.076 .145 367	.166** .001 367	-.050 .343 365	-.003 .950 353	-.136* .013 336
	Will Prefer Working for International Company to Domestic Company with Same Pay.	Correlation Coefficient Sig. (2-tailed) N	.159** .002 370	-.076 .145 367	1.000 .000 370	-.072 .166 368	.159** .002 365	.061 .257 353	.081 .139 337
	Loyalty to China Despite Deffects.	Correlation Coefficient Sig. (2-tailed) N	-.019 .721 370	.166** .001 367	-.072 .166 368	1.000 .000 370	.004 .942 367	-.048 .368 355	-.070 .200 339
	Frequency of E-mail Communicate with Friends/Relatives in a Month	Correlation Coefficient Sig. (2-tailed) N	.013 .802 367	-.050 .343 365	.159** .002 365	.004 .942 367	1.000 .000 367	.131* .014 352	.059 .279 336
	TV Stations Watched Most Often	Correlation Coefficient Sig. (2-tailed) N	.024 .646 355	-.003 .950 353	.061 .257 353	-.048 .368 355	.131* .014 352	1.000 .000 355	.291** .000 328
	Percentage Foreign TV Programs Watched	Correlation Coefficient Sig. (2-tailed) N	.034 .534 339	-.136* .013 336	.081 .139 337	-.070 .200 339	.059 .279 336	.291** .000 328	1.000 .000 339

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

INTERPRETATION OF PATTERN: ILLUSTRATION #2

- **RESEARCHER SPEAKS:**
- Since the test of the hypothesis for this study has produced statistically insignificant result, the null hypothesis that media globalization makes no difference in Chinese nationalism is accepted. Therefore, the study's hypothesis that the more the Chinese living in China are exposed to global media the less nationalistic they become is rejected. In effect, watching international TV stations and more foreign TV programs, as well as surfing the Internet are not good predictors of the degree of nationalism among the sample population used for this study. However, this result does not necessarily mean that globalization is not a good predictor of nationalism as suggested by some scholars in the globalization literature. Both the theories of glocalization and global monoculturalism discussed in the literature review section of this paper predict a pattern of globalization pushing nationalism to the margins of society. In this theoretical context, it would be imperative to reexamine the sample for this study. The sample of 372 from two southern cities of China may not be representative of the Chinese population in China. Moreover, the study did not control for the length of respondent's exposure to Western TV programs and the Internet (Adu-Febiri and Pan Xiaohui, 2012).

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