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2021

### Dissertations Content Analysis Data Set, "Diving Deep into Dissertations" article, College & Research Libraries

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### ARTICLE – Citation, Abstract, and Author Contact

#### CITATION:

Swygart-Hobaugh, M., Anderson, R., George, D., & Glogowski, J. (2022). Diving deep into dissertations: Analyzing graduate students' methodological and data practices to inform research data services and subject liaison librarian support. *College & Research Libraries*, 83(6), 887-904. <https://crl.acrl.org/index.php/crl/article/view/24702>



#### ABSTRACT:

We present findings from an exploratory quantitative content analysis case study of 156 doctoral dissertations from Georgia State University that investigates doctoral student researchers' methodology practices (used quantitative, qualitative, or mixed methods) and data practices (used primary data, secondary data, or both). We discuss the implications of our findings for provision of data support services provided by the Georgia State University Library's Research Data Services (RDS) Team and subject liaison librarians in the areas of instructional services, data software support and licensing advocacy, collection development, marketing/outreach, and professional development/expansion.

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## CODEBOOK – Study Files and Sharing Status

1. Diss\_Study\_CRLarticle\_Codebook\_and\_Output.pdf
  - a. SHARE
  - b. Contains (1) article citation, abstract, and author contact, (2) codebook with variables descriptions and frequency distributions, (3) output for Tables 2, 3, 4, 5 of article.
2. Diss\_Study\_CRLarticle\_SPSS\_Data.sav
  - a. SHARE
  - b. Raw data file – IBM SPSS Statistics format (SPSS 28 version)
3. Diss\_Study\_CRLarticle\_Excel\_Data.xlsx
  - a. SHARE
  - b. Raw data file – Microsoft Excel format
  - c. 3 sheets:
    - i. READ ME sheet
    - ii. Data as Numeric Values
    - iii. Data as Value Labels
4. Diss\_Study\_CRLarticle\_NVivo\_Diss\_PDFs\_for\_Text\_Search\_Queries (NVivo R14.23.1).nvp
  - a. DO NOT SHARE
  - b. NVivo Project File cannot be shared because some of the included dissertations are embargoed against open distribution.
5. Diss\_Study\_CRLarticle\_NVivo\_Text\_Search\_Queries\_for\_Software.xlsx
  - a. SHARE
  - b. 2 sheets:
    - i. READ ME sheet
    - ii. Queries with 3 columns:
      1. Query Name
      2. Query Criteria
      3. Date Ran and Additional Notes

CODEBOOK – Variables Descriptions & Frequency Distributions

**File Information**

|                 |                                     |     |
|-----------------|-------------------------------------|-----|
| File Name       | Diss_Study_CRLarticle_SPSS_Data.sav |     |
| Number of Cases | Unweighted                          | 156 |

**ID**

|                     |             | Value                 |
|---------------------|-------------|-----------------------|
| Standard Attributes | Position    | 1                     |
|                     | Label       | Dissertation Study ID |
|                     | Type        | Numeric               |
|                     | Measurement | Scale                 |
| N                   | Valid       | 156                   |
|                     | Missing     | 0                     |

**study\_qualify**

|                     |             | Value   | Count | Percent |
|---------------------|-------------|---|-------|---------|
| Standard Attributes | Position    | 2   |       |         |
|                     | Label       | Dissertation met inclusion criteria? (see Table 1 of CRL article) |       |         |
|                     | Type        | Numeric   |       |         |
|                     | Measurement | Nominal   |       |         |
| Valid Values        | 0           | No  | 0     | 0.0%    |
|                     | 1           | Yes   | 156   | 100.0%  |

**academic\_dept**

|                     |             | Value  | Count | Percent |
|---------------------|-------------|--|-------|---------|
| Standard Attributes | Position    | 3  |       |         |
|                     | Label       | Academic Department (coded as number categories) |       |         |
|                     | Type        | Numeric  |       |         |
|                     | Measurement | Nominal  |       |         |
| Valid Values        | 1           | Sociology  | 8     | 5.1%    |

|    |  |    |      |
|----|--|----|------|
| 2  | Risk Management  | 1  | 0.6% |
| 3  | Public Management and Policy   | 6  | 3.8% |
| 4  | Public Health  | 5  | 3.2% |
| 5  | Psychology   | 7  | 4.5% |
| 6  | Political Science  | 5  | 3.2% |
| 7  | Physics and Astronomy  | 4  | 2.6% |
| 8  | Nursing  | 3  | 1.9% |
| 9  | Neuroscience Institute   | 5  | 3.2% |
| 10 | Middle and Secondary Education   | 14 | 9.0% |
| 11 | Mathematics and Statistics   | 5  | 3.2% |
| 12 | Marketing  | 4  | 2.6% |
| 13 | Managerial Sciences  | 2  | 1.3% |
| 14 | Kinesiology  | 3  | 1.9% |
| 15 | History  | 2  | 1.3% |
| 16 | Finance  | 1  | 0.6% |
| 17 | Film, Media & Theatre  | 1  | 0.6% |
| 18 | English  | 1  | 0.6% |
| 19 | Educational Psychology, Special Education, and Communication Disorders | 2  | 1.3% |
| 20 | Educational Policy Studies   | 9  | 5.8% |
| 21 | Economics  | 7  | 4.5% |
| 22 | Early Childhood and Elementary Education                               | 5  | 3.2% |
| 23 | Criminal Justice   | 3  | 1.9% |
| 24 | Counseling and Psychological Services                                  | 1  | 0.6% |
| 25 | Computer Science   | 5  | 3.2% |

|    |  |    |      |
|----|--|----|------|
| 26 | Computer Information Systems                         | 3  | 1.9% |
| 27 | Communication  | 4  | 2.6% |
| 28 | Chemistry  | 9  | 5.8% |
| 29 | Business Administration                              | 11 | 7.1% |
| 30 | Biology  | 14 | 9.0% |
| 31 | Applied Linguistics and English as a Second Language | 6  | 3.8% |

### academic\_field

|                     |             | Value  | Count | Percent |
|---------------------|-------------|--|-------|---------|
| Standard Attributes | Position    | 4  |       |         |
|                     | Label       | Academic Fields (coded as number categories) |       |         |
|                     | Type        | Numeric                                      |       |         |
|                     | Measurement | Nominal                                      |       |         |
| Valid Values        | 1           | Business                                     | 22    | 14.1%   |
|                     | 2           | Physical Sciences & Math                     | 42    | 26.9%   |
|                     | 3           | Education                                    | 34    | 21.8%   |
|                     | 4           | Health Science                               | 8     | 5.1%    |
|                     | 5           | Social Sciences                              | 46    | 29.5%   |
|                     | 6           | Humanities                                   | 4     | 2.6%    |

### method\_type

|                     |             | Value         | Count | Percent |
|---------------------|-------------|---------------|-------|---------|
| Standard Attributes | Position    | 5             |       |         |
|                     | Label       | Method Type   |       |         |
|                     | Type        | Numeric       |       |         |
|                     | Measurement | Nominal       |       |         |
| Valid Values        | 1           | Qualitative   | 43    | 27.6%   |
|                     | 2           | Quantitative  | 96    | 61.5%   |
|                     | 3           | Mixed Methods | 17    | 10.9%   |

**degree\_type**

|                     |             | Value       | Count | Percent |
|---------------------|-------------|-------------|-------|---------|
| Standard Attributes | Position    | 6           |       |         |
|                     | Label       | Degree Type |       |         |
|                     | Type        | Numeric     |       |         |
|                     | Measurement | Nominal     |       |         |
| Valid Values        | 1           | PhD         | 137   | 87.8%   |
|                     | 2           | EdD         | 8     | 5.1%    |
|                     | 3           | EDB         | 11    | 7.1%    |

**data\_type**

|                     |             | Value                         | Count | Percent |
|---------------------|-------------|-------------------------------|-------|---------|
| Standard Attributes | Position    | 7                             |       |         |
|                     | Label       | Data Type                     |       |         |
|                     | Type        | Numeric                       |       |         |
|                     | Measurement | Nominal                       |       |         |
| Valid Values        | 1           | Primary Data only             | 94    | 60.3%   |
|                     | 2           | Secondary Data only           | 44    | 28.2%   |
|                     | 3           | Both Primary & Secondary Data | 18    | 11.5%   |

**software\_qual**

|                     |             | Value                  | Count | Percent |
|---------------------|-------------|------------------------|-------|---------|
| Standard Attributes | Position    | 8                      |       |         |
|                     | Label       | Software = Qualitative |       |         |
|                     | Type        | Numeric                |       |         |
|                     | Measurement | Nominal                |       |         |
| Valid Values        | 0           | No                     | 133   | 85.3%   |
|                     | 1           | Qualitative            | 23    | 14.7%   |

**software\_quant**

|                     |          | Value      | Count | Percent |
|---------------------|----------|------------|-------|---------|
| Standard Attributes | Position | 9          |       |         |
|                     | Label    | Software = |       |         |

|              |             |              |    |       |
|--------------|-------------|--------------|----|-------|
|              |             | Quantitative |    |       |
|              | Type        | Numeric      |    |       |
|              | Measurement | Nominal      |    |       |
| Valid Values | 0           | No           | 82 | 52.6% |
|              | 1           | Quantitative | 74 | 47.4% |

**software\_other**

|                     |             | Value                                      | Count | Percent |
|---------------------|-------------|--|-------|---------|
| Standard Attributes | Position    | 10   |       |         |
|                     | Label       | Software = Other<br>(not qual or<br>quant) |       |         |
|                     | Type        | Numeric                                    |       |         |
|                     | Measurement | Nominal                                    |       |         |
| Valid Values        | 0           | No   | 126   | 80.8%   |
|                     | 1           | Other                                      | 30    | 19.2%   |

**software\_not\_identified**

|                     |             | Value                   | Count | Percent |
|---------------------|-------------|-------------------------|-------|---------|
| Standard Attributes | Position    | 11                      |       |         |
|                     | Label       | Software<br>Identified? |       |         |
|                     | Type        | Numeric                 |       |         |
|                     | Measurement | Nominal                 |       |         |
| Valid Values        | 0           | Identified              | 108   | 69.2%   |
|                     | 1           | Not identified          | 48    | 30.8%   |

**soft\_SPSS**

|                     |             | Value         | Count | Percent |
|---------------------|-------------|---------------|-------|---------|
| Standard Attributes | Position    | 12            |       |         |
|                     | Label       | Software SPSS |       |         |
|                     | Type        | Numeric       |       |         |
|                     | Measurement | Nominal       |       |         |
| Valid Values        | 0           | no            | 126   | 80.8%   |
|                     | 1           | yes           | 30    | 19.2%   |



**soft\_Excel**

|                     |             | Value          | Count | Percent |
|---------------------|-------------|----------------|-------|---------|
| Standard Attributes | Position    | 13             |       |         |
|                     | Label       | Software Excel |       |         |
|                     | Type        | Numeric        |       |         |
|                     | Measurement | Nominal        |       |         |
| Valid Values        | 0           | no             | 142   | 91.0%   |
|                     | 1           | yes            | 14    | 9.0%    |

**soft\_Stata**

|                     |             | Value          | Count | Percent |
|---------------------|-------------|----------------|-------|---------|
| Standard Attributes | Position    | 14             |       |         |
|                     | Label       | Software Stata |       |         |
|                     | Type        | Numeric        |       |         |
|                     | Measurement | Nominal        |       |         |
| Valid Values        | 0           | no             | 143   | 91.7%   |
|                     | 1           | yes            | 13    | 8.3%    |

**soft\_Mplus**

|                     |             | Value          | Count | Percent |
|---------------------|-------------|----------------|-------|---------|
| Standard Attributes | Position    | 15             |       |         |
|                     | Label       | Software Mplus |       |         |
|                     | Type        | Numeric        |       |         |
|                     | Measurement | Nominal        |       |         |
| Valid Values        | 0           | no             | 146   | 93.6%   |
|                     | 1           | yes            | 10    | 6.4%    |

**soft\_SAS**

|                     |             | Value        | Count | Percent |
|---------------------|-------------|--------------|-------|---------|
| Standard Attributes | Position    | 16           |       |         |
|                     | Label       | Software SAS |       |         |
|                     | Type        | Numeric      |       |         |
|                     | Measurement | Nominal      |       |         |
| Valid Values        | 0           | no           | 151   | 96.8%   |
|                     | 1           | yes          | 5     | 3.2%    |

**soft\_MATLAB**

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 17              |       |         |
|                     | Label       | Software MATLAB |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 151   | 96.8%   |
|                     | 1           | yes             | 5     | 3.2%    |

**soft\_R**

|                     |             | Value      | Count | Percent |
|---------------------|-------------|------------|-------|---------|
| Standard Attributes | Position    | 18         |       |         |
|                     | Label       | Software R |       |         |
|                     | Type        | Numeric    |       |         |
|                     | Measurement | Nominal    |       |         |
| Valid Values        | 0           | no         | 147   | 94.2%   |
|                     | 1           | yes        | 9     | 5.8%    |

**soft\_Python**

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 19              |       |         |
|                     | Label       | Software Python |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 150   | 96.2%   |
|                     | 1           | yes             | 6     | 3.8%    |

**soft\_NVivo**

|                     |             | Value          | Count | Percent |
|---------------------|-------------|----------------|-------|---------|
| Standard Attributes | Position    | 20             |       |         |
|                     | Label       | Software NVivo |       |         |
|                     | Type        | Numeric        |       |         |
|                     | Measurement | Nominal        |       |         |
| Valid Values        | 0           | no             | 141   | 90.4%   |
|                     | 1           | yes            | 15    | 9.6%    |

**soft\_Dedoose**

|                     |             | Value            | Count | Percent |
|---------------------|-------------|------------------|-------|---------|
| Standard Attributes | Position    | 21               |       |         |
|                     | Label       | Software Dedoose |       |         |
|                     | Type        | Numeric          |       |         |
|                     | Measurement | Nominal          |       |         |
| Valid Values        | 0           | no               | 147   | 94.2%   |
|                     | 1           | yes              | 9     | 5.8%    |

**soft\_ATLAS.ti**

|                     |             | Value             | Count | Percent |
|---------------------|-------------|-------------------|-------|---------|
| Standard Attributes | Position    | 22                |       |         |
|                     | Label       | Software ATLAS.ti |       |         |
|                     | Type        | Numeric           |       |         |
|                     | Measurement | Nominal           |       |         |
| Valid Values        | 0           | no                | 154   | 98.7%   |
|                     | 1           | yes               | 2     | 1.3%    |

**soft\_Qualtrics**

|                     |             | Value              | Count | Percent |
|---------------------|-------------|--------------------|-------|---------|
| Standard Attributes | Position    | 23                 |       |         |
|                     | Label       | Software Qualtrics |       |         |
|                     | Type        | Numeric            |       |         |
|                     | Measurement | Nominal            |       |         |
| Valid Values        | 0           | no                 | 142   | 91.0%   |
|                     | 1           | yes                | 14    | 9.0%    |

**soft\_unknown**

|                     |             | Value            | Count | Percent |
|---------------------|-------------|------------------|-------|---------|
| Standard Attributes | Position    | 24               |       |         |
|                     | Label       | Software Unknown |       |         |
|                     | Type        | Numeric          |       |         |
|                     | Measurement | Nominal          |       |         |
| Valid Values        | 0           | no               | 0     | 0.0%    |

|                |        |     |     |       |
|----------------|--------|-----|-----|-------|
|                | 1      | yes | 48  | 30.8% |
| Missing Values | System |     | 108 | 69.2% |

### soft\_TALLES

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 25              |       |         |
|                     | Label       | Software TALLES |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 1     | 0.6%    |
| Missing Values      | System      |                 | 155   | 99.4%   |

### soft\_TAACO

|                     |             | Value          | Count | Percent |
|---------------------|-------------|----------------|-------|---------|
| Standard Attributes | Position    | 26             |       |         |
|                     | Label       | Software TAACO |       |         |
|                     | Type        | Numeric        |       |         |
|                     | Measurement | Nominal        |       |         |
| Valid Values        | 0           | no             | 0     | 0.0%    |
|                     | 1           | yes            | 1     | 0.6%    |
| Missing Values      | System      |                | 155   | 99.4%   |

### soft\_AntConc

|                     |             | Value            | Count | Percent |
|---------------------|-------------|------------------|-------|---------|
| Standard Attributes | Position    | 27               |       |         |
|                     | Label       | Software AntConc |       |         |
|                     | Type        | Numeric          |       |         |
|                     | Measurement | Nominal          |       |         |
| Valid Values        | 0           | no               | 0     | 0.0%    |
|                     | 1           | yes              | 2     | 1.3%    |
| Missing Values      | System      |                  | 154   | 98.7%   |

**soft\_TagAnt**

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 28              |       |         |
|                     | Label       | Software TagAnt |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 1     | 0.6%    |
| Missing Values      | System      |                 | 155   | 99.4%   |

**soft\_WordSmith**

|                     |             | Value              | Count | Percent |
|---------------------|-------------|--------------------|-------|---------|
| Standard Attributes | Position    | 29                 |       |         |
|                     | Label       | Software WordSmith |       |         |
|                     | Type        | Numeric            |       |         |
|                     | Measurement | Nominal            |       |         |
| Valid Values        | 0           | no                 | 0     | 0.0%    |
|                     | 1           | yes                | 1     | 0.6%    |
| Missing Values      | System      |                    | 155   | 99.4%   |

**soft\_ImageJ**

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 30              |       |         |
|                     | Label       | Software ImageJ |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 8     | 5.1%    |
| Missing Values      | System      |                 | 148   | 94.9%   |

**soft\_GraphPadPrism**

|                     |          | Value                  | Count | Percent |
|---------------------|----------|------------------------|-------|---------|
| Standard Attributes | Position | 31                     |       |         |
|                     | Label    | Software GraphPadPrism |       |         |

|                |             |         |     |       |
|----------------|-------------|---------|-----|-------|
|                | Type        | Numeric |     |       |
|                | Measurement | Nominal |     |       |
| Valid Values   | 0           | no      | 0   | 0.0%  |
|                | 1           | yes     | 4   | 2.6%  |
| Missing Values | System      |         | 152 | 97.4% |

**soft\_SmartPLS3**

|                     |             | Value              | Count | Percent |
|---------------------|-------------|--------------------|-------|---------|
| Standard Attributes | Position    | 32                 |       |         |
|                     | Label       | Software SmartPLS3 |       |         |
|                     | Type        | Numeric            |       |         |
|                     | Measurement | Nominal            |       |         |
| Valid Values        | 0           | no                 | 0     | 0.0%    |
|                     | 1           | yes                | 5     | 3.2%    |
| Missing Values      | System      |                    | 151   | 96.8%   |

**soft\_QDAminer**

|                     |             | Value             | Count | Percent |
|---------------------|-------------|-------------------|-------|---------|
| Standard Attributes | Position    | 33                |       |         |
|                     | Label       | Software QDAminer |       |         |
|                     | Type        | Numeric           |       |         |
|                     | Measurement | Nominal           |       |         |
| Valid Values        | 0           | no                | 0     | 0.0%    |
|                     | 1           | yes               | 1     | 0.6%    |
| Missing Values      | System      |                   | 155   | 99.4%   |

**soft\_CMA**

|                     |             | Value        | Count | Percent |
|---------------------|-------------|--------------|-------|---------|
| Standard Attributes | Position    | 34           |       |         |
|                     | Label       | Software CMA |       |         |
|                     | Type        | Numeric      |       |         |
|                     | Measurement | Nominal      |       |         |
| Valid Values        | 0           | no           | 0     | 0.0%    |
|                     | 1           | yes          | 1     | 0.6%    |

|                |        |  |     |       |
|----------------|--------|--|-----|-------|
| Missing Values | System |  | 155 | 99.4% |
|----------------|--------|--|-----|-------|

### soft\_GoogleForms

|                     |             | Value                | Count | Percent |
|---------------------|-------------|----------------------|-------|---------|
| Standard Attributes | Position    | 35                   |       |         |
|                     | Label       | Software GoogleForms |       |         |
|                     | Type        | Numeric              |       |         |
|                     | Measurement | Nominal              |       |         |
| Valid Values        | 0           | no                   | 0     | 0.0%    |
|                     | 1           | yes                  | 1     | 0.6%    |
| Missing Values      | System      |                      | 155   | 99.4%   |

### soft\_Coot

|                     |             | Value         | Count | Percent |
|---------------------|-------------|---------------|-------|---------|
| Standard Attributes | Position    | 36            |       |         |
|                     | Label       | Software Coot |       |         |
|                     | Type        | Numeric       |       |         |
|                     | Measurement | Nominal       |       |         |
| Valid Values        | 0           | no            | 0     | 0.0%    |
|                     | 1           | yes           | 2     | 1.3%    |
| Missing Values      | System      |               | 154   | 98.7%   |

### soft\_IlluminaHiSeq

|                     |             | Value                  | Count | Percent |
|---------------------|-------------|------------------------|-------|---------|
| Standard Attributes | Position    | 37                     |       |         |
|                     | Label       | Software IlluminaHiSeq |       |         |
|                     | Type        | Numeric                |       |         |
|                     | Measurement | Nominal                |       |         |
| Valid Values        | 0           | no                     | 0     | 0.0%    |
|                     | 1           | yes                    | 2     | 1.3%    |
| Missing Values      | System      |                        | 154   | 98.7%   |

**soft\_rev.com**

|                     |             | Value            | Count | Percent |
|---------------------|-------------|------------------|-------|---------|
| Standard Attributes | Position    | 38               |       |         |
|                     | Label       | Software rev.com |       |         |
|                     | Type        | Numeric          |       |         |
|                     | Measurement | Nominal          |       |         |
| Valid Values        | 0           | no               | 0     | 0.0%    |
|                     | 1           | yes              | 2     | 1.3%    |
| Missing Values      | System      |                  | 154   | 98.7%   |

**soft\_VMD**

|                     |             | Value        | Count | Percent |
|---------------------|-------------|--------------|-------|---------|
| Standard Attributes | Position    | 39           |       |         |
|                     | Label       | Software VMD |       |         |
|                     | Type        | Numeric      |       |         |
|                     | Measurement | Nominal      |       |         |
| Valid Values        | 0           | no           | 0     | 0.0%    |
|                     | 1           | yes          | 0     | 0.0%    |
| Missing Values      | System      |              | 156   | 100.0%  |

**soft\_KaleidaGraph**

|                     |             | Value                 | Count | Percent |
|---------------------|-------------|-----------------------|-------|---------|
| Standard Attributes | Position    | 40                    |       |         |
|                     | Label       | Software KaleidaGraph |       |         |
|                     | Type        | Numeric               |       |         |
|                     | Measurement | Nominal               |       |         |
| Valid Values        | 0           | no                    | 0     | 0.0%    |
|                     | 1           | yes                   | 1     | 0.6%    |
| Missing Values      | System      |                       | 155   | 99.4%   |

**soft\_Enzfitter**

|                     |          | Value              | Count | Percent |
|---------------------|----------|--------------------|-------|---------|
| Standard Attributes | Position | 41                 |       |         |
|                     | Label    | Software Enzfitter |       |         |



|                |             |         |     |       |
|----------------|-------------|---------|-----|-------|
|                | Type        | Numeric |     |       |
|                | Measurement | Nominal |     |       |
| Valid Values   | 0           | no      | 0   | 0.0%  |
|                | 1           | yes     | 1   | 0.6%  |
| Missing Values | System      |         | 155 | 99.4% |

**soft\_Amber10**

|                     |             | Value            | Count | Percent |
|---------------------|-------------|------------------|-------|---------|
| Standard Attributes | Position    | 42               |       |         |
|                     | Label       | Software Amber10 |       |         |
|                     | Type        | Numeric          |       |         |
|                     | Measurement | Nominal          |       |         |
| Valid Values        | 0           | no               | 0     | 0.0%    |
|                     | 1           | yes              | 1     | 0.6%    |
| Missing Values      | System      |                  | 155   | 99.4%   |

**soft\_LISREL**

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 43              |       |         |
|                     | Label       | Software LISREL |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 4     | 2.6%    |
| Missing Values      | System      |                 | 152   | 97.4%   |

**soft\_axographx**

|                     |             | Value              | Count | Percent |
|---------------------|-------------|--------------------|-------|---------|
| Standard Attributes | Position    | 44                 |       |         |
|                     | Label       | Software axographx |       |         |
|                     | Type        | Numeric            |       |         |
|                     | Measurement | Nominal            |       |         |
| Valid Values        | 0           | no                 | 0     | 0.0%    |
|                     | 1           | yes                | 1     | 0.6%    |

|                |        |  |     |       |
|----------------|--------|--|-----|-------|
| Missing Values | System |  | 155 | 99.4% |
|----------------|--------|--|-----|-------|

### soft\_labchart

|                     |             | Value        | Count | Percent |
|---------------------|-------------|--------------|-------|---------|
| Standard Attributes | Position    | 45           |       |         |
|                     | Label       | Software art |       |         |
|                     | Type        | Numeric      |       |         |
|                     | Measurement | Nominal      |       |         |
| Valid Values        | 0           | no           | 0     | 0.0%    |
|                     | 1           | yes          | 1     | 0.6%    |
| Missing Values      | System      |              | 155   | 99.4%   |

### soft\_sigmastat

|                     |             | Value              | Count | Percent |
|---------------------|-------------|--------------------|-------|---------|
| Standard Attributes | Position    | 46                 |       |         |
|                     | Label       | Software sigmastat |       |         |
|                     | Type        | Numeric            |       |         |
|                     | Measurement | Nominal            |       |         |
| Valid Values        | 0           | no                 | 0     | 0.0%    |
|                     | 1           | yes                | 1     | 0.6%    |
| Missing Values      | System      |                    | 155   | 99.4%   |

### soft\_neuronstudio

|                     |             | Value                 | Count | Percent |
|---------------------|-------------|-----------------------|-------|---------|
| Standard Attributes | Position    | 47                    |       |         |
|                     | Label       | Software neuronstudio |       |         |
|                     | Type        | Numeric               |       |         |
|                     | Measurement | Nominal               |       |         |
| Valid Values        | 0           | no                    | 0     | 0.0%    |
|                     | 1           | yes                   | 1     | 0.6%    |
| Missing Values      | System      |                       | 155   | 99.4%   |

**soft\_agilenttechnology**

|                     |             | Value                      | Count | Percent |
|---------------------|-------------|----------------------------|-------|---------|
| Standard Attributes | Position    | 48                         |       |         |
|                     | Label       | Software agilenttechnology |       |         |
|                     | Type        | Numeric                    |       |         |
|                     | Measurement | Nominal                    |       |         |
| Valid Values        | 0           | no                         | 0     | 0.0%    |
|                     | 1           | yes                        | 7     | 4.5%    |
| Missing Values      | System      |                            | 149   | 95.5%   |

**soft\_agilentbioanalyzer**

|                     |             | Value                       | Count | Percent |
|---------------------|-------------|-----------------------------|-------|---------|
| Standard Attributes | Position    | 49                          |       |         |
|                     | Label       | Software agilentbioanalyzer |       |         |
|                     | Type        | Numeric                     |       |         |
|                     | Measurement | Nominal                     |       |         |
| Valid Values        | 0           | no                          | 0     | 0.0%    |
|                     | 1           | yes                         | 1     | 0.6%    |
| Missing Values      | System      |                             | 155   | 99.4%   |

**soft\_arcgis**

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 50              |       |         |
|                     | Label       | Software arcgis |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 2     | 1.3%    |
| Missing Values      | System      |                 | 154   | 98.7%   |

**soft\_surveymonkey**

|                     |             | Value                    | Count | Percent |
|---------------------|-------------|--------------------------|-------|---------|
| Standard Attributes | Position    | 51                       |       |         |
|                     | Label       | Software<br>surveymonkey |       |         |
|                     | Type        | Numeric                  |       |         |
|                     | Measurement | Nominal                  |       |         |
| Valid Values        | 0           | no                       | 0     | 0.0%    |
|                     | 1           | yes                      | 1     | 0.6%    |
| Missing Values      | System      |                          | 155   | 99.4%   |

**soft\_fsqca**

|                     |             | Value          | Count | Percent |
|---------------------|-------------|----------------|-------|---------|
| Standard Attributes | Position    | 52             |       |         |
|                     | Label       | Software fsqca |       |         |
|                     | Type        | Numeric        |       |         |
|                     | Measurement | Nominal        |       |         |
| Valid Values        | 0           | no             | 0     | 0.0%    |
|                     | 1           | yes            | 1     | 0.6%    |
| Missing Values      | System      |                | 155   | 99.4%   |

**soft\_netstation**

|                     |             | Value                  | Count | Percent |
|---------------------|-------------|------------------------|-------|---------|
| Standard Attributes | Position    | 53                     |       |         |
|                     | Label       | Software<br>netstation |       |         |
|                     | Type        | Numeric                |       |         |
|                     | Measurement | Nominal                |       |         |
| Valid Values        | 0           | no                     | 0     | 0.0%    |
|                     | 1           | yes                    | 1     | 0.6%    |
| Missing Values      | System      |                        | 155   | 99.4%   |

**soft\_geolytics**

|                     |          | Value                 | Count | Percent |
|---------------------|----------|-----------------------|-------|---------|
| Standard Attributes | Position | 54                    |       |         |
|                     | Label    | Software<br>geolytics |       |         |

|                |             |         |     |       |
|----------------|-------------|---------|-----|-------|
|                | Type        | Numeric |     |       |
|                | Measurement | Nominal |     |       |
| Valid Values   | 0           | no      | 0   | 0.0%  |
|                | 1           | yes     | 1   | 0.6%  |
| Missing Values | System      |         | 155 | 99.4% |

### soft\_googlemaps

|                     |             | Value               | Count | Percent |
|---------------------|-------------|---------------------|-------|---------|
| Standard Attributes | Position    | 55                  |       |         |
|                     | Label       | Software googlemaps |       |         |
|                     | Type        | Numeric             |       |         |
|                     | Measurement | Nominal             |       |         |
| Valid Values        | 0           | no                  | 0     | 0.0%    |
|                     | 1           | yes                 | 1     | 0.6%    |
| Missing Values      | System      |                     | 155   | 99.4%   |

### soft\_topspin

|                     |             | Value            | Count | Percent |
|---------------------|-------------|------------------|-------|---------|
| Standard Attributes | Position    | 56               |       |         |
|                     | Label       | Software topspin |       |         |
|                     | Type        | Numeric          |       |         |
|                     | Measurement | Nominal          |       |         |
| Valid Values        | 0           | no               | 0     | 0.0%    |
|                     | 1           | yes              | 2     | 1.3%    |
| Missing Values      | System      |                  | 154   | 98.7%   |

### soft\_phenix

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 57              |       |         |
|                     | Label       | Software phenix |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 1     | 0.6%    |

|                |        |  |     |       |
|----------------|--------|--|-----|-------|
| Missing Values | System |  | 155 | 99.4% |
|----------------|--------|--|-----|-------|

**soft\_hkl2000**

|                     |             | Value            | Count | Percent |
|---------------------|-------------|------------------|-------|---------|
| Standard Attributes | Position    | 58               |       |         |
|                     | Label       | Software hkl2000 |       |         |
|                     | Type        | Numeric          |       |         |
|                     | Measurement | Nominal          |       |         |
| Valid Values        | 0           | no               | 0     | 0.0%    |
|                     | 1           | yes              | 1     | 0.6%    |
| Missing Values      | System      |                  | 155   | 99.4%   |

**soft\_gpower**

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 59              |       |         |
|                     | Label       | Software gpower |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 1     | 0.6%    |
| Missing Values      | System      |                 | 155   | 99.4%   |

**soft\_geocodio**

|                     |             | Value             | Count | Percent |
|---------------------|-------------|-------------------|-------|---------|
| Standard Attributes | Position    | 60                |       |         |
|                     | Label       | Software geocodio |       |         |
|                     | Type        | Numeric           |       |         |
|                     | Measurement | Nominal           |       |         |
| Valid Values        | 0           | no                | 0     | 0.0%    |
|                     | 1           | yes               | 1     | 0.6%    |
| Missing Values      | System      |                   | 155   | 99.4%   |

**soft\_qgis**

|                     |             | Value         | Count | Percent |
|---------------------|-------------|---------------|-------|---------|
| Standard Attributes | Position    | 61            |       |         |
|                     | Label       | Software qgis |       |         |
|                     | Type        | Numeric       |       |         |
|                     | Measurement | Nominal       |       |         |
| Valid Values        | 0           | no            | 0     | 0.0%    |
|                     | 1           | yes           | 1     | 0.6%    |
| Missing Values      | System      |               | 155   | 99.4%   |

**soft\_expasy**

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 62              |       |         |
|                     | Label       | Software expasy |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 1     | 0.6%    |
| Missing Values      | System      |                 | 155   | 99.4%   |

**soft\_imaginequantlas4000**

|                     |             | Value                         | Count | Percent |
|---------------------|-------------|-------------------------------|-------|---------|
| Standard Attributes | Position    | 63                            |       |         |
|                     | Label       | Software imaginequantlas 4000 |       |         |
|                     | Type        | Numeric                       |       |         |
|                     | Measurement | Nominal                       |       |         |
| Valid Values        | 0           | no                            | 0     | 0.0%    |
|                     | 1           | yes                           | 1     | 0.6%    |
| Missing Values      | System      |                               | 155   | 99.4%   |

**soft\_lsfortessa**

|                     |          | Value    | Count | Percent |
|---------------------|----------|----------|-------|---------|
| Standard Attributes | Position | 64       |       |         |
|                     | Label    | Software |       |         |

|                |             |             |     |       |
|----------------|-------------|-------------|-----|-------|
|                |             | lsrfortessa |     |       |
|                | Type        | Numeric     |     |       |
|                | Measurement | Nominal     |     |       |
| Valid Values   | 0           | no          | 0   | 0.0%  |
|                | 1           | yes         | 1   | 0.6%  |
| Missing Values | System      |             | 155 | 99.4% |

### soft\_flowjo

|                     |             | Value           | Count | Percent |
|---------------------|-------------|-----------------|-------|---------|
| Standard Attributes | Position    | 65              |       |         |
|                     | Label       | Software flowjo |       |         |
|                     | Type        | Numeric         |       |         |
|                     | Measurement | Nominal         |       |         |
| Valid Values        | 0           | no              | 0     | 0.0%    |
|                     | 1           | yes             | 1     | 0.6%    |
| Missing Values      | System      |                 | 155   | 99.4%   |

### soft\_sensorchipnta

|                     |             | Value                  | Count | Percent |
|---------------------|-------------|------------------------|-------|---------|
| Standard Attributes | Position    | 66                     |       |         |
|                     | Label       | Software sensorchipnta |       |         |
|                     | Type        | Numeric                |       |         |
|                     | Measurement | Nominal                |       |         |
| Valid Values        | 0           | no                     | 0     | 0.0%    |
|                     | 1           | yes                    | 1     | 0.6%    |
| Missing Values      | System      |                        | 155   | 99.4%   |

### soft\_biacoret200

|                     |             | Value                | Count | Percent |
|---------------------|-------------|----------------------|-------|---------|
| Standard Attributes | Position    | 67                   |       |         |
|                     | Label       | Software biacoret200 |       |         |
|                     | Type        | Numeric              |       |         |
|                     | Measurement | Nominal              |       |         |
| Valid Values        | 0           | no                   | 0     | 0.0%    |



|                |        |     |     |       |
|----------------|--------|-----|-----|-------|
|                | 1      | yes | 1   | 0.6%  |
| Missing Values | System |     | 155 | 99.4% |

**soft\_trinity717**

|                     |             | Value               | Count | Percent |
|---------------------|-------------|---------------------|-------|---------|
| Standard Attributes | Position    | 68                  |       |         |
|                     | Label       | Software trinity717 |       |         |
|                     | Type        | Numeric             |       |         |
|                     | Measurement | Nominal             |       |         |
| Valid Values        | 0           | no                  | 0     | 0.0%    |
|                     | 1           | yes                 | 1     | 0.6%    |
| Missing Values      | System      |                     | 155   | 99.4%   |

**soft\_megalign**

|                     |             | Value             | Count | Percent |
|---------------------|-------------|-------------------|-------|---------|
| Standard Attributes | Position    | 69                |       |         |
|                     | Label       | Software megalign |       |         |
|                     | Type        | Numeric           |       |         |
|                     | Measurement | Nominal           |       |         |
| Valid Values        | 0           | no                | 0     | 0.0%    |
|                     | 1           | yes               | 1     | 0.6%    |
| Missing Values      | System      |                   | 155   | 99.4%   |

**soft\_doors**

|                     |             | Value          | Count | Percent |
|---------------------|-------------|----------------|-------|---------|
| Standard Attributes | Position    | 70             |       |         |
|                     | Label       | Software doors |       |         |
|                     | Type        | Numeric        |       |         |
|                     | Measurement | Nominal        |       |         |
| Valid Values        | 0           | no             | 0     | 0.0%    |
|                     | 1           | yes            | 1     | 0.6%    |
| Missing Values      | System      |                | 155   | 99.4%   |

OUTPUT – Table 2 Distributions

|   |         | Statistics  |             |           |                        |                         |
|---|---------|-------------|-------------|-----------|------------------------|-------------------------|
|   |         | Method Type | Degree Type | Data Type | Software = Qualitative | Software = Quantitative |
| N | Valid   | 156         | 156         | 156       | 156                    | 156                     |
|   | Missing | 0           | 0           | 0         | 0                      | 0                       |

|   |         | Statistics                           |                      |
|---|---------|--------------------------------------|----------------------|
|   |         | Software = Other (not qual or quant) | Software Identified? |
| N | Valid   | 156                                  | 156                  |
|   | Missing | 0                                    | 0                    |

Frequency Table

|       |               | Method Type |         |               |                    |
|-------|---------------|-------------|---------|---------------|--------------------|
|       |               | Frequency   | Percent | Valid Percent | Cumulative Percent |
| Valid | Qualitative   | 43          | 27.6    | 27.6          | 27.6               |
|       | Quantitative  | 96          | 61.5    | 61.5          | 89.1               |
|       | Mixed Methods | 17          | 10.9    | 10.9          | 100.0              |
|       | Total         | 156         | 100.0   | 100.0         |                    |

|       |       | Degree Type |         |               |                    |
|-------|-------|-------------|---------|---------------|--------------------|
|       |       | Frequency   | Percent | Valid Percent | Cumulative Percent |
| Valid | PhD   | 137         | 87.8    | 87.8          | 87.8               |
|       | EdD   | 8           | 5.1     | 5.1           | 92.9               |
|       | EDB   | 11          | 7.1     | 7.1           | 100.0              |
|       | Total | 156         | 100.0   | 100.0         |                    |

|       |                               | Data Type |         |               |                    |
|-------|-------------------------------|-----------|---------|---------------|--------------------|
|       |                               | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Primary Data only             | 94        | 60.3    | 60.3          | 60.3               |
|       | Secondary Data only           | 44        | 28.2    | 28.2          | 88.5               |
|       | Both Primary & Secondary Data | 18        | 11.5    | 11.5          | 100.0              |
|       | Total                         | 156       | 100.0   | 100.0         |                    |

**Software = Qualitative**

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | No          | 133       | 85.3    | 85.3          | 85.3               |
|       | Qualitative | 23        | 14.7    | 14.7          | 100.0              |
|       | Total       | 156       | 100.0   | 100.0         |                    |

**Software = Quantitative**

|       |              | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------|-----------|---------|---------------|--------------------|
| Valid | No           | 82        | 52.6    | 52.6          | 52.6               |
|       | Quantitative | 74        | 47.4    | 47.4          | 100.0              |
|       | Total        | 156       | 100.0   | 100.0         |                    |

**Software = Other (not qual or quant)**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | No    | 126       | 80.8    | 80.8          | 80.8               |
|       | Other | 30        | 19.2    | 19.2          | 100.0              |
|       | Total | 156       | 100.0   | 100.0         |                    |

**Software Identified?**

|       |                | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------------|-----------|---------|---------------|--------------------|
| Valid | Identified     | 108       | 69.2    | 69.2          | 69.2               |
|       | Not identified | 48        | 30.8    | 30.8          | 100.0              |
|       | Total          | 156       | 100.0   | 100.0         |                    |

**Frequencies**

**Statistics**

|   |         | Software SPSS | Software Excel | Software Stata | Software Mplus | Software SAS |
|---|---------|---------------|----------------|----------------|----------------|--------------|
| N | Valid   | 108           | 108            | 108            | 108            | 108          |
|   | Missing | 0             | 0              | 0              | 0              | 0            |

**Statistics**

|   |         | Software MATLAB | Software R | Software Python | Software NVivo | Software Dedoose |
|---|---------|-----------------|------------|-----------------|----------------|------------------|
| N | Valid   | 108             | 108        | 108             | 108            | 108              |
|   | Missing | 0               | 0          | 0               | 0              | 0                |

**Statistics**

|   |         | Software ATLAS.ti | Software Qualtrics |
|---|---------|-------------------|--------------------|
| N | Valid   | 108               | 108                |
|   | Missing | 0                 | 0                  |

**Frequency Table**

**Software SPSS**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 78        | 72.2    | 72.2          | 72.2               |
|       | yes   | 30        | 27.8    | 27.8          | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

**Software Excel**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 94        | 87.0    | 87.0          | 87.0               |
|       | yes   | 14        | 13.0    | 13.0          | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

**Software Stata**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 95        | 88.0    | 88.0          | 88.0               |
|       | yes   | 13        | 12.0    | 12.0          | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

**Software Mplus**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 98        | 90.7    | 90.7          | 90.7               |
|       | yes   | 10        | 9.3     | 9.3           | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

**Software SAS**

|       |     | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----|-----------|---------|---------------|--------------------|
| Valid | no  | 103       | 95.4    | 95.4          | 95.4               |
|       | yes | 5         | 4.6     | 4.6           | 100.0              |

|       |  |     |       |       |  |
|-------|--|-----|-------|-------|--|
| Total |  | 108 | 100.0 | 100.0 |  |
|-------|--|-----|-------|-------|--|

### Software MATLAB

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 103       | 95.4    | 95.4          | 95.4               |
|       | yes   | 5         | 4.6     | 4.6           | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

### Software R

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 99        | 91.7    | 91.7          | 91.7               |
|       | yes   | 9         | 8.3     | 8.3           | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

### Software Python

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 102       | 94.4    | 94.4          | 94.4               |
|       | yes   | 6         | 5.6     | 5.6           | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

### Software NVivo

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 93        | 86.1    | 86.1          | 86.1               |
|       | yes   | 15        | 13.9    | 13.9          | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

### Software Dedoose

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 99        | 91.7    | 91.7          | 91.7               |
|       | yes   | 9         | 8.3     | 8.3           | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

**Software ATLAS.ti**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 106       | 98.1    | 98.1          | 98.1               |
|       | yes   | 2         | 1.9     | 1.9           | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

**Software Qualtrics**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | no    | 94        | 87.0    | 87.0          | 87.0               |
|       | yes   | 14        | 13.0    | 13.0          | 100.0              |
|       | Total | 108       | 100.0   | 100.0         |                    |

**Crosstabs**

**Case Processing Summary**

|  | Valid |         | Cases Missing |         | Total |         |
|--|-------|---------|---------------|---------|-------|---------|
|  | N     | Percent | N             | Percent | N     | Percent |
| Academic Department (coded as number categories) * Method Type | 156   | 100.0%  | 0             | 0.0%    | 156   | 100.0%  |
| Academic Department (coded as number categories) * Data Type   | 156   | 100.0%  | 0             | 0.0%    | 156   | 100.0%  |

**Academic Department (coded as number categories) \* Method Type Crosstabulation**

|  |                              |   | Method Type |              |               | Total  |
|--|------------------------------|---|-------------|--------------|---------------|--------|
|  |                              |   | Qualitative | Quantitative | Mixed Methods |        |
| Academic Department (coded as number categories) | Sociology                    | Count   | 4           | 3            | 1             | 8      |
|  |                              | % within Academic Department (coded as number categories) | 50.0%       | 37.5%        | 12.5%         | 100.0% |
|  | Risk Management              | Count   | 0           | 1            | 0             | 1      |
|  |                              | % within Academic Department (coded as number categories) | 0.0%        | 100.0%       | 0.0%          | 100.0% |
|  | Public Management and Policy | Count   | 0           | 6            | 0             | 6      |
|  |                              | % within Academic Department (coded as number categories) | 0.0%        | 100.0%       | 0.0%          | 100.0% |
|  | Public Health                | Count   | 0           | 5            | 0             | 5      |
|  |                              | % within Academic Department (coded as number categories) | 0.0%        | 100.0%       | 0.0%          | 100.0% |
|  | Psychology                   | Count   | 0           | 6            | 1             | 7      |
|  |                              | % within Academic Department (coded as number categories) | 0.0%        | 85.7%        | 14.3%         | 100.0% |
|  | Political Science            | Count   | 2           | 0            | 3             | 5      |
|  |                              | % within Academic Department (coded as number categories) | 40.0%       | 0.0%         | 60.0%         | 100.0% |
|  | Physics and                  | Count   | 0           | 4            | 0             | 4      |

|                                |   |        |        |        |        |
|--------------------------------|---|--------|--------|--------|--------|
| Astronomy                      | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%   | 100.0% |
| Nursing                        | Count   | 0      | 3      | 0      | 3      |
|                                | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%   | 100.0% |
| Neuroscience Institute         | Count   | 0      | 5      | 0      | 5      |
|                                | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%   | 100.0% |
| Middle and Secondary Education | Count   | 13     | 1      | 0      | 14     |
|                                | % within Academic Department (coded as number categories) | 92.9%  | 7.1%   | 0.0%   | 100.0% |
| Mathematics and Statistics     | Count   | 1      | 4      | 0      | 5      |
|                                | % within Academic Department (coded as number categories) | 20.0%  | 80.0%  | 0.0%   | 100.0% |
| Marketing                      | Count   | 0      | 4      | 0      | 4      |
|                                | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%   | 100.0% |
| Managerial Sciences            | Count   | 0      | 1      | 1      | 2      |
|                                | % within Academic Department (coded as number categories) | 0.0%   | 50.0%  | 50.0%  | 100.0% |
| Kinesiology                    | Count   | 0      | 3      | 0      | 3      |
|                                | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%   | 100.0% |
| History                        | Count   | 1      | 0      | 1      | 2      |
|                                | % within Academic Department (coded as number categories) | 50.0%  | 0.0%   | 50.0%  | 100.0% |
| Finance                        | Count   | 0      | 1      | 0      | 1      |
|                                | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%   | 100.0% |
| Film, Media & Theatre          | Count   | 1      | 0      | 0      | 1      |
|                                | % within Academic Department (coded as number categories) | 100.0% | 0.0%   | 0.0%   | 100.0% |
| English                        | Count   | 0      | 0      | 1      | 1      |
|                                | % within Academic   | 0.0%   | 0.0%   | 100.0% | 100.0% |



|  |   |        |        |       |        |
|--|---|--------|--------|-------|--------|
|  | Department (coded as number categories)                   |        |        |       |        |
| Educational Psychology, Special Education, and Communication Disorders | Count   | 0      | 1      | 1     | 2      |
|  | % within Academic Department (coded as number categories) | 0.0%   | 50.0%  | 50.0% | 100.0% |
| Educational Policy Studies   | Count   | 6      | 2      | 1     | 9      |
|  | % within Academic Department (coded as number categories) | 66.7%  | 22.2%  | 11.1% | 100.0% |
| Economics  | Count   | 0      | 7      | 0     | 7      |
|  | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%  | 100.0% |
| Early Childhood and Elementary Education                               | Count   | 2      | 2      | 1     | 5      |
|  | % within Academic Department (coded as number categories) | 40.0%  | 40.0%  | 20.0% | 100.0% |
| Criminal Justice   | Count   | 0      | 3      | 0     | 3      |
|  | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%  | 100.0% |
| Counseling and Psychological Services                                  | Count   | 0      | 1      | 0     | 1      |
|  | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%  | 100.0% |
| Computer Science   | Count   | 1      | 3      | 1     | 5      |
|  | % within Academic Department (coded as number categories) | 20.0%  | 60.0%  | 20.0% | 100.0% |
| Computer Information Systems   | Count   | 1      | 2      | 0     | 3      |
|  | % within Academic Department (coded as number categories) | 33.3%  | 66.7%  | 0.0%  | 100.0% |
| Communication  | Count   | 4      | 0      | 0     | 4      |
|  | % within Academic Department (coded as number categories) | 100.0% | 0.0%   | 0.0%  | 100.0% |
| Chemistry  | Count   | 0      | 9      | 0     | 9      |
|  | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%  | 100.0% |
| Business Administration  | Count   | 4      | 5      | 2     | 11     |
|  | % within Academic   | 36.4%  | 45.5%  | 18.2% | 100.0% |

|  |   |       |       |       |        |
|--|---|-------|-------|-------|--------|
|  | Department (coded as number categories)                   |       |       |       |        |
| Biology  | Count   | 2     | 12    | 0     | 14     |
|  | % within Academic Department (coded as number categories) | 14.3% | 85.7% | 0.0%  | 100.0% |
| Applied Linguistics and English as a Second Language | Count   | 1     | 2     | 3     | 6      |
|  | % within Academic Department (coded as number categories) | 16.7% | 33.3% | 50.0% | 100.0% |
| Total  | Count   | 43    | 96    | 17    | 156    |
|  | % within Academic Department (coded as number categories) | 27.6% | 61.5% | 10.9% | 100.0% |

### Academic Department (coded as number categories) \* Data Type Crosstabulation

|  |                              |   | Data Type         |                     |                               | Total  |
|--|------------------------------|---|-------------------|---------------------|-------------------------------|--------|
|  |                              |   | Primary Data only | Secondary Data only | Both Primary & Secondary Data |        |
| Academic Department (coded as number categories) | Sociology                    | Count   | 3                 | 4                   | 1                             | 8      |
|  |                              | % within Academic Department (coded as number categories) | 37.5%             | 50.0%               | 12.5%                         | 100.0% |
|  | Risk Management              | Count   | 0                 | 1                   | 0                             | 1      |
|  |                              | % within Academic Department (coded as number categories) | 0.0%              | 100.0%              | 0.0%                          | 100.0% |
|  | Public Management and Policy | Count   | 0                 | 5                   | 1                             | 6      |
|  |                              | % within Academic Department (coded as number categories) | 0.0%              | 83.3%               | 16.7%                         | 100.0% |
|  | Public Health                | Count   | 1                 | 4                   | 0                             | 5      |
|  |                              | % within Academic Department (coded as number categories) | 20.0%             | 80.0%               | 0.0%                          | 100.0% |
|  | Psychology                   | Count   | 3                 | 3                   | 1                             | 7      |
|  |                              | % within Academic Department (coded as number categories) | 42.9%             | 42.9%               | 14.3%                         | 100.0% |

|                                |   |        |       |       |        |
|--------------------------------|---|--------|-------|-------|--------|
|                                | categories)   |        |       |       |        |
| Political Science              | Count   | 1      | 2     | 2     | 5      |
|                                | % within Academic Department (coded as number categories) | 20.0%  | 40.0% | 40.0% | 100.0% |
| Physics and Astronomy          | Count   | 4      | 0     | 0     | 4      |
|                                | % within Academic Department (coded as number categories) | 100.0% | 0.0%  | 0.0%  | 100.0% |
| Nursing                        | Count   | 3      | 0     | 0     | 3      |
|                                | % within Academic Department (coded as number categories) | 100.0% | 0.0%  | 0.0%  | 100.0% |
| Neuroscience Institute         | Count   | 5      | 0     | 0     | 5      |
|                                | % within Academic Department (coded as number categories) | 100.0% | 0.0%  | 0.0%  | 100.0% |
| Middle and Secondary Education | Count   | 14     | 0     | 0     | 14     |
|                                | % within Academic Department (coded as number categories) | 100.0% | 0.0%  | 0.0%  | 100.0% |
| Mathematics and Statistics     | Count   | 4      | 1     | 0     | 5      |
|                                | % within Academic Department (coded as number categories) | 80.0%  | 20.0% | 0.0%  | 100.0% |
| Marketing                      | Count   | 3      | 1     | 0     | 4      |
|                                | % within Academic Department (coded as number categories) | 75.0%  | 25.0% | 0.0%  | 100.0% |
| Managerial Sciences            | Count   | 2      | 0     | 0     | 2      |
|                                | % within Academic Department (coded as number categories) | 100.0% | 0.0%  | 0.0%  | 100.0% |
| Kinesiology                    | Count   | 3      | 0     | 0     | 3      |
|                                | % within Academic Department (coded as number categories) | 100.0% | 0.0%  | 0.0%  | 100.0% |

|  |   |        |        |       |        |
|--|---|--------|--------|-------|--------|
| History  | Count   | 1      | 1      | 0     | 2      |
|  | % within Academic Department (coded as number categories) | 50.0%  | 50.0%  | 0.0%  | 100.0% |
| Finance  | Count   | 0      | 1      | 0     | 1      |
|  | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%  | 100.0% |
| Film, Media & Theatre  | Count   | 1      | 0      | 0     | 1      |
|  | % within Academic Department (coded as number categories) | 100.0% | 0.0%   | 0.0%  | 100.0% |
| English  | Count   | 1      | 0      | 0     | 1      |
|  | % within Academic Department (coded as number categories) | 100.0% | 0.0%   | 0.0%  | 100.0% |
| Educational Psychology, Special Education, and Communication Disorders | Count   | 2      | 0      | 0     | 2      |
|  | % within Academic Department (coded as number categories) | 100.0% | 0.0%   | 0.0%  | 100.0% |
| Educational Policy Studies   | Count   | 2      | 1      | 6     | 9      |
|  | % within Academic Department (coded as number categories) | 22.2%  | 11.1%  | 66.7% | 100.0% |
| Economics  | Count   | 0      | 6      | 1     | 7      |
|  | % within Academic Department (coded as number categories) | 0.0%   | 85.7%  | 14.3% | 100.0% |
| Early Childhood and Elementary Education                               | Count   | 4      | 0      | 1     | 5      |
|  | % within Academic Department (coded as number categories) | 80.0%  | 0.0%   | 20.0% | 100.0% |
| Criminal Justice   | Count   | 0      | 3      | 0     | 3      |
|  | % within Academic Department (coded as number categories) | 0.0%   | 100.0% | 0.0%  | 100.0% |

|  |   |        |       |       |        |
|--|---|--------|-------|-------|--------|
| Counseling and Psychological Services                | Count   | 1      | 0     | 0     | 1      |
|  | % within Academic Department (coded as number categories) | 100.0% | 0.0%  | 0.0%  | 100.0% |
| Computer Science                                     | Count   | 2      | 1     | 2     | 5      |
|  | % within Academic Department (coded as number categories) | 40.0%  | 20.0% | 40.0% | 100.0% |
| Computer Information Systems                         | Count   | 1      | 1     | 1     | 3      |
|  | % within Academic Department (coded as number categories) | 33.3%  | 33.3% | 33.3% | 100.0% |
| Communication  | Count   | 1      | 3     | 0     | 4      |
|  | % within Academic Department (coded as number categories) | 25.0%  | 75.0% | 0.0%  | 100.0% |
| Chemistry  | Count   | 7      | 0     | 2     | 9      |
|  | % within Academic Department (coded as number categories) | 77.8%  | 0.0%  | 22.2% | 100.0% |
| Business Administration                              | Count   | 6      | 5     | 0     | 11     |
|  | % within Academic Department (coded as number categories) | 54.5%  | 45.5% | 0.0%  | 100.0% |
| Biology  | Count   | 14     | 0     | 0     | 14     |
|  | % within Academic Department (coded as number categories) | 100.0% | 0.0%  | 0.0%  | 100.0% |
| Applied Linguistics and English as a Second Language | Count   | 5      | 1     | 0     | 6      |
|  | % within Academic Department (coded as number categories) | 83.3%  | 16.7% | 0.0%  | 100.0% |
| Total  | Count   | 94     | 44    | 18    | 156    |
|  | % within Academic Department (coded as number categories) | 60.3%  | 28.2% | 11.5% | 100.0% |

Crosstabs

Case Processing Summary

|  | Valid |         | Cases Missing |         | Total |         |
|--|-------|---------|---------------|---------|-------|---------|
|  | N     | Percent | N             | Percent | N     | Percent |
| Academic Fields (coded as number categories) * Method Type | 156   | 100.0%  | 0             | 0.0%    | 156   | 100.0%  |
| Academic Fields (coded as number categories) * Data Type   | 156   | 100.0%  | 0             | 0.0%    | 156   | 100.0%  |

Academic Fields (coded as number categories) \* Method Type Crosstabulation

|  |                          |   | Method Type |              |               | Total  |
|--|--------------------------|---|-------------|--------------|---------------|--------|
|  |                          |   | Qualitative | Quantitative | Mixed Methods |        |
| Academic Fields (coded as number categories) | Business                 | Count   | 5           | 14           | 3             | 22     |
|  |                          | % within Academic Fields (coded as number categories) | 22.7%       | 63.6%        | 13.6%         | 100.0% |
|  | Physical Sciences & Math | Count   | 4           | 37           | 1             | 42     |
|  |                          | % within Academic Fields (coded as number categories) | 9.5%        | 88.1%        | 2.4%          | 100.0% |
|  | Education                | Count   | 21          | 10           | 3             | 34     |
|  |                          | % within Academic Fields (coded as number categories) | 61.8%       | 29.4%        | 8.8%          | 100.0% |
|  | Health Science           | Count   | 0           | 8            | 0             | 8      |
|  |                          | % within Academic Fields (coded as number categories) | 0.0%        | 100.0%       | 0.0%          | 100.0% |
|  | Social Sciences          | Count   | 11          | 27           | 8             | 46     |
|  |                          | % within Academic Fields (coded as number categories) | 23.9%       | 58.7%        | 17.4%         | 100.0% |
|  | Humanities               | Count   | 2           | 0            | 2             | 4      |
|  |                          | % within Academic Fields (coded as number categories) | 50.0%       | 0.0%         | 50.0%         | 100.0% |
| Total  |                          | Count   | 43          | 96           | 17            | 156    |
|  |                          | % within Academic Fields (coded as number categories) | 27.6%       | 61.5%        | 10.9%         | 100.0% |

**Academic Fields (coded as number categories) \* Data Type Crosstabulation**

|  |                          | Data Type   |                     |                               | Total |        |
|--|--------------------------|---|---------------------|-------------------------------|-------|--------|
|  |                          | Primary Data only                                     | Secondary Data only | Both Primary & Secondary Data |       |        |
| Academic Fields (coded as number categories) | Business                 | Count   | 12                  | 9                             | 1     | 22     |
|  |                          | % within Academic Fields (coded as number categories) | 54.5%               | 40.9%                         | 4.5%  | 100.0% |
|  | Physical Sciences & Math | Count   | 36                  | 2                             | 4     | 42     |
|  |                          | % within Academic Fields (coded as number categories) | 85.7%               | 4.8%                          | 9.5%  | 100.0% |
|  | Education                | Count   | 26                  | 1                             | 7     | 34     |
|  |                          | % within Academic Fields (coded as number categories) | 76.5%               | 2.9%                          | 20.6% | 100.0% |
|  | Health Science           | Count   | 4                   | 4                             | 0     | 8      |
|  |                          | % within Academic Fields (coded as number categories) | 50.0%               | 50.0%                         | 0.0%  | 100.0% |
|  | Social Sciences          | Count   | 13                  | 27                            | 6     | 46     |
|  |                          | % within Academic Fields (coded as number categories) | 28.3%               | 58.7%                         | 13.0% | 100.0% |
|  | Humanities               | Count   | 3                   | 1                             | 0     | 4      |
|  |                          | % within Academic Fields (coded as number categories) | 75.0%               | 25.0%                         | 0.0%  | 100.0% |
|  | Total                    | Count   | 94                  | 44                            | 18    | 156    |
|  |                          | % within Academic Fields (coded as number categories) | 60.3%               | 28.2%                         | 11.5% | 100.0% |

**Crosstabs**

**Case Processing Summary**

|  | Valid |         | Cases Missing |         | Total |         |
|--|-------|---------|---------------|---------|-------|---------|
|  | N     | Percent | N             | Percent | N     | Percent |
| Method Type * Academic Fields (coded as number categories) | 156   | 100.0%  | 0             | 0.0%    | 156   | 100.0%  |

**Method Type \* Academic Fields (coded as number categories) Crosstabulation**

|             |                | Academic Fields (coded as number categories) |                          |           |                |                 |            |       | Total |
|-------------|----------------|--|--------------------------|-----------|----------------|-----------------|------------|-------|-------|
|             |                | Business                                     | Physical Sciences & Math | Education | Health Science | Social Sciences | Humanities |       |       |
| Method Type | Qualitative    | Count  | 5                        | 4         | 21             | 0               | 11         | 2     | 43    |
|             |                | Expected Count                               | 6.1                      | 11.6      | 9.4            | 2.2             | 12.7       | 1.1   | 43.0  |
|             |                | Standardized Residual                        | -.4                      | -2.2      | 3.8            | -1.5            | -.5        | .9    |       |
|             | Quantitative   | Count  | 14                       | 37        | 10             | 8               | 27         | 0     | 96    |
|             |                | Expected Count                               | 13.5                     | 25.8      | 20.9           | 4.9             | 28.3       | 2.5   | 96.0  |
|             |                | Standardized Residual                        | .1                       | 2.2       | -2.4           | 1.4             | -.2        | -1.6  |       |
|             | Mixed Methods  | Count  | 3                        | 1         | 3              | 0               | 8          | 2     | 17    |
|             |                | Expected Count                               | 2.4                      | 4.6       | 3.7            | .9              | 5.0        | .4    | 17.0  |
|             |                | Standardized Residual                        | .4                       | -1.7      | -.4            | -.9             | 1.3        | 2.4   |       |
| Total       | Count          | 22   | 42                       | 34        | 8              | 46              | 4          | 156   |       |
|             | Expected Count | 22.0   | 42.0                     | 34.0      | 8.0            | 46.0            | 4.0        | 156.0 |       |

**Chi-Square Tests**

|                              | Value               | df | Asymptotic Significance (2-sided) |
|------------------------------|---------------------|----|-----------------------------------|
| Pearson Chi-Square           | 49.054 <sup>a</sup> | 10 | <.001                             |
| Likelihood Ratio             | 51.256              | 10 | <.001                             |
| Linear-by-Linear Association | .224                | 1  | .636                              |
| N of Valid Cases             | 156                 |    |                                   |

a. 9 cells (50.0%) have expected count less than 5. The minimum expected count is .44.



### Symmetric Measures

|                    |            | Value | Approximate Significance |
|--------------------|------------|-------|--------------------------|
| Nominal by Nominal | Phi        | .561  | <.001                    |
|                    | Cramer's V | .397  | <.001                    |
| N of Valid Cases   |            | 156   |                          |

### Crosstabs

#### Case Processing Summary

|   | Cases |         |         |         |       |         |
|---|-------|---------|---------|---------|-------|---------|
|   | Valid |         | Missing |         | Total |         |
|   | N     | Percent | N       | Percent | N     | Percent |
| Data Type * Academic Fields<br>(coded as number categories) | 156   | 100.0%  | 0       | 0.0%    | 156   | 100.0%  |

#### Data Type \* Academic Fields (coded as number categories) Crosstabulation

|              |                                  | Academic Fields (coded as number categories) |                                |               |                   |                    |                |       | Total |
|--------------|----------------------------------|--|--------------------------------|---------------|-------------------|--------------------|----------------|-------|-------|
|              |                                  | Busine<br>ss                                 | Physical<br>Sciences &<br>Math | Educati<br>on | Health<br>Science | Social<br>Sciences | Humani<br>ties |       |       |
| Data<br>Type | Primary Data only                | Count  | 12                             | 36            | 26                | 4                  | 13             | 3     | 94    |
|              |                                  | Expected Count                               | 13.3                           | 25.3          | 20.5              | 4.8                | 27.7           | 2.4   | 94.0  |
|              |                                  | Standardized Residual                        | -.3                            | 2.1           | 1.2               | -.4                | -2.8           | .4    |       |
|              | Secondary Data only              | Count  | 9                              | 2             | 1                 | 4                  | 27             | 1     | 44    |
|              |                                  | Expected Count                               | 6.2                            | 11.8          | 9.6               | 2.3                | 13.0           | 1.1   | 44.0  |
|              |                                  | Standardized Residual                        | 1.1                            | -2.9          | -2.8              | 1.2                | 3.9            | -.1   |       |
|              | Both Primary &<br>Secondary Data | Count  | 1                              | 4             | 7                 | 0                  | 6              | 0     | 18    |
|              |                                  | Expected Count                               | 2.5                            | 4.8           | 3.9               | .9                 | 5.3            | .5    | 18.0  |
|              |                                  | Standardized Residual                        | -1.0                           | -.4           | 1.6               | -1.0               | .3             | -.7   |       |
| Total        | Count                            | 22   | 42                             | 34            | 8                 | 46                 | 4              | 156   |       |
|              | Expected Count                   | 22.0   | 42.0                           | 34.0          | 8.0               | 46.0               | 4.0            | 156.0 |       |

### Chi-Square Tests

|                              | Value               | df | Asymptotic Significance (2-sided) |
|------------------------------|---------------------|----|-----------------------------------|
| Pearson Chi-Square           | 52.848 <sup>a</sup> | 10 | <.001                             |
| Likelihood Ratio             | 60.660              | 10 | <.001                             |
| Linear-by-Linear Association | 9.198               | 1  | .002                              |

|                  |     |  |
|------------------|-----|--|
| N of Valid Cases | 156 |  |
|------------------|-----|--|

a. 9 cells (50.0%) have expected count less than 5. The minimum expected count is .46.

**Symmetric Measures**

|                    |            | Value | Approximate Significance |
|--------------------|------------|-------|--------------------------|
| Nominal by Nominal | Phi        | .582  | <.001                    |
|                    | Cramer's V | .412  | <.001                    |
| N of Valid Cases   |            | 156   |                          |