



### I. Abstract

The purpose of this research study was to gather information about data management and curation services such as data management planning, data collection methods, and data preservation practices. Participants were selected as part of a purposive sample based on their experiences and interests with these issues. This survey was looking for participants' personal opinions, and not the opinions of their organization, institution, department, or program. The survey instrument included Likert-scale questions on data curation concepts terminology differentiation, elements of data management plans, data seal of approval assessment guidelines, and theoretical frameworks.

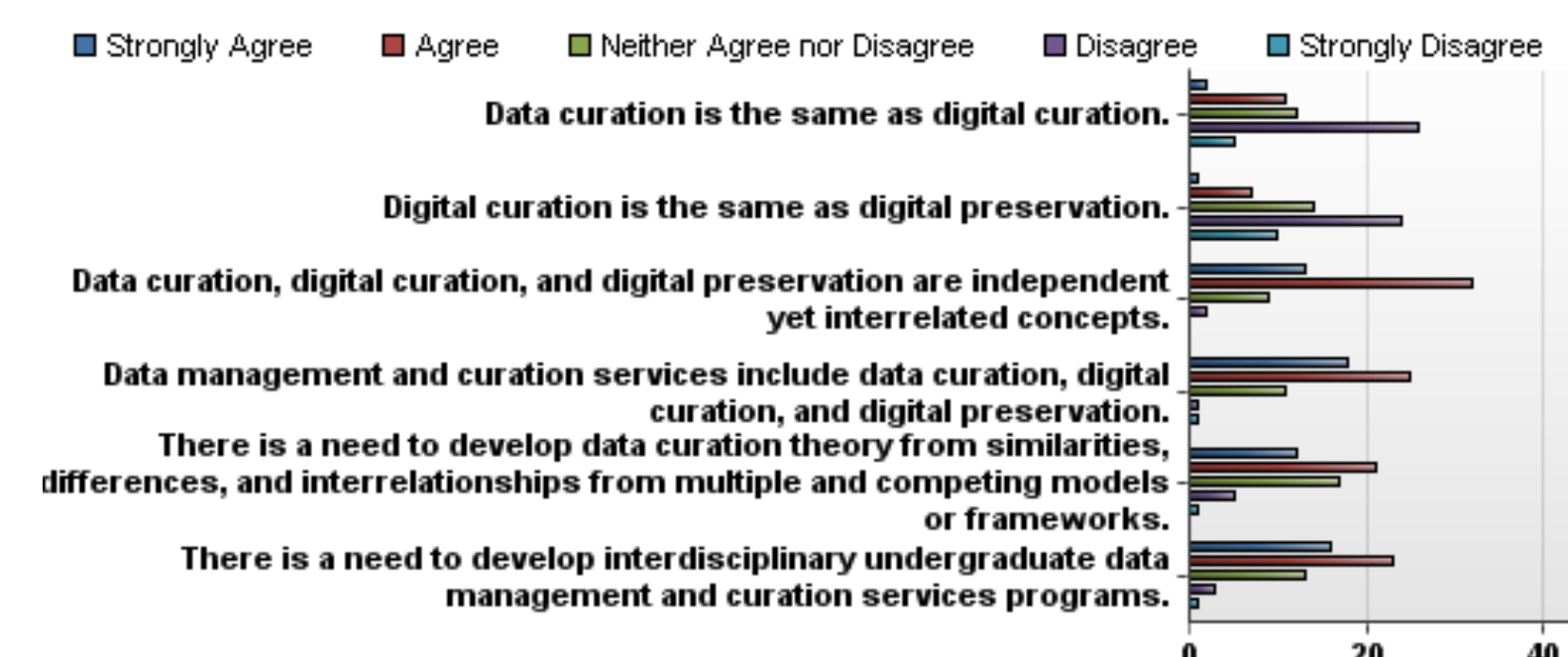


Fig. 1 – Data/Digital Curation Terminology

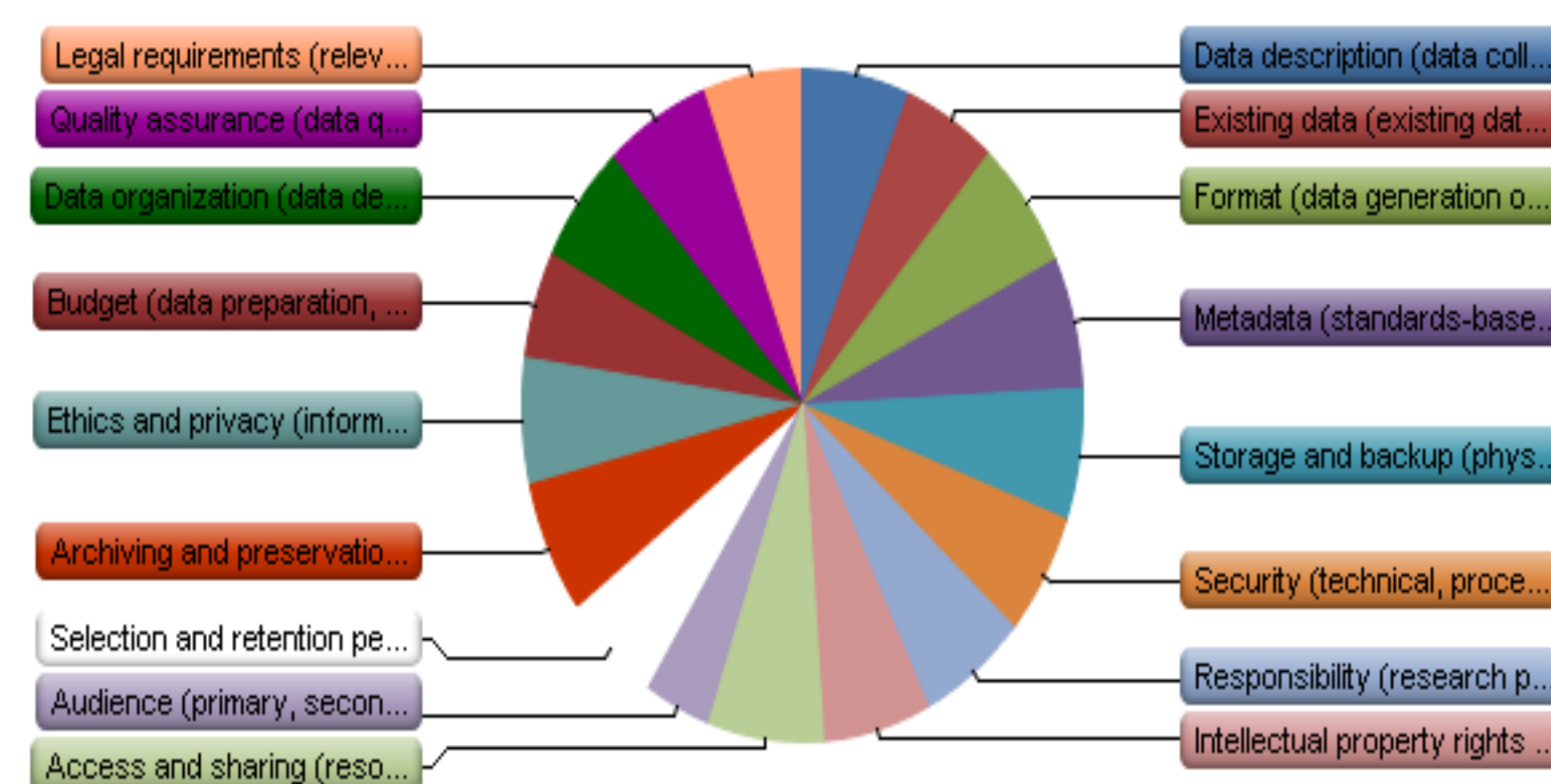


Fig. 2 – \*Elements of Data Management Plan (ICPSR)

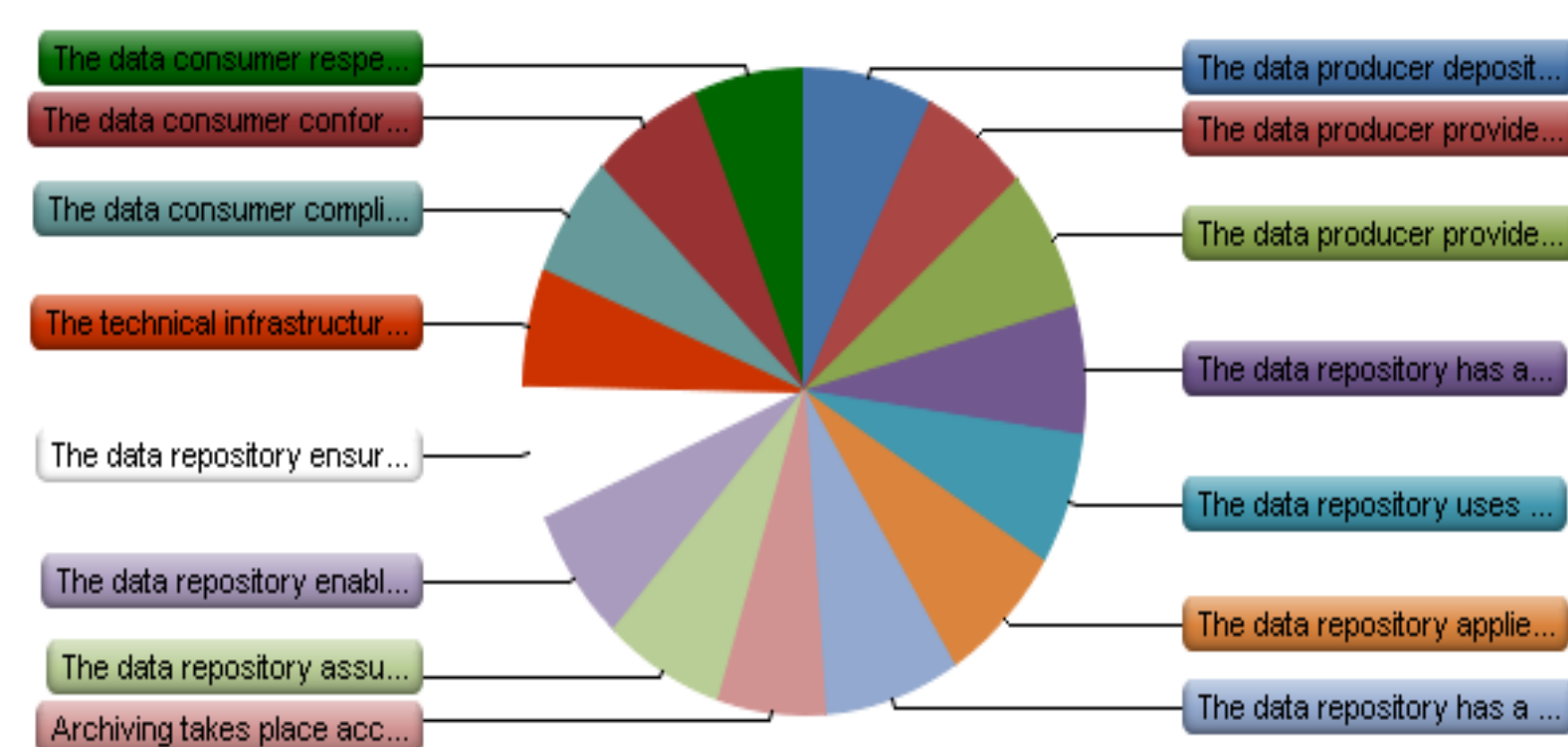


Fig. 3 – \*Data Seal of Approval Assessment Guidelines

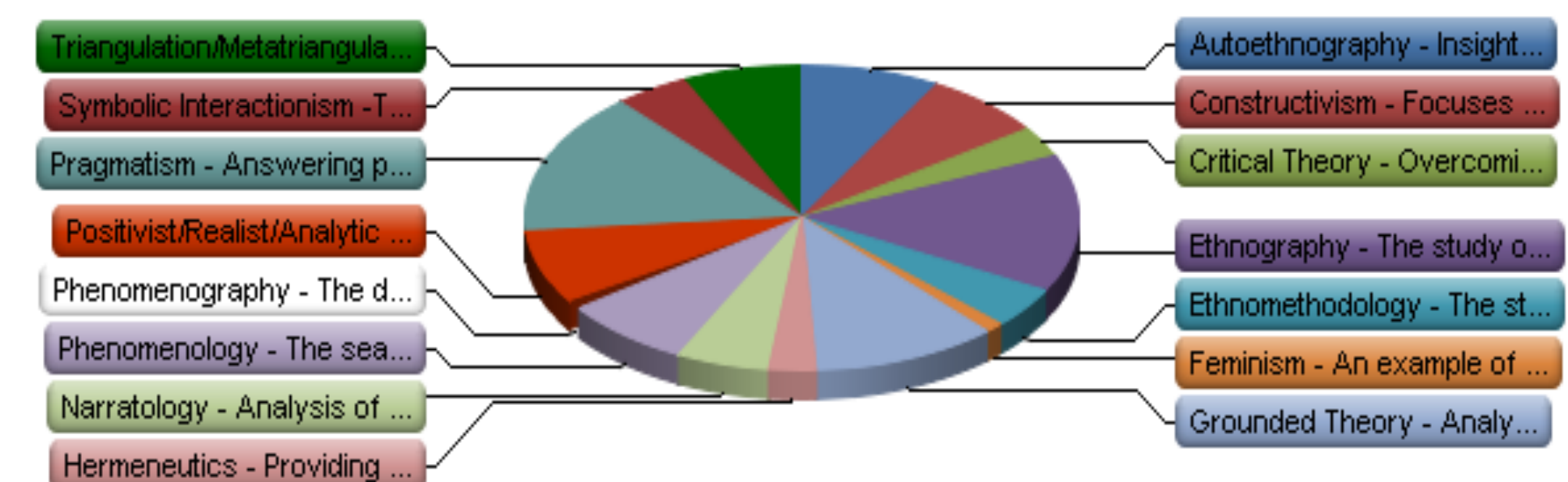


Fig. 4 – \*Theoretical frameworks for research in data management and curation services education

### II. Research Questions

1. What are some data/digital curation terminology issues?
2. Which elements of data management plans are important?
3. Which data seal of approval assessment guidelines are important?
4. What are some theoretical frameworks for research in data management and curation services education?

### III. Methodology

A purposive sample of professionals with expertise and/or interest in research data management and curation services was conducted with a 10 questions survey instrument developed using Qualtrics survey software application. Survey participants were selected from the researcher's past formal/informal and direct/indirect professional interactions from national & international conferences and professional list serves. The survey (HSC No. 2012.9198 ) was approved by FSU IRB on 11/2/2012, launched on 11/5/2012, and closed on 12/5/2012. The survey was started by 64 participants, completed by 53, and garnered an 83% completion rate.

### IV. Results

1. Fig. 1[n=56]: DaC=DC (23%); DaC≠ DC (55%); Neither (21%); DC=DP (14%); DC≠DP (60%); Neither (25%)
2. Fig. 2: Items 1, 3, 4, 5, 7, 8, 9, 12, 13, 16 ( ≥90%)
3. Fig. 3:Items 1, 3, 5, 6, 7, 9, 10, 11 ( ≥80%)
4. Fig. 4: Items 1, 2, 4, 7, 10, 12, 13, 15 ( ≥31%)

### V. Limitations of Study

The limitations of this research study are:

- Survey participant selection includes researcher bias
- Length of study was short (30 days) and launched during holiday season
- Survey participant bias
- Sample (n=64) is small; incompletes; response rate inconsistency across questions
- Study lacks generalizability

### VI. Significance of Study

The study contributes to literature on exploring stakeholders' understanding of differences in data management and curation services terminology along with support for more research in:

- Effective data management planning and curation
- Incorporating Data Seal of Approval Assessment Guidelines (DSA) into data repository development & implementation
- Interdisciplinary research and collaboration (100% at n=57)
- Encouraging best practices, standards, & evaluations (98% at n=57)

### VII. Conclusions

The study supports researcher's assumptions that:

1. Data curation, digital curation, and digital preservation are independent yet interrelated concepts [80% at n=56].
2. Several theoretical frameworks/perspectives for research in data management and curation services education are in practice (n=15).



## Data Management and Curation Services Opinion Survey Results for Q 7, 8, & 9

Fig. 2 – Survey Q. #8	Fig. 3 – Survey Q. #9	Fig. 4 – Survey Q. #7
*Elements of Data Management Plan ≥90%	**Data Seal of Approval Assessment Guidelines ≥80%	***Theoretical Frameworks/Perspectives ≥30%
1. Data description (47: 92%)	1. Research data in repository with sufficient access information (44: 90%)	1. Autoethnography (15: 36%)
2. Existing data (41: 80%)	2. Research data in recommended formats (37: 76%)	2. Constructivism (13: 31%)
3. Format (48: 94%)	3. Research data with metadata (42: 86%)	3. Critical Theory (6: 14%)
4. Metadata (48: 94%)	4. Data repository has explicit digital archiving mission (39: 78%)	4. Ethnography (27: 64%) – the study of the culture of a group.
5. Storage & backup (48: 94%)	5. Ensure legal regulations compliance and human subjects protection (39: 80%)	5. Ethnomethodology (8: 19%)
6. Security (45: 88%)	6. Documented processes & procedures for managing data storage (43: 88%)	6. Feminism (2: 5%)
7. Responsibility (47: 92%)	7. Long-term digital assets preservation plan (46: 94%)	7. Grounded Theory (20: 48%)
8. Intellectual property rights (47: 92%)	8. Archiving takes place according to workflows across data life cycle (36: 73%)	8. Hermeneutics (5: 12%)
9. Access and sharing (50: 98%)	9. Access and availability of the digital objects (41: 84%)	9. Narratology (10: 24%)
10. Audience (29: 57%)	10. Enables users to utilize and reference research data (40: 82%)	10. Phenomenology (14: 33%)
11. Selection and retention periods (43: 84%)	11. Ensure integrity of digital objects and the metadata (40: 82%)	11. Phenomenography (2: 5%)
12. Archiving and preservation (48: 94%)	12. Technical infrastructure supports archival standards like OAIS (34: 69%)	12. Positivist/Realist/Analytic Approaches (14: 33%)
13. Ethics and privacy (46: 90%)	13. Data consumer complies with access regulations (36: 73%)	13. Pragmatism (28: 67%) – answering practical questions that are not theory-based.
14. Budget (39: 76%)	14. Data consumer conforms to codes of conduct (38: 78%)	14. Symbolic Interactionism (8: 19%)
15. Data organization (44: 86%)	15. Data consumer respects applicable licenses (38: 78%)	15. Triangulation/Metatriangulation (13: 31%)
16. Quality assurance (46: 90%)		
17. Legal requirements (44: 86%)		

\*ICPSR. <http://www.icpsr.umich.edu/icpsrweb/content/datamanagement/dmp/elements.html>

\*\*DSA. <http://datasealofapproval.org/?q=node/35>

\*\*\*Patton, M. Q. (2002). Qualitative research and evaluation (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage Publications.