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Finding Needles in a Haystack: A Case Study of Text Mining the Corpus of 15 Academic Journals

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Finding Needles in a Haystack: A Case Study of Text Mining the Corpus of 15 Academic Journals

Tara Baillargeon, Eric Kowalik & Jennifer Cook Marquette University DLF 2019



Raynor Memorial Libraries



Aerial view of Marquette University's campus

Digital Scholarship Services

- Curriculum support
- Project consultation
- Workshops and programming
- Digital Scholarship Lab open collaborative space







Project Origins

2016 - Faculty member approached library

- American Counseling Association (ACA) journal articles
- Full-text, 17 year span

2017 – Library partners with research team
Use of "social class" & "socioeconomic status" in articles



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From *Steal Like an Artist* by Austin Kleon

Does Marquette Have It?

Library journal content access inconsistent

- Some through direct subscription
- Some through content aggregators
- Some were open access

Negotiating Access

Access to 6 Wiley Journals

- Negotiated limited access license agreement
- Restricted access for text data mining only
- Content must be deleted after project ended

Project Workflow



Gather Articles

CrossRef API to download full text PDFs of most journals.

- Bulk download articles from Marquette's aggregator.
 - Either ProQuest or EBSCOHost.

Convert Articles

• Convert PDF to XML using pdfx.

Convert text to lower case using dd.

Use now BBEdit to remove References section.

• Remove stop words, (i.e. class).

Generate Reports

- Python script searched XML files against keyword list
 - If keyword was found, pulled 150 characters before and after keyword
 - Separate report file was created
- Report files uploaded to research team Sharepoint site.



Iournal Counseling Outcome Research and Evaluation >

Original Articles

Latest Articles

A 17-Year Systematic Content Analysis of Social Class and Socioeconomic Status in **Two Counseling Journals**

Jennifer M. Cook 🔄, Madeline Clark 📵, Katharine Wojcik, Dhanya Nair, Tara Baillargeon & Eric Kowalik

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Abstract

G Select Language 🔻 Translator disclaimer

We conducted a qualitative, systematic content analysis of articles from 2 counseling journals (N = 636), Counselor Education and Supervision and Counseling and Values, to understand social class and socioeconomic status (SES) term usage and operationalization. Through PRISMA

Key Takeaways

• Librarians are an important value add.

• Embrace the anxiety, it will turn out okay!

Need understanding collaborators who #RespectTheProcess.

• Managerial support is vital.

Document, document, then document some more.



Come Join Us



https://github.com/MarquetteRML/text-mining-script