



University of Wisconsin-Extension

eXtension Fellowship Final Report – web version

Responding to the “Data Imperative” in Extension: Developing a National Online Qualitative Analysis and Analysis Software Learning Platform

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CONTEXT AND GOALS

Collecting large amounts of qualitative data is easier than ever – but analyzing them is a challenge. Extensions and other complex organizations are expected to use data when they develop their programs and services; they are also expected to ground their communications and reports to stakeholders in rigorous data analysis. UW-Extension responded to this imperative with the Data Jam Initiative, an innovative Evaluation Capacity framework that utilizes Qualitative Data Analysis Software. In Wisconsin, the UW Extension Data Jam Initiative has yielded close to 40 full training and workshop days in its first 12 months.

The eXtension Fellowship allowed me to assess the scalability of analysis-focused software and methods training for Extension professionals. I developed a working prototype of online materials and teaching modules focused on Extensions’ analysis of large qualitative datasets utilizing Qualitative Data Analysis Software.

This effort is specifically designed to enable Extension professionals and Extension Institutions to build capacity that allows them and their partners to analyze large to massive amounts of qualitative data on the national, regional, state and team level. This online platform is intended to initiate the national dissemination of a successful capacity building model developed at the University of Wisconsin - Cooperative Extension (Program Development & Evaluation Unit).

DEVELOPING THE DATA JAM TOOL KIT & WEBSITE

The eXtension Fellowship made it possible to further develop and share our curriculum and support materials with a nationwide Extension audience. First of all, the fellowship allowed me to plan and build a public website highlighting the concept of qualitative data jams (<http://fyi.uwex.edu/datajams>). I was able to curate and improve our existing curricular materials, to curate real-life examples from data jams, and to create a series of 13 instructional videos regarding data jam planning. I bundled all these materials into a searchable database. Currently the tool kit consists of over 30 tools, including planning materials, curricular materials, software guides, examples, and sample data.

The screenshot displays a web interface for a database of tools. At the top, there are three filter buttons: "Tool" with a plus sign, "Format" with a plus sign, and "Access" with a plus sign. Below the filters, the page number "1 - 12 / 33" is visible on the left, and navigation arrows are on the right. The main content area is a grid of 12 tool cards, arranged in 4 rows and 3 columns. Each card features a small icon, a title, a brief description, and a source attribution. The cards are categorized by "Planning & Curriculum", "MAXQDA", and "General".

Category	Title	Description	Source
Planning & Curriculum	Running a Data Jam – Step by Step: Planning and Organizational Tasks	Learn how to organize Data Jams in your institution, step by step.	LWEX Program Development & Evaluation Unit
	Running a Data Jam – Step by Step: Organization Systems & Software	Learn how to organize Data Jams in your institution, step by step.	LWEX Program Development & Evaluation Unit
	Running a Data Jam – Step by Step: Data Jam Schedule & Outline	Learn how to organize Data Jams in your institution, step by step. This document contains the modularized core Data Jam Curriculum	LWEX Program Development & Evaluation Unit
	Building Evaluation Capacity through Data Jams - Part 1	A 1-hour webinar on planning and organizing Data Jams.	LWEX Program Development & Evaluation Unit
	Building Evaluation Capacity through Data Jams - Part 2	A 1-hour webinar on planning and organizing Data Jams with a focus on software features in MAXQDA.	LWEX Program Development & Evaluation Unit
	Data Jam Evaluation Questions Sample	A sample evaluation form you can adopt to evaluate data jams.	LWEX Program Development & Evaluation Unit
MAXQDA	MAXQDA Data Import Guide	Learn what to look for when importing data in MAXQDA, and when setting up datasets.	LWEX Program Development & Evaluation Unit
	MAXQDA Sample Practice File	A sample file to play with.	LWEX Program Development & Evaluation Unit
	Importing Data From Qualtrics into MAXQDA	Learn how to seamlessly import data from Qualtrics into MAXQDA.	LWEX Program Development & Evaluation Unit
MAXQDA	Creating Random Data Samples in MAXQDA	Learn how to create random samples in a MAXQDA dataset	LWEX Program Development & Evaluation Unit
	Video: Basic Functions of QDA Software	The video below explores the functionality of qualitative data analysis software by distinguishing four main functions: Organization of Data, Annotation of Data, Searching of Data, and Display of Data.	Christian Schmalzer, squanemethodology.com
	MAXQDA Intro Tour Part 1	In this 2-minute video, Ellen introduces the four main display windows in MAXQDA.	LWEX Program Development & Evaluation Unit

Figure 1: Screenshot of the Data Jam Toolkit Database. (<https://fyi.uwex.edu/datajams>)

PILOTING THE IMPLEMENTATION OF DATA JAMS IN EXTENSION INSTITUTIONS

In collaboration with **Washington Extension**, Justin Smith (Washington Extension) and I co-hosted a Data Jam on the Pullman Campus on March 6 & 7. We developed a first prototype of a data jam designed to adjust machine learning processes to the desired outcomes of algorithm-based coding. Since this workshop involved not only the analysis of data, but also the feedback of data results to the algorithm developed by Smith, we



Figure 2: Data Jam in Washington State



Figure 3: Data Jam in Washington State

extended the workshop to two days. Results of this workshop and lessons learned will be shared by Smith and Schmieder at the 2017 NETC (National Extension Technology Community) Conference in June 2017.

In May, evaluators from **Minnesota Extension** were hosting two data jams (May 24 & 31). I supported the planning and execution of this data jam series as part of this fellowship. In addition to the upcoming online support during the data

jam, I have conducted one support session with Minnesota Extension, and have scheduled a 1-hour overview presentation for their evaluators at Minnesota Extension. The evaluation suggests that the team analysis techniques that we teach in Data Jams are highly relevant to these Extension evaluators.

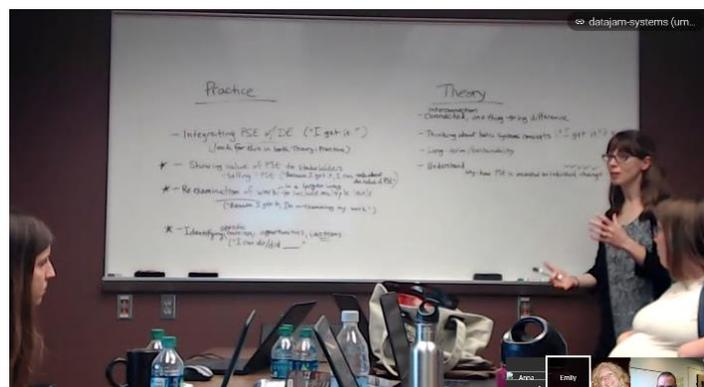


Figure 4: Data Jam in Minnesota State

The workshops with Washington and Minnesota colleagues allowed me to further assess which types of materials Extension professionals require when implementing data jams in their institutions. Most notably, it has become clear that general information of analytic workflows, as well as facilitation materials for group work processes are important for the success of Data Jams.

The data jams supported by the eExtension Fellowship were attended and audited by Extension colleagues from the states of Washington, Minnesota, Iowa, and Idaho.

DISSEMINATING THE DATA JAM INITIATIVE

Through the newly created Data Jam Initiative website (<http://fyi.uwex.edu/datajams>) , I was able to scope out interest regarding the use of qualitative software as a response to the Data Imperative. During the award period, 41 individuals from multiple Extension & non-Extension institutions signed up for the newsletter and expressed interest in being early adopters of the tool kit. Individuals affiliated with the following institutions expressed interest in participating as early adopters, or to receive Data Jam newsletters. Institutions who have received early access are marked in green.

<i>Extension (8)</i>
Ohio State University Extension
Oregon State University Extension Service
South Dakota State University Extension
University of California, Division of Agriculture & Natural Resources
University of Georgia Extension
University of Maryland Extension
University of Minnesota Extension
University of Wisconsin-Extension
[In addition, colleagues from Iowa & Utah Extensions, and eXtension have received access]
<i>Non-Extension (21)</i>
Age of Learning
Boğazici University
Consumer Centers
Health Canada
Millersville Community Church
Milwaukee College Access Project for Success
Nazarbayev University
Peach Payments
Prairie View A&M University
Region 10 Education Service Center
Robinson Evaluation
Southeast Arkansas Education Service Cooperative
SpringBoard21
Touro University
U.S. Agency for International Development
U.S. Government Accountability Office
UNESCO
United Nations
University of California, San Francisco
University of Michigan Library
University of the Sciences

PUBLICATIONS & TALKS

Through the fellowship, I was able to reach a broader Extension audience, and thereby was able to raise awareness of a cutting-edge research technology that is not yet systematically used in Extension.

Two hour-long webinar recordings, both as full-length Youtube videos, and as a suite of 13 shorter video sessions. Videos are available via the Tool Kit Site and via Christian Schmieder's UW-Cooperative Extension Youtube channel	http://fyi.uwex.edu/datajams/data-jam-toolkit/ https://www.youtube.com/channel/UCIMSKpN2baPZicfbflyU74Q
Blog Post on LinkedIn Pulse promoting the eXtension Data Jam webinar materials	https://www.linkedin.com/pulse/data-jams-tool-building-evaluation-capacity-culture-schmieder
Blog Post on my personal website (www.squaremethodology.com) promoting the eXtension Data Jam webinar materials	http://squaremethodology.com/blog/2017/2/5/building-evaluation-capacity-with-data-jams
Three blog posts on the Data Jam Initiative on the eXtension Blog site	https://extension.org/2017/03/28/datajams_datachallenge/ https://extension.org/2017/04/04/datajams_softwarecapacity/ https://extension.org/2017/04/06/datajams_institutionaloutcomes/
A book chapter exemplifying the Data Jam model as a consulting and training approach will be published in a book on Software Pedagogy (in press, Fall 2017)	http://www.fivelevelqda.com/article/10299-the-five-level-qda-method-books-are-in-production
Professional Development Workshop on Data Jams at the American Educational Research Association's Annual Meeting in San Antonio, TX. Held on April 28, 2017 in collaboration with Ellen Bechtol.	
Conference presentation on Data Jam Initiative at International Congress of Qualitative Inquiry, May 19-20, Urbana, IL.	
Conference presentation on Data Jam Initiative at Discourse Analysis Conference, May 21-23 in Bloomington, IN.	
A podcast talk on the Data Jam Initiative was featured on Bob Bertsch's "Working Differently in Extension" podcast ()	https://soundcloud.com/workingdifferently/christian-schmieder-episode-108
Final Report posted on eXtension fellowship site. The report is a version of this report, but in abbreviated form.	https://extension.org/christian-schmieder/

UPCOMING

- **Conference presentation** on "Big Data" Data Jam for the National Extension Technology Community (NETC) Conference, June 12-15, 2017 in Savannah, GA (in collaboration with Justin Smith)
- **Journal of Extension Article.** In addition to the presentations, I am currently finishing a JoE article on the Data Jam Initiative in collaboration with my colleagues Ellen Bechtol and Kyrie Caldwell (submitted, under review).

SUCSESSES

The creation of the prototype toolkit and website has been successful. Through the fellowship I worked with two Extension institutions who were interested in running data jams, and a broad variety of institutions has indicated interest in the tool kit (see above). Based on working with Extension professionals in Minnesota and Washington, interest in additional data jams and teaching materials for the tool kit has been confirmed.

In addition to this, non-profits and higher education institutions have contacted me directly with requests for train-the-trainer sessions. A professional development course on planning Data Jams at the American Educational Research Association's annual conference was well-attended and included faculty and educators from higher education institutions in Mexico, South Africa, Italy and the United States.

BARRIERS

The Data Jam Initiative is an advanced Evaluation Capacity Building framework. As such, it responds to complex issues that are deeply rooted in organizational culture, and thus in organizational complexity. The initiative does not constitute an easy fix, because the Data Challenge is not something that *can* be easily 'fixed'. As a complex, holistic response to a complex and holistic issue, the initiative itself relies on institutional buy-in. In order to work, Data Jams cannot be one-offs. This reliance on commitment, in addition to the technical commitment to use software creates, in my opinion a major barrier. The prototype of the Data Jam Tool Kit cannot break this barrier – it is an informational resource for executing Data Jams. As such it can help Extension professionals to pilot and 'try on' Data Jams in order to start creating conversations of larger-scale implementation. However, I believe that a suite of materials for leadership would be a good addition to the tool kit, in order to help colleagues start and facilitate discussions around formal implementation of Data Jams. I have started to address this issue by tailoring my eXtension blog posts more towards a leadership audience.

While the interest in Data Jams seems to span multiple institutions, the effort itself may be daunting due to its complexity, and due to its longitudinal approach to changing evaluation culture. The Data Jams with specialists from Washington, Idaho, Iowa and Minnesota in the past month suggest that the Data Jam format may be of more direct value to Evaluators in Extensions, rather than a general audience of colleagues. Based on this experience, next development and dissemination steps will include a more dedicated focus of the tool kit to Extension Evaluators.

NEXT DEVELOPMENT STEPS

While the Tool Kit features on-demand information, I believe that a formal online class or online curriculum would support Extension professionals much better in adapting data jams than a stand-alone tool kit can. The fact that the webinars were well-attended suggest that a more structured approach is appreciated by colleagues. The materials created so far constitute a solid basis for the creation of an online

class on Data Jams. If additional funding is available, such a class could be combined with online and in-person training and consulting sessions, as well as with trainer certifications.

As interest in Data Jams arises from a diverse group of organizations (non-profit, scholarly, Extension), we will further refine the Data Jam Curriculum. If additional funding is available, we will build a support structure as well as a formal online class on Data Jams which would include basics of software-based qualitative research, curriculum adaptation, organizational tasks, and consulting strategies.