Using Qualitative Data Analysis tools to create a virtual tapestry of your organization’s UX Research
Agenda

1. Overview of Qualitative Data Analysis Software
2. Why consider this tool for UX Research?
3. Case Study: LDS Global Research
4. Demonstration of key features
Overview of QDAS
QDAS lets you capture the complete picture

- UX Researchers collect information from end users to identify patterns and trends within the data
Some of this data is quantitative

- How many tasks did the user complete?
- What was their System Usability Scale Score?
- How many site visitors completed the purchase?

Quantitative data is easy to organize, segment and examine for patterns and trends.
However, most UX research is qualitative

Qualitative data can provide a richer understanding of the complexity inherent in a given situation

- What was the user’s emotional reaction to the feature?
- Why don’t they use the app?
- How does the layout of their home affect how they use the product?
Qualitative Data Analysis Software (QDAS)

- Assists you in organizing qualitative data and match it against quantitative data
- Incorporates many digital formats (e.g., photos, videos, transcripts, surveys, tweets)
- Lets you look at the data through different lenses
- Simplifies storage and access to project data
- Allows you to review the data and additional waves
- Facilitates teamwork
- Incorporates visualizations that facilitate interpretations
Why you should consider QDAS for UX Research
Let’s start with a hypothetical project

Customer Journey Map

Prosumer Photographer Journey Map

<table>
<thead>
<tr>
<th>Stage</th>
<th>Rank Beginner</th>
<th>Master of the Basics</th>
<th>Passionate Hobbyist</th>
<th>Prosumer/Photographer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activities</strong></td>
<td></td>
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<tr>
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</tr>
<tr>
<td><strong>Questions</strong></td>
<td>How do I turn this on?</td>
<td>How can I shoot in different lighting?</td>
<td>How can I take pictures in very low lighting?</td>
<td>How can I capture a precise moment?</td>
</tr>
<tr>
<td></td>
<td>How do I take a picture?</td>
<td>How can I create a good group shot?</td>
<td>What is the best way to shoot pictures an event?</td>
<td>Can I capture rapid-fire images?</td>
</tr>
<tr>
<td></td>
<td>How do I get the pictures I took?</td>
<td>Do I need a different lenses for people vs. landscapes?</td>
<td>How can I add creative effects to an image?</td>
<td>How can I incorporate elaborate lighting?</td>
</tr>
<tr>
<td></td>
<td>What do all these knobs mean?</td>
<td></td>
<td>Which lens is best for landscape images?</td>
<td>How can I differentiate my work?</td>
</tr>
<tr>
<td><strong>Pain Points</strong></td>
<td>Overwhelmed by so many settings</td>
<td>Pictures look different from expected</td>
<td>Want precise focus</td>
<td>Wants more detail in the shadows</td>
</tr>
<tr>
<td></td>
<td>Pictures are under exposed</td>
<td>Lighting is off</td>
<td>Wish to have more control over lighting</td>
<td>Emotional impact is less than expected</td>
</tr>
<tr>
<td></td>
<td>Don’t know what to do with images</td>
<td>People in pictures don’t look their best</td>
<td>Prints look different from image</td>
<td>Subject has the wrong expression</td>
</tr>
<tr>
<td><strong>Feelings</strong></td>
<td></td>
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</table>

**Opportunities**

- Offer an automatic mode
- Provide a “Get Started” app
- Launch online community for beginning photographers
- Provide multi-channel teaching that includes podcasts
- Develop lens optimized for landscape vs. portrait photos
- Adapt to a wide range of lighting conditions
- Develop branded camera clubs and travel safaris
- Create advanced technology with greater dynamic range
- Create a lens for extreme close-ups
- Develop invitation-only export online communities
- Create a line of photo accessories for prosumer
- Add registration lines to viewfinder to compose shot
The insights to build a journey map comes from many sources:

- Shop-a-Longs
- Customer Support
- Surveys
- Focus Groups
- Usability Studies
- Interviews
The data is stored in different digital formats:

- Transcripts
- Reports
- Video
- Photographs
- Spreadsheets
- Digital and scanned images
- Audio files
- Social media posts
- Web pages
- Online magazine articles
Collecting, organizing and making sense of all this data on paper is a real bear.
And you need to ramp up if you want to use the research on other projects.
We use a lot of paper and post-its to make sense of the data
However, paper often suffers a sad fate as researchers move on
Qualitative Data Analysis Software (QDAS) to the rescue!
QDAS supports UX research by gathering data in one place.
– and allowing you to conduct analysis across data types and sources

TAGGED (CODED) PHOTO FROM A SHOP-A-LONG
Making your insights and analysis permanent and reusable

So they become part of organizational IP
Case Study
Latter Day Saints UX Research on Educational Media
• Laura Dahl and her LDS team wanted to standardize the media set top box that congregations worldwide use to play educational material
• They settled on one model and needed to make sure that everyone could easily use the technology
Their research was global

**COUNTRIES THEY VISITED**

- Utah
- Florida
- Dominican Republic
- Brazil
- Ghana
- The Philippines
Key research questions/goals

- Will the LDS congregations use the set top box to deliver religious instruction to their congregations?
- How is the set top box used in different cultures and contexts?
- What barriers prevent parishes from being able to use the set top boxes?
- How can the design be modified to allow for universal usage?

Focus group with LDS Church members in Ghana
They brought the data into NVivo

- Ethnographic data from site visits, interviews, focus groups, observations of parishioners setting up and using the device, surveys
- Transcripts, photos, video from studies occurring simultaneously throughout the world
- Notes and debrief discussions of LDS staff who conducted the ethnographies
- Pictures of the whiteboards after the debrief discussions

**CODED TRANSCRIPT**
NVivo tools the LDS team used

- Coding (tagging data)
- Classification sheets (demographics)
- Notes (reflections)
- Cases (units, e.g. people, organizations)
- Matrix coding queries (cross-tabs)
- Word trees (visualization)
- Word association (visualization)
They coded primary research as well as team debrief discussions.

Debrief notes were organized into NVIVO cases, organized by location.
Highlights of lessons learned

- As a result of using NVivo the team was able to do the analysis in two days vs. several weeks.
- While writing the report it was easy for them to draw from direct experience.
- They were able to cross-check team debrief against what the data said.
- Their process allowed the team to collaborate on codes. They created a code book to help them structure and manage their research which can be reused in future projects.
Popular QDAS Vendors

- f4Analyse  [https://www.audiotranskription.de/english/f4-analyse](https://www.audiotranskription.de/english/f4-analyse)
- QDA Miner  [https://provalisresearch.com/](https://provalisresearch.com/)
- Quirkos  [https://www.quirkos.com/](https://www.quirkos.com/)
- Transana  [https://transana.com/](https://transana.com/)
QDAS Tools to Assist in Making Sense of Your Data
Data can be easily coded (tagged)
... or explored with text mining tools

Word Tree from the Text Search Query

Word Frequency/Word Cloud
Codes can be structured and restructured
... and queried

Matrix Coding

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<th></th>
<th>A: store</th>
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<th>D: customer service - post ...</th>
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<td>Discovery</td>
<td>7</td>
<td>3</td>
<td>18</td>
<td></td>
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<td>2</td>
<td>Evaluation</td>
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<td>2</td>
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<tr>
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<td>8</td>
<td>1</td>
<td>3</td>
<td></td>
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<tr>
<td>4</td>
<td>Product Use</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Bonding with Product</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Camera Upgrade</td>
<td>1</td>
<td>2</td>
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Cross Tab

![Cross Tab](image-url)
Then drill down back in the data

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with taking pictures of landscapes. After a few years of doing this I started to make blank greeting cards with my pictures on the front and sell them in local gift shops. I live in Salem which gets a lot of tourists because of the witch thing so I would take pictures of famous historical spots connected to the witch craze and these would be a big seller. Soon I set up my own website selling greeting cards with photos from Salem and within a year I was making so much money I was able to quit my job.

Reference 1 - 6.88% Coverage

- instructional videos produced by Canon, the manufacturer of my camera. Because I was retired my days were free and I had plenty of time on my hands. For me, it was trial and error and hands on - that is how I learn. My interest just kind of pulled me along I don’t know why. I am not very technical so it took me a few months to learn the basics but once I did I was off to the races and never looked back.

Reference 2 - 3.46% Coverage

- From there I took many adult education classes where I learned more about how to control the camera and about lighting. Once I had a firm grasp of the technology the camera became an extension of myself.

Reference 3 - 11.14% Coverage
Find patterns in thousands of social media posts
And your usability data
Organize your data to write

Framework Matrix
Questions – Thank You!
Acknowledgements

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• **Cindi Jacobs** Director of Admissions, Bard College at Simon’s Rock
• **Max Aubrey** Illustrator and game designer, Max-Aubrey-Art.com

Supplementary Materials You can find a bibliography, list of QDAS vendor Web sites and other useful info at [https://bit.ly/2r06ylX](https://bit.ly/2r06ylX)
About your presenters

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