By Kay Corry Aubrey
■ Usability Resources Inc.
■ Bedford, MA
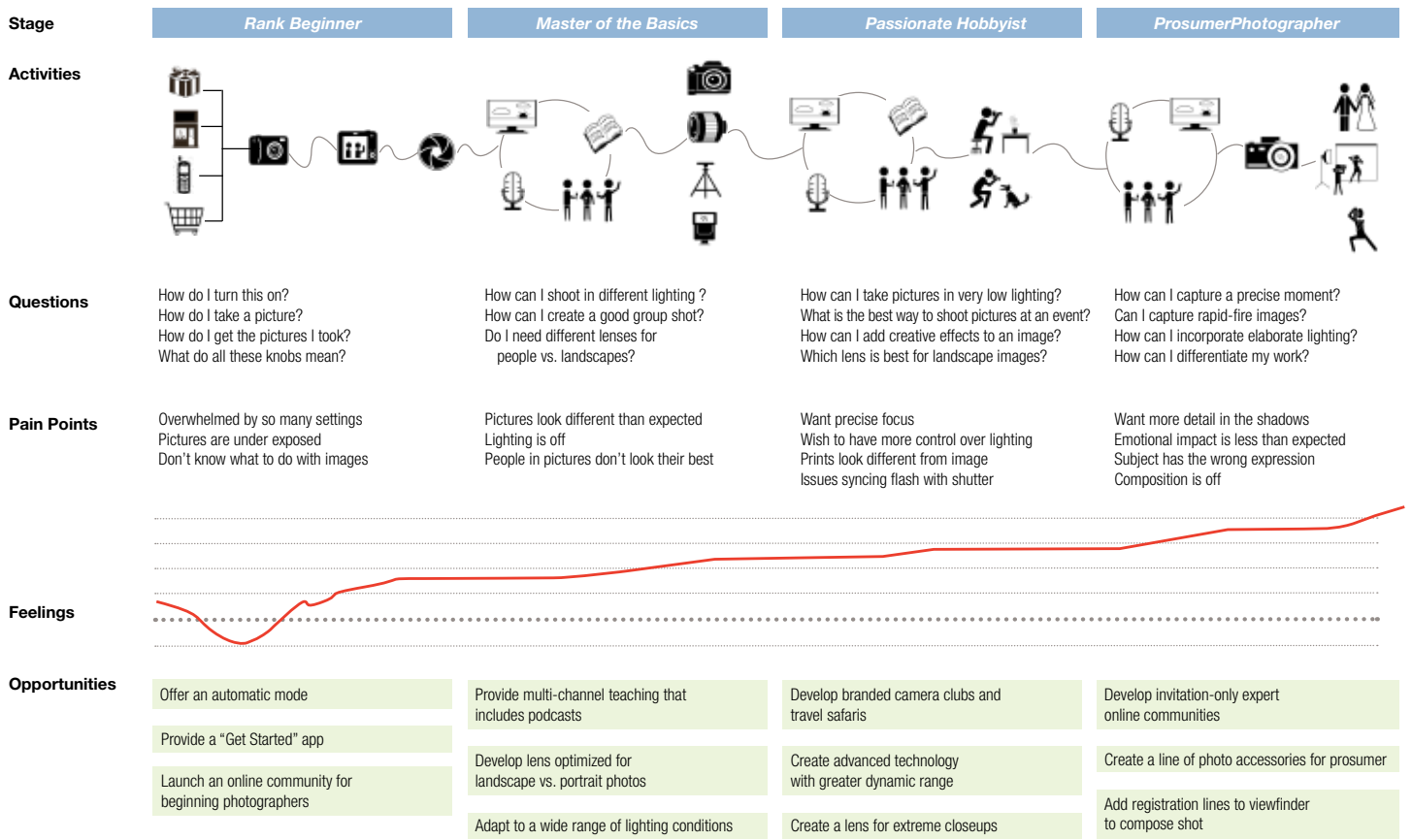■ Kay@UsabilityResources.net

USING QUALITATIVE DATA
ANALYSIS TOOLS TO MANAGE CUSTOMER JOURNEY MAP RESEARCH

Attribution: *This article is based on a recent webinar Cynthia Jacobs and I gave to the AMA on how to use qualitative data analysis software to build a customer journey map (April 2016). At the time of our presentation, Cynthia managed the training and research consultancy for the Americas for QSR. Cynthia can be reached at jacobs.cynthia.w@gmail.com.*

As qualitative researchers, we often need to mine for insights through mountains of unstructured digital data such as transcripts, videos, photographs, web analytics, and social media posts. Though many of us might enjoy the analysis portion of a project, this phase can be very time consuming. In this article I am going to introduce you to game-changing tools that can greatly improve your efficiency with data analysis and synthesis, once you get the hang of it. The technology is called qualitative data analysis software (QDA), and I am going to demonstrate how it works by showing how you might leverage it in a real project—building a customer journey map.

FIG. 1 – PROSUMER PHOTOGRAPHER'S CUSTOMER JOURNEY MAP

Stage	Rank Beginner	Master of the Basics	Passionate Hobbyist	ProsumerPhotographer
Activities				
Questions	How do I turn this on? How do I take a picture? How do I get the pictures I took? What do all these knobs mean?	How can I shoot in different lighting ? How can I create a good group shot? Do I need different lenses for people vs. landscapes?	How can I take pictures in very low lighting? What is the best way to shoot pictures at an event? How can I add creative effects to an image? Which lens is best for landscape images?	How can I capture a precise moment? Can I capture rapid-fire images? How can I incorporate elaborate lighting? How can I differentiate my work?
Pain Points	Overwhelmed by so many settings Pictures are under exposed Don't know what to do with images	Pictures look different than expected Lighting is off People in pictures don't look their best	Want precise focus Wish to have more control over lighting Prints look different from image Issues syncing flash with shutter	Want more detail in the shadows Emotional impact is less than expected Subject has the wrong expression Composition is off
Feelings				
Opportunities	Offer an automatic mode / Provide a "Get Started" app / Launch an 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 closeups	Develop invitation-only expert online communities / Create a line of photo accessories for prosumer / Add registration lines to viewfinder to compose shot

A customer journey map is a visualization that shows how a particular type of customer interacts with an organization over their life span. The map lays out the customer's evolving relationship with the organization and traces the "touchpoints" the person uses to interact with the organization along their journey.

In Figure 1, is a simplified example of a customer journey map for a hypothetical digital camera manufacturer. It illustrates the prosumer photographer's journey from the day they receive their first camera to the point where they become an expert. The map traces the person's growth from rank beginner through master of the basics to passionate hobbyist to prosumer photographer where the individual could actually be making money off their skill. At each stage the customer listens to company-sponsored podcasts, watches video tutorials, reads magazines, and attends user events targeted toward people at their level. As the customer's knowledge of photography increases, they upgrade their equipment, experience particular pain-points and feelings, and present new opportunities for increased sales.

While each journey map is unique, they all have one thing in common: in order to make them accurate, rich and useful, we need to collect, analyze and combine research data from many different sources—market research, customer support, diary studies, social media, sales results, usability, and industry research.

For the purpose of this demonstration, I'm going to use NVivo 11 Pro for Windows as the example software, though most qualitative data analysis tools offer similar features.

We start the process by creating a project within NVivo and importing the files we want to include in our analysis. For the customer journey map research, we'll use focus group and interview transcripts, videos, shopalong photographs, field notes, survey results, demographic data from participant recruiting spreadsheets, and social media posts.

Once we've imported all the material, we code it by highlighting bits of informa-

"Coding is the heart and soul of the process because this is where we identify themes and relationships across the entire body of research."

"Luckily, coding is quick and intuitive because it parallels how we might mark up printouts of our research results with a highlighter and sticky notes."

tion and assigning tags. In NVivo, each code is called a "node" and we can organize these nodes into a multi-level outline. Coding allows us to unify and structure the information, regardless of source, into common themes that we can later query.

Luckily, coding is quick and intuitive because it is similar to how we might mark up printouts of our results with a highlighter and sticky notes in the physical world. Coding is the heart and soul of the process because this is where we identify themes and relationships across the entire body of research.

To analyze the data for our customer journey map project, we've created a multi-level structure with Touchpoints, Stages, and Experiences nodes at the top.

FIG. 2 – MULTI-LEVEL CODING SCHEME
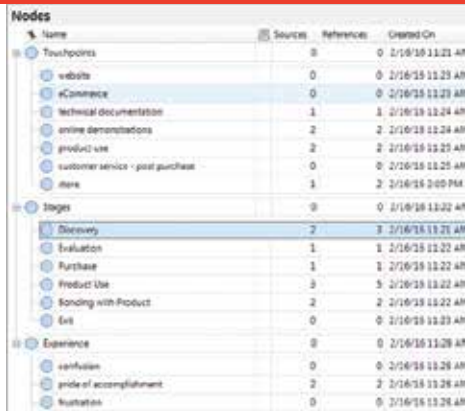
Once we've tagged and coded the files in our project, we can run queries against it by theme/node. So, for example, we can query across all media types to find out where customers are frustrated by product use or to see how customers initially learn about digital photography. Results from our queries look across all sources within the project lending greater depth, validity, and interest to our findings (Figure 3).

FIG. 3 – QUERY RESULTS BONDING WITH PRODUCT

|	A : store	B : website	C : product use	D : customer service - post …	E : techni
1 : Discovery	7	3	18	7	
2 : Evaluation	2	2	0	2	
3 : Purchase	8	1	3	1	
4 : Product Use	2	1	5	5	
5 : Bonding with Product	3	2	6	2	
6 : Camera Upgrade	1	2	6	6	

Here are some other ways we can use QDA software to gain deeper insights into the prosumer's development. We could explore the words photographers use at each stage by doing a text analysis or word cloud from interview transcripts.

FIG. 4 – WORD CLOUD
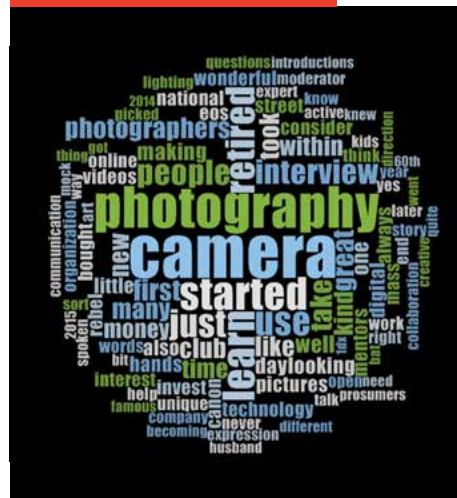
We could detect behavior patterns at the point of purchase as customers buy different types of equipment (Figure 6).

FIG. 5 – TEXT ANALYSIS
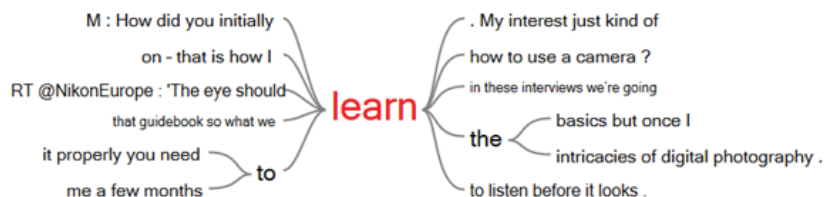
Another option is to highlight selected results from usability studies (Figure 7), or we could find patterns in customers' social media posts across geographies (Figure 8).

It's quite likely that, as we learn more about the prosumer photographer space, our hypothesis will evolve, but this is no problem because we can go back into the project and recode and reorganize the nodes.

QDA software has been around for decades, so well-established products have deep and rich feature sets that can take a long time to master. I hope in this article I've shown you the value you can get from this type of technology even from knowing just a few basic things. ◢

Popular Qualitative Data Analysis Tools

- Atas.ti
- Dedoose
- MaxQDA
- NVIVO
- Quirkos
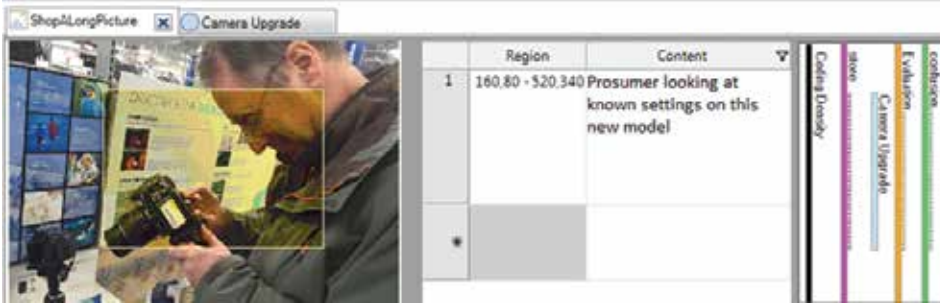
FIG. 6 – PHOTO FROM SHOPALONG
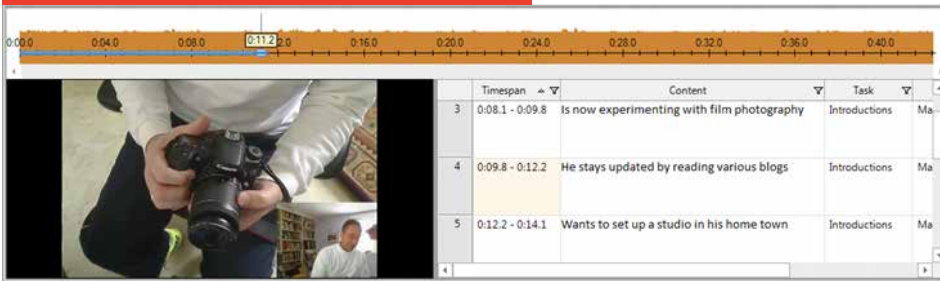

FIG. 7 – RESULTS FROM USABILITY STUDY

FIG. 8 – FIND PATTERNS IN SOCIAL MEDIA

If you'd like to learn more about this topic

QUALITATIVE DATA ANALYSIS

- *The Coding Manual for Qualitative Researchers, 2nd edition* by Johnny Saldaña , Sage Publications, 2013
- *Qualitative Data Analysis with NVivo* by Pat Bazeley & Kristi Jackson, Sage Publications, 2013

JOURNEY MAPPING

- *Mapping Experiences: a Guide to Creating Value through Journeys, Blueprints, and Diagrams* by James Kalbach, O'Reilly Media (May 2016)
- *Service Design: from Insight to Implementation* by Andy Polaine, Ben Reason, and Lavrans Løvlie, Rosenfeld Media, 2013
- Adaptive Path's Guide to Experience Mapping (free) https://adaptivepath.s3. amazonaws.com/apguide/download/ Adaptive_Paths_Guide_to_Experience_ Mapping.pdf