xDesign Metrics Inc.
July, 2017

EzConjoint™ - Pharmaceuticals

Disclaimer...

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CASE STUDY: Pharma Company

Research Background

The Drug-X Brand Team would like to identify an optimal message for the launch campaign of Drug-X.

THE TEAM has indicated that up to 6 categories may be used in this research with 2-9 messages in each concept; with up to 60 concepts in total.

Research Objectives

A Concept Model built to uncover answers to such questions as:

What messages will drive the prescription of Drug-X?

What messages will attract qualified patients to participate in the clinical trials?

How should they be communicated?

Survey Deployment

Participants take surveys remotely via, field sites, online or in person.

EzConjoint™ is flexible to be deployed anywhere around the globe in secs.
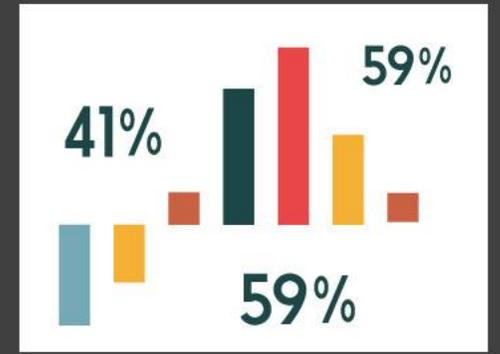
Output & Analysis

Data is collected virtually and analyzed.

Marketing tools are then created from the analyzed response to create a tailored made marketing message.

DEMO STUDY: Drug-X Positioning Optimization
Background

COMPANY-X develops, manufactures and sells branded forms of ethical products. These products require a physician's prescription that addresses a wide range of illnesses. COMPANY-X is preparing to launch Drug-X, a cancer drug (currently marketed principally in the United States and Western and Eastern Europe) in Sub-Saharan African Market beginning 2016. Prior to the launch COMPANY-X would like to better understand the following:

✓ Diagnosis and referral patterns of cancer patients in Ghana, Nigeria, Cote d'Ivoire, Kenya, Senegal and Tanzania etc.
✓ Current treatments and unmet needs
✓ Physician impressions and potential uptake of Drug-X

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DEMO STUDY: Drug-X Positioning Optimization
Research Objectives

With this launch COMPANY-X is hoping to occupy a unique position in the marketplace being the preferred provider of Breast Cancer drug. One challenge becomes maximizing the brand as well as franchise sales.

The company is interested in developing messaging communicating key brand and drugs attributes to target qualified respondents for clinical trial and physicians that will motivate them to write prescriptions for the cancer drug, thus driving volume sales.

In sum, COMPANY-X would like to uncover answers to the following questions:

- ✓ *What messages will drive the prescription of Drug-X?*
- ✓ *What messages will attract qualified patients to participate in the clinical trials?*
- ✓ *How should they be communicated?*
- ✓ *How do messages differ across physician types?*

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DEMO STUDY: Drug-X Positioning Optimization
Methodology

IDEATION PROCESS

FlexDesign™ messaging, an advance market research conjoint-based technique, which allows the testing of many different statements or phrases that are called elements is used.

Elements are stand-alone pieces of information (attributes) that communicate product attributes and descriptors. Elements that are related are arranged in buckets called categories

For this research demo, a total of **60 concept screens** were developed from 25 elements (ideas/messages) and grouped into 6 categories.

Category	# of Elements
Product Description	3
Insights	3
Benefits	9
Safety	2
Administration & Dosing	4
Pricing	4
Total # of Elements:	**25**

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DEMO STUDY: Drug-X Positioning Optimization
Key Terms Overview

What Is a <u>Concept</u>?
Consumers/Respondents react to "concepts" comprised of systematically varied elements from different categories. Every combination is unique for each concept, so that if your design is for 100 concepts, there will be a total of 100 unique concepts. In EzConjoint™ concept modeling, every screen a respondent sees represents a concept.

What Is <u>Category (Attribute)</u>?
Categories are a nice place to start when organizing elements. Think of categories as different files in a filing cabinet, organizing or grouping similar statements (elements) in one place. Categories aid our conceptualization process during stimuli (elements) creation. They are the building blocks for the design of EzConjoint™ concepts.

What Is An <u>Element (level)</u> List?
An element list is an "information bank" or constituent part. The list comprises of statements describing the characteristics and benefits of a product, service or idea being investigated. The list should tie back to the objectives of the study.
It is the single most important component of a project. Well thought out elements, covering a wide range of ideas provide a strong foundation for a successful study

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Messages ..Product description, Indication & Clinical Use and Benefits

Category 1: Product Description (PD)

1. Drug-X is a humanized IgG1 monoclonal antibody that selectively binds with high affinity to the extracellular domain of the human pidermal growth factor receptor 2 proteins, HER2 / Image 1

2. Drug-X, a type of targeted immunotherapy, when added to ATTRIBUTE-Y and chemotherapy has been shown recently to extend the lives of patients with HER2-positive metastatic breast cancer (MBC) by 15.7 months / Image 2

3. Drug-X is a recombinant humanized monoclonal antibody based upon the human IgG1(κ) framework sequence and is a first in class human epidermal growth factor receptor 2 (HER) dimerization inhibitor/ Image 3

Category 2: Indication and Clinical Use (IN)

1. Drug-X Indicated for gastroesophageal junction adenocarcinoma, who have not received prior treatment for metastatic disease

2. Drug-X is indicated in combination with ATTRIBUTE-Y and docetaxel for the treatment of patients with HER2-positive metastatic breast cancer who have not received prior anti-HER2 therapy or chemotherapy for metastatic disease

3. Drug-X® is approved for use in combination with ATTRIBUTE-Y and docetaxel in people who have HER2-positive breast cancer that has spread to different parts of the body (metastatic) and who have not received anti-HER2 therapy or chemotherapy for metastatic breast cancer

Category 3: Benefits (BN)

1. Drug-X Directly target cell expressing tumor, limiting systemic exposure

2. Over half of the women with Her2+ metastatic breast cancer who received all three drugs (Drug-X, ATTRIBUTE-Y and chemotherapy) lived for over 4.5 years.

3. Adding Drug-X to treatment with ATTRIBUTE-Y and chemotherapy resulted in the longest survival observed to date in a clinical study of people with HER2-positive metastatic breast cancer

4. A diagnosis of HER2-positive metastatic breast cancer can be overwhelming. Your healthcare team may have given you a lot of new information to understand. If you've been prescribed Drug-X as part of your treatment, then you've come to the right place to start learning more

5. Adding Drug-X to ATTRIBUTE-Y and docetaxel increased the time that people lived without their cancer growing or spreading by an average of 50%, compared with people who took ATTRIBUTE-Y and docetaxel alone **Category 3: Taste/Flavor**

6. On average, people who were given Drug-X, ATTRIBUTE-Y, and docetaxel lived longer than people given only ATTRIBUTE-Y and docetaxel

7. 80% of people taking the Drug-X combination had their tumors shrink, compared with 69% of people taking ATTRIBUTE-Y and docetaxel alone

8. People who had their tumors shrink maintained this response, on average, for 62% longer on the Drug-X combination compared with people taking only ATTRIBUTE-Y and docetaxel (20.2 months vs 12.5 months)

9. Drug-X is a targeted therapy used as part of a first-line HER2-positive metastatic breast cancer treatment plan. You should know that this treatment plan includes ATTRIBUTE-Y and docetaxel, a type of chemotherapy. Drug-X and ATTRIBUTE-Y both target HER2 but are believed to work in complementary ways. The combination may increase death of cancer cells

Messages ..Safety, Administration & Dosing and Price

Category 4: Safety (SF)

1. Side effects are manageable with symptomatic treatment

2. Infusion reactions and pulmonary toxicity rare and resolved with treatment

Category 5: Administration and dosing (AD)

1. Initial dose of 4 mg/kg as an intravenous infusion over 90 minutes

2. Drug-X therapy should only be administered under the supervision of a health professional experienced in the treatment of cancer clients

3. Drug-X must be diluted by a health professional 1 and administered as an intravenous infusion

4. Initial dose of Drug-X is 840 mg administered as a 60 minute intravenous infusion, followed every 3 weeks thereafter by a dose of 420 mg inistered over a period of 30 to 60 minutes

Category 6: Price (PR)

1. Price is similar to standard of care (SOC) Chemotherapy regimen

2. Price is slightly higher than current SOC treatment

3. Price is at a 31% premium of existing gold standard treatment

4. Price is in line with other recent oncologics that have demonstrated an improvement in progression-free survival or overall survival

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THE RESEARCH PLATFORM: EzConjoint.com

Preview Live Demo Link: http://author.ezconjoint.com/IdeaSpring/preview.aspx?_p=2078&_l=1
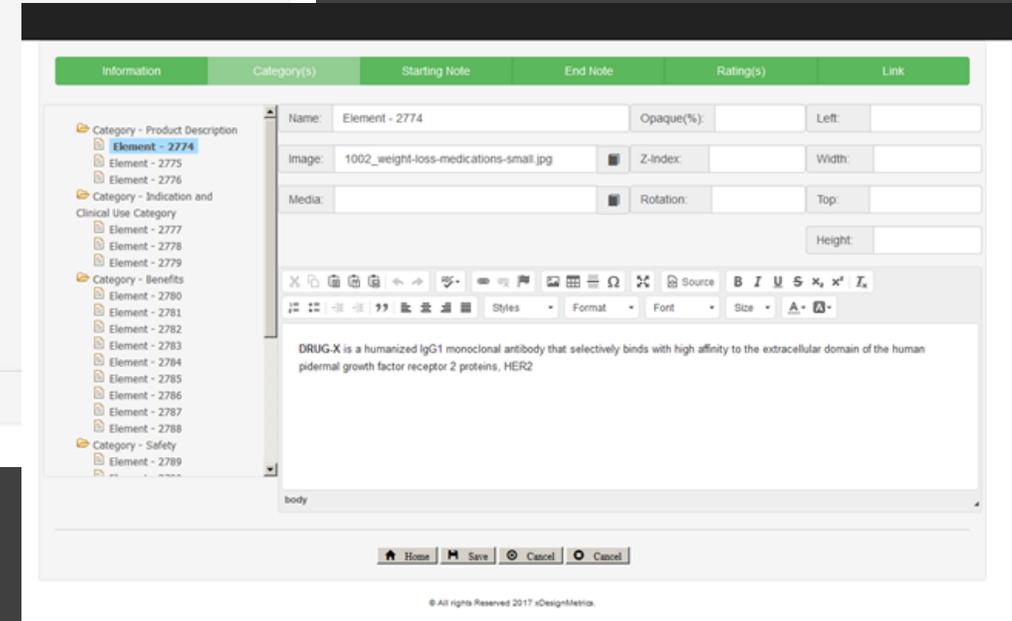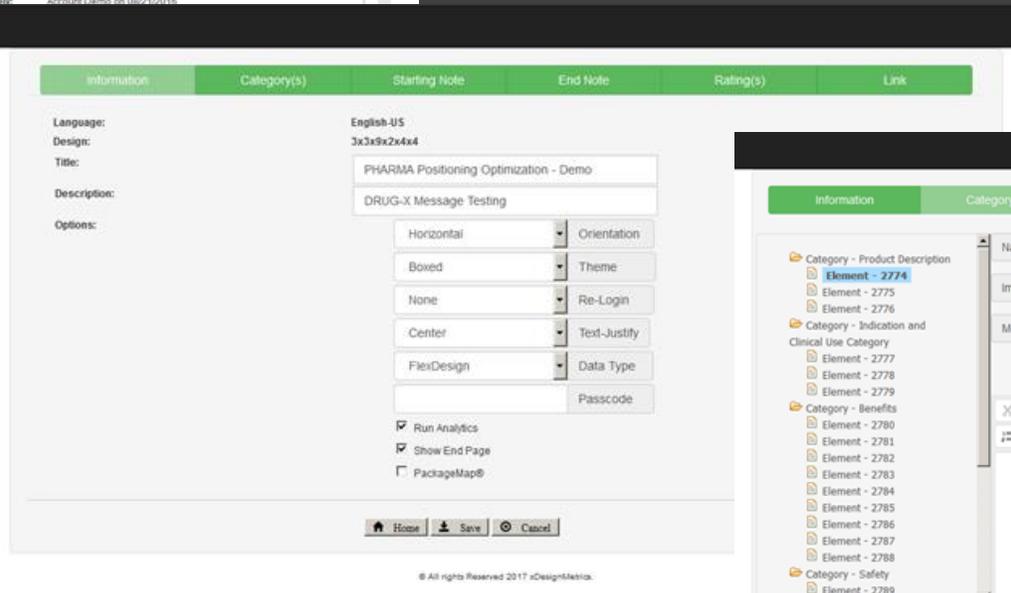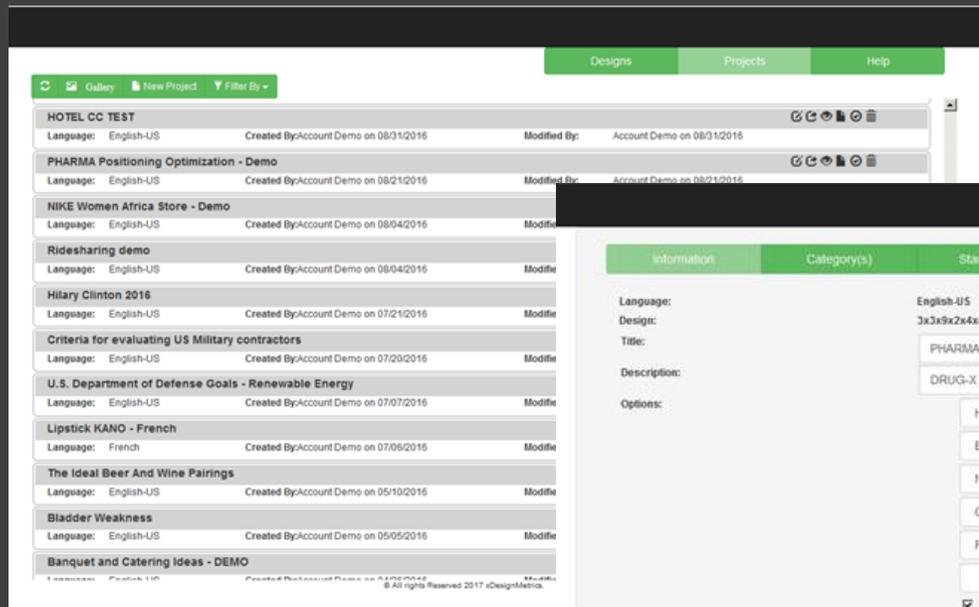
THE RESEARCH PLATFORM: EzConjoint.com

Example of an Interview Screen

People who had their tumors shrink maintained this response, on average, for 62% longer on the **DRUG-X** combination compared with people taking only **ATTRIBUTE-A** and docetaxel (20.2 months vs 12.5 months)

Infusion reactions and pulmonary toxicity rare and resolved with treatment

Initial dose of **DRUG-X** is 840 mg administered as a 60 minute intravenous infusion, followed every 3 weeks thereafter by a dose of 420 mg inistered over a period of 30 to 60 minutes

Price is slightly higher than current SOC treatment

Based on this information, how **LIKELY** are you to prescribe this product to your cancer patients?

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
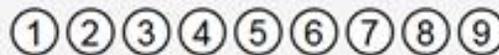
(1=Not at all likely; 9=Very likely)

THE RESEARCH PLATFORM: EzConjoint.com

Total Impact = Constant + Individual Elements

Here is what Result Model Data Table looks like and How Easy It Is to Interpret.

The output is a measurement of utility or value and is perfect for answering questions such as:

- ✓ *What messages will drive prescribing likelihood?*
- ✓ *How do messages differ across segments/physician types?*
- ✓ *Which of these changes will hurt our competitors most?*
- ✓ *Etc.*

In addition these utilities are used to build market models that enables forecasts to be made of what the market would choose given different product or service designs.

Do Not Quote – For Illustrative Purposes Only

Prescribing Likelihood

		Total Sample	ONCOL	RAONC
BASE SIZE:		(200)	(50)	(50)
CONSTANT:		48	**59**	**61**
CUT OFF:		5	5	5

Drivers

Code	Message	Total Sample	ONCOL	RAONC
IN 1	Drug-X Indicated in combination with paclitaxel for first-line treatment of HER2 over expressing metastatic breast cancer	13	14	12
BN 2	Disease free survival with 2 years of treatment with Drug-X	13	16	11
AD 1	Drug-X will be administered intravenously	7	10	5

Neutral

Code	Message	Total Sample	ONCOL	RAONC
PD 1	Drug-X is a humanized IgG1 monoclonal antibody that selectively binds with high affinity to the extracellular domain of the human pidermal growth factor receptor 2 proteins, HER2	1	2	0
PR 1	Price is slightly higher than current SOC treatment	1	1	1
IN 2	Drug-X Indicated, in combination chemotherapy, for the treatment of patients with HER2 over pressing metastatic gastric cancerex	3	4	2

Inhibitors

Code	Message	Total Sample	ONCOL	RAONC
SF 2	Infusion reactions and pulmonary toxicity rare and resolved with treatment	-7	-7	-8
AD 2	Initial dose of 4 mg/kg as an intravenous infusion over 90 minutes	-4	-3	-5

Constant

Cutoff

Message Codes

Messages

Individual message scores at or above the cutoff are highlighted

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Who ...participated
Classification Distribution

Q1: What is your primary specialty?	
Oncologist	25%
Radiation oncologist	25%
Surgical Oncologist	25%
Other	25%
Q2: Which of the following best describes the primary setting in which you practice?	
Private Office practice	21%
Hospital	51%
Cancer Clinic	16%
Other	45%
	12%
Q3: Is your practice located within 50 miles of a major metropolitan area?	
Yes	61%
No	39%
Q4: Please tell us your gender	
Male	65%
Female	35%