



## Means-End Decision Making Researching Using StrEAM™ Interview Technology

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### Overview

Marketers are interested in gaining a deeper understanding of the link and progression from product attributes to both functional and emotional benefits among consumers and other decision-makers such as business professionals and physicians. Until now, most of the methodologies for eliciting these means-end decision chains or 'ladders' relied on subjective qualitative methodologies that offer little in the way of standardization or rigor.

StrEAM™, a new online method for conducting and analyzing laddering interviews, makes it possible to quantitatively identify the hierarchy of product features, functional benefits and emotional benefits that drive brand differentiation and choice. StrEAM™ is based on a body of work by Dr. Thomas J. Reynolds, the person credited with inventing the conceptual theory underlying laddering and who has contributed the most to understand the best ways to obtain laddering insights. (See references below).

### StrEAM™ Application

Decision insights are especially important when the goal is to influence choice behavior. It can provide a general understanding of a category, or provide specific direction for developing positionings and persuasive message strategies for new or existing products. Specifically, StrEAM™ can:

- Identify the higher order benefits or emotions associated with use of the product or service.
- Identify the most relevant and leverageable drivers of brand choice and the *reasons* why are they relevant.
- Help marketers understand which attributes and benefits a target most strongly associates with each major competitive brand or proposed new product, as well as the comparative strengths and weaknesses of their brand relative to the competition.
- Explore segments of customers based on their *decision-making* orientations, not just their personal characteristics or behavior.



## How StrEAM™ Interviewing Works

One-on-one interviews are conducted using StrEAM® Voice Over Internet online laddering research software. This software was developed by Dr. Thomas E. Reynolds based on over 30 years of decision-making research.

Each interview is conducted by an interviewer trained in the StrEAM™ methodology<sup>1</sup>. Respondents and interviewers connect online at a prearranged time using a common interface (see right). Questions are preprogrammed, but spontaneous interaction is required.

The uniqueness of the system, including question format and interactive *visual* presentation method, has been found to be very engaging, causing respondents to think more critically as to why they make decisions they way they do. Respondents have an opportunity to comment on the ladders, adding to accuracy. Importantly, 90% of respondents indicate the quality of the answers they provided was superior to traditional survey research.

## StrEAM™ Interview Outline

- WARMUP (COMPUTER/SCALE USE)
- BACKGROUND ON PRODUCT CATEGORY USE
- PRESENT OR CO-DEFINE DECISION CONTEXT(S)
- BRAND CONSIDERATION SET AND PREFERRED BRAND CHOICE
- ELICIT CHOICE DISTINCTIONS (One or more of following methods are used):
  - Top of mind associations (What is the very first thing that comes to mind when I say *preferred brand*)?
  - Purchase motivation (What is reason for purchasing *preferred brand*)
  - Brand comparison (Why is #1 better than #2? Why isn't #2 higher than #1?)
- UNDERSTAND VALENCE OF EACH DISTINCTION (Is that a positive or a negative to you?)
- LADDER PERSONAL RELEVANCE FOR 3-4 MOST IMPORTANT CHOICE DISTINCTIONS (Why is that important? What is the consequence to you?)

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<sup>1</sup> The StrEAM methodology is the only decision making framework to have earned a U.S. Patent.



## StrEAM™ Analysis

Analysis of StrEAM data is much more sophisticated than traditional laddering analysis. It begins with intensive coding of all laddering data, which is then subjected to rigorous multivariate analysis. The analysis identifies the most common patterns in the data and assigns weights to each equity component and ladder. But that is just the beginning, it also provides a way to empirically segment the target based on their decision-making orientations - what matters to them. This is the closest segmentation research ever comes to approximating the text book definition of a segment as a homogeneous group that is likely to respond similarly to marketing stimuli.

The analytic process can be broken down into five steps:

1. **Coding:** Data from each interview is coded for meaning *TWICE* by independent coders in order to increase coding reliability. Determinations are made as to the coded meaning as well as the level in the respondent's hierarchy. Coding methodology has over 90% reliability. Third party judgment is used in case of ties.
2. **Lexicon of meanings and submeanings:** Customer language for describing choice attributes, functional consequences, psycho-social consequences and personal values is provided for each coded idea. The lexicon includes the percent of sample for which this meaning is relevant for each code.
3. **Equities and Disequities Analysis:** A weight for each means-end chain (ladder) is mathematically determined based on influence on decision-making across the sample or segment. The weight represents the percent of total chain connections in the data that is represented by that ladder. This analysis identifies which equities (ladders of positive attributes and benefits) need to be emphasized and which disequities (ladders of negative attributes and benefits) need to be mitigated or supplanted to influence choice and achieve behavioral objectives.
4. **Decision-based Segmentation Analysis (DSA):** The segments will be *empirically derived* based on a specially created clustering analysis of the coded laddering data. These segments are referred to as Decision-based Segments (DSA's) to distinguish them from the a priori defined recruiting segments (if any). Segment sizes are provided to help identify which decision making orientations represent the greatest market potential.
5. **Benefit Mapping:** The equities analysis and DSA are used to create a Hierarchical Value Map (HVM) displaying the key attributes, functional consequences, psycho-social consequences and personal values for each segment and for the total category. Different colors denote the predominant ladders relevant to different segments.



## StrEAM™ Deliverables

The key deliverable is a PowerPoint presentation outlining key findings and strategic recommendations. The presentation includes:

- Insights regarding brand familiarity/usage/preferences for the category.
- Lexicon of meaning and sub-meanings for key attributes, consequences and personal values in the *words and voice* of the customer.
- Empirically defined segmentation based on category/brand decision-making criteria and profiles of respondents making up each segment (practice type, brand preferences, etc.) including segment size and key ladders.
- For new brands, concept appeal/response for proposed new brand, including perceived strengths and weaknesses relative to existing brands as well as profile of product concept acceptors.
- Strategic positioning opportunities, including likely target segment(s), key equities to be emphasized and disequities to be displaced or negated.
- Emotional benefits associated with each of the key equities and assessment of potential for leveraging emotional associations as part of positioning.
- Areas of potential further differentiation.

## StrEAM™ Research Quality

Although laddering procedures are well documented, they entail a rigor that many professional and some academic researchers find prohibitive. Consequently, there are many *quasi*-laddering approaches that take procedural shortcuts on the presumption that the methodology is robust and results would be similar regardless of the technique used. Yet, there is little empirical evidence to support this presumption; Much depends upon using a methodology capable of generating replicable results.

Three quality metrics have been proposed. In each area, the StrEAM methodology compares favorably with traditional face-to-face laddering research<sup>2</sup>:

- *Coding Quality*- Quality of coding is reflected by the correspondence between coders. With StrEAM interviews, multiple coders independently assign codes and then compare their lists. Discrepancies are resolved either by discussion or by a third party judge. This results in a correspondence of over 99%.

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<sup>2</sup> Reynolds, T.J. and Phillips, J. A Review and Comparative Analysis of Laddering Research Methods: Recommendations for Quality Metrics. In Review of Marketing Research, (ed.) N. Malhotra, (in press).



- *Ladder Quality* - The quality of a laddering interview is reflected in the number of complete means-end chains (*elements at all four levels of abstraction*). StrEAM interviews are shown to have over 97%.
- *Reliability and Validity of the Hierarchical Value Map (HVM)* - The construction of a summary map from laddering data requires selecting a threshold cutoff for determining 'significant' connections between code pairs (elements in different levels of the map). With StrEAM, a code pair must account for approximately 70% of the total (direct + indirect) implications to be included in the map.

## Conclusions and Perspective

Laddering research is enormously useful for understanding what drives decision-making and determining how decisions can be influenced most effectively through positioning and messaging. While many understand the need for laddering research, few actually do it, and with good reason! Conducting laddering research well can require significant investments of time and money. One survey of the top 10 professional firms involved in laddering showed that field work costs alone can range from \$1000-\$2000 per interview.

Our experience with StrEAM suggests that it really is a 'better mousetrap'. It addresses many of the issues of expense, sample representation and interviewer quality associated with face-to-face laddering interviews. Our experience using StrEAM with clients has been consistently positive. We are excited to have this new tool at our disposal.



## References

Olson, J. and Reynolds, T.J. The Means-End Approach to Understanding Consumer Decision Making. In Understanding Consumer Decision Making: The Means-End Approach to Marketing and Advertising Strategy, (eds.) T.J. Reynolds & J. Olson, Lawrence Erlbaum Associates, 2001.

Reynolds, T.J. and Perkins, W.S. Cognitive Differentiation Analysis: A New Methodology for Assessing the Validity of Means-End Hierarchies. Proceedings of the Association for Consumer Research, 1986.

Reynolds, T.J. and Phillips, J. A Review and Comparative Analysis of Laddering Research Methods: Recommendations for Quality Metrics. In Review of Marketing Research, (ed.) N. Malhotra, (in press).

Reynolds, T.J. Methodological and Strategy Development Implications of Decision Segmentation, Journal of Advertising Research, 2006, (December), 46 (4), 445-461.

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