

# CO-DESIGN! ZERO TO FINAL SPECIFICATION IN THREE DAYS

## RAPID ITERATIVE INSIGHTS BUILDING PERCEIVED VALUE INTO PRODUCTS

*David Lundahl • Menexia Tsoubeli*

### INTRODUCTION

One of the most challenging problems in product innovation and marketing is how to accurately and quickly translate a brand's promise through a product concept into a product specification. This case study provides an innovative solution to this problem.

Many benefits, especially higher level emotional benefits, are difficult to be translated into the sensory qualities for a product specification. This is especially true with complex products such as soups that have many potential ingredient combinations. Consumers often find it difficult to accurately know what it is about a product that tells them how a product looks, feels, tastes, smells and sounds as relevant for a moment of use. Marketing messaging and brand impressions are important in creating expectations that motivate purchase interest. However, many expectations are formed by the product and packaging itself. To ensure product success it is important that both the marketing and product itself communicate the brand promise and product concept. Translation ensures both messaging, product and concept are all aligned. The earlier the accurate translation, the more rapid and cost effective a product and packaging can be developed.

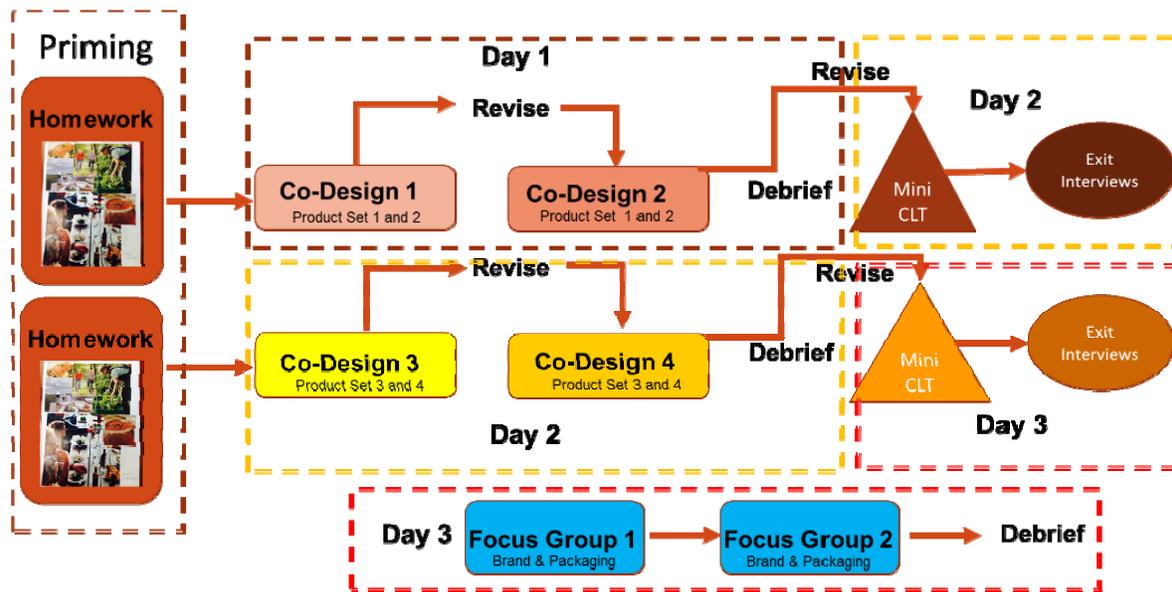
InsightsNow worked with Campbell to apply behavioral science to rapidly translate through a co-design methodology. Rather than a goal to maximize purchase interest, preferences, and liking to guide product design, researchers applied behavioral techniques to identify sensory cues that are part of sensory memories which can be associated with key benefits promised by brand and product concept. This enabled the rapid design of four soups for a line launched by Campbell. The product line went into a market test for assessment. Therefore, this case study and the techniques applied are very relevant for marketers and product developers on innovation teams seeking to rapidly and cost effectively bring new products to market.

### METHODOLOGY

Behavioral techniques and technology enabled rapid co-design for a line of four refrigerated soups. Co-design is similar to co-creation in that both combine innovation team domain expertise with consumer intellect and emotional reactions. They are different in their purpose and methodology. Whereas co-creation is used to generate lots of ideas and screen/refine those ideas into product concepts, co-design is used to "translate" a product concept into a product design (e.g. specification) through a process of rapid iterative prototype development and respective screening/refining. Therefore, co-creation is more useful in the early stages of the product innovation process leading to the conceptual design of a product (or product line). Co-design is applied further downstream when a tangible product and package must be designed to fit with a product concept.

Four co-design and two validation (mini-CLT with exit interviews) sessions over three days co-evolved 27 prototypes into final specifications (figure 1). The co-design process also included two focus groups to gain consumer input into branding and packaging design questions.

FIGURE 1. RESEARCH PLAN FOR CO-DESIGN OF A LINE OF REFRIGERATED SOUPS



The research methodology started with homework where participants developed stories about a target soup moment. These stories were used later on to prime participants in their respective soup moments such that they could recall latent sensory memories and more easily draw associations between the sensory qualities of soups and benefits they signaled. These stories were facilitated by an online moderator.

The whole project team then participated in the co-design process at a central location along with different groups of six consumers as co-design research participants. An initial set of 16 soup prototypes were generated by a team of research chefs. These soups were split up into four product sets based on their similarities. These soups went through three rounds of screening and revisions by the team of research chefs. In the first round, two sets of soups were evaluated by participants with qualitative feedback to the whole innovation team. This feedback was used to screen and revise a subset of soups for a second round of qualitative feedback. These soups were subsequently screened and revised for a third round of quantitative assessment.

In the first two rounds, four co-design groups comprised of six different target consumers as co-design participants were asked to recall their soup moment story before being exposed to the product concept. This recall and concept exposure was intended to prime the participants – making them ready to generate accurate associations between the benefits and reasons to believe imbedded into the concept, and the sensory qualities (e.g. ingredients, colors, textures, etc.) experienced while assessing soup prototypes. This was followed by soup prototypes assessments. After each prototype was assessed the moderator applied associative techniques to make explicit the implicit associations from memories triggered by the homework and concept. As an example, this qualitative technique yielded insights into how a reason to believe such as “looks minimally processed” is signaled by sensory qualities such as specific irregularly shaped ingredients.

In the third round, a final set of soups were presented. The innovation team was able to monitor all quantitative scoring and comments from 60 research participants. The response behaviors from these participants were carefully monitored using a real-time, web-based tool called ProfilesNow®. This monitoring was used to select participants for a final set of qualitative groups and exit interviews.

In addition to these three rounds of qualitative and quantitative assessment of soup prototypes, an additional two groups involving six research participants each were used to assess packaging forms and artwork, and to assess the brand name for the new line of refrigerated soups. These assessments were also primed by respective soup moments to understand what packaging design elements serve to signal the benefits sought by target consumers.

The innovation team was comprised of the brand manager, research chefs, product marketer, packaging designers, product developers, and a marketing and sensory researcher. This team met after each round with the moderator to discuss qualitative and/or quantitative results. This collaboration was facilitated by a research facilitator to guide the innovation team in making rapid iterative decisions throughout the co-design process.

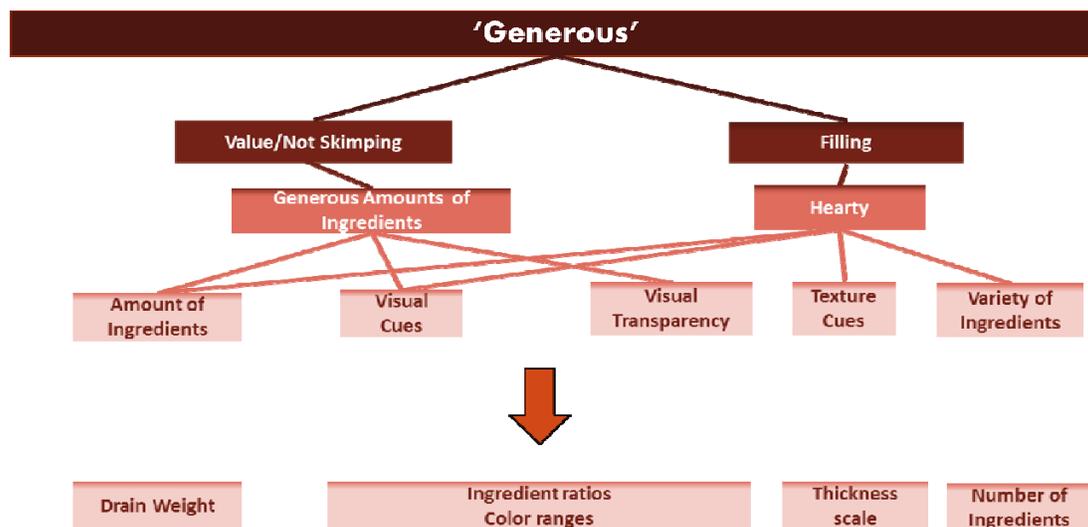
**RESULTS**

The methodology provided detailed information on positive and negative sensory cues signaling respectively the benefits and consequences elicited by each soup prototype. These insights provided clear direction to the innovation team after each round of co-design on variety architecture and key attribute ranges that could convey the promise of the concept. This iterative process of co-design helped the innovation team go beyond liking in screening and revising soup prototypes. Instead of focusing iteratively on soup design decisions using simple metrics such as preference, the team was able to make decisions based on the associations between sensory qualities that signal the benefits positioned via the product concept. This kept the innovation team focused on translating the concept into design specifications, rather than creating soups to be most liked.

Key insights were drawn from the co-design methodology that the ideal soup for this concept must strike a balance between an appearance that is neither too complex or simple, and a flavor/ingredient profile that is neither too complex or too unidimensional. In addition, it provided key insights into what ingredients signal not only this balance, but also what combinations of ingredients signal key benefits promised by the concept.

After each round of co-design, the focus on understanding implicit associations proved successful to know how to screen out or evolve promising prototypes into the next round. For example, an important element of the concept was that the brand be positioned to provide a generous portion of ingredients. The co-design methodology deepened understanding into how to translate the construct “generous” into product specifications. This was done by generating insights that generous (in the context of soup experiences for this brand) was associated with lower level benefits such as “heartiness,” reasons-to-believe such as amount and ingredient variety, and sensory qualities such as color and degree of thickness of the soup (figure 2). This rapid learning methodology also helped screen out any prototypes with attributes that signaled unintended consequences, i.e. signals going against the other benefits promised by the brand through the product concept.

**FIGURE 2. BENEFITS LADDER FOR THE TRANSLATION OF “GENEROUS” INTO SENSORY SPECIFICATIONS FOR A NEW LINE OF SOUPS**



This methodology also provided guidance to develop a packaging design, and provided important input into the size and shape of containers, the language and imagery used in label design, and in selecting a final brand name.

The quantitative assessments used in the validation sessions provided key input to ensure the concept was adequately translated into technical attribute ranges for specification parameters such as color, texture, and taste. Comparing the real-time summaries of mini-CLT assessments and the respective scores by co-design participants provided opportunities to select individuals for one-on-one interviews. These interviews provided a final opportunity to gain feedback from co-design participants to learn how to address any last minute design issues. As a result, the Campbell team walked away with product footprints and technical specifications to manufacture the new line of four products.

## DISCUSSION

This application of behavioral techniques addressed Campbell's need to rapidly and cost effectively design the product line. With a timeline of under six months to launch, Campbell and InsightsNow partnered to transform traditional co-creation into a new methodology for co-design for product and package translation. The case study addressed the following study objectives:

1. Clarify the current behaviors/habits that need to be overcome or changed in order for the product line to be successful in forming new habits.
2. Develop a benefits ladder and which sensory cues are associated with specific reasons to believe, functional and higher level emotional benefits.
3. Finalize the design specification for a line of three to five products to launch within the accelerated launch timeline.
4. Create packaging design specifications that align with the product concept and brand.
5. Develop product guiderails for future prototype development.

This approach proved to be highly effective and is being incorporated to support other innovation initiatives. The methodology provided a new way for the innovation team to think about product design, marketing and development. The innovation team was able to observe the reactions to co-design groups and learn iteratively over three days about how to design products to be intuited as fitting the concept. Participants were able to experience prototypes holistically and provide input about their impressions, not by answering questions about what they liked/disliked or what might be their purchase intentions, but by providing input into why products were or were not associated with benefits promised by brand and concept. This enabled developers to rapidly iterate by change formulations on the fly and representing new prototypes in subsequent co-design sessions.

The validation session provided a quantitative assessment of how sensory cues signal impressions about prototype delivery of reasons to believe, and functional and higher level emotional benefits. The real time technology enabled virtual collaboration between the innovation team and consumers as co-design participants. By focusing on sensory cues instead of general overall liking or purchase interest, we were able to ensure the product was more intuitively relevant to specific use moments in consumers' lives, making the positioning clearer and the product a natural choice.

The innovation team successfully launched the product line within the accelerated launch window. The market test exceeded expectations on product performance in its first year in the marketplace and led to the development of a line for national launch.

## CONCLUSIONS

This research methodology has proven itself as effective to solve the product translation process for fast and effective product innovation. In three days, researchers, marketers and designers collaborated with consumers to bring a concept to life. This not only cut months out of the typical product innovation process, it saved significant budget by eliminating costly rework to develop the specification for a new product line. Further, designs evolving from this methodology are more aligned with a concept in that consumers more intuitively recognize the product as representing the promise of the brand. The proof is in the fact that Campbell has integrated this methodology into their innovation process – supporting a number of different brands and respective innovation teams.

Implementing this methodology required a different mindset than is used by many marketers working within innovation teams. This mindset requires embracing a very dynamic process of rapid iterative learning. Therefore, we found it extremely useful to conduct up front training to set innovation team expectations such that they might maximize their learning throughout the co-design process.

Early stage insights for accurate and rapid translation are important, often missing pieces of information for the success of products. Insights from behavioral techniques get to the root of answers into why consumers do what they do. Understanding product cues that signal benefits through behavioral techniques deepens insights for innovation teams seeking translation. Incorporated early into the innovation process increased the strategic value of these insights with high impact on business decision making. It can accelerate an innovation initiative providing marketing advantages. It can identify critical sensory qualities that are essential hurdles for R&D teams to overcome to achieve strategic competitive advantage for brands. Further, it can save R&D costs by eliminating costly product rework.

## THE AUTHORS

David Lundahl is CEO, InsightsNow, Inc., United States.

Menexia Tsubeli is VP R&D, Garden Fresh, Campbell Fresh Division, United States.