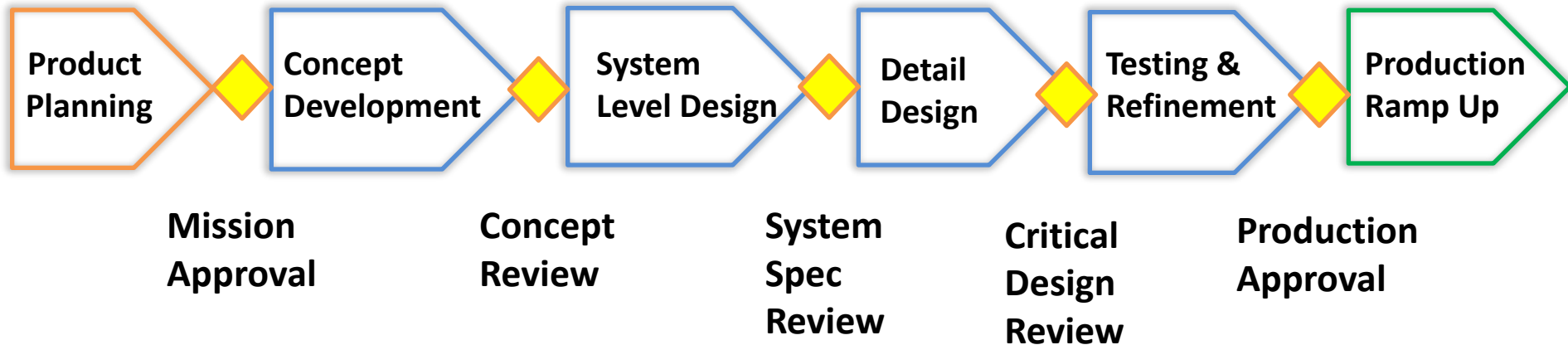
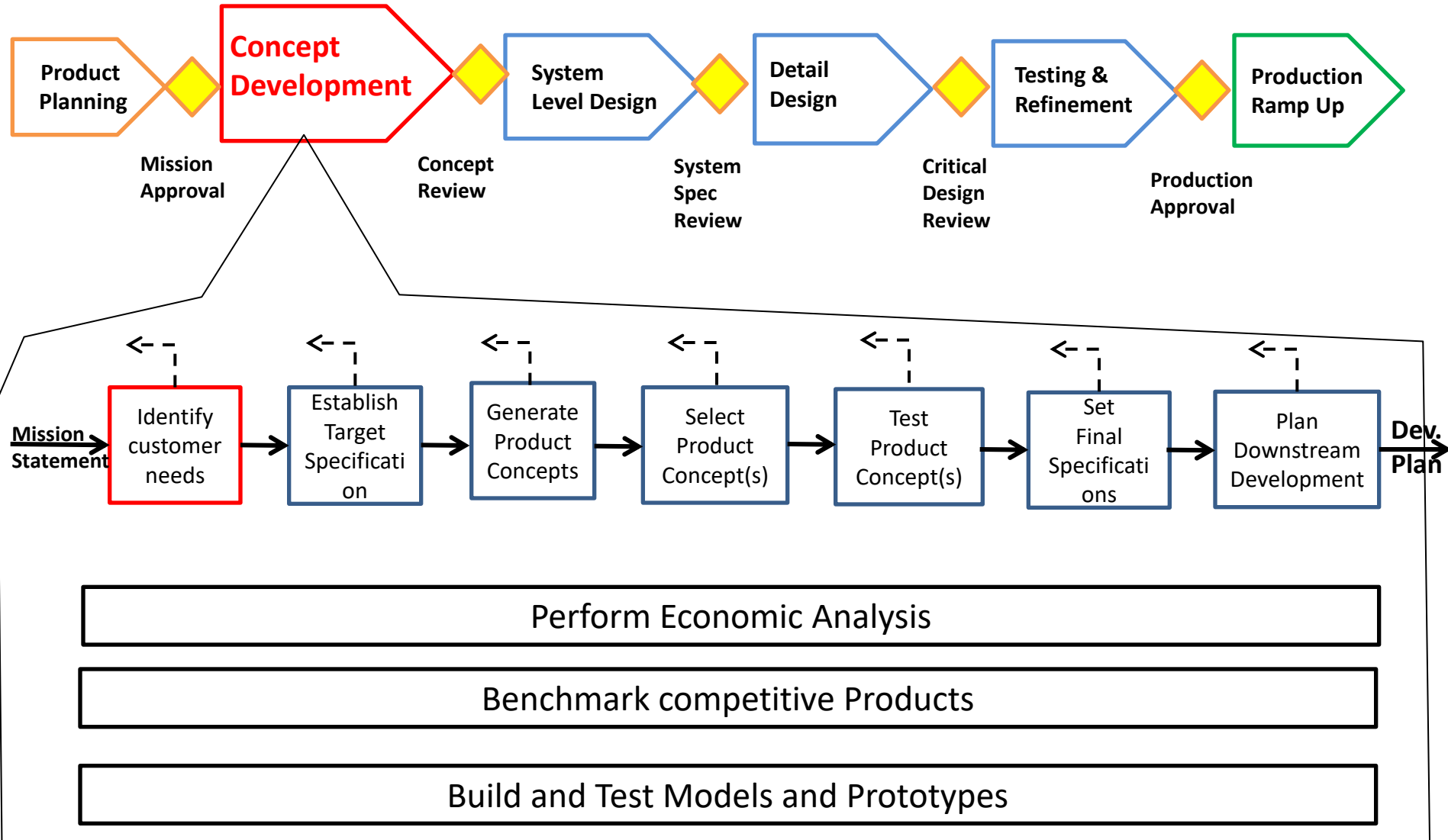


# Identifying Customer Needs

# Generic Product Development Process



# Concept Development Process



# Concept Development – Front end Process

- Identify customer needs
- Establish target specifications
- Generate product concepts
- Select product concepts
- Test product concepts
- Set final specifications
- Plan downstream development

# Concept Development – Front end Process

- Economic analysis
- Benchmarking of competitive products
- Modeling and prototyping.

# Customer Needs Process

- Ensure that the product is focused on customer needs
- Identify latent or hidden as well as explicit needs
- Provide a fact base for justifying the product specifications
- Create an archival record of the needs activity of the development process.
- Ensure that no critical customer need is missed.

- Experience the use environment of the product.
- Technical trade offs
- Distinction between customer needs (or customer attributes/ customer requirements) and product specifications

# Customer Needs Process

## **Define the Scope**

- Mission Statement

## **Gather Raw Data**

- Observation
- Interviews
- Focus Groups

## **Interpret Raw Data**

- Need Statements

## **Organize the Needs**

- Hierarchy

## **Establish Importance**

- Surveys

## **Reflect on the Process**

- Continuous Improvement



# Mission Statement

## ❑ **Product Description**

- An easy to use, portable device for removing bacteria and protozoan parasites from water

## ❑ **Key Business Goals**

- Product introduced in Summer 1993
- 50% Gross Margin & 30% share of portable water filter retail sales within 2 years of introduction
- Becoming the recognized leader in usability

## ❑ **Primary Market**

- Avid outdoor enthusiasts

## ❑ **Secondary Markets**

- Casual recreationalists
- Home emergency
- Aid organizations, military

# Mission Statement

## ❑ Assumptions

- Hand-operated
- Borosilicate glass fibers & charcoal filtering technology

## ❑ Stakeholders

- User
- Retailer
- Juan Rodrigues and VCs

# Customer Needs Process

- ❑ **Define the Scope**
  - Mission Statement
- ❑ **Gather Raw Data**
  - Observation
  - Interviews
  - Focus Groups
- ❑ **Interpret Raw Data**
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- ❑ **Organize the Needs**
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- ❑ **Reflect on the Process**
  - Continuous Improvement

# Gather Raw Data

- ❑ Focus Groups: A moderator facilitates a two hour discussions with a group of 8-12 customers. The proceeding is usually video taped
- ❑ Interviews: one to one interview, which may be structured or un structured
- ❑ Observation: As a passive observer (ex. A surgical instrument) or use it themselves (ex. DIY kits)
- ❑ Interviewing lead user/ extreme users

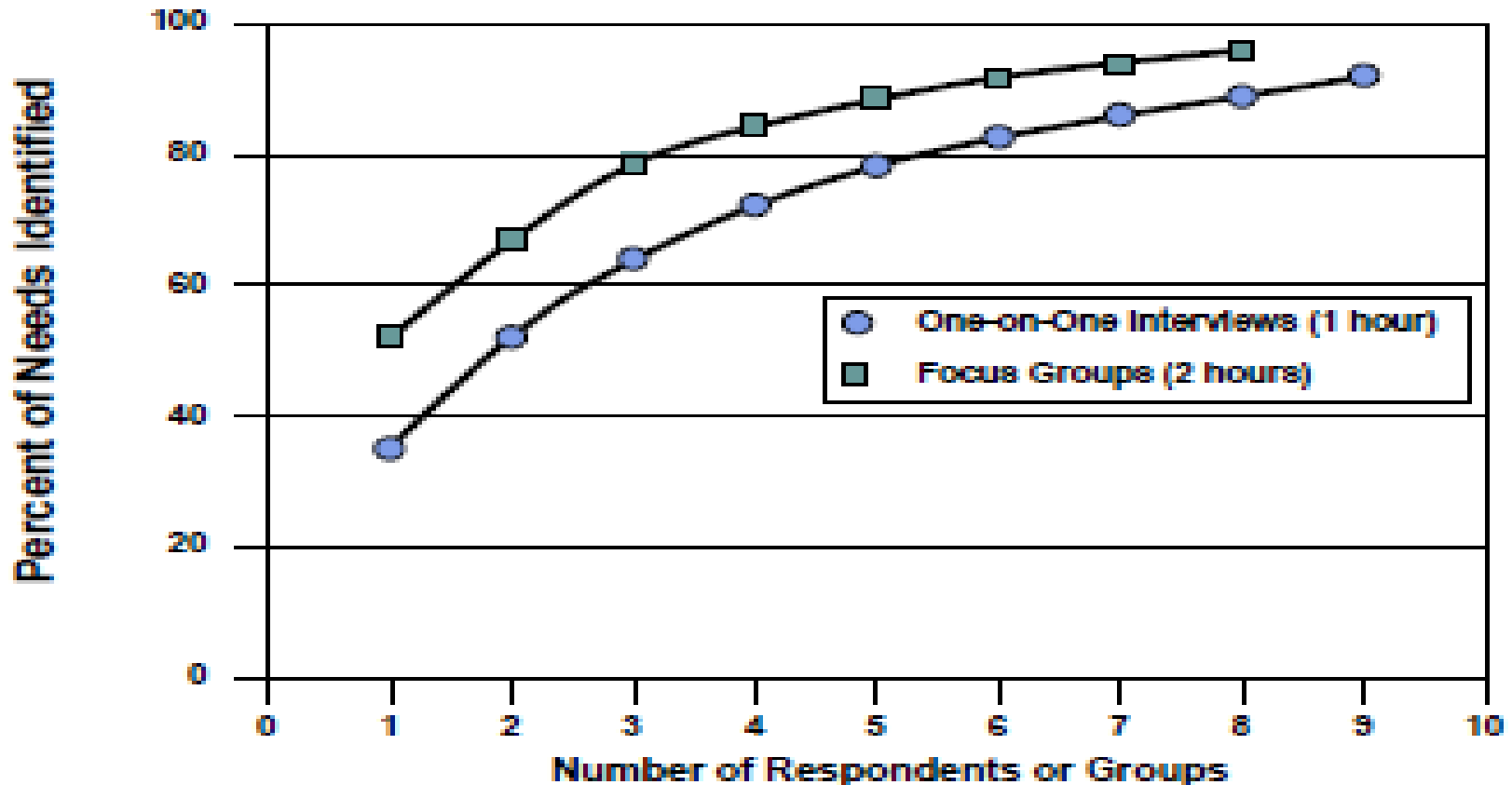
# The Art of Eliciting Customer Data

- Go with the flow
- Use visual stimuli and props
- Suppress preconceived hypothesis about product technology
- Have the customer demonstrate the product and / or typical task related to the product.
- Be alert for surprise and the expression of latent need
- Watch for non verbal information

# Contd

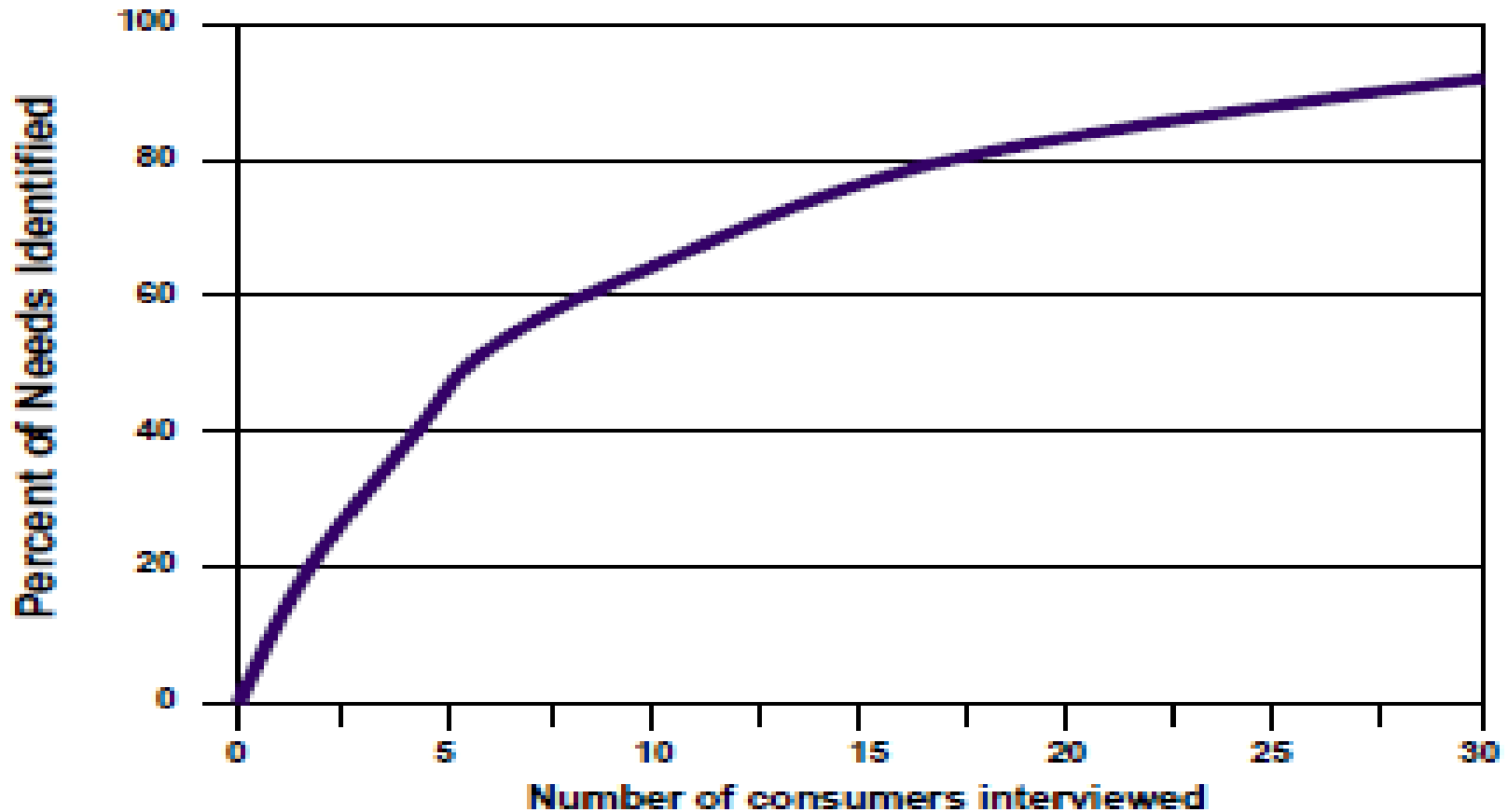
- Use questions that are related to typical use of the product, likes and dislikes about the current product and suggested improvements.
- Have the ability to generate interpreted need statement from the answers given to above questions

# Interviews vs. Focus Groups



From: Griffin, Abble and John R. Hauser. "The Voice of the Customer", *Marketing Science*, vol. 12, no. 1, Winter 1993.

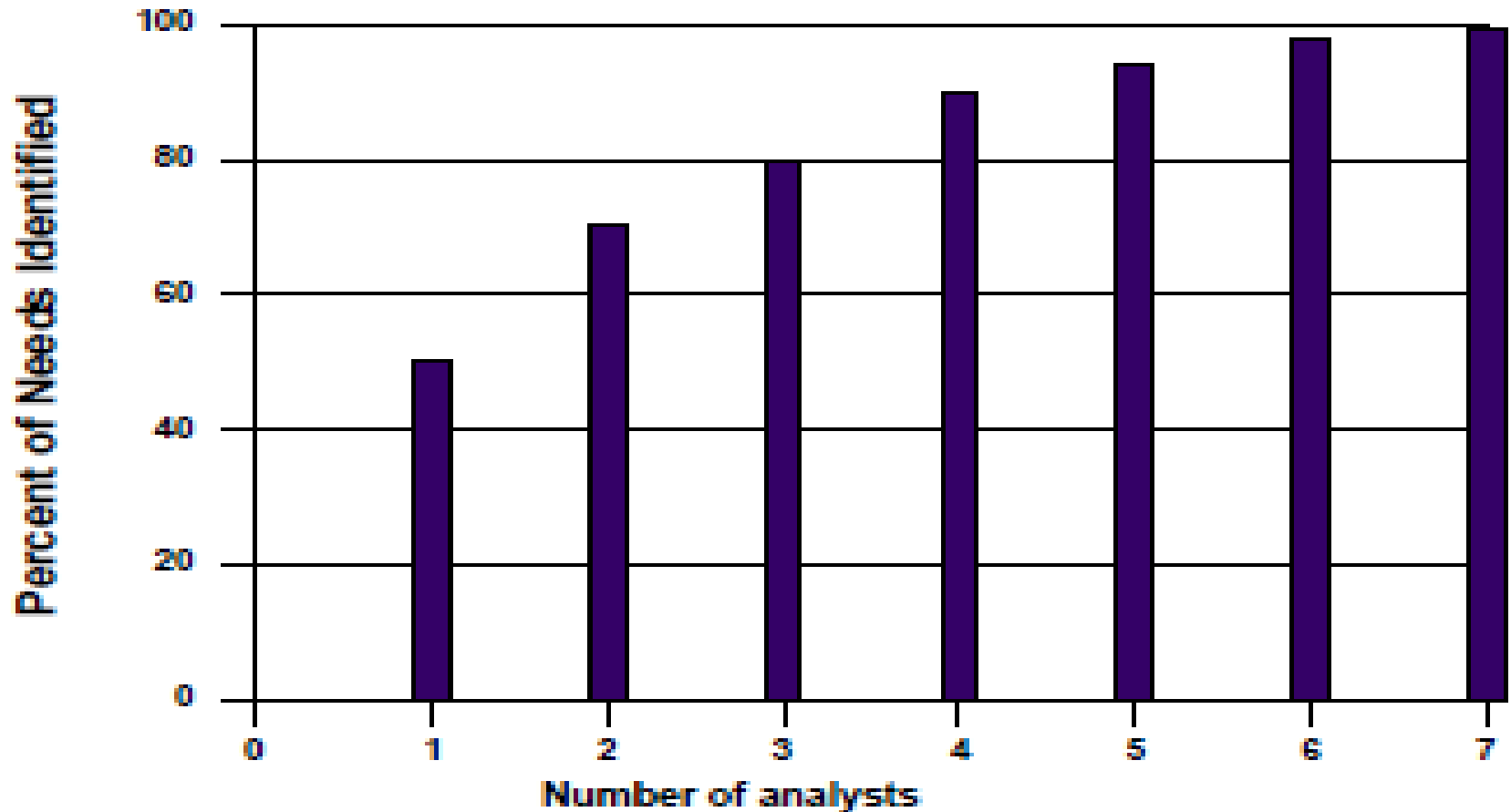
# How many Consumers?



From: Griffin, Abble and John R. Hauser. "The Voice of the Customer", *Marketing Science*, vol. 12, no. 1, Winter 1993.



# How many Analysts?



From: Griffin, Abble and John R. Hauser. "The Voice of the Customer", *Marketing Science*, vol. 12, no. 1, Winter 1993.

# Customer Needs Process

- ❑ **Define the Scope**
  - Mission Statement
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# Five Guidelines for Writing Needs

## Statements

- Express the need in terms of what the product has to do, not in terms of how it might do it
- Express the need as specifically as the raw data: To avoid loss of information, express the need at the same level of detail as raw data
- Use positive not negative phrasing
- Express the need as an attribute of the product
- Avoid the words *must* and *should*

# Five Guidelines for Writing Needs Statements (Ex)

Guideline	Customer Statement	Need Statement	Need Statement
<b>What Not How</b>	Why don't they put a hook at the end of the outlet hose?		
<b>Specificity</b>	"I often times drop the water filter on rocks"		
<b>Positive Not Negative</b>	"the WF is difficult to hold."		
<b>Product Attribute</b>	"I need to attach a virus filter to the WF"		
<b>Avoid "Must" &amp; "Should"</b>	"The water should taste good"		

# Five Guidelines for Writing Needs Statements (Ex)

		WRONG	RIGHT
Guideline	Customer Statement	Need Statement	Need Statement
<b>What Not How</b>	Why don't they put a hook at the end of the outlet hose?	The outlet hose has a hook to connect to water containers	
<b>Specificity</b>	"I often times drop the water filter on rocks"	The WF is rugged	
<b>Positive Not Negative</b>	"the WF is difficult to hold."	The WF is not difficult to hold.	
<b>Product Attribute</b>	"I need to attach a virus filter to the WF"	A virus filter can be attached to the WF	
<b>Avoid "Must" &amp; "Should"</b>	"The water should taste good"	The WF should deliver good tasting water	

# Five Guidelines for Writing Needs Statements (Ex)

		WRONG	RIGHT
Guideline	Customer Statement	Need Statement	Need Statement
<b>What Not How</b>	Why don't they put a hook at the end of the outlet hose?	The outlet hose has a hook to connect to water containers	The WF easily transfers water into a variety of different containers
<b>Specificity</b>	"I often times drop the water filter on rocks"	The WF is rugged	The WF operates normally after repeated dropping.
<b>Positive Not Negative</b>	"the WF is difficult to hold."	The WF is not difficult to hold.	The WF is easy to hold.
<b>Product Attribute</b>	"I need to attach a virus filter to the WF"	A virus filter can be attached to the WF	WF accommodates a virus filter
<b>Avoid "Must" &amp; "Should"</b>	"The water should taste good"	The WF should deliver good tasting water	The WF delivers good tasting water.

# Needs Translation Exercise

- The water should not smell badly
- You need one hand to hold the filter, one hand to pump and one hand to make sure that the attachment cap doesn't fall off the bottle
- During a winter trip the pump once froze solid
- I never want to have Giardia again
- I get tired when pumping water for the entire family
- I cleaned the filter after every use, no matter how little water I pumped

# Customer Needs Process

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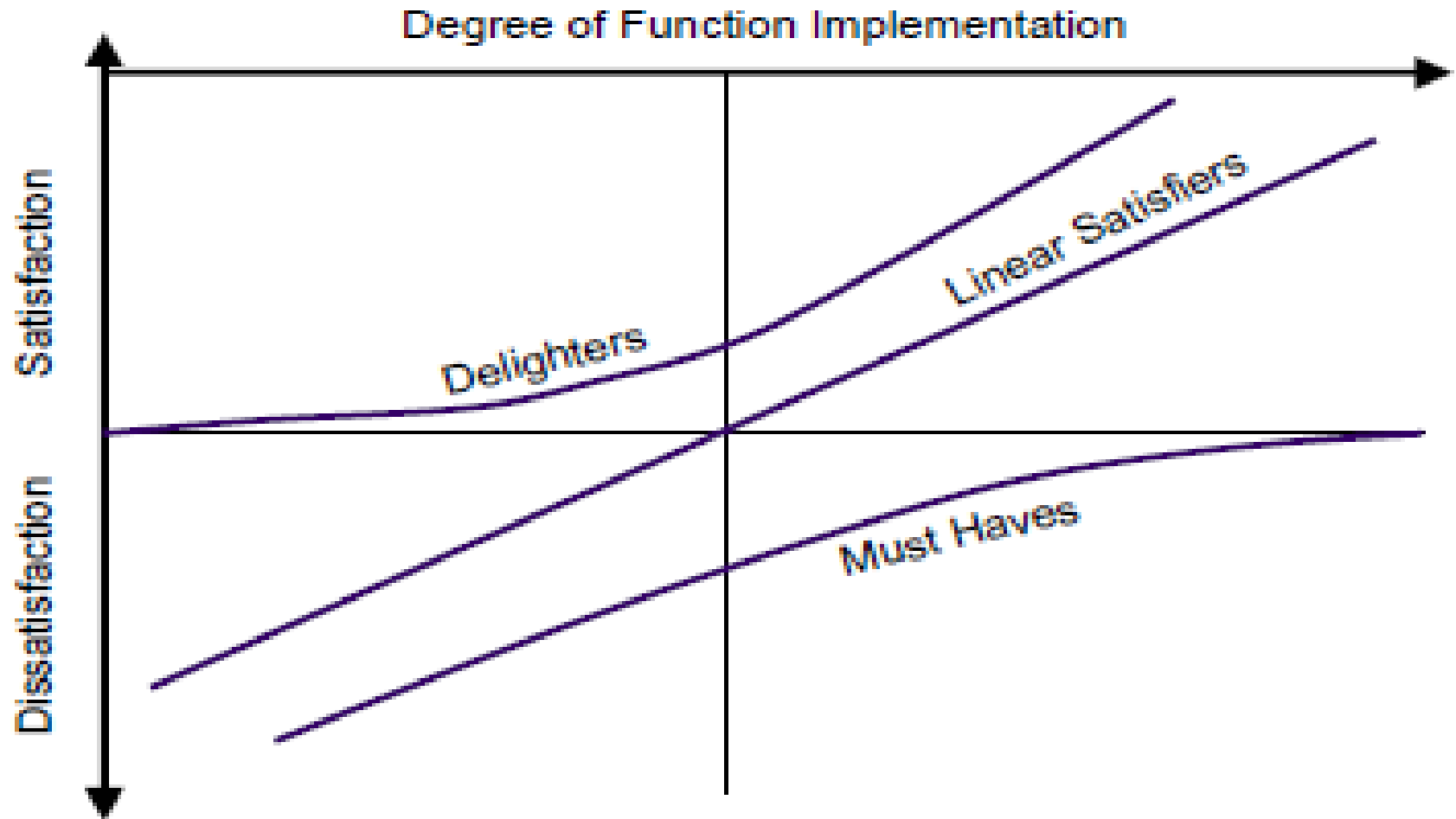
# Organising the Needs into a Hierarchy

- Print or write each need statement on a separate card or self-stick note
- Eliminate redundant statement
- Group the cards according to similarity of the needs they express. Should be done as customer thinks about the product not the way development team thinks about it
- For each group choose a label
- Considering creating sub groups consisting of two to five groups: Sub groups labels are primary need, groups are secondary and the members become tertiary
- Review and edit the organised needs statements

# Structuring Needs

- Primary Needs (Strategic Needs)
- Secondary Needs (Tactical Needs)
- Tertiary needs (Operational Needs)
  
- Must Haves
- Delighters (Latent Needs!)
- Linear Satisfiers
- Neutrals

# Kano-Diagrams



# Customer Needs Process

- ❑ **Define the Scope**
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# Importance Surveys

## **5,7,9 – Point direct rating**

- How important is feature?
- Desirable, neutral, undesirable

## **Anchored Scale**

- Attach 10 points to most important need
- Up to 10 points to all others

## **All seem to perform equally well**

## **Frequency of mentioning a need is usually NOT a good measure for the importance of need**

# Take Aways

- Capture “What, Not How”
- Meet customers in the use environment
- Collect visual , verbal and textual data
- Props will stimulate customer responses.
- Interviews are more efficient than focus groups
- Interview all stakeholders and lead users
- Develop an organized list of need statements
- Look for latent needs
- Survey to quantify tradeoffs
- Make a video to communicate results