

Using ethnographic research in BME design

✦ 2007 BME idea Meeting

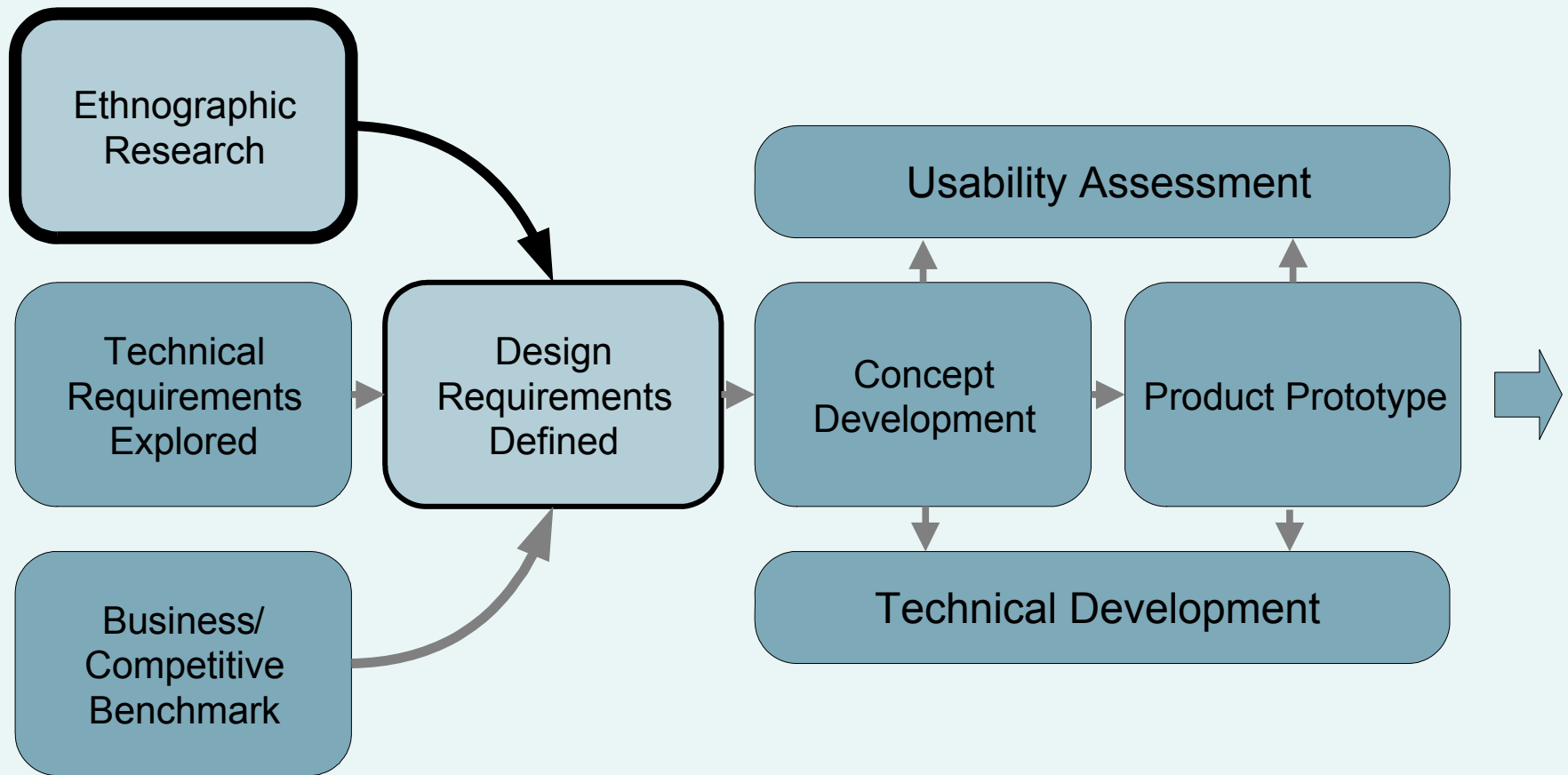
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What is ethnography?

Study in anthropology

Completed through in depth user interviews and directed observation in the **CONTEXT** of people and tasks targeted with the design problem.

When?at the start!



Why do ethnographic research?

To uncover the differences between what people say and what they do.

To describe what the device needs to do in
CONTEXT

To understand CONTEXT:

Students need to experience it.



How?

Interviews:

- When/Why?
- Like/dislike?
- Improvements?
- What's ideal?

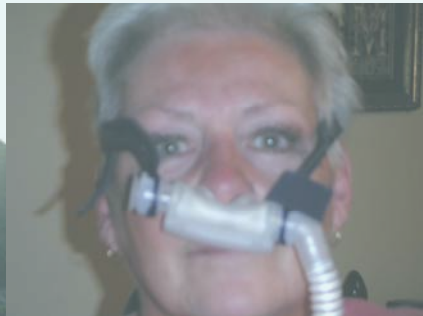
Observations:

- What actions?
- Length of time?
- Order? How?
- What errors?
- What challenges?
- What (in their mind) is ideal?

Recorded observations

Still images

Video analysis



More Comprehensive Design requirements

Use scenarios & persona development



Personas

DUDE

- Not self-motivated to use/maintain device
- Not hygienic
- Prefers quick, easy, convenient solutions
- Throw-away lifestyle
- Fast food, pizza, chinese food
- Not concerned with appearance of home environment
- Must use device, but not willingly

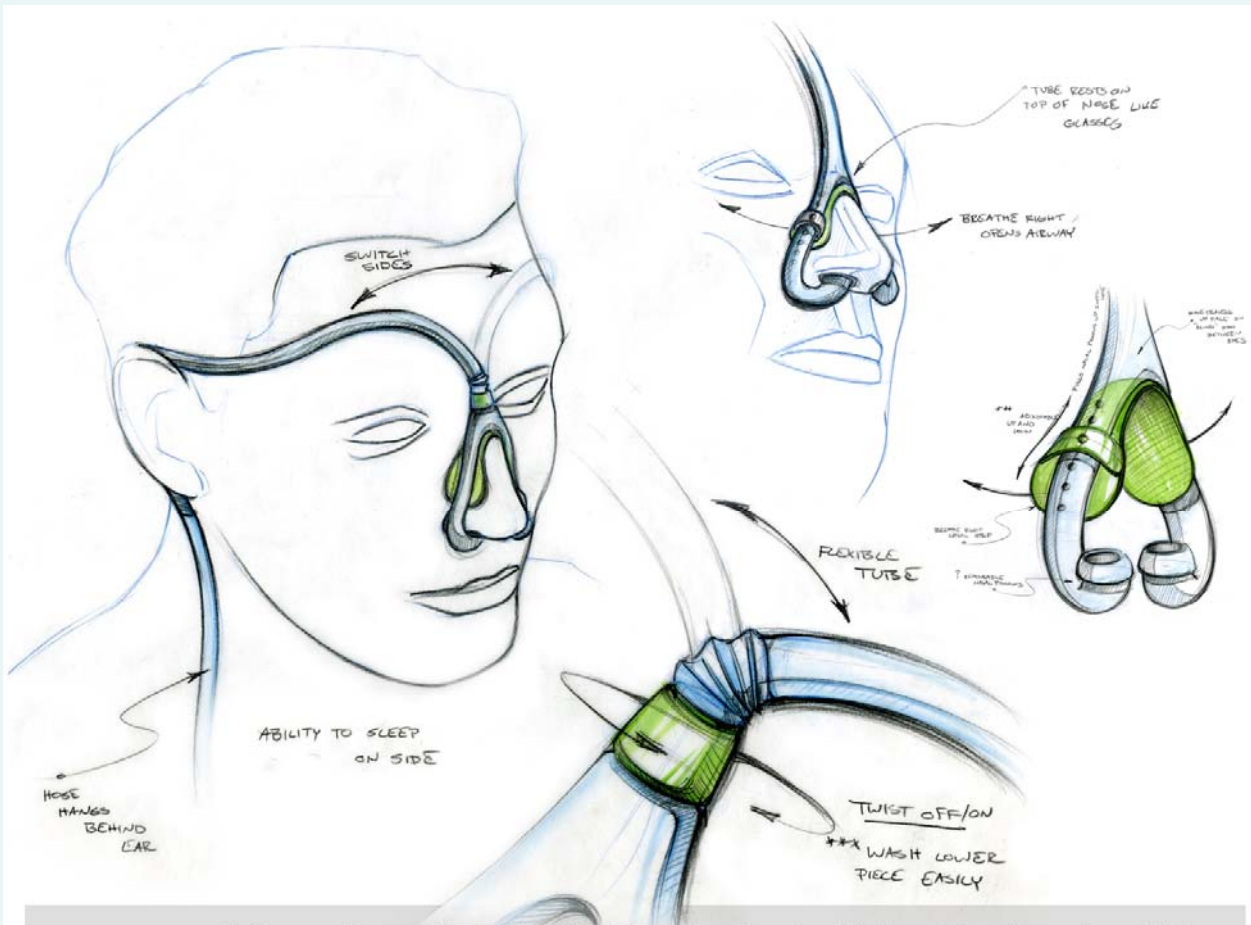


METRO

- Concerned with personal fulfillment
- Spiritual / New-Age
- Health conscious
- Seeks enhanced experiences
- Employs homeopathic & alternative treatments
- Lo-no medical apnea needs

Dude *minimally-invested user*

CONCEPT "A"



Concept A:

Adhesive nose pad leverages existing "Breathe Right" technology serving as the anchor point for the nasal pillows while promoting unrestricted breathing. It could be disposable or easily cleaned with a simple twist on/off attachment and a renewable adhesive backing on the "Breathe Right" strip. Allows for facial hair. No straps around back of head. Option to sleep on side with flexible hose attachment above nose.

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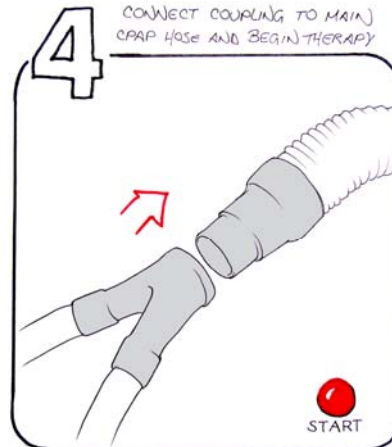
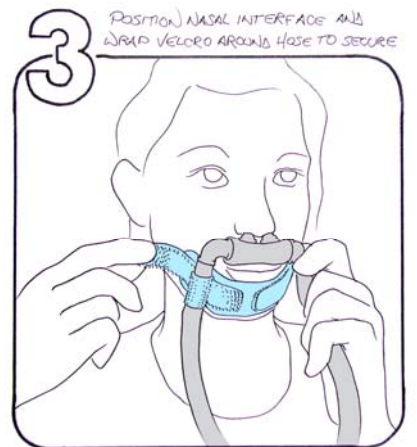
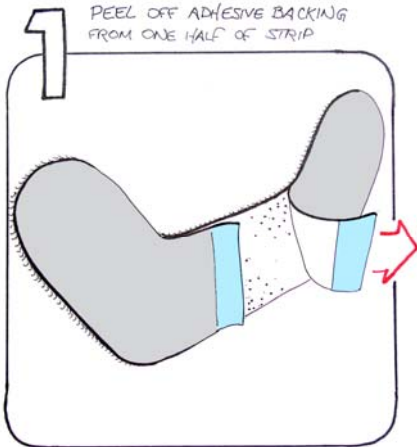
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Dude Storyboard Development



Results

Advanced “PRODUCT” design rather than prototype design

Increased appreciation for users during design process equal to the technical and clinical challenges.