Session 8

A Brief Focus on Your Design Problem

Thinking Creatively

In This Session:

A) User Profile
(40 minutes)
- Student Handout
- Student Reading

B) Sample Design Brief
(30 Minutes)
- Student Handout

C) My Design Brief
(60 Minutes)
- Student Handout

D) Mentor Matching
(20 Minutes)
- Student Handout

In *A Brief Focus On Your Design Problem,* you will prepare a design brief. In preparing a design brief, you'll refine and focus on a problem to solve from the perspective of the users' needs. You'll write a problem statement, a description of the context for the problem, and a proposed solution. You will also draw a sketch of your idea, and come up with suitable materials for constructing a solution. To understand a design brief, you'll take a look at the design brief of a former *Design and Discovery* student.

In the first activity, *8A: User Profile*, dig into who the users of your product will be and how you will design the product to meet the users' needs. In *8B: Sample Design Brief*, read and discuss the parts of the design brief, analyze the sample, and think about writing your own. In the third activity, *8C: My Design Brief*, you'll prepare your own design brief. The activity ends with a short (brief!) presentation of your problem and proposed solution. The final activity in this session, *8D: Mentor Matching*, gives you the opportunity to consider your mentor needs so that an appropriate mentor match can be made.

User Profile

Handout: Session 8, Activity A

In this activity, you will have an opportunity to consider how designers and engineers design products for specific types of people. You will look at familiar objects and come up with user scenarios, and then develop a user scenario for your idea. Do this in your design notebook.

Think about your product idea. Consider the following questions:

- Who will use this product?
- What is the person's gender? Age? Experience with this type of product?
- Where will they use this product?
- Why will they use this product?
- What will they be doing to operate or use this product?

Now, using the above information, describe one person who will be the user. What are their characteristics, and the scenario in which they will use the product? You may include a drawing of the person using the product, if that helps.

What considerations will you need to keep in mind when you design the product to meet the needs of the user?

Meet an Industrial Designer

Reading: Session 8, Activity A

Dana Reinisch
Industrial Designer
ZIBA Design

Introduction
Hi, my name is Dana Reinisch and I am a 32-year-old woman who grew up all over the United States. We moved around the country a lot, and finally when I was in high school we settled in southern California. I am an Industrial Designer at ZIBA Design.

My Job
I have worked as an Industrial Designer for four years at ZIBA Design, which is a product development firm in Portland, Oregon. I have designed a wide range of products including kitchen appliances, computer printers, medical products, and watches.

Background
While growing up, I always had a strong interest in the arts (drawing, graphics, jewelry making) and the sciences. In high school, I took a lot of classes in both these areas where I excel. I have always looked at products very differently from my friends. I want to see how I can improve them functionally and aesthetically. In college, I majored in fine arts with a minor in art history and received a BA in fine arts from Lewis and Clark College. After college I applied to a product design program at Art Center College of Design in Pasadena, California. I attended school there on the campus and for a semester at their campus in Switzerland. I completed two internships and graduated with a BS in industrial design.

A Typical Day
My typical day really depends on what I am working on and where in the design process I am. Some days I am brainstorming and sketching with other designers on new product concepts. Other times I will be modeling products in 2-D and/or 3-D on the computer. I may also be sanding foam or designing a hard model to physically represent my design ideas. In designing a product, I typically work with the client and other disciplines in my company. Frequently we have design reviews at ZIBA Design with just the design team. In presenting the design to the client, I will create a presentation and story around each of the design concepts with images and word call outs.

Favorite Things About Job
Working at a design consultancy, I get to work on a wide variety of projects. I have exposure to many different companies and get to see how they work. Having worked on so many different

8A Reading: Meet an Industrial Designer (continued)

products, I also understand different manufacturing processes from sheet metal bending, injection molding to paper tube winding.

Advice to Young People
As far as advice goes, there seem to be many different routes a designer can take. You can work for a consultancy that works on many types of products for large corporations, work for a corporation designing one specific type of product, and/or design your own products. Industrial design involves a lot of hard work, good sketching and visualization skills, and having an open and creative mind.

About ZIBA Design
ZIBA Design is an international design firm that has designed products for many global companies, including FedEx, Microsoft, Intel, Fujitsu, Black & Decker, Sony, Pioneer North America, Dial, and Clorox. www.ziba.com*

Sample Design Brief

Handout: Session 8, Activity B

A Design Brief
What it is. A design brief is a short description of a design problem and a proposed solution. It describes the typical users, the users' needs, and states a proposed solution in terms of how it will solve the problem. A design brief includes a sketch or sketches of the solution. The design brief provides a planning tool for the project. The design brief is a living document and may be changed throughout the design process.

What it does. The design brief is a way to clarify the problem that the designer-engineer is trying to solve. It doesn't provide a lot of detail about the solution but puts on paper the thinking and research about the problem to solve. Often the act of writing and communicating the problem and proposed solution helps the designer move along in the design process. The design brief also serves to introduce the idea to others for feedback.

Erika was a *Design and Discovery* student. She has played the string bass for a few years and remembers as a beginner struggling with keeping her fingers together. This is Erika's design brief.

Sample Design Brief: Bass Space (patent pending)

1. **Describe the problem.** Write a statement that focuses on what's wrong and not working. Recall the features of a problem statement:

    - Begins with a clear, concise, well-supported statement of the problem to be overcome.
    - Includes data collected during the survey/observation in order to better illustrate the problem.
    - Establishes the importance and significance of this problem.

    When people start playing the string bass, most beginners cannot hold their hand correctly, preventing them from being able to play properly. As a string bass player, I have had personal experience with this and have seen other beginner string bass players also struggle with this.

2. **Describe how the current product is used.** Provide a context for the problem and explain any related solutions that resemble or relate to the problem but have failed to address the problem.

    Currently, there is not a product for this. Sometimes, a string bass teacher may tell her students to tape their fingers together.

8B Handout: Sample and Design Brief (continued)

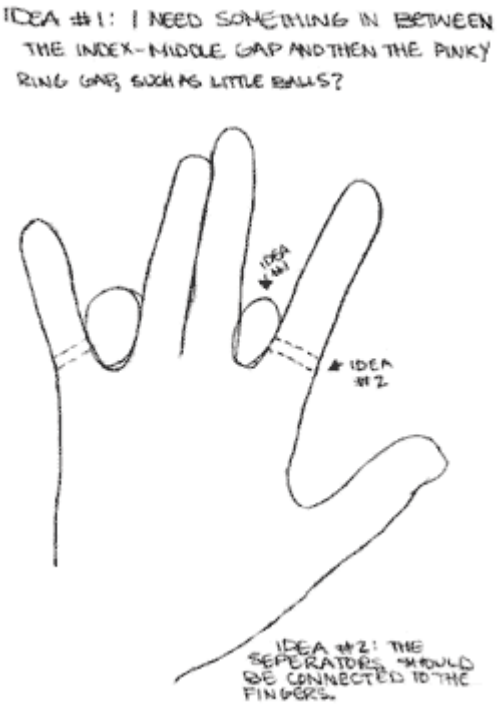
3. **Describe a typical user (user profile).** This addresses who uses the product and how their needs are or are not met. How will they benefit from a different product?

   A typical user is a beginning string bass player. They struggle with holding their hand correctly and keeping their fingers in place. They will benefit from a product that helps them keep their fingers and hands in the correct form to learn to play the string bass. They will be much more comfortable and able to practice for longer periods of time.

4. **Propose a solution.** Describe how it will work, and how it solves the problem. Explain the features.

   I'm not sure what type of material I would use, but the Bass Space would allow the player to keep her two middle fingers together and separate from her pointer finger and pinky. It would be adjustable in size depending on the size of the person's hands.

5. **Draw a quick sketch of your ideas.** This is a rough sketch and can include drawings of different angles of the solution.



6. **Describe the basic requirements that will best suit the proposed product.** For example, this describes the quality (for example: flexible or sturdy), and the type of materials (for example: metal or plastic.)

8B Handout: Sample and Design Brief (continued)

The material needs to be stiff yet flexible to allow hand movement, it cannot break easily, it has to be adjustable for different size hands, will need to slide on and off easily, must be low on the fingers to allow the fingers to bend, must be cost efficient, must hold hand correctly, and it must be comfortable.

My Design Brief

Handout: Session 8, Activity C

Writing your own design brief should help you clarify your ideas and think about them systematically. This is a working document; it will be your road map as you develop your ideas. Be sure to do this in your design notebook. First give your project a name.

1. **Describe the problem.** Write a statement that focuses on what's wrong and not working. Recall the features of a problem statement:

    - Begins with a clear, concise, well-supported statement of the problem to be overcome.
    - Includes data collected during the survey/observation in order to better illustrate the problem.
    - Establishes the importance and significance of this problem.

2. **Describe how the current product is used.** Provide a context for the problem and explain any related solutions that resemble or relate to the problem but have failed to address the problem.

3. **Describe a typical user (user profile).** This addresses who uses the product and how their needs are or are not met. How will they benefit from a different product?

4. **Propose a solution:** Describe how it will work, and how it solves the problem. Explain the features.

5. **Draw a quick sketch of your ideas.** This is a rough sketch and can include drawings of different angles of the solution.

6. **Describe the basic requirements that will best suit the proposed product.** This describes the quality (for example: flexible or sturdy), and the type of materials (for example: metal or plastic).

Mentor Matching

Handout: Session 8, Activity D

To help you with the remainder of your project, you will be assigned a mentor. Please answer the following questions so you can be matched with a suitable mentor.

1. Please describe your proposed project.

2. What sort of mentor do you feel would be helpful to you?
   Describe qualifications and areas of expertise.

3. What can a mentor do to help you?