

# ASSIGNMENT 4



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Group 14  
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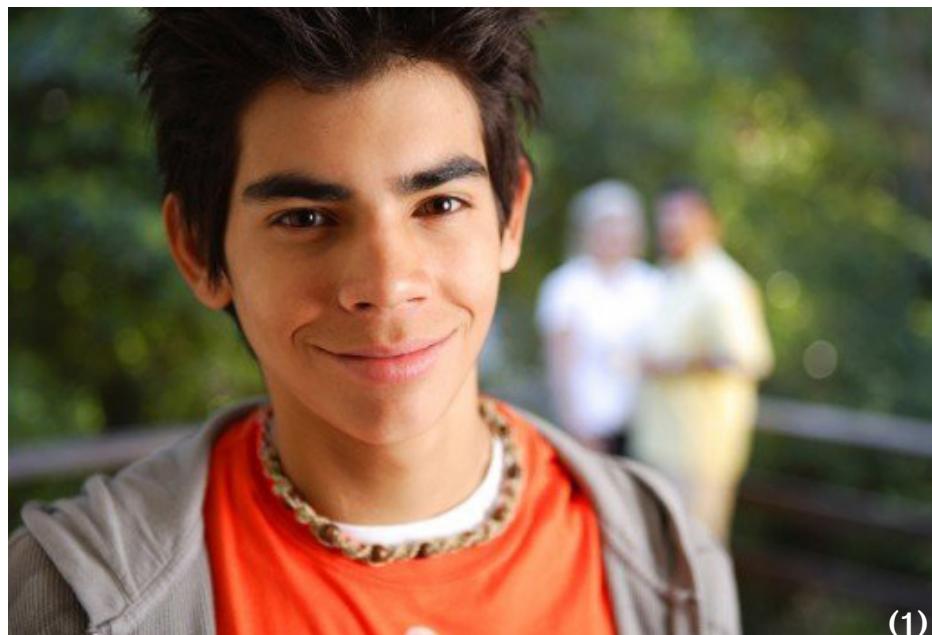
# PERSONAS

## Erik

Erik is an 18 year old male, and a senior at his town's only highschool. He loves outdoor recreational activities like fishing, biking, and playing football with his friends. He lives with his two parents near town on a plot of land. Recently, he's taken an interest in tinkering with his father's old cars as a way to learn a new thing or two. He enjoys country-Western music.

Erik is more traditional in his sense of values. He views going to church and his fundamental rights as an American Citizen as some things which he wants to fight for. Alexander hopes to someday join the United States Military.

Some things he doesn't enjoy in life are doing homework, getting medical examinations, and doing chores around the house. He associates these tasks as menial and sometimes difficult to overcome. Though he doesn't enjoy these things, he has a strict ideology from his family whom he holds so close that not everything in life is fair or easy. So he usually carries through with these activities with little visible discomfort.



(1)



Although Erik considers himself brave, there are a few things which he cannot stand. Such things as gory movies or documentaries depicting surgical footage often have him feeling faint. The idea of getting his annual shots gives him great anxiety, though he does not openly admit it. What seems to cause him the greatest discomfort is not the blood itself, but the idea that somebody is prodding around his own body, which he finds very intruding and a shock to his personal self. Whenever he can, he chooses to opt out of such procedures.

Things may seem to be going well for him, however he is often finding himself sick and unable to do the things he loves. This year, he may miss winter formal due to having a mild flu. His friends are starting to catch on to his fears, but they seldom tease him about it, as it is somewhat understandable to fear such things. Alexander wishes there were some way to make the process of getting a shot easier for him, and even other people who may have the same issue as him.

# Caitlyn

Caitlyn is a 25 year old Brooklynite who grew up in Los Angeles to wealthy parents. She attended a prestigious university studying Law and carries herself with dignity and pride. She enjoys reading books, blogging about new restaurants and experiences in her beloved new home on the East Coast.

Caitlyn is all about experiencing new cultures and food, so she surrounds herself with friends from all walks of life. Though she may not agree with all the things that her friends hold dear to their lives, she respects that other parts of the world are different, and that she should not interfere or judge others based on their background.

Caitlyn does have some reservations about certain aspects of life, however. She does not enjoy taking the bus, watching television, and visiting the dentist as well as seeing her general practitioner.



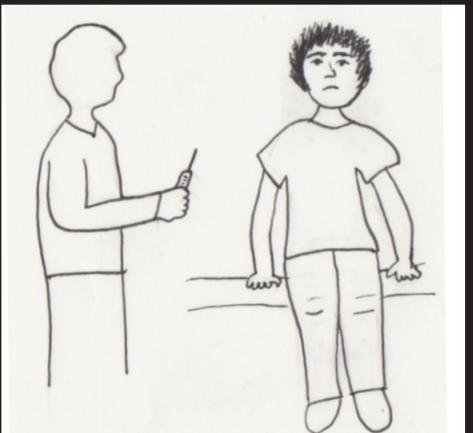
(2)



Caitlyn's dislike of going to the doctor has the potential to pose serious threat to her, and for those consequences to go on to her friends as well. Fellow co-workers at her job were forced to take on her workload after she called in sick from an easily preventable illness. Caitlyn is also somewhat ashamed that this "irrational fear" is preventing her from travelling abroad. She has always wanted to visit South America and parts of Asia, however the required shots have kept her planted in the United States.

She wishes there were alternatives to direct injection, and is hoping for a breakthrough soon that will still provide the same results, but in a more discrete manner. The thought of doctors running their procedures near her makes her very uncomfortable. Caitlyn understands that it's not the pain that she's afraid of, but the actual needle portion piercing her skin. It's because of this that she fears getting her required shots.

# USER SCENARIOS



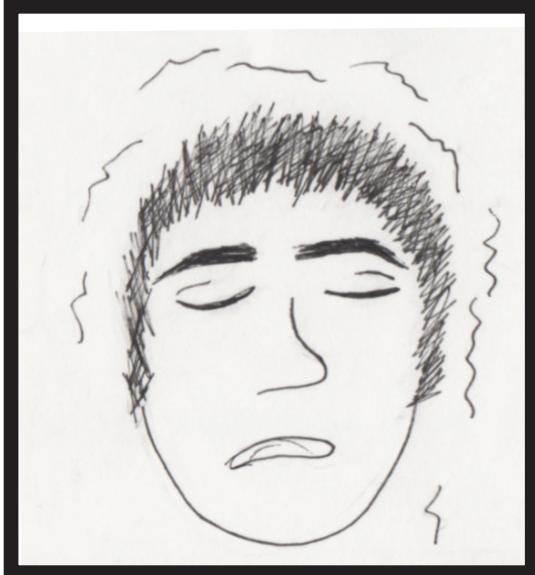
Erik hates going to the doctor's office because he is terrified of needles and can't stand the sight of them. He tries to avoid getting shots but when he has to get them he's not happy.



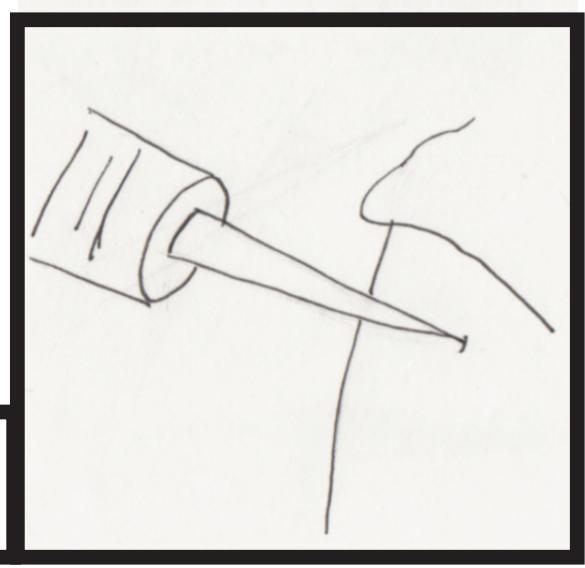
The syringe looks so scary and intimidating with the long sharp needle.



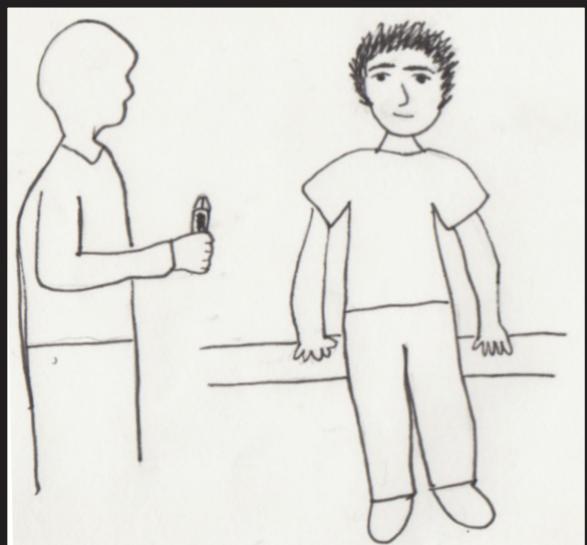
Erik doesn't want to show that he's terrified to get his shot so he looks away to try to calm his anxiety.



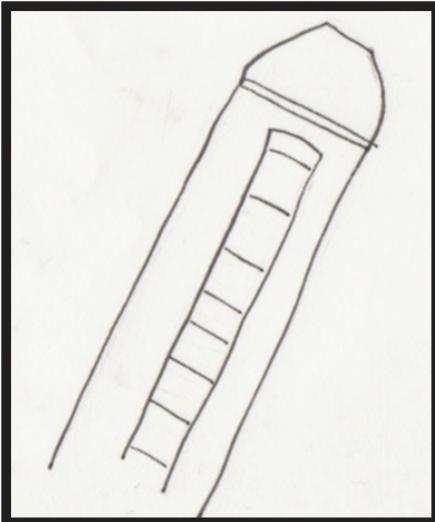
But Erik can't help but shake because of his fear of needles.



He wishes there was a better way to get shots for people who have the fear of needles.



Erik is less tense and anxious at his visit to the doctor's office. Usually he is terrified to get shots.



This new designed syringe hides the needle and has a less intimidating look so patients don't get scared and get anxiety.



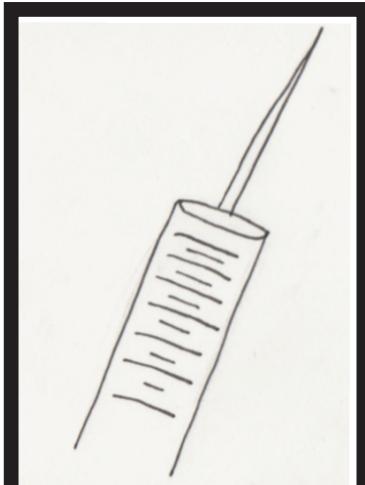
This time when he gets shots he doesn't have to act like he's not afraid of seeing the needle.



Erik is no longer scared of getting his mandatory shots. He doesn't get anxiety or stresses out. He's happy with the newly designed syringes.



Caitlyn hates going to the doctor's office because she hates needles and shots in general. She isn't thrilled about her visit to the doctor's office today.



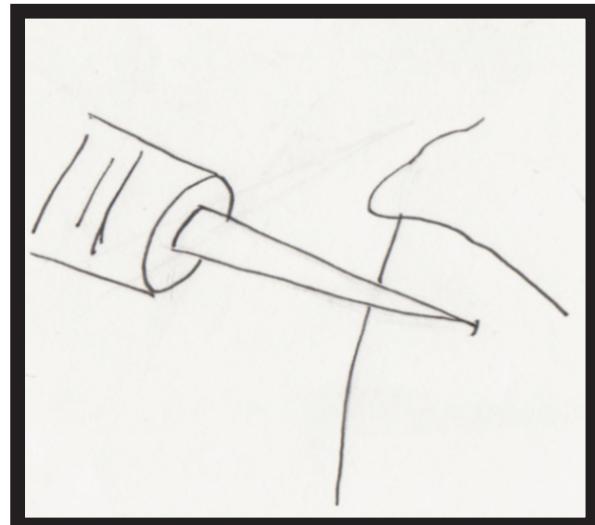
The sight of the syringe scares her and just makes her want to avoid getting her shots.



Caitlyn can't help but start to cry out of fear of the needle. Seeing such a sharp pointy object stabbing into her freaks her out.

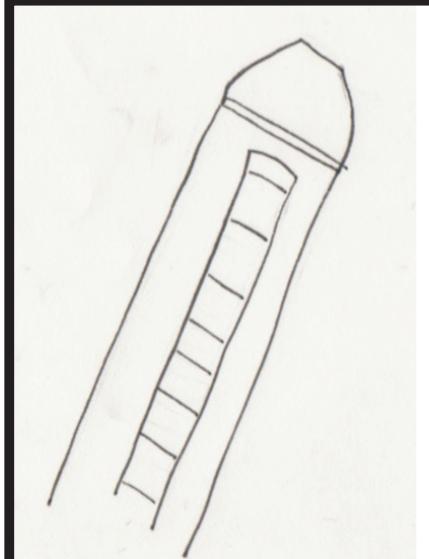


Caitlyn wishes she could get shots and not cry every time because she gets embarrassed.





Caitlyn who has the fear of needles goes in to get her annual vaccination. She's not scared or worried.



This new designed syringe hides the needle and has a less intimidating look so patients don't get scared and get anxiety.



Caitlyn who can't even look at her arm when she gets shots can tolerate the new designed syringe.



Caitlyn is happy she can finally get shots without all the anxiety. It makes doctor visits less intimidating and she's no longer scared to get her vaccinations.

# PRODUCT USER SCHEMATIC



## END USER

- Doctors
- Nurses
- Physician assistants
- Pediatrician

## ENVIRONMENT

- Hospitals
- Free Clinics
- Urgent Care
- In-Home Physicians



## USER INTERACTION

- One Handed
- Aesthetically pleasing
- Ergonomic
- Safe

## EFFECTIVE QUALITIES

- Easy to use
- Keeps patients at ease
- User Efficient



-----***Design Objectives*** -----

**#1 Patient Aesthetics :**

Our Goal for this project was to solve the problem of patient's fear of needles. To do this, the number one priority for the design must be how a patient views the needle. Not only how they physically see the it, but also how they feel around the needle, and how it Interacts with them while an Injection is being made.

**#2 User Experience :**

We want doctors, nurses and any other possible user, to be as comfortable as they can be while using this design. If the user can comfortably use the syringe with one hand, they would have another hand free in order to confort or calm the patient. The experience of the user directly correlates with the experience of the patient.

**#3 Accuracy :**

Accuracy should be in the top three objectives for every product in the medical industry. Being accurate is essential for getting people in the world to trust the products and procedures that seem foreign to our basic instincts

**#4 Safety :**

The point of giving injections and receiving vaccines in the first place, is safety. Whenever a sharp or pointy object is out in the open we want to cover every aspect of safety as best as we can.

**#5 Affordable :**

It is procedure in every hospital today to dispose of every syringe after one use. The fact that something is disposable means customers (mainly hospitals) need these things to be affordable so they can order mass quantities.

**#6 Simple :**

If we want the user experience to go as smoothly as possible we want to make a product that is simple and self-explanatory. We don't want doctors and nurses to have to read a user manual in order to adapt our new product.

# **WORK CITED**

## **Images:**

- (1) "Erik" <[http://www.scarymommy.com/wp-content/uploads/2012/05/Teen-Boy\\_tcm28-497974-525x350.jpg](http://www.scarymommy.com/wp-content/uploads/2012/05/Teen-Boy_tcm28-497974-525x350.jpg)>
- (2) "Caitlyn" <[https://ambitiousmix.files.wordpress.com/2015/05/img\\_0770.jpg](https://ambitiousmix.files.wordpress.com/2015/05/img_0770.jpg)>
- (3) Cover page Photo <[http://tangentindinc.com/wp-content/gallery/needles/istock\\_000011194935medium.jpg](http://tangentindinc.com/wp-content/gallery/needles/istock_000011194935medium.jpg)>