

This student got 100% on this exam

Student Id: _____

Name: _____

CS 419/519: Inclusive Design, Midterm Exam
Fall 2017, Dr. Burnett (Open index card (2))

60/60

1. Short answer:

a. (Personas: 10 points) What is a persona foundation document? (About 1-2 sentences)

10/10
A foundation document (for data driven personas) is essentially a marked up persona sketch containing footnotes/links to the data sources and justifications that comprise your persona. Each 1/2 to 2 sentences should have explanatory footnotes.

b. (Personas: 10 points) Here is a picture of a schoolboy who is usually a good student, but he forgot to study for this test. If he were faced with taking this test and answering question 1(a) above, what do you think he would do? (About 1 sentence). Explain the psychological basis for personas that is behind your answer. (About 2-3 additional sentences).



10/10
If this boy were faced with this situation, he might get frustrated with himself for not studying and start to cry. I can make this prediction because of the Theory of Mind assertion - that people find it natural to create and use models of others, and that we can engage with these models even for fictional people. 7/19

These models contain a rich amount of detail and improve with repeated engagement.
c. (Inclusive Design: 10 points) Give one concrete example of a change to an interface or environment originally intended to some type of underserved user, that actually helped many different types of users. (About 1-2 sentences)

10/10
Curb cuts - Originally intended to help people in wheelchairs move around city sidewalks, they have also benefitted other groups of users (moms with strollers; people moving furniture on a dolly; etc) as well.

d. (Personas: 10 points) According to the book or lecture, what is one advantage of a persona over, say, just a bullet list of facts about your population? (About 1-2 sentences)

10/10
Personas make assumptions about your population explicit in a concrete way that bulleted lists cannot, thereby giving your team a common language to use surrounding your users.

e. (Inclusive Design: 10 points) Suppose someone asked you if inclusive design is the same or different from designing a product specifically for one underserved population. How would you answer and why? (About 1-2 sentences)

10/10

Inclusive design is different than designing for a single underserved population because it focuses on removing as many barriers to as many populations as possible, not just one population. It also aims to do this in one unified interface, not 2 or more separate ones.

f. (Inclusive Design: 10 points) A lot of people like ballroom dancing with a partner. Deaf people (people who cannot hear at all) would like to do this too, but of course they cannot hear the music. To solve this problem, you've designed a device that they wear on their wrist next to their skin. It picks up music frequencies from airwaves, and translates them into physical pulses that pound out the rhythm on your wrist, so that you can dance with a partner and stay in time with the music. One possible good example: People who hear, but not well, and the music is not very loud.

10/10

In addition to deaf people, who else might benefit from having this extra device available and in what circumstance(s) will it help them? (About 1 sentence).

Imagine a mainstreamer college student out looking for something to do on a Friday night. They know there's a party (with music) going on somewhere on their street, but can't pinpoint exactly where due to echoes. Using this device, the student can locate the party by moving around according to where the pulses are strongest (i.e. the music is louder).

2. (Inclusive Design meets Personas meets PRICPE: 20 points) For two teams in this class (one is loudest) can be your own; the other cannot be the Low-Vision team unless that's the team you're on), name two Insights from the Research they presented during the team presentations or other in-class discussions. About 1 sentence or phrase for the Research, and about 1 sentence or phrase for the Insight it leads to.

(Example: The Impairment simulator we saw in class expanded our understanding of vision impairment. Before using it, many of us probably thought (Preconception) vision impairment looked like one or two things: not seeing nearby objects well and/or not seeing faroff objects well. But the simulator developers did some Research for us to give us Insights into what images look like with many other symptoms too.)

Note: **
I'm assuming that the device pulses stronger when the music is louder and softer when it's quieter.

Team 1: Population, Research->Insight 1, Research->Insight 2:

Diabetic Retinopathy (low vision)

R1: People with low vision can be as accurate at identifying points in 3D space with an audio interface as sighted users can with a visual interface.

→ I1: We should ensure that our interface contains audio elements for each visual element.

R2: People with DR tend to be in more fragile emotional states than mainstreamer because they spend a lot of time worrying about their vision / if it's going aux.

→ I2: People with DR might be more likely to give up if they encounter a problem with their software.

Team 2: Population, Research->Insight 1, Research->Insight 2:

R1: Low SES users tend not to question authority.

→ I1: The interface should not present information in an authoritative voice or fashion (e.g. "This is how much you'll pay for college" and then not explain scholarships/grau

R2: Low SES users tend to have lower literacy rates than the mainstream populations do.

Important: If you need to make an assumption, write it down so that we know what you're thinking. Page 2

→ I2: The interface should not rely heavily on text to describe things, instead presenting information in a more visual way like icons or charts.

Low SES Users

3. (Personas: 20 pts) You've just joined a software team as its first User Experience (UX) professional ever. The team has a history of turning out products with serious usability problems. You've decided to use one or two personas to try to improve the next software product, which is a scheduling/routing system for truck drivers who deliver fresh seafood to Oregon grocery stores. There has never been a UX person on the team before, they've never used personas, and they're doubtful about this concept.

Name three things the book or lecture suggests you can do during the Family Planning, Conception, and/or Gestation stages to help the team "buy-in" to your personas.

- 1 - Get the stakeholders involved ^{and as early as possible!} at every step of the persona creation process, as much as possible. If the key people in the company are involved from the start, they are more likely to support/champion the persona effort later.
- 2 - Ensure that the personas you create are strongly rooted in data that you (or the company) collects about the actual users (in this case, the truck drivers for the company). If you can back up each part of your persona with data, people are more likely to believe that the persona is credible and represents the users well.
- 3 - Once you have created your initial personas, verify them by checking your facts don't stray too far from the actual data you have about the users. This can involve talking to a user that the persona is supposed to represent and seeing if it fits them, or it might involve doing a larger-scale user survey to ensure you've captured the relevant attributes.

