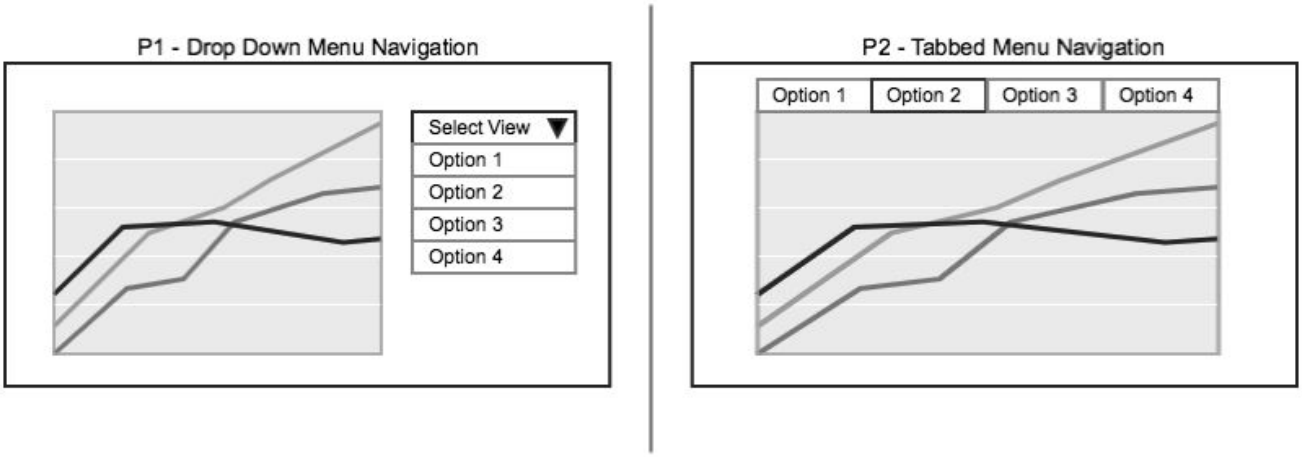
Q1: What is the most efficient navigation type between drop-down and tabbed menus across age brackets?



Prototype 1 URL: https://dongell.github.io/cosc4500-intro-techskills-demo/q1p1.html
Prototype 2 URL: https://dongell.github.io/cosc4500-intro-techskills-demo/q1p2.html

Experiment Format

1. Enlist **100 total MTurk users** for Q1
2. We will create 10 x 10 "batches" of users with the following criteria:
    a. Prototype with drop down navigation
        i. Age bracket 18-25 (10)
        ii. Age brackets 25-30 or 30-35 (10)
        iii. Age bracket 35-45 (10)
        iv. Age bracket 45-55 (10)
        v. Age bracket 55+ (10)
    b. Prototype with tabbed navigation
        i. Age bracket 18-25 (10)
        ii. Age brackets 25-30 or 30-35 (10)
        iii. Age bracket 35-45 (10)
        iv. Age bracket 45-55 (10)
        v. Age bracket 55+ (10)
3. All users will be given the same MTurk and Survey questions with the only difference being the 2 prototypes.
4. The MTurk instructions will ask users to simultaneously open:
    a. Prototype (hosted on GitHub)
    b. Survey (hosted on MU Qualtrics)

5. Users will be required to agree to our “Informed Consent Form” which is the first question in the survey. If they do not agree, then we exit the survey.

6. Users will be instructed to answer the following 5 questions “without pausing, as quickly as possible”:
    a. What were the total number of suicides in 2000?
    b. What were the total number of female suicides in 2005?
    c. What were the total number of suicides in the 25-39 age bracket in 1995?
    d. What were the total number of suicides in Asia in 2010?
    e. What were the total number of suicides for the Gen X group in 1999?
7. Qualtrics will track the average time taken in between answering the following questions:
    a. (a) -> (b)
    b. (b) -> (c)
    c. (c) -> (d)
    d. (d) -> (e)
8. We will then ask the following demographic questions**:
    a. Gender?
    b. Ethnicity?
    c. Race?
9. The survey will provide an alphanumeric code to the MTurk user which will need to be entered into MTurk for verification and payment.

    ** **Note**: Since we are batching our experiment into age brackets, we do not need to ask users their age bracket.

MTurk Details

Title	Survey related to a basic web app
Description	You will be asked to answer (5) questions that can be found in our web application and up to (5) demographic questions about yourself. This exercise is to learn the A/B user testing process for an Advanced Data Science class at Marquette University.
Keywords	webapp, survey, learning, university, basic
Reward	.50
Time Allotted	1 Hour
Task Expires In	5 Days
Auto-approve By	5 Days
Short HTML Instructions	● Open our web application (tiny URL) ● Open our survey (tiny URL)

	• The survey will guide you through the experiment

Qualtrics Survey

https://marquette.az1.qualtrics.com/jfe/form/SV_8AnzPMyjfngWpMN

Predictions

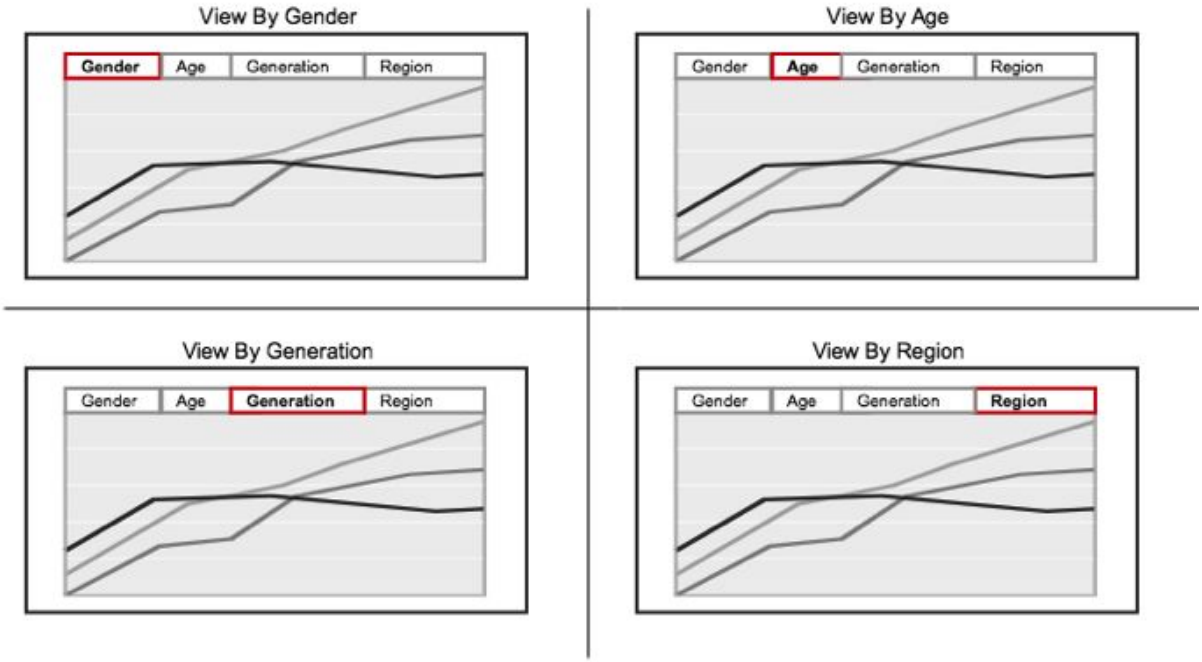
1. The tabbed navigation will be more efficient than the drop down navigation.
2. Younger age brackets will be more efficient that older age brackets at completing our survey questions.

Two-way ANOVA

Dependent Variable: Average Time Between Answering Survey Questions (y)
Independent Variables: Prototype (x1), Age Bracket (x2)

AverageTime (y) = Prototype (x1 - category var w/ 2 levels) + AgeBracket (x2 - category var w/ 5 levels)

Q2: Does viewing option affect mood across genders?



Prototype URL: https://dongell.github.io/cosc4500-intro-techskills-demo/q2p1.html

Experiment Format

1. Enlist **100 total MTurk users** for Q2
2. Users will be divided into 2 equal groups by gender: Male / Female
3. The MTurk instructions will ask users to simultaneously open:
    a. Prototype (hosted on GitHub)
    b. Survey (hosted on MU Qualtrics)
4. Users will be required to agree to our "Informed Consent Form" which is the first question in the survey. If they do not agree, then we exit the survey.
5. Users will take pre-test mood survey based on this: https://www.brandeis.edu/roybal/docs/PANAS-GEN_website_PDF.pdf
6. Users will answer in survey which filter did they choose first?
7. According to 6.) Users will be asked the following questions based on their first choice….
    a. Age
        i. What age in 1987 was the highest?
    b. Gender
        i. Which gender had the highest suicide rate in 2001?
    c. Generation
        i. Which generation was highest in 1990?
    d. Region

        i. Which region had the least in 2008?
8. Users will take a the same mood survey from Step 5.
9. We will then ask the following demographic questions**:
    a. Age Bracket
    b. Ethnicity
    c. Race
10. The survey will provide an alphanumeric code to the MTurk user which will need to be entered into MTurk for verification and payment.

** **Note**: Since we are batching our users by gender, we do not need to ask this in the demographics section.

MTurk Details

Title	Survey related to a basic web app
Description	You will be asked to take a pretest mood survey, answer up to (5) questions that can be found in our web application, take a post-test mood survey and answer (3) demographics questions about yourself. This exercise is to learn the A/B user testing process for an Advanced Data Science class at Marquette University.
Keywords	webapp, survey, learning, university, basic
Reward	.50
Time Allotted	1 Hour
Task Expires In	5 Days
Auto-approve By	5 Days
Short HTML Instructions	● Open our web application (tiny URL) ● Open our survey (tiny URL) ● The survey will guide you through the experiment

Qualtrics Survey

https://marquette.az1.qualtrics.com/jfe/form/SV_eULAYkYyegi7y3r

Predictions

1. The Age view mode will give most negative mood change results
2. Females will have a more negative feeling after viewing our tool than males.

Two way - ANOVA Equation

Dependent Variable: Mood Change Difference After Viewing Our Webapp (y)
Independent Variables: “First Selected” View Mode (x1), Gender (x2)

MoodChange (y) = ViewMode (x1 - category var w/ 4 levels) + Gender (x2 - category var w/ 2 levels)