Research Proposal:

Budgeting & Savings Web Application

Research Proposal

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EXECUTIVE SUMMARY

This research proposal provides details of the planned research for a budgeting application which will be used to track the spending habit of participants. The ultimate goal of the research is to discover if the presence of such an application causes people to save more money than they would without the usage of the application. Length of the study group involvement will be from 4-6 weeks. Data will involve the participants' savings habits prior to their use of the application also.

Stakeholders for the study include:

A. Individual consumers (the people)
B. Banks (suppliers of the most popular savings method: savings accounts)
C. Governments (the city, states, country for whom healthy savings make for financially-secure citizens)

Methods of conducting the research include:

- Wireframe testing
- Usability testing
- Participant survey
- Participant usage of the application

At the end of the study, a presentation will be created to report on the findings.

INTRODUCTION

According to Brian Collins and Shai Akabas, that Americans are not saving enough money for retirement if they are saving at all. In 2017, only 54% of Americans could come up with $400 in an emergency without borrowing or selling possessions. Americans are living longer and spending more years in retirement, but nearly half of private sector workers do not contribute to retirement savings plans (Akabas & Collins, 2017). Megan McArdle reports that the savings of millennials are not too much different from the savings of other Americans. She also notes that income stagnation over the decades has not been proven to be the reason that Americans are not saving (McArdle, 2018). In recognizing this trouble, I decided to find a way to increase people's focus on their savings habits.

Already, there exist software such as Quicken which "help[s] consumers budget, pay bills and analyze their portfolios". It made getting a grip on their money a little easier for people (Wisniewski, 2016). There are many other personal finance applications. However, little is known about which consumers use financial software and whether the use of such software results in better financial outcomes (Bi, Finke, & Huston, 2017).

My Informatics courses have provided skills in coding applications in PHP, MySQL, and Java. I've also learned database design and maintenance. I plan to use these skills to create a web-based application which will allow users to track their expenditures and savings throughout the week. They will be able to set budgets for several categories of expenditures and a weekly or biweekly savings goal. The application will accept data, post to a database, and allow for analysis of that data.

RESEARCH QUESTION

The process of formulating the research question involved taking contributing factors into consideration. My interest was in the savings habits of individuals. With this being a serious subject in American's lives, finding tools to help them save more money is an important task. Yes, there are already applications available for budgeting and tracking money in different accounts. However, little research shows how the applications work to affect people's habits. Thus, I come to my research question:

Will use of a budgeting website help a person save more money, week over week, than they had previously saved without the website in recent previous weeks given that all other contributing factors remain constant?

By comparing the two results of saving, with the application and without the application, and verify that there are no changes in other nonnegligible factors, we should be able to measure the effectiveness and influence of the application.

RESEARCH METHODOLOGY

Quantitative Research methods are being used as the type of data being sought is easily definable. In this study, we will determine if the amount of money being saved by an individual can be increased if an application that tracks money allocation is being used by that person.

The experiment will be conducted as a blind study in that I will not tell the participants what is being measured. It will be presented as an attempt to determine the ease of use of a developing application. However, the true purpose of the study will be to discover if the use of the application will increase individual savings when compared to their savings in the same period without the application.

VARIABLES

- **Dependent Variable**: Weekly/biweekly amount of money added to savings
- **Independent Variable**: Usage of the application
- **Extraneious Variables**: Frequency of income

STUDY POPULATION: This group will consist of consumers ranging from ages of early 20's to late 40's. Some will be college graduates, others will have some college, others will have no college. Exact income will not be taken into consideration though income range will be assessed to be lower, middle, or upper class.

Participant observation will involve communication with the participants at least twice per week to ensure that they have no troubles with the application.

Wireframe testing will be done in the early phase of the study. This will involve creation of the wireframe with minimal working parts. Testing will be done to observe users' interactions with the wireframes. These will be created using Balsamiq.

Usability testing will be performed once the application is ready for use. This will include scenario testing through recording users performing specified tasks.

DATA COLLECTION

- The application will be built using HTML, CSS, PHP, and MySQL. Forms on the front end will post data to the server. Platforms for the website-based application and the server are provided by Mercer University. Queries will be used to extract data from the database.
- Surveys will be taken with participants at the beginning of the study. The survey will be web-based and will be built on the same domain as the application. Survey questions will include the following:
    1. In what age group are you: 20-29, 30-39, 40-49?
    2. Choosing the closest option available, what is your gender: male, female, or other?
    3. How many children do you currently support financially?
    4. Every two weeks, how much money do you put into maintenance and fuel for your vehicle or commute?
    5. Every two weeks, how much money do you put into home utility bills?
    6. How much money do you as an individual pay into mortgage or rent?
    7. How much money did you pay for childcare in the last two weeks?
    8. How much money did you personally pay for food in the last two weeks?
    9. Do you have a personal savings account (separate from checking)?
    10. Do you currently contribute money to a retirement account such as a 401K or IRA?

PROJECT PLANNING

Budgeting App Project Management

TASK NAME	START DATE	END DATE	DURATION (WORK DAYS)	PERCENT COMPLETE
First Sample Project				
Usability Testing	3/4	3/15	10	0%
Coding the Application	3/4	3/15	10	0%
Participant Surveys	3/24	3/29	5	0%
Participants Use Application	4/1	4/19	15	0%
Application Maintenance	4/1	4/19	15	0%
Reporting and Presentation	4/22	4/26	5	0%

References

Akabas, S. & Collins, B. D. (2017). Bipartisan recommendations-for policy makers and practitioners-to improve retirement security and personal savings. Benefits Quarterly. Brookfield. 33(3). Retrieved from https://www.ifebp.org/inforequest/ifebp/0200671.pdf

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