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10/07/2024

Infm 400

Final Project Proposal

Executive Summary

Gaming addiction is becoming a serious problem worldwide. As video games grow in popularity and technology improves, more people are spending excessive amounts of time gaming. This leads to negative effects on health, including eye strain, poor posture, sleep problems, and increased stress. It can also cause social isolation, damaged relationships, and mental health issues like anxiety and depression.

As an avid gamer myself, I understand firsthand how challenging it can be to balance gaming with other responsibilities. On top of that, I also struggle with ADHD, which can make it even harder to limit my gaming time due to paralyzation and hyperfocus or focus on other tasks. For people like me, gaming can become a way to escape stress, but it can also make it difficult to manage time effectively or maintain healthy habits.

To address this issue, this project proposes a research study to test the effectiveness of the Gaming Wellness Platform and similar tools. This platform is designed to help people manage and reduce gaming addiction by offering tools like time management features, reminders to take breaks, mood tracking, and a supportive community. The platform's goal is to encourage healthier gaming habits and help users balance their gaming with other aspects of life.

The purpose of this study is to determine whether the Gaming Wellness Platform can help users spend less time gaming, improve their physical health, boost their mental well-being, and improve social relationships. The research will use both quantitative and qualitative methods. Surveys will be given before and after the study to measure changes in gaming habits, addiction levels, physical health, and mental well-being. The platform's usage will also be tracked to see which features participants use most. In addition, short interviews will be conducted every week/every other week to get feedback from participants about their experience using the platform.

After 8 weeks, the data collected will be analyzed to see if the platform helped reduce gaming addiction and improve users' overall health and well-being. The results will help show whether digital tools like the Gaming Wellness Platform or tools like it can be effective in managing gaming addiction. This research will also contribute to the field of informatics by demonstrating how technology can support healthier behaviors and mental health improvements.

Introduction

The rise of digital gaming has transformed entertainment and how people connect with others around the world. As online games become more immersive and accessible, gaming has moved from a simple pastime to a major part of many people's daily lives. However, for some, gaming can cross the line from fun to unhealthy addiction. Gaming addiction is now recognized as a mental health issue by organizations like the World Health Organization (WHO), with negative effects on physical health (such as eye strain and poor sleep), mental well-being (including anxiety and depression), and relationships (leading to isolation). These effects can be so severe that they interfere with daily life, work, and personal relationships, making it harder for individuals to regain control.

As someone who has struggled with gaming in the past, I know firsthand how difficult it can be to balance gaming with other responsibilities. At one point, I found myself on the verge of addiction

which is easy with ADHD. I realized that I needed a change but wasn't sure where to start or where to find the right support. This is why I believe there needs to be a safe and accessible platform for individuals who want to change their gaming habits but feel unsure about how to begin.

Informatics—using technology and data to help improve health care and behavior—offers a solution to this problem. It can help create tools to support individuals in managing their gaming behaviors, making it easier for them to regain control of their lives. This proposal focuses on the Gaming Wellness Platform, a digital tool I would like to design to reduce gaming time, encourage healthy habits, and improve overall well-being. It features tools like time management, break reminders, and social support networks, all aimed at helping individuals reduce gaming time while still enjoying their favorite games in a healthier way.

This project is important to IT and Informatics because it shows how technology can be used to create positive behavior change, especially when it comes to managing issues like gaming addiction. By studying how well the Gaming Wellness Platform works, this research will provide valuable insights into how technology can help people improve their habits and mental health. For me personally, I want to see a solution that I could have used during my struggles especially when I am lacking motivation and want to run to my hobbies—a platform that not only offers support but also helps individuals feel less isolated and more empowered to take control of their gaming behaviors. Ultimately, this study will contribute to the growing field of digital health tools, offering lessons that can be applied to other types of behavior changes, beyond just gaming addiction.

Research Question

The primary focus of this research is to evaluate the effectiveness of the Gaming Wellness Platform and similar tools in helping individuals manage their gaming habits and mitigate the negative impacts of gaming addiction. Specifically, the study will investigate how this platform can help users

reduce gaming time, improve their overall well-being, and support healthier gaming practices. This will be done by addressing the following research question:

How effective is the Gaming Wellness Platform in reducing gaming addiction and improving users' physical, mental, and social well-being?

1. **Does the use of time management tools (e.g., daily/weekly gaming limits) on the platform reduce overall gaming hours?**
2. **How do features such as break reminders and in-game interventions affect the physical health of users (e.g., eye strain, sleep quality, and posture)?**
 - This question looks at the physical health benefits that users may experience using reminders to take breaks, as well as tracking how long they spend gaming in one sitting. Many individuals who experience gaming addiction suffer from physical ailments caused by prolonged screen time, so understanding the effectiveness of these features is critical.
3. **What impact does the platform's community support and educational content have on mental well-being, particularly in terms of anxiety, depression, and stress related to gaming?**
 - Social isolation is a common consequence of gaming addiction. Thus, evaluating how the platform's support groups and educational resources (e.g., tips, articles, and mental health advice) impact users' mental health is an essential part of the research. The goal is to determine whether having access to a support network and resources helps users improve their emotional state and provides motivation to stick with healthier gaming habits.
4. **Can the platform's tools, such as self-assessment and behavior tracking, effectively promote long-term changes in gaming habits and improve overall well-being?**

- This question evaluates whether the platform’s more interactive features, like self-reflection and behavior tracking, help users make lasting behavioral changes. By tracking their habits over time and receiving feedback, users may develop more awareness of their gaming behavior and take proactive steps to manage it.

5. How do users perceive the overall experience and effectiveness of the Gaming Wellness

Platform in terms of its ability to meet their needs and help them reduce gaming addiction?

- Finally, this research question aims to gather feedback on the user experience with the platform, including ease of use, satisfaction with features, and whether they feel the platform helps them meet their personal goals. Understanding the user’s perspective is essential to assessing the platform's value and potential for broader use.

Hypothesis

The central hypothesis of this research is:

“Users who actively engage with the Gaming Wellness Platform or similar tools will report a reduction in gaming time, fewer negative physical and mental health effects, and an improvement in their overall well-being.”

This hypothesis assumes that the platform’s combination of time management, behavioral tracking, and community support will create an effective solution for managing gaming addiction. By providing users with structured guidance and support, they will be able to reduce the negative impacts of gaming and improve their quality of life.

Proposed Research Methodology

This study will use a mixed-methods approach, combining both quantitative and qualitative methods to assess how well the Gaming Wellness Platform works in helping users manage their gaming habits. The research will include surveys, tracking user activity on the platform, and interviews. By using both types of data, we can understand both the changes in behavior (through numbers) and the personal experiences of the users (through interviews).

The pre- and post-study surveys will gather data about the participants' gaming habits, their addiction levels, and any changes in their health before and after using the platform. The surveys will be given at the start of the study (Week 1) to get a baseline, and then again at the end (Week 8) to see how things have changed.

Here are the survey questions:

Pre-Survey Questions (Week 1):

1. On average, how many hours do you spend gaming per day?
2. How often do you feel that gaming gets in the way of your personal or work responsibilities?
3. Do you think your gaming habits have affected your social relationships (e.g., with family, friends)?
4. Have you ever used any tools or apps to manage your gaming time (like parental control software)? (Yes/No)
5. How well do you think these tools worked in reducing your gaming time or improving your balance?
6. Would you be interested in a tool like the Gaming Wellness Platform that combines time management, community support, and in-game reminders? (Yes/No)

7. On a scale of 1-10, how satisfied are you with your current gaming habits and their impact on your overall well-being?
8. Do you experience physical problems (like eye strain, headaches) from gaming? (Yes/No)
9. Do you think gaming helps you deal with stress or emotional issues? (Yes/No)
10. Have you ever tried to cut back on gaming but found it difficult? (Yes/No)
11. Would you consider using a platform like the Gaming Wellness Platform or something similar for managing gaming addiction? Why or why not?

Post-Survey Questions (Week 8):

1. How many hours do you spend gaming now after using the platform or something similar for 8 weeks?
2. How often do you feel that gaming interferes with your personal or professional responsibilities?
3. Do you think your gaming habits have improved after using the platform?
4. After using the platform, do you experience fewer physical problems (like eye strain or headaches) from gaming?
5. How effective do you think the platform's time management features were in reducing your gaming time?
6. Would you be interested in using this platform in the future? Why or why not?
7. Do you think your stress or emotional well-being has improved after using the platform?
8. Would you recommend this platform to others who are struggling with gaming addiction?

The qualitative data will come from weekly check-ins and end-of-study interviews. These will give us a deeper understanding of how participants feel about the platform, how it has affected their habits, and their overall well-being.

Weekly Check-In Questions (Conducted weekly):

1. How has your gaming routine changed this week after using the platform?
2. Which features of the platform (like time management, break reminders, support groups) do you find most helpful?
3. What challenges have you faced using the platform's features?
4. Have you noticed any changes in your physical health or mental well-being (like less eye strain, better sleep)?
5. How has the support community or educational content in the platform helped you with your gaming habits?

End-of-Study Interview Questions (Week 8):

1. Can you describe a typical day for you in terms of gaming?
2. How do you feel when you play games for long periods of time?
3. What challenges do you face when trying to balance gaming with other life responsibilities?
4. Have you experienced any negative consequences (like missed appointments or strained relationships) because of gaming?
5. What has been your experience with any technology tools or apps designed to control or reduce gaming time?
6. Have you tried using in-game features (like break reminders or playtime trackers) to help manage your gaming? How did they work for you?

7. How do you think a platform like the Gaming Wellness Platform (with time management, self-assessment, and community support) could help you?
8. Do you think there is enough support or resources for people struggling with gaming addiction?
9. What features would you like to see in a platform that helps people reduce gaming addiction or improve gaming habits?
10. If you had access to a tool that monitored your gaming and gave feedback on your habits, would you use it? Why or why not?

The weekly check-ins will be short, 5-10 minute interviews to gather ongoing feedback about how participants are using the platform and what changes they are noticing. The end-of-study interview will be more detailed, allowing us to understand the long-term effects of using the platform over the 8 weeks.

The quantitative data from the surveys will be analyzed using basic descriptive statistics. I will compare participants' gaming hours, addiction levels, and physical health before and after using the platform to see if there were any significant changes.

For the qualitative data, we will use thematic analysis. This means we will look for patterns or themes in the feedback from the interviews and check-ins, such as common experiences, challenges, and benefits of using the platform. This will help us understand how users feel about the platform and whether it was helpful in managing their gaming habits.

By combining both quantitative and qualitative methods, I will get a complete picture of how the Gaming Wellness Platform affects users and whether it can help reduce gaming addiction and improve their overall well-being.

Proposed Data Collection Instrument

1. Pre- and Post-Surveys:

The surveys will consist of multiple sections to assess different aspects of participants' behavior and health:

- **Gaming Hours:** Participants will report the total number of hours spent gaming each week, broken down by weekdays and weekends.
- **Addiction Level:** Participants will rate their perceived addiction on a scale from 1-10, both before and after using the platform.
- **Physical Health:** Questions will address common gaming-related health issues (eye strain, headaches, posture issues).
- **Mental Health:** Participants will rate their stress levels, mood, and anxiety before and after using the platform.

2. Weekly Check-In Interviews:

These will follow a structured yet open-ended format, with questions such as:

- How has your gaming routine changed this week?
- Which platform features or other tools (Alarms, Timers) did you use most frequently, and how did they help?
- Have you encountered any difficulties with the platform or its features?
- What improvements have you noticed in your physical and mental well-being?

The interviews will allow for the collection of qualitative data that supplements the quantitative survey answers.

3. **User Activity Tracking:**

I would like to somehow record engagement data within the platform if not available in the prototype, I will ask the users to manually track the information. This data will show:

- **Frequency of Time Limit Usage:** How often users set time limits and whether they adhere to them.
- **Break Reminder Engagement:** Whether users take breaks when prompted and how often.
- **Mood and Health Tracking:** Whether users engage with tools that allow them to track their emotional and physical states.

These instruments will allow the research team to assess both subjective user experiences and objective behavior changes over the course of the study.

Project Planning Report

Phase 1: Planning and Preparation (Week 1-2)

- Finalize platform design and features or find tool similar to the wants of the platform.
- Recruit participants for the study.
- Prepare pre-study survey questions and interviews.

Phase 2: Data Collection (Week 3-7)

- Week 3: Administer pre-study surveys, onboard participants.
- Week 3-8: Conduct weekly check-ins and monitor platform usage.

Phase 3: Analysis (Week 8)

- Collect and analyze post-study surveys and user activity data.
- Conduct thematic analysis of interviews.
- Finalize findings and prepare the final report.

2. Stakeholders

- **Primary Stakeholders:**
 - Blake Herndon (Researcher): Responsible for the overall project execution, data collection, and analysis.
 - Study Participants: Users of the Gaming Wellness Platform, providing insights and feedback.
- **Secondary Stakeholders:**
 - INFM400 Professor/Instructor: Overseeing the project and providing feedback.
 - Gaming Community: Could benefit from the results of the research.
 - Mental Health Professionals: May use the insights to address gaming addiction.

3. Risks

List the potential challenges that might impact the project and propose mitigation strategies:

- Risk: Low participant engagement.
How to solve: Increase participant support, send regular reminders, and gamify platform usage to maintain interest.

- Risk: Incomplete or inaccurate data collection.

How to solve : Monitor participant progress closely, provide incentives for completion, and perform regular data checks.

- Risk: Technical issues with the platform for if the prototype cannot be created in time..

How to solve : Have backup tools and programs to use and perform extensive testing before launching the study.

- Risk: Biased or skewed results.

How to solve : Ensure anonymity in surveys, and gather data from a diverse participant pool.

4. Resources

Include all materials, technology, and personnel required for the project:

- **Technology:**

- Gaming Wellness Platform (prototype or tool).
- Survey tools (e.g., Google Forms, SurveyMonkey).
- Software for tracking user activity and time (e.g., Clockify, RescueTime, Steam).
- Data analysis tools (Excel, SPSS).

- **Personnel:**

- Researcher (Blake Herndon).
- Participants for the study.

5. Gantt Chart

A Gantt chart visually represents the timeline of the project, showing tasks and deadlines. Here's a simple breakdown for an 8-week study (use software like Excel, Google Sheets, or Gantt chart tools):

Task	Week	Week	Week	Week	Week	Week	Week	Week
	1	2	3	4	5	6	7	8
Finalize Platform Design	X	X						
Recruit Participants	X	X						
Pre-study Survey		X						
Weekly Check-ins			X	X	X	X	X	
Monitor Platform Usage			X	X	X	X	X	
Post-study Survey & Interviews							X	
Data Analysis								X
Final Report								X

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