

Individual Project Report

Course lecturer: Mr Chan Sze Long Cyron

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Student name: Fong Tze Ning, Kristine

Student number:

Project: DigiZero Gamified Digital -Wellbeing tool for healthy screen usage

## Introduction

Due to the advancement of technology, digital devices become important elements in everyone's life. Especially after Covid-19, the changing mode of lecture increases the time usage on the digital devices, creating harms on physical, social and academic perspective. From the physical perspective, it increases the chances of eye dryness and back pain. It also reduces their motivation to do other activities, such as exercising, which is poor for their health. When people are digitally addicted, they may use their phones overnight, resulting in poor sleep quality. From the social perspective, it encourages citizens to communicate virtually instead of face-to-face. When people prefer having virtual communication, their verbal communication may be poorer, inhabiting their potential and disadvantaging their growth. Additionally, it may increase their nervousness about talking with others in reality and prevent them from communicating face-to-face. It forms a vicious cycle. From an academic perspective, the reliance on AI may reduce students' creativity, while the long-time usage of phones lets them not finish their tasks or procrastinate. As a result, they may be lagging behind other students. Because of the long duration of lagging, it decreases students' learning motivation, while the app in digital devices provides a satisfactory to them. Therefore, they like using digital devices and are addicted to them easily. As this issue is related to our consumption behavior, so we choose it as the topic.

There are different key players to tackle the digital addiction issues. For online parties, productivity products such as Forest provide a new experience in planting trees by using fewer phones. At the same time, the parent screen locks apps may attract customers by reducing the children's consumption of digital devices. For the offline parties, people who are digitally addicted may visit NGOs for counselling sessions or therapy. Although there are existing solutions, they target mature beneficiaries, indicating that the need to tackle long-term usage of digital devices of children may be ignored. As a result, there is a gap. Additionally, the existing solutions focus on top-down approaches, such as time control by parents, instead of bottom-up approaches. There is a lack of self-motivation for changing consumption behaviour and children may use another digital devices as substitution, showing low effectiveness. Also, parents' manipulation of digital devices may negatively influence the family relationship. Our final product is DigiKit Pause and Play, which is a play box including card games and board games for children aged five to ten years old, better tackling the service gap. This essay will be divided into five parts: introduction, product modification process, product outcome, product evaluation and conclusion.

## Product modification process

Initially, we want to provide offline experiential workshops and an online platform for secondary and post-secondary students. The experiential workshops will be the baking workshops, with the theme being local traditional food. From the individual perspective, students can nourish new habits and connect with friends in a face-to-face method. It helps them maintain rapport with friends and relieve their pressure. From the traditional perspective, participants can learn traditional food-baking methods, indicating that the workshops can preserve traditional food. However, it needs a location to execute, and it is difficult to cooperate with school due to the absence of licenses. Additionally, the baking classes may be included in the existing curriculum. Therefore, we changed to a digital system

that included an online app and phone box with a time lock and games for teenagers aged fourteen to twenty-nine. According to the collected data from the teenagers, over half of the respondents spent four to six hours on the Internet per day, while around 85% of respondents continuously used the phone for two hours, showing the serosity of the digital addiction issue. Additionally, around 80% of respondents use social media because they want individual time, indicating that people want work-life balance. However, self-motivation is important for using our digital system, and teenagers may choose other products, such as the app lock, to restrict them from using their phones. Therefore, they may not use our product effectively. This leads us to change the target group to a younger age. The customers will be parents, and the beneficiaries will be children aged five to ten. The reason for choosing the beneficiary is that their parents can monitor their time usage on their digital devices, and the existing solutions focus on the parents' actions toward the children instead of the initiative by the children. It indicates that if the parents do not control children's use of phones, they may use them frequently, influencing their future development. In order to learn about the situation of the children, we interviewed them. During the interview, we discovered that parents would restrict their children from using the phones within one hour, while the children tend to choose challenging games and problem-solving games, indicating that the challenging games can increase their success. Also, children will play with friends and prefer outdoor activities since they like communicating with others in a face-to-face method. Instead of indoor activities, we provide more choices for outdoor activities, such as doing exercises in the final product to encourage children to step out of their comfort zone. Children can develop a growth mindset at an early age through the given games, influencing their future. For example, the fixed mindset person focuses on failure, while the growth mindset person may see challenging games as a chance to learn. If children can develop their mindset earlier, they may have higher resilience when they face failure or difficulties, helping them to maintain good mental health and positive thinking. Also, they can execute their idea in reality by designing games with their parents so that they can be more creative.

### **Product outcome**

The final product is DigiKit Pause and Play, while the DigiZero apps will be developed in the future and align with DigiKit Pause and Play. DigiKit Pause and Play is a play box containing various items, such as the habit-building task card and drawing pad. Through the product, children can set goals with their parents and explore their potential, strengthening family bonding. Additionally, snacks are the reward for children who meet the goals, which provides an initiative for children to reduce digital consumption. Apart from the cards, there are sensory toys and board games designed by us, so the product is similar to the toy creator. Compared with other competitors, we provide online and offline channels, focusing on preventive rather than therapeutic approaches. Therapy or counselling sessions are suitable for severe cases, while the target beneficiaries who are five to ten years old may tend to be digitally addicted instead of reaching a certain level already. As a result, a preventive approach is more suitable for them. From children's perspective, the outcome will be the changes in digital wellbeing and the closer connection with family members. For example, children may use digital devices for four hours per day before using the products and change to one hour per day after using our products. It helps them to cultivate healthy usage of devices. Also, they may change their attitude towards digital devices and prioritize connecting with family members instead of the virtual connection. From the parent's perspective, the outcome will be a better relationship with their children and less worry about children. When children are addicted to digital devices, it influences their mental health and

physical health, resulting in worry from parents. The products can be the phone substitution, reducing the chances of being digitally addicted. DigiKit Pause and Play have two types of purchases: one-time purchase and subscription model. The differences between a one-time purchase and the subscription model are the diversity of games and the involved activities. If parents choose to subscribe, they have discounts for joining offline activities organized by us and new games with discounts. Also, the new games can be more personalized so as to increase children's motivation to use fewer devices. In order to measure the success of the product, the indicator will be brand awareness and the customer conversion rate. We will use the like and share rate in social media to see whether the posts reach the customers targetedly, and find the potential customers from the competitor's social media so that it can reduce the marketing costs. Also, we will promote it on the Facebook channel. For the customer conversion rate, we will see what actions parents may take, such as seeking more information by contacting us or scrolling through the information. As a result, we notice whether our marketing strategy attracts the customer to take action. Also, parents can provide feedback through a QR code in the DigiKit Pause and Play. After knowing the customer satisfaction rate, we can modify our products and meet the needs of customers. Other than ordering from official websites, we may set up a booth in the pop-up store to raise public awareness of our product. When parents know how our product can tackle their pain points, they may be our potential customers. At that moment, we will persuade them to be the customer by putting ourselves in their shoes. Additionally, we will organize digital habit-building workshops for schools in the future to cultivate positive phone habits.

### **Project evaluation and upcoming products**

Apart from DigiKit Pause and Play, DigiZero Apps for parents and kids will be developed. Two changes should be made to the existing products. Firstly, the cards should include a Chinese version. Some parents or guardians may not be familiar with English wordings, indicating they have difficulties using the products to educate children. Therefore, it is difficult for children to learn new wordings and may not attract children to use them. Another change is that the play box should include challenging games, such as problem-solving games. We will design the games in the DigiKit Pause and Play for different years, while the prototype is suitable for 5-year-olds. For six to ten-year-old children, we will change the rules for the existing board game or new games. For example, aeroplane chess may be included in the play box while the unique point is the dice with stepping back, increasing the challenges of games. In order to express children's creativity, parents can design games with children. Also, parents and children can set the time limit together so that it can prevent top-down control on time usage on digital devices. After the tasks, parents can reward children for encouraging them not to rely on digital devices. Therefore, they can build a positive digital wellbeing habit.

For the DigiZero Apps, children can decorate the virtual room with one choice. It may be new for children since they do not have similar experiences before. Therefore, they may have more intention to complete the tasks. For the parent version, they can monitor the children's screen time and the app shows the digital wellbeing report, implying that parents can know the situation of the children. Also, the DigiMagic 8 function in the app suggests outdoor activities as substitutions to encourage children to use fewer phones, showing that it can be more interesting. For the children version, there is a screen time monitoring and screen lock to prevent their long time usage of digital devices. There are two recommendations for

developing DigiZero Apps. The DigiZero Parents version will promote our talks, such as tips for encouraging children to use fewer phones. Parents can know what apps their children use the most for the premium version. Also, for the DigiZero Kids version with premium, children can buy decorations in the virtual world through coins while the parents need to buy coins. If children meet the goals, parents can distribute the coins to their children, but they still need to communicate with children about decorating the virtual room. Lastly, the play box will alarm when parents use the app to lock their children's phones. Children need to play the games from the play box to turn off the alarm. In contrast, when parents do not lock their children's phones, the DigiKit Pause and Play will not alarm. One of the unique points is that parents can use it as a mystery box. If parents subscribe to our products, we will provide special gifts for children, such as coins, encouraging them to use our products.

During the project, there are two limitations. Firstly, there are no talents related to technological background, so it is difficult for us to execute the idea. The previous idea was to use an app and a phone box with a time lock. However, we do not know how to combine the time lock on the phone box. As a result, the lack of talent in IT background restricts us from making the prototype. Another limitation is the acquiescence bias. As parents are near their children, children usually look at their parents before answering the questions, indicating that they may answer the questions with the perfect answer instead of the real answer. As a result, it may reflect the real situation. Additionally, children do not know how to express themselves, so parents will help them to answer. At the same time, it may not be the wording the children want to present, resulting in misrepresentation.

## **Conclusion**

To conclude, the product prevents children from developing digital addiction by encouraging them to use fewer phones instead of forcing them to take action. As the existing solutions only focus on online, such as app lock, or offline methods, such as counselling therapy, these solutions may raise the rebellious of children on using the phone. As a result, they may not be effective. Compared to teenagers, preventing long-term usage of phones for children is easier since it depends on children's self-motivation, and parents help to monitor the process. Also, children are more likely to be satisfied, so it shows the effectiveness of products. Although the prototype is good at showing the social impact, there are some improvements, such as the level of games and incentives for encouraging children to use our products. For the level of games, children of higher age may prefer challenging games, while the existing reward may not provide intention for children to take action. Therefore, we encourage parents to reward their children. In addition, the limitation can help us modify the new product version, attracting more customers and creating greater social impact. The products help the children cultivate good habits of proper usage of digital devices and challenge themselves because of different activities that children may not have tried before. Parents can limit the time spent on their children's phones, which can prevent digitally addictive behaviors and build a positive relationship with the children.

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