

Empowering Underprivileged Youth Engagement and Assistance by Developing SATI Line Official

Sponsored by
SATI Foundation

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This report represents the work of five Chulalongkorn University undergraduate students and two exchange students submitted to the faculty as evidence of completion of a degree requirement.

Abstract

The SATI Foundation, one of the organizations dedicated to assisting underprivileged children, focuses on engaging with these children to provide assistance in areas such as health, well-being, and education. This project aims to enhance the SATI Line Official with new features and functionalities designed to engage underprivileged children with essential support systems and facilitate connections with them. With a collaborative effort with the Myanmar Students Learning Center at Rangsit market, the goal is to develop these features, emphasizing effective communication and utilization by underprivileged children for a better quality of life and optimizing the workflow for SATI staff, ultimately making their work more efficient and effective.

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Glossary

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|----------------------------------|--|
| Krungsri Nimble | An innovation and IT solution hub for new and advanced technologies. The company will help the Krungsri group to make innovative changes for the benefit of clients while reinforcing its leadership position in the market. |
| Krungsri team builder | Group of developers from Krungsri Nimble |
| Myanmar Students Learning Center | Myanmar study center that provides free education, activities and community support for the burmese children located near the Rangsit market in Pathum Thani province in Thailand. |
| Rangsit Caretakers | The person who takes care of Burmese refugee children at the Myanmar Students Learning Center. |
| Refugee | Someone who is running away from their home due to the war or violence conflict. |
| SATI staff | Individuals who are employed in the SATI Foundation |
| Street children | Children who have fled from their families and reside independently or occupy their time on the street. |
| Underprivileged youth | Young people who face disadvantage or lack of basic resources that others may have such as access to education, financial, healthcare and essential opportunities. |

Executive Summary

Underprivileged youth, hailing from economically disadvantaged backgrounds, face a myriad of challenges that go beyond the absence of basic necessities. These challenges encompass limited access to quality education, language barriers, inadequate healthcare, nutritional deficiencies, and an insecure living environment. The intricate interplay of these factors contributes to a cycle of socio-economic disparities, profoundly influencing the life trajectories of underprivileged youth, as described by Hagan & McCarthy (2017).

Similarly, most Burmese refugee children face various kinds of problems, but one of the most cases came from their parents. Lack of support from their family causes them to feel excluded from the community. Subsequently, the absence of parental support can exacerbate existing difficulties faced by Burmese refugee children, such as language barriers, cultural adjustment, and limited access to education and healthcare. Moreover, the lack of familial support may contribute to feelings of insecurity and vulnerability among Burmese refugee children, as they navigate the uncertainties of life as displaced individuals. Without a reliable support system to turn to in times of need, these children may experience heightened levels of stress, anxiety, and uncertainty about their future. Additionally, the absence of parental involvement can impact these children's emotional development and sense of self-worth, potentially leading to long-term psychological and social consequences. For this reason, it is essential to have reliable support in order to provide assistance and support to these children.

SATI is a grassroots non-profit organization based in Thailand, with a mission to enhance healthcare, wellbeing and education for underprivileged children through active learning workshops and livelihood programs. It aims to uplift the lives of these individuals by promoting good physical and mental health, organizing education activities, and offering a scholarship program for underprivileged youth. Recognizing the persistent lack of access to basic necessities among these children, organizations like SATI are pivotal in improving society's quality of life by providing essential assistance to those in need.

We have established a partnership and are actively collaborating with the SATI Foundation to enhance engagement and support for Burmese refugee children. Together, we are dedicated to creating impactful solutions, one of which is the development of the SATI Line Official platform tailored specifically to meet the needs of these children.

In this initiative, our goal is to improve the functionality of the SATI Line Official by introducing a new feature designed to connect with the underprivileged youth. These enhancements will primarily focus on establishing connections with support systems, specifically targeting Burmese refugee children associated with the Myanmar Students Learning Center at Rangsit market. The key objectives essential for empowering underprivileged engagement are as follows:

- (1) Understanding the Background of Burmese Refugee Children in Thailand
- (2) Identifying the Additional Feature within the SATI Line Official to Connect with Underprivileged Children
- (3) User Engagement Tracking after Presenting the Prototype

By achieving these objectives, the project begins with gathering all the background of the Burmese refugee children through interview and observation in order to gain a better understanding of the focus group. Additionally, SATI staff interviews have been conducted to

identify issues motivating the SATI Foundation desire to update the SATI Line Official's features. Subsequently, data analysis will be performed, and user engagement will be monitored.

In this report, we have demonstrated the result and findings derived from our analysis of information obtained through interviews. The results have been categorized into 15 relevant findings, aligning with the objectives of our project. Through this analysis, we successfully pinpointed challenges and discerned the preferences of the focus group, essential elements to ensure the effectiveness of the updated feature.

Finding 1 highlights the impact of excluding local Burmese youth from society, revealing two significant challenges in terms of physical and mental well-being. Furthermore, this exclusion undermines their rights and opportunities for development. This finding focuses on the difficulties faced by Burmese refugees residing in Thailand.

Finding 2 highlights challenges for the teams, revealing that Burmese youth favor private communication with specific caretakers on personal matters. This preference poses an efficiency problem and discomfort in interactions. Understanding these findings is crucial for addressing the problems faced by SATI staff and enhancing the effectiveness of a streamlined counseling system.

Finding 3 reveals the preference of Burmese youth to either live among friends or seek independence. This finding delves into the reasons behind their choices, offering supporting motives for their decisions.

Finding 4 underscores the inefficiency of the SATI Line Official in connecting with Burmese youth, highlighting the importance of addressing the SATI Line Official's effectiveness and finding ways to enhance user engagement.

Finding 5 stresses the SATI Line Official problems encountered by Burmese youth, emphasizing difficulties and incongruities. This finding illustrates the challenges experienced by Burmese youth with the SATI Line Official.

Finding 6 emphasizes that the unappealing interface and overall design of SATI Line Official contributes to low user motivation. These findings are essential to improve the SATI Line Official's aesthetics and visuals, thereby increasing engagement among children.

Finding 7 demonstrates that the unfamiliarity of SATI Line Official among Burmese children results in reduced engagement. This finding emphasizes the importance of making the SATI Line Official more familiar to children as a means of enhancing their interest in the SATI Line Official.

Finding 8 emphasizes the highly favored feature within the SATI Line Official, which the result is a game. This finding holds significant importance in highlighting the outcome obtained from our initial observation regarding users' preferred feature.

Finding 9 underscores the difference in preferences between children and caretakers regarding the counseling room and game features in SATI Line Official. This finding is crucial to strike a balance in fulfilling their desires and enhance the development of SATI Line Officials.

Finding 10 highlights the children's enthusiasm in the prototype during the second observation. This finding emphasizes the high level of engagement with the recent prototype, indicating a strong interest in its features

Finding 11 emphasizes that our finalized prototype captures the interest of all Burmese children. This finding provides reassurance that the children will actively participate with the prototype we have designed.

Finding 12 illustrates the importance of balancing children's preferences and risks for safety in game development. These findings are crucial to raise awareness among children and safeguard them from potential criminal or violent incidents in the future.

Finding 13 suggests altering the layout and color scheme of the prototype slightly to enhance formality and ease of comprehension. This finding reflects the overall feedback of the children regarding the prototype, utilizing their perspectives and suggestions to refine and better cater to their needs.

Finding 14 highlights the challenges developers encounter in enhancing in-game features. This finding underscores the necessity for refining game features through the implementation of Krungsri Team Builder's framework.

Finally, **Finding 15** underscores the importance of the ever-changing trends ensuring the application remains relevant and appealing to the target group. This finding is essential for ensuring the continued appeal of the application to the target group over time.

These 15 findings provide valuable insights necessary to comprehend the background and preferences of our focus group, as well as the challenges encountered by Burmese children and caretakers. To effectively enhance underprivileged youth engagement and assistance through the development of SATI Line Official, a thorough understanding of their information is crucial.

Moreover, we would like to recommend the SATI organization to enhance the effectiveness of the SATI Line Official and address the challenges faced by Burmese children and caretakers. Firstly, it is crucial to continuously research the preferences of the target audience to ensure the development of engaging and trendy features that align with their evolving interests. Utilizing SATI Line Official feature insights for progress tracking, including feedback systems and check-in features, can provide valuable data for analysis. Additionally, expanding services beyond mobile phone users through mobile trucks and kiosks at public terminals can reach a wider audience. Ensuring SATI Line Official compatibility across various phone models is vital for broader accessibility, and marketing efforts, including collaborations and community outreach, can raise awareness. Lastly, integrating underprivileged youth into society through community events and skill upgrading initiatives can foster a sense of belonging and ease their transition into the job market. Overall, with these recommendations, the team aims to create a more inclusive and effective platform for the SATI Foundation.

บทสรุปโครงการ

เยาวชนผู้ด้อยโอกาสต้องเผชิญกับความเสียเปรียบทางเศรษฐกิจและสังคม จากการจำกัดการเข้าถึงทรัพยากร การศึกษา การสื่อสาร การเข้ารับรักษาพยาบาล การขาดสารอาหาร สภาพแวดล้อมในการอยู่อาศัยที่ไม่ปลอดภัย และโอกาสหลากหลายอย่างเมื่อเทียบกับเยาวชนปกติ ปัจจัยเหล่านี้จึงทำให้เกิดความแตกต่างทางเศรษฐกิจและสังคม ซึ่งสามารถส่งผลกระทบต่อชีวิตความเป็นอยู่ของเยาวชนผู้ด้อยโอกาสได้ศึกษาไว้ โดย Hagan & McCarthy ในปีพ.ศ. 2560

ในทำนองเดียวกันเยาวชนชาวพม่าที่อาศัยอยู่ในตลาดรังสิต จังหวัดปทุมธานี ก็ประสบปัญหาในหลากหลายรูปแบบ โดยหนึ่งในปัญหาสำคัญที่เกิดขึ้นนั้นมาจากครอบครัวของเยาวชนโดยตรง ซึ่งเยาวชนเหล่านี้ไม่ได้รับการสนับสนุนจากครอบครัวอันเป็นสาเหตุหลักที่ทำให้เยาวชนรู้สึกถูกกีดกันออกจากสังคมและสภาพแวดล้อมที่อาศัยอยู่ อีกทั้งความเหลื่อมล้ำทางด้านภาษาและวัฒนธรรมรวมถึงการถูกจำกัดการเข้ารับรักษาพยาบาล และการศึกษา ทำให้เยาวชนชาวพม่าเหล่านี้เผชิญกับปัญหาที่รุนแรงมากยิ่งขึ้น ส่งผลให้พวกเขา รู้สึกไม่มั่นคง ไม่ปลอดภัย และรู้สึกถึงความไม่แน่นอนของชีวิตในอนาคตที่จะต้องพบเจอในแต่ละวัน ก่อให้เกิดความวิตกกังวลและความเครียดมากยิ่งขึ้น นอกจากนี้การได้รับการคุ้มครองดูแลจากผู้ปกครองเป็นส่วนสำคัญส่วนหนึ่งที่ส่งผลต่อพัฒนาการของเด็ก ๆ เป็นอย่างมาก ดังนั้นการที่เยาวชนกลุ่มนี้ไม่ได้รับการดูแลจากผู้ปกครองของตน อาจส่งผลกระทบต่อพัฒนาการทางอารมณ์ของเด็ก ซึ่งอาจทำให้พวกเขา รู้สึกด้อยค่าในตัวเองและอาจนำไปสู่ผลลัพธ์ทางจิตใจในระยะยาว ด้วยเหตุนี้จึงมีความจำเป็นที่จะต้องมียุทธศาสตร์ช่วยเหลือที่เชื่อถือได้เพื่อสนับสนุนและให้ความช่วยเหลือแก่พวกเขา

มูลนิธิสตีเป็นองค์กรที่ไม่แสวงหาผลกำไร และมุ่งเน้นการปฏิบัติงานโดยตรงกับเด็กและเยาวชนในหลากหลายด้าน อาทิเช่น ด้านสุขภาพ ด้านชีวิตความเป็นอยู่ และด้านการศึกษาในประเทศไทย โดยมีส่วนช่วยในการดูแล พัฒนา และผลักดันให้เด็กและเยาวชนมีคุณภาพชีวิตที่ดีขึ้น มีสุขภาพทางกายและทางใจที่ดี โดยมูลนิธิมีการจัดกิจกรรมเพื่อการเรียนรู้ เสริมสร้างสุขภาพจิต และโครงการมอบทุนการศึกษาสำหรับเยาวชนที่ขาดแคลนทุนทรัพย์

ด้วยวิสัยทัศน์นี้ทำให้กลุ่มนิสิตได้ร่วมมือกับทางมูลนิธิสตี เพื่อเพิ่มการสนับสนุนให้แก่เยาวชนชาวพม่าและเยาวชนผู้ด้อยโอกาส ในการพัฒนาและปรับปรุงการทำงานของ SATI Line Official ให้ตอบสนองกับความต้องการของเยาวชน พวกเราจึงแนะนำและออกแบบคุณสมบัติต่าง ๆ เพื่อให้ง่ายต่อการทำงานขององค์กรกับเยาวชนมากยิ่งขึ้น โดยมีวัตถุประสงค์ของโครงการนี้ดังนี้

1. เพื่อเข้าใจภูมิหลังของเยาวชนผู้ลี้ภัยชาวพม่า
2. เพิ่มคุณสมบัติใน SATI Line Official เพื่อเชื่อมต่อกับเยาวชนผู้ด้อยโอกาส
3. ติดตามการมีส่วนร่วมของผู้ใช้หลังจากนำเสนอต้นแบบคุณสมบัติ

เพื่อให้บรรลุวัตถุประสงค์เหล่านี้ โครงการนี้จึงเริ่มต้นด้วยการรวบรวมภูมิหลังทั้งหมดของเยาวชนผู้ด้อยโอกาส เยาวชนชาวพม่าผ่านการสัมภาษณ์และการสังเกต เพื่อให้เข้าใจในกลุ่มเป้าหมายเพิ่มมากยิ่งขึ้น นอกจากนี้ยังมีการสัมภาษณ์เจ้าหน้าที่ของมูลนิธิสตี เพื่อให้ทราบถึงปัญหาของ SATI Line Official ที่เคยมีมาก่อนหน้านี้ และคุณสมบัติที่ต้องการเพิ่ม หลังจากนั้นจึงได้มีการวิเคราะห์ข้อมูลและติดตามการใช้งานของ SATI Line Official ของผู้ใช้ในแต่ละวัน

ในโครงการนี้เราได้นำเสนอเกี่ยวกับการวิเคราะห์ข้อมูลจากการสัมภาษณ์เพื่อที่จะนำไปสู่การพัฒนาคุณสมบัติของ SATI Line Official โดยสามารถนำข้อมูลมาวิเคราะห์ได้เป็น 15 ข้อค้นพบที่สอดคล้องกับวัตถุประสงค์ของโครงการ การวิเคราะห์ข้อมูล

เหล่านี้เราได้มองเห็นถึงความต้องการของกลุ่มเป้าหมาย ซึ่งเป็นองค์ประกอบสำคัญเพื่อให้พวกเรานั้นมั่นใจว่าคุณสมบัติที่ได้รับการพัฒนาเรียบร้อยแล้วนั้นจะมีประสิทธิภาพและตอบสนองต่อความต้องการของผู้ใช้งานได้เป็นอย่างดี

ข้อค้นพบ 1 : กล่าวถึงผลกระทบในการแบ่งแยกเยาวชนชาวพม่าออกจากสังคม ซึ่งเผยให้เห็นถึงความท้าทายที่สำคัญสองประการในแง่ของความเป็นอยู่ที่ดีทั้งทางร่างกายและจิตใจ นั่นก็คือการละเว้นและการแบ่งแยก นอกจากนี้สองสิ่งนี้เป็นการทำลายสิทธิและโอกาสที่กลุ่มคนเหล่านี้ควรได้รับ ข้อค้นพบนี้จึงมุ่งเน้นให้เห็นถึงความยากลำบากที่เยาวชนชาวพม่าที่อาศัยอยู่ในประเทศไทยต้องเผชิญ

ข้อค้นพบ 2 : กล่าวถึงความท้าทายสำหรับกลุ่มนิสิต เนื่องจากเยาวชนชาวพม่าชอบการสื่อสารแบบส่วนตัวกับผู้ดูแลเฉพาะคนใดคนหนึ่งเท่านั้น สิ่งนี้แสดงให้เห็นถึงปัญหาด้านประสิทธิภาพและความไม่สะดวกใจในการพูดคุยของเด็กต่อผู้ดูแลคนอื่น ๆ ดังนั้นการทำความเข้าใจปัญหาเหล่านี้มีความสำคัญอย่างยิ่งต่อการแก้ไขปัญหานั้นที่เจ้าหน้าที่ของสตีต้องเผชิญและเพื่อเพิ่มประสิทธิภาพของระบบการให้คำปรึกษาที่มีประสิทธิภาพ

ข้อค้นพบ 3 : กล่าวถึงความชื่นชอบของเยาวชนชาวพม่า ที่เลือกอยู่กับกลุ่มเพื่อนหรือไม่ก็อยู่อย่างอิสระเพียงคนเดียว ข้อค้นพบนี้ได้เจาะลึกถึงเหตุผลที่อยู่เบื้องหลังการเลือกของพวกเขาและแรงจูงใจในการตัดสินใจ

ข้อค้นพบ 4 : กล่าวถึงการเชื่อมต่อของ SATI Line Official กับเยาวชนชาวพม่าที่ไม่มีประสิทธิภาพเพียงพอ โดยเน้นย้ำถึงความสำคัญของการจัดการกับประสิทธิผลของ SATI Line Official และค้นหาวิธีเพิ่มการมีส่วนร่วมของผู้ใช้

ข้อค้นพบ 5 : กล่าวถึงปัญหาของ SATI Line Official ที่เยาวชนชาวพม่าเผชิญ โดยมุ่งเน้นถึงความยากลำบากและความสอดคล้องกันของความต้องการของผู้ใช้ที่มีต่อคุณสมบัติที่มีในปัจจุบัน ข้อค้นพบนี้แสดงให้เห็นถึงความท้าทายที่เยาวชนชาวพม่าประสบกับการใช้ SATI Line Official

ข้อค้นพบ 6 : กล่าวถึงอินเตอร์เฟซและการออกแบบโดยรวมของ SATI Line Official แบบเก่านั้นไม่น่าดึงดูด ส่งผลให้ผู้ใช้งานไม่มีแรงจูงใจในการใช้ SATI Line Official ข้อค้นพบนี้มีความสำคัญต่อการปรับปรุงความสวยงามของ SATI Line Official ซึ่งจะเป็นการเพิ่มการมีส่วนร่วมในการใช้ SATI Line Official ของผู้ใช้งาน

ข้อค้นพบ 7 : กล่าวถึงความไม่คุ้นเคยของเยาวชนชาวพม่าเหล่านี้กับ SATI Line Official ส่งผลให้การมีส่วนร่วมในการใช้ SATI Line Official ลดลง ข้อค้นพบนี้เน้นย้ำถึงความสำคัญของการทำให้ SATI Line Official มีความคุ้นเคยกับเด็ก ๆ มากยิ่งขึ้น เพื่อเพิ่มความสนใจของเด็กในตัว SATI Line Official

ข้อค้นพบ 8 : กล่าวถึงผลสำรวจคุณสมบัติที่ได้รับความนิยมอย่างสูงที่สุดใน SATI Line Official จากการสำรวจก่อนการเสนอการปรับเปลี่ยน นั่นคือเกมส์ ข้อค้นพบนี้มีความสำคัญอย่างยิ่งในการเน้นย้ำผลลัพธ์ที่ได้รับจากการสังเกตเบื้องต้นของกลุ่มนิสิตเกี่ยวกับคุณสมบัติที่ผู้ใช้ต้องการ

ข้อค้นพบ 9 : กล่าวถึงความแตกต่างระหว่างความต้องการของเด็กและผู้ดูแลเกี่ยวกับคุณสมบัติที่ต้องการนั่นก็คือ ห้องให้คำปรึกษาและเกมส์ใน SATI Line Official ข้อค้นพบนี้มีความสำคัญอย่างยิ่งต่อการสร้างความสมดุลในการเติมเต็มความปรารถนาและการพัฒนา SATI Line Official

ข้อค้นพบ 10 : กล่าวถึงความกระตือรือร้นของเด็กๆ เมื่อได้เห็นการออกแบบของกลุ่มนิสิต และการให้ความสนใจอย่างมากในคุณสมบัติใหม่ต่างๆ ข้อค้นพบนี้จึงมีความสำคัญในการเป็นส่วนที่ช่วยส่งเสริมการพิสูจน์แนวโน้มของการเพิ่มขึ้นของการมีส่วนร่วมในการใช้ SATI Line Official ของเด็กๆ

ข้อค้นพบ 11 : กล่าวถึงคุณสมบัติใหม่ที่ดึงดูดความสนใจของเยาวชนชาวพม่าทุกคน ข้อค้นพบนี้ทำให้กลุ่มนิสิตมีความมั่นใจว่าเด็กๆ จะมีส่วนร่วมอย่างมากกับคุณสมบัติที่กลุ่มนิสิตได้ออกแบบไว้

ข้อค้นพบ 12 : กล่าวถึงความสำคัญของการสร้างสมดุลระหว่างความชอบและความกล้าที่จะเสี่ยงของเด็กๆ เพื่อความปลอดภัย ในการพัฒนาเกมส์ ข้อค้นพบนี้มีความสำคัญอย่างยิ่งในการสร้างความตระหนักรู้ในหมู่เด็กและปกป้องพวกเขา จากเหตุการณ์ความรุนแรง หรืออาชญากรรมที่อาจเกิดขึ้นในอนาคต

ข้อค้นพบ 13 : กล่าวถึงการเปลี่ยนแปลงเค้าโครง และโทนสีของคุณสมบัติที่นิสิตออกแบบในครั้งแรกเพื่อเพิ่มความเป็นทางการ และง่ายต่อการเข้าใจมากยิ่งขึ้น ข้อค้นพบนี้สะท้อนให้เห็นถึงความคิดเห็นโดยรวมของเด็กเกี่ยวกับต้นแบบโดยใช้มุมมองและข้อเสนอแนะในการปรับปรุงและตอบสนองความต้องการของพวกเขาให้ดียิ่งขึ้น

ข้อค้นพบ 14 : กล่าวถึงความท้าทายที่ทีมพัฒนาของธนาคารกรุงศรีอยุธยา จำกัด (มหาชน) ที่ต้องเผชิญในการรวบรวมคุณสมบัติเกมส์เข้ากับระบบเซิร์ฟเวอร์ ข้อค้นพบนี้เน้นย้ำถึงความจำเป็นในการปรับปรุงคุณสมบัติของเกมส์โดยคำนึงถึงกรอบการทำงานของทีมพัฒนาของธนาคารกรุงศรีอยุธยา จำกัด (มหาชน) เป็นหลัก

และ**ข้อค้นพบ 15 :** กล่าวถึงความสำคัญของแนวโน้มของนวัตกรรมและสังคมที่มีการเปลี่ยนแปลงตลอดเวลา เพื่อปรับปรุงคุณภาพแอปพลิเคชันให้คงความน่าสนใจต่อกลุ่มเป้าหมายได้ ข้อค้นพบนี้มีความสำคัญในการเพิ่มความมั่นใจว่าแอปพลิเคชันจะดึงดูดกลุ่มเป้าหมายอย่างต่อเนื่องเมื่อเวลาผ่านไป

ข้อค้นพบทั้ง 15 ข้อนี้ให้ข้อมูลเชิงลึกที่จำเป็นเป็นอย่างมากในการทำความเข้าใจภูมิหลังและความชื่นชอบของเยาวชนชาวพม่า ตลอดจนความท้าทายที่เยาวชนและผู้ดูแลชาวพม่าต้องเผชิญ เพื่อส่งเสริมการมีส่วนร่วมและช่วยเหลือเยาวชนผู้ด้อยโอกาสอย่างมีประสิทธิภาพผ่านการพัฒนา SATI Line Official

นอกจากนี้ กลุ่มนิสิตยังมีคำแนะนำบางอย่างสำหรับการปรับปรุงประสิทธิภาพของ SATI Line Official เพื่อจัดการกับความท้าทายที่เยาวชนและผู้ดูแลชาวพม่าต้องเผชิญ ประการแรกการวิจัยความต้องการของกลุ่มเป้าหมายอย่างต่อเนื่องเป็นสิ่งสำคัญ เพื่อให้แน่ใจว่าการพัฒนาคุณสมบัตินั้นมีความน่าสนใจ และทันสมัย และสอดคล้องกับความสนใจของเยาวชนผู้ใช้งาน ข้อมูลเชิงลึกของคุณสมบัติใน SATI Line Official อาทิเช่น การติดตามความเคลื่อนไหวของเยาวชน รวมถึงการให้ข้อเสนอแนะและการเซิร์ฟเวอร์ สามารถให้ข้อมูลอันมีค่าสำหรับการวิเคราะห์ต่อไปได้ อีกทั้งการขยายบริการนอกเหนือจากผู้ใช้โทรศัพท์มือถือผ่านช่องทางอื่นๆ อาทิเช่น รถบรรทุกเคลื่อนที่และตู้คอสที่อาคารผู้โดยสารสาธารณะสามารถเข้าถึงผู้ใช้ได้กว้างขึ้น การรับรองความเข้ากันได้ของแอปพลิเคชันในโทรศัพท์รุ่นต่าง ๆ ซึ่งมีความสำคัญต่อการเข้าถึงในวงกว้าง รวมถึงความร่วมมือและการเข้าถึงชุมชนซึ่งสามารถสร้างความตระหนักรู้ได้ สุดท้ายนี้การรวบรวมเยาวชนผู้ด้อยโอกาสกับสังคมผ่านกิจกรรมของชุมชนสามารถส่งเสริมความรู้สึกเป็นส่วนหนึ่งของสังคม โดยรวมแล้วคำแนะนำเหล่านี้ของกลุ่มนิสิตมีจุดมุ่งหมายเพื่อสร้างแพลตฟอร์มที่ครอบคลุมและมีประสิทธิภาพมากขึ้นสำหรับมูลนิธิ

Chapter 1: Introduction

In Thailand, an alarming amount of its youth face disparities more than the usual young adult. Ranging from those living on the streets to refugee youth, orphans, and kids deprived of essential resources and education, a substantial portion of the youth population is underserved. It is crucial to establish support systems that can provide assistance to these young individuals, helping them achieve a better quality of life.

Economic difficulties and family problems are among the primary reasons for underprivileged children. According to a report from ChildFund International in the USA, approximately 10 percent of the global population lives on less than \$1.90 per day, with a considerable proportion of this demographic being children (*Underprivileged Children | Social Justice for Kids | ChildFund*, n.d.). In Thailand, the extent of child poverty, measured by the average number of deprivations faced by children, was notably high at 34.7%. The data from 2015/2016 highlighted that educational deprivations accounted for the highest percentage at 41.1%, followed by health-related deprivations at 15.1%, and health prevention at 15% (*Child Multidimensional Poverty in Thailand | OPHI*, n.d.). These statistics underscore the ongoing presence of underprivileged youth, emphasizing the urgent need for support from organizations.

Underprivileged youth confront a myriad of challenges, often navigating a precarious existence without a stable support system. The harsh realities they confront require innovative solutions to empower and offer essential assistance. Acknowledging these issues, our project is committed to addressing the distinctive needs of underprivileged youth through the development of a connection platform meticulously designed to serve as a beacon of support and empowerment.

The SATI Foundation, our sponsor situated in Bangkok, Thailand, is dedicated to supporting underserved children and youth communities, primarily in Chiangmai and Bangkok. They currently launch an SATI Line Official as a communication system with the underprivileged children. However, a major challenge is the lack of appealing and practical feature to engage these children effectively. Hence, the proposed project has similar goals and interests to foster engagement and assistance for underprivileged youth through SATI Line Official. By incorporating new features and functionalities, our aim is to create a robust system that not only connects underprivileged youth with essential support services and interventions but also creates a safer and more secure environment for them. Through these efforts, we aspire to foster a sense of belonging, resilience, and positive change in the lives of underprivileged youth, ultimately paving the way for a brighter and more secure future for them.

To achieve this, the first objective is to understand the background of Burmese refugee children in Thailand. Another objective is to identify existing feature to enhance the system by identifying the additional feature within the SATI Line Official to connect with underprivileged children. Due to the language barrier with the children, it is crucial that the system's feature prioritize user-friendliness and simple user interface. Focusing on adolescents in Bangkok with mobile phones, data will be collected through interviews and surveys to discern their preferences regarding feature. Lastly, the third objective involves user engagement tracking after presenting the prototype. This data analysis will help identify trends and inform improvements to the system.

Chapter 2: Background

This chapter is dedicated to exploring several crucial aspects related to young people who are facing disadvantages, both globally and specifically in Thailand. It covers the prevalence of the terminology, the significant challenges faced by these children, and the pivotal role played by organizations in Thailand in supporting the children. Through case studies and research, this section aims to highlight the risks faced by these vulnerable children. Additionally, as our project primarily aims to enhance the SATI Line Official with new features and functionalities designed to engage underprivileged children with essential support systems and facilitate connections with them, the final section will provide insights into our focus group of the project which are the Burmese refugee children.

2.1 The terminology of ‘underprivileged youth’

Underprivileged youth are children confronting disadvantages or a lack of essential resources, such as education, financial support, healthcare, and essential opportunities. There are several reasons as a cause of the backwardness of the underprivileged including poverty, exploitation and discrimination from more privileged children. Families in poverty often struggle to provide basic necessities like proper nutrition, clothing, and a secure living environment for their children. Consequently, these children may be compelled into exploitative labor situations, depriving them of educational opportunities and perpetuating the cycle of poverty. Discrimination based on factors like race, ethnicity, and socio-economic status further restricts opportunities for underprivileged youth, both socially and economically. If parents undergo similar challenges, their children are likely to encounter the same obstacles, thereby perpetuating the cycle.

According to Unicef, approximately one billion children globally fall into the category of "underprivileged." In the United States, nearly one out of every seven children resides in poverty, with a significant portion lacking sufficient access to food. Additionally, many children find themselves living in shelters, vehicles, or public spaces. Underprivileged children predominantly come from single-parent families. These parents typically lack proper education, leading to limited employment opportunities. Moreover, they are more vulnerable to domestic violence from their partners. This can result in substantial trauma for their children, contributing to an ongoing cycle of disadvantage (Ponio, 2021).

Underprivileged children frequently face challenges in their social, emotional, and physical development. They often have low self-esteem and are at risk of depression because they lack access to education and proper nutrition. As they grow older, some may turn to illegal activities like crime due to financial instability instead of seeking honest work. As a result, they may have limited contributions to society and participate less in acts of kindness (Neiditch, n.d.).

In this proposal, we focus more on the ‘underprivileged youth’, as we work closely with SATI Foundation to create a better quality of life for these youth by understanding the issue closely and using our knowledge and skills to conjure an application that is beneficial to them in more than one aspect.

2.1.1 Type of underprivileged youth

Underprivileged youth can be categorized in various ways depending on the criteria used to define their disadvantage. Factors such as income level, access to education and healthcare, family structure, neighborhood environment, and social support networks all play roles in shaping the experiences of underprivileged youth. Moreover, cultural and geographical contexts also influence the manifestation of disadvantage among youth populations. By understanding the multifaceted nature of underprivileged youth and considering the intersecting factors contributing to their disadvantage, stakeholders can develop more targeted and effective interventions to address their needs and promote their well-being.

Economically disadvantaged youth originate from families grappling with constrained financial resources and struggling to afford basic necessities such as food, clothing, and housing, such as low-income families. This disadvantage can negatively shape the youth to feel some social exclusion and lack of support (Economic Disadvantage and Its Toll on *Young People in Australia*, 2021).

Educationally disadvantaged youth, on the other hand, encounter barriers to quality education. Issues such as restricted access to schools, insufficient learning materials, learning disabilities, and language barriers make educational attainment and skills development areas of struggle for this group, which can further hinder their socio-economic progress. The Education Act of 1998 delineates educational disadvantage as the barriers to effective education stemming from social or economic circumstances, which inhibit students from fully benefiting from educational opportunities within schools (Citizensinformation.Ie, 2023).

Socially marginalized youth represent another subset of underprivileged individuals, experiencing exclusion or discrimination based on factors such as race, ethnicity, religion, gender identity, sexual orientation, or disability. They may face societal stigma and prejudice that limit their opportunities and access to resources. For example, minority groups like racial and ethnic minority youth may experience discrimination, limited opportunities, and systemic barriers to success (Bar-Tal & Vered, 2016).

Geographically disadvantaged youth include those who live in remote or underserved areas with limited access to essential services such as healthcare, transportation, and recreational facilities. They may also lack opportunities for employment or community engagement. For instance, homeless youth including street youth, runaway youth, etc. who experience homelessness encounter numerous obstacles, including lack of shelter, food insecurity, social support, and limited access to education and healthcare (Youth Homelessness Overview | the Homeless Hub, n.d.).

Lastly, emotionally or psychologically disadvantaged youth are groups of children who face mental health issues, trauma, abuse, neglect, or other adverse circumstances that affect their emotional well-being and development. They may struggle with self-esteem, coping skills, or forming healthy relationships like foster care youth who experience emotional and psychological challenges as a result of their traumatic experiences, including attachment issues, mental health disorders such as depression and anxiety, and difficulty forming trusting relationships which make them hard to form the healthy relationship (Sheppard, 2022).

These categories are not mutually exclusive, and many underprivileged youth may face multiple forms of disadvantage simultaneously. Effective support and intervention strategies often require understanding the intersectionality of these challenges and addressing the underlying systemic issues that perpetuate inequality.

2.2 How Thailand helps its underprivileged children

In Thailand, several laws and policies have been established to safeguard the rights and well-being of underprivileged children. The Child Protection Act (2003) legislation aims to prevent and protect children from abuse, exploitation, and neglect. It outlines measures for child protection, including reporting mechanisms for cases of abuse and the establishment of child protection centres (Protecting and Responding to Children at Risk of Abuse, Neglect, Violence and Exploitation MANUAL OF PROTOCOLS AND PROCEDURES PROTECTING AND RESPONDING TO CHILDREN AT RISK OF ABUSE, NEGLECT, EXPLOITATION, AND VIOLENCE, n.d.). The Juvenile and Family Court (1991) deals with cases involving juveniles and family-related matters, ensuring fair and appropriate treatment for children in conflict with the law or those facing difficult family situations. (www.thailandcourt.com, 2021) National Plan of Action for Children (2009-2018) outlines the strategies and actions to promote the well-being, protection, and rights of children, including underprivileged children. It encompasses various aspects such as education, healthcare, and child protection. (NATIONAL ACTION PLAN OF ALTERNATIVE CARE phase 1 (2022-2026), n.d.)

2.2.1 Organizations that help underprivileged youth

Recognizing the pressing challenges faced by underprivileged youth, a network of dedicated organizations has emerged, both within Thailand and on the international stage, working tirelessly to provide essential aid and support. Locally, in Thailand, several organizations stand as beacons of hope, striving to address the multifaceted needs of underprivileged youth and offer them a chance at a brighter future.

Childline Thailand, a pivotal player in the field, established 'The Hub' in 2011, serving as a harm reduction center dedicated to meeting the basic needs of underprivileged youth. Beyond immediate assistance, this organization is committed to providing education and fostering opportunities for these young individuals to turn their lives around (Childline Thailand, n.d.). Save The Children, a globally recognized organization, has a notable presence in Thailand through its dedicated arm, Safe Child Thailand. With a primary focus on preventing child trafficking, Save The Children's efforts align with addressing the root causes that lead children to the streets (Safe Child Thailand, 2022).

The SATI Foundation plays a vital role in implementing transformational change. By providing preventive programs tailored to underserved youth, this organization takes a proactive approach to address the vulnerabilities that often lead to life on the streets. Tackling the issue of at-risk youth, the SATI Foundation contributes to breaking the cycle of homelessness and despair (Tsang, 2023).

Help without Borders offer help to Burmese migrant children who are at-risk of getting taken advantage of due to their vulnerability as a result of lack of a proper education, a permanent condition of poverty and poor health conditions. Consequently, their lack of life-skills, educational credentials and access to opportunities further exposes them to the

dangers of the street. To combat this issue, Rays of Youth (RoY) was founded in 2009, focusing on educating underprivileged youth on child rights and protection, human trafficking, environmental problems, health and personal hygiene and empowering them to strive for a better future in hopes of keeping underprivileged out of undesirable situations (*Rays of Youth*, n.d.).

On an international level, United Nations Office on Drugs and Crime (UNODC) collaborates with member states, law enforcement, and local non-government organizations to protect children from sexual exploitation and substance abuse by promoting knowledge and providing education on these issues, atop of supporting legislative reform, and enhancing cross-border cooperation so that law enforcement officials can more effectively investigate and prosecute child sexual offenders. In 2014, a mobile unit was sent to Pattaya with educational materials to provide support and basic school lessons including sexual education to street children living in slums (*Mobile Training Unit Makes a Difference to Street Children in Thailand*, n.d.).

In addition to these key players, other organizations, including Mercy Pattaya and Global Angels, contribute significantly to the collective effort of supporting underprivileged youth. These organizations, with their diverse focuses and strategies, collectively form a robust network aimed at creating positive outcomes for vulnerable youth, emphasizing the importance of collaboration, awareness, and intervention. In their endeavors, these organizations serve as powerful catalysts for change, offering not only immediate relief but also pathways to lasting transformation for underprivileged youth in Thailand and beyond.

Nevertheless, room for improvement is always encouraged, for the betterment of the underprivileged youth and the up and rising future of the country.

2.2.2 Background of SATI Foundation

As mentioned, one organization that actively assists underprivileged youth is SATI Foundation. Derived from the Buddhist Pali, ‘Sati’, meaning ‘mindfulness’, recognizes problems amongst at-risk youth in Thailand from mental health concerns to drug abuse to sex workers. With the goal to provide at-risk and underserved youth with impactful & long-term solutions, SATI Foundation aims to promote health care and education quality in Thailand's neglected communities by providing preventive health care seminars to low-income, at-risk youngsters. As an effort to accomplish their vision to safeguard, protect, and educate underserved youth, SATI Foundation has extended its services to street youth, runaway and homeless youth, refugees, hill tribes, youth with no access to clean resources such as water and medical care, youth in juvenile centers and many more. The services offered are extensive, and not limited to only these groups of children. However, as the amount of underserved youth becomes more apparent day by day, especially with the aid of modern technology, SATI Foundation might face a problem of lack of manpower, as mentioned by the sponsors.

Furthermore, as from the SATI 2023 annual report, the SATI foundation is actively managing seven projects categorized into two groups: long-term and short-term initiatives. Short-term projects encompass item donation and projects to enhance learning for children and youth for Ban Bat community and Nang Loeng community. On the other hand, the long-term projects involve supporting Burmese children, promoting sex education, enhancing mental health, providing scholarships, and offering internships in the food and beverage service sector.

Long term project

Sex education learning project

The project initiated from January to December 2023, focuses on addressing the risks of unplanned pregnancies and communicable diseases among students in intermediate and secondary schools. Operating in five schools across Chiang Mai, Chiang Rai, and the Khlong Toei Community, it targets a total of 698 participants, with 398 students in Intermediate School and 300 in Secondary School. The project aims to achieve two key objectives: firstly, to promote a comprehensive understanding of sex education and facilitate open discussions, and secondly, to impart knowledge and practices for good sexual hygiene, emphasizing the prevention of sexually transmitted diseases. Specific activities for Intermediate School students include educating them on the physical changes during adolescence, promoting sexual health, and enhancing self-explanatory skills for addressing sexual risks through communication, refusal, and physical defense.

Project to enhance mental health

Originating from a school in Samoeng, Chiang Mai, this project responds to the prevailing risks of mental health issues, stress, and depression among children and youth aged between 11-18 years old. Notably, concerns arise from the prescription of antidepressants by non-psychiatric personnel, specifically professional nurses, rather than mental health specialists. The project implemented from January to December 2023, spans six schools in Chiang Mai, Chiang Rai, and the Khlong Toei Community it targets a total of 1,024 participants, with 418 in Intermediate School, and 606 in Junior High School, the project objectives include enhancing emotional understanding and providing opportunities for students to directly access knowledge and consultation from mental health professionals. This initiative seeks to address the existing mental health among students, emphasizing the significance of expertise from psychiatrists, psychologists, social workers, and similar professionals in the treatment and management of mental health conditions.

Scholarship program

The scholarship program aims to enhance educational opportunities for Thai and foreign children and youth, fostering a comprehensive development encompassing physical and mental well-being. This initiative strives to mitigate social risks, access to quality education, and facilitate promising career prospects in the future. The scope of the Sati Foundation's scholarships is multifaceted, covering educational expenses such as tuition, learning materials, travel, clothing, and meals and snacks. Presently, the foundation supports a total of 15 scholarship students.

Internship project

The internship project addresses the empowerment of at-risk youth by providing internships in the food and beverage industry. The SATI team conducts comprehensive assessments of individual risks by visiting their homes and areas to evaluate environmental conditions, living circumstances, and familial responsibilities. Based on these assessments, tailored short-term and long-term programs are developed for each youth. The training curriculum encompasses practical skills such as beverage preparation, customer service, store cleanliness maintenance, personal grooming, and interpersonal conduct with colleagues. This initiative is designed to not only offer vocational training but also to address broader socio-economic challenges faced by disadvantaged youth, contributing to their overall development and future prospects.

Project for Burmese children

This project is oriented towards fostering competency-based skills and mental empowerment, with its inaugural event scheduled at Rangsit Market in Pathum Thani on Saturday, March 3, 2023, followed by a subsequent session on Saturday, April 29, 2023. The initiative is slated to continue once every month thereafter. Beyond emotional development, the project integrates practical support for internships, specifically focusing on beverage preparation including coffee and tea making, as well as service training. This comprehensive approach aims to bolster the career aspirations of participants, with a targeted group of 105 children. The structured and recurring nature of the activities emphasizes sustained skill development and mental empowerment for the participating youth.

Short term project

Item donation project

It is a project to help donate essential items, equipment, food, and medicine to various communities. The Sati Foundation has donated items to various communities and areas, since August 2022 has included a donation project directed towards the Myanmar labor community residing in a Miami apartment, with a focus on providing items crucial for infants and young children, such as powdered milk and diapers. Another project has been to support bedridden children with multiple disabilities in the Bueng Khru community, involving the provision of necessities like diapers and nutritional supplements. Additionally, the foundation has extended its humanitarian reach to aid Myanmar refugees through donations of medicines and insect nets.

Project to enhance learning for children and youth for Ban Bat community and Nang Loeng community

This project, conducted during school holidays for students from the Ban Bat and Nang Loeng communities, occurred three times on April 1, 3, and 19, 2023. The project aimed to achieve two primary objectives: firstly, to enhance creative skills, and secondly, to optimize the utilization of children and youth's free time. The project focuses on, positive changes were observed, including enhanced respect for the rights of oneself and others, leading to reduced conflicts during shared activities. Furthermore, improvements were noted in behavior and language use, with a noticeable decrease in the use of vulgar or rude words, and an increased awareness among children. Additionally, the project contributed to fostering a closer relationship between the team and the community, making the continuation or initiation of future activities more seamless.

Going back to their vision of protecting and keeping youth safe, an application was launched to connect with underprivileged youth with the use of technology. Available in Line, SATI Foundation made available the Sati Line platform.

The children involved with SATI Foundation often originate from troubled families with an urge to leave home due to a multitude of reasons as above forementioned, regrouping at Hua Lamphong station after utilizing free transportation services. This event prevents isolation and promotes peer support, a result of affection deprivation at home or from parental figures. However, as they get involved with other street children, the risk of wrongful involvement with gangs, substance abuse, sexual exploitation, and violence increases tremendously. Due to unstable residence, most of these youth opt for rented rooms or apartments, leaning towards a sense of independence.

As an effort to assist these youth, a non-government organization known as ‘The Hub’ was established locally, offering a variety of services including meals, a support space with social workers, and weekly health check ups.

2.2.3 Applications that connect underprivileged youth in other countries

Even though physical organizations are already up and running to offer assistance to underprivileged youth, it is also imperative in this day and age to make use of technological advances to connect with underprivileged youth and runaway youth. With smartphones making its way into our daily lives, it has been reported that an estimated 6.4 billion people own a smartphone (Liu & Ellis, 2021), evidently proving that technology does have a significant impact in our everyday lives.

In Santa Clara, USA, an application known as YTHStreetConnect offers a variety of services to cater to the needs of about 733,000 to 2.8 million homeless youth in the United States. Services in the application include health resources (inclusive of HIV/STD testing), clothing and food location resources, employment offers, and mental health assistance regarding substance addiction and behavioral issues. The feedback given by homeless and unstable homed youth were well-received, with most of them stating that the application is full of essential services, one-stop functions, and a good blend of current social media and application functions, making the user interface easy and inviting to use.

While the application has gained positive feedback with underprivileged youth highly like to use it, some improvements could still be made such as map locations of resources, a forum for them to share experiences and provide support within the community, and a feature that allows them to see the number of beds available at various nearby shelters to maximize efficiency. All in all, the application proved to provide a multitude of benefits to the underprivileged youth in the US and should consistently be improved based on feedback by the users (Sheoran, B. et al. 2016).

Similarly, in Chicago, another application designed to assist homeless youth known as Pocket Helper 2.0 was established in 2019 to help as many as 80,384 homeless people, of which 11,067 of whom were unaccompanied youth aged 14 to 24, cope with their problems and troubles. The application realizes one unique problem that persists– even with a counseling booking system, transportation to an office or clinic is still widely unavailable for them, and sessions might not be readily available as and when they require it to be. This stems from conflicts between the youth’s availability and the coach’s schedule, which contributed to as many as 20% of youth being unable to benefit from the counseling sessions.

A solution to this was to integrate an automated tips feature into Pocket Helper 2.0 in which users could partake in a daily survey that assessed sleep and stress before receiving automated tips and motivational messages tailored towards each individual which focused on various coping skills. In addition, this study found that the self-reported benefit of the automated tips in the study app was higher than the self-reported benefit of the counseling sessions. It is possible that participants may have liked the automated feature such as the tips because they were readily available when they needed them (Glover, A. C. et al. 2019.)

Other applications made available to assist homeless youth include Koko Koko, a mobile intervention that provides emotional support and provides access to a peer network including supporting leveraging cognitive behavioral principles. It screens all the messages for

indicators that a user might be an imminent danger to himself or herself or others and automatically initiates a crisis protocol in these situations. IntelliCare Apps, a modular treatment suite consisting of 13 mini sub-applications, each focused on a singular behavioral therapy. This includes Purple Chill which provides exercises that build relaxation and meditation, iCope, which sends users self-authored inspirational messages in times of stress, and Thought Challenger, which teaches users to identify and restructure unhelpful negative thought patterns.

Lastly, but not limited to, Digitally Connecting Street Children, a global initiative established by The Consortium for Street Children (CSC) to create a safe and secure online platform for street children from all around the world to connect. This platform is a result of the collaboration among national and international non-governmental organizations, advocates and researchers spanning various countries. Organizations can share posts, videos and photos on this platform and users can engage by reacting and commenting on them. This helps to foster mutual learning and understanding of each other's experiences. In addition, the platform incorporates interactive elements such as quizzes that educate users about their rights and also shares details of upcoming information on events they might be interested in. This platform has been designed to amplify the voices of these street children and nurture a safe and tailored online communication among this community. (Consortium for Street Children, 2021)

Hence, as illustrated in above mentioned examples, both physical and technological assistance rendered to homeless and underprivileged youth are vital in ensuring their wellbeing and survival. Technological advancements have made it easier for underprivileged youth to connect with organizations, peer-to-peer support, and various forms of assistance in the form of automated services which are readily available at any time.

2.2.4 Line application to reduce the risk of the youth

In August 2022, the SATI Line Official, developed by Krungsri Nimble, was handed over to the SATI Foundation. The app serves as a 24-hour helpline to assist and help underserved youth whenever they require, sharing the same vision and goal to provide quality education and life to underserved youth and children (ธนาคารกรุงศรีอยุธยา จำกัด, n.d.)

Leveraging the LINE application to mitigate risks for youth in Thailand involves a strategic and collaborative effort. The LINE app can be augmented with educational feature that address specific challenges faced by Thai youth, focusing on digital literacy, responsible online behavior, and awareness of potential risks. Incorporating interactive content such as games and activities within the LINE app can enhance engagement and make the platform more appealing to the youth. Moreover, stringent privacy controls, content moderation, and reporting mechanisms can be integrated into the app to ensure a secure online environment. Collaboration with educational institutions, government entities, and community organizations is vital to align the LINE application with local cultural norms and educational goals. A study by Tanaka et al. (2019) underscores the significance of culturally sensitive educational interventions in promoting online safety among youth, providing insights into effective strategies (Tanaka et al., 2019). By combining educational initiatives, technological safeguards, and community involvement, the LINE application can play a pivotal role in empowering Thai youth with the knowledge and tools needed to navigate the digital landscape securely.

Currently, the official SATI Line Official platform manifests two primary functionalities, notably the SATI event, a feature elucidating workshops that delineate pertinent details such as location and schedule. Additionally, the platform provides the accrual of points associated with active participation in these events. These accumulated points can subsequently be exchanged for a variety of items. Furthermore, the SATI Line Official platform facilitates a connection to the Facebook page of the SATI Foundation (shown in figure 1). This Facebook page serves as a conduit for the dissemination of visual content capturing diverse activities involving SATI children, as well as announcements about forthcoming special events. Regrettably, the current state of the SATI Line Official platform lacks a compelling feature to captivate the attention of potential users or incentivize their engagement.

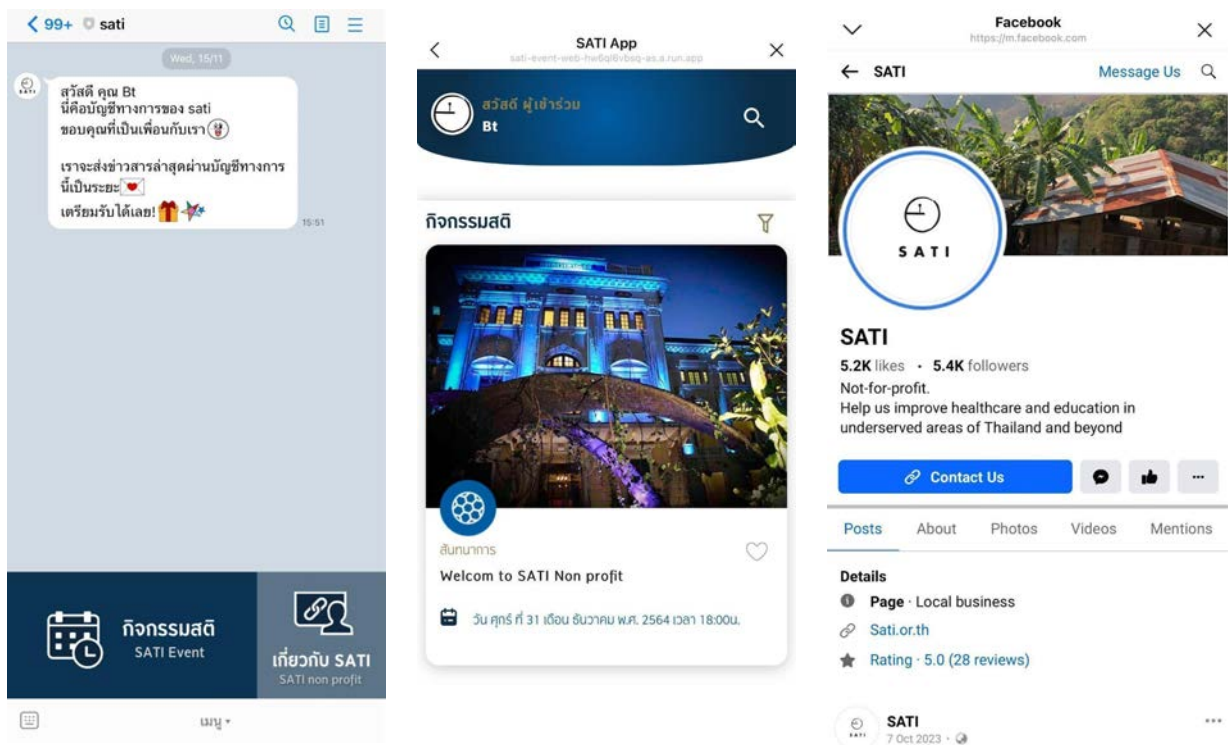


Figure 1: SATI Line Official account and Facebook Page

2.2.5 The impact of caretakers with the underprivileged children

The chapter authored by Thomas J. Dishion and Robert J. McMahon within the handbook of Parenting (n.d.) focus on discussing the crucial roles caretakers play in shaping the behavior of preschool and school-age children through constructive guidance and disciplines. These strategies include setting clear expectations, consistent reinforcement of appropriate behavior, and providing emotional support and warmth to children can help children develop better emotional regulation and social skills. They are also less likely to get involved in violent or criminal behavior later in life. This shows the long-term impact of early caretakers and child relationships on shaping behavior outcome.

For example, in a study exploring parental monitoring's impact on academic performance, Crouter (1990) found a correlation between lower levels of parental monitoring and decreased grades, specifically among boys aged 9 through 12. Meanwhile, Kurdek (1995)

identified a relationship between parental monitoring and child grade point averages among sixth graders. They revealed that moderate monitoring levels were associated with the highest-grade point averages in their study. In another study, the utilization and dedication of caretakers has shown to increase self-esteem and self-worth in youths. Through the provision of education, social and practical skills allow youths to be more prepared to reintegrate into the society. Honing life skills like these increases their confidence in pursuing their goals and dreams, grooming them to be prepared to face challenges outside their comfort zone. (Kaime-Atterhög et al., 2016)

With modern technology, it is easier for caretakers, counselors and psychiatrists to connect to underprivileged youth, even from afar. Using technology allows for help and assistance to reach the youth at almost any time of the day. Message from me is one such digital tool aimed to promote interactions between children and their caretakers. The app allows these children to share their daily lives through documenting their everyday activities by digital means. Through such conversations and sharing of their accomplishments shown to strengthen their relationship with their caretakers, develop self-confidence and support their holistic development.

Additionally, multiple studies have shown positive connotations regarding using technology to connect underprivileged youth with caretakers and other individuals of support such as family members, friends, and social workers. An article by Lal et al. (2021) states that using digital devices allowed for homeless youth to easily get in touch with other people despite being apart, which increased their motivation to assimilate back into society, morale, and reduction in substance abuse, risky sexual health behavior, and severity in mental health symptoms. (Message From Me, 2019)

Hence, from the above aforementioned studies, it can be concluded that access to caretakers and individuals of support prove to benefit underprivileged youth in more than one way, be it physically or through digital and technological means. Nevertheless, improvements should always be made on a societal and governmental level to ensure better quality of care to these youth other than the assistance offered by caretakers and persons of support.

2.3 Refugees in Thailand

Although a diverse and open-minded country, Thailand too grapples with some challenges, from the influx of migrant workers and internally displaced persons to the plight of refugees and victims of human trafficking (Migrants & Refugees, 2020). It is a well-known fact that Thailand is a place of refuge and asylum for some, including those from Cambodia and Myanmar.

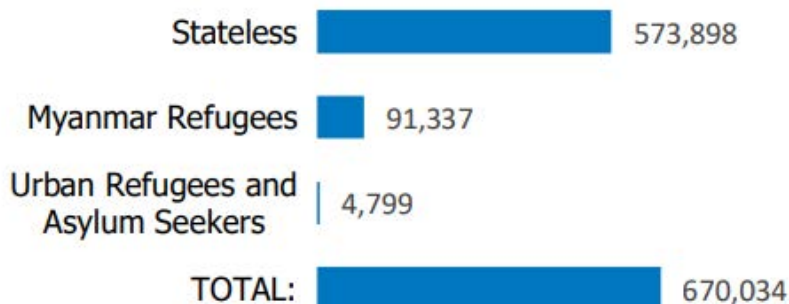
At the present, Thailand has over 95,000 refugees, the majority originating from Myanmar. However, McArthur states that, “there were more than 20,000 people who had fled to Thailand due to the concerns about the political persecution following the urban coup (Naing, 2023). For many refugees, the act of seeking refuge frequently involves crossing borders through unofficial and unlawful, giving difficulties related to legal status and documentation. In order to meet the needs of the refugees in Thailand, the United Nations High Commissioner for Refugees (UNHCR) and the Thai government play a pivotal role in protecting the rights and welfare of the refugees. This helps ensure that everyone has a right to seek asylum and find shelter in another state, with the choice to freely return home, integrate into the community, or relocate (Sundholm, 2018).

The majority of the camps are situated in remote mountainous areas, making them challenging to reach. They lack access to an electricity grid, and certain camps do not have phone service. Opportunities for healthcare and education are severely restricted. During the rainy season, infrastructure damage and potential casualties can occur due to flash floods (Refugees in Thailand - Thailand, 2017). Mae La Camp, among other camps like it, including the largest one accommodating over 40,000 refugees, is located an hour away by car from Mae Sot, the nearest town. While there is a relatively greater presence of health service providers and schools, the camp faces issues of overcrowding. The limited space between the makeshift houses constructed from bamboo and wood has been a significant factor contributing to numerous fires within the camp (Refugees in Thailand - Thailand, 2017).

Widespread occurrences of depression and alcohol addiction are prevalent among adult refugees, posing a substantial risk to the well-being of their children, potentially leading to instances of neglect and malnutrition. An estimated fifty percent of the adult population grapple with mental health challenges, contributing to a growing incidence of suicides. The prevalence of mental health issues in this community has given rise to an alarming trend of self-harm and underscores the urgent need for comprehensive mental health support and intervention (Refugees in Thailand - Thailand, 2017).

2.3.1 Burmese Refugees in Thailand

As Thailand’s own effort to protect and act on humanitarian concerns, it actively provides shelter to 91,337 refugees from Myanmar in nine temporary facilities situated along the Thai-Myanmar border, while an additional 4,799 urban refugees and asylum-seekers are residing in different locations as of June 30th, 2023 (*UNHCR Thailand Fact Sheet (30 June 2023) - Thailand, 2023*). Shown in figure 2, a concerning and whooping amount of almost 600,000 people remain stateless, while more than 90,000 people are Burmese refugees. This proves that there is evidently a humanitarian concern when it comes to victims of war or violence seeking asylum in other countries.



** Verification Exercise conducted from Jan-Apr 2015 and subsequent data changes to-date. Under reverification*

Figure 2: Forcibly Displaced and Stateless People (UNHCR Thailand Fact Sheet (30 June 2023) - Thailand, 2023)

Following the military coup in Myanmar on February 1, 2021, a surge in violence against civilians and renewed conflicts between the Myanmar Military (Tatmadaw) and ethnic armed groups (EAGs) has led to the displacement of numerous individuals within Myanmar and

neighboring countries. The southeastern provinces of Myanmar have witnessed residents fleeing due to violence, military assaults, and airstrikes, seeking refuge along the Salween River and the Myanmar-Thai border. Over 20,000 refugees have crossed into Thailand since February 2021, with a notable proportion being women, children, and older individuals. Despite many returning when fighting reportedly diminished, there remains a high-risk situation for thousands of Internally Displaced Persons (IDPs) near the Thai-Myanmar border. As of June 2022, approximately 244,500 IDPs are reported in southeast Myanmar, and ongoing preparedness efforts anticipate up to 24,000 individuals seeking refuge in Thailand from July to December 2022. The response plan is centered on readiness to assist Thai authorities, leveraging the country's experience in managing refugee influxes from Myanmar. Humanitarian agencies collaborate in an inter-agency response, with contingency planning, Standard Operating Procedures (SOPs), and coordination mechanisms in place to provide protection and assistance to refugees during their stay in Thailand. The plan spans various sectors, including education, food, health, non-food items, protection, shelter, and water, sanitation, hygiene. Ongoing efforts include the development of guidance, joint assessments, organization mapping, needs assessments, referral pathways, review of distribution processes, shelter design, and mental health support. Training sessions cover a range of topics such as emergency preparedness, child protection, specific needs assistance, and refugee protection principles, ensuring a comprehensive and coordinated response to the evolving situation (Myanmar Situation: Refugee Preparedness & Response Plan - Thailand (July - December 2022) - Thailand, 2022).

2.3.2 Background of Burmese Student in Myanmar Students Learning Center at Rangsit market

The children residing in Rangsit market, possibly refugees from Myanmar, face various challenges, including the complexities of their immigration status. Some families arrived illegally, while others may have legally given birth to children in Thailand after arriving. Working in Rangsit Market, the parents engage in diverse occupations, ranging from laborers to business owners. Despite the array of careers, there is a notable absence of caretakers for the children. Originally, educated Burmese individuals settled in the area, aspiring to establish a school to harness their knowledge for the benefit of the children. The resulting "Burmese schools" follow a schedule similar to Thai schools, conducted in Thai and English by Burmese teachers. The student total is around 100-120, spanning various age groups, from preschool to Grade 12, with diverse backgrounds, including some from affluent families.

These children, though generally well-behaved, exhibit differences in their ability to communicate in English. Some may feel more at ease due to better family care, while others, particularly those from families facing hardships, may struggle to express themselves. Burmese families, known for their nurturing approach, rarely employ violence against their children. However, the parents, often migrant workers, face violence from Thai employers, leading some families to live together. Despite the supportive family environment, these children may feel excluded from the Thai community, harboring fears of deportation due to their lack of legal documentation. While violence is infrequent, the challenge of language barriers persists, as the children predominantly use Myanmar language, making English and Thai activities challenging. Nonetheless, teachers proficient in Thai, English, and Burmese strive to facilitate communication and emotional expression among the students.

2.4 Principles of observation in field studies

One method of gathering data comes in the form of observational studies during field work. Other than the usual and typical methods such as conducting interviews or surveys, observing behavior has proven to be beneficial in more than one aspect. Used to back up results from qualitative and quantitative methods, observational studies also give an insight to human behavior after exposure to a sample.

Observational studies include an investigator experimenting and observing the effect of a random sample onto the study subjects (Johnsen, J. P., Gillman, M. W., Sorensen, H. T., 2004.), enabling researchers to collect data about behavior, expression of feelings, and interaction between subject and sample (Balcom, S., Doucet, S., Dubé, A. 2021.). Used in fieldwork of various fields of study, from social work to healthcare, observers often observe their subjects' verbal and non-verbal behavior before and after exposure to the sample and can also be used to help interpret things that people verbally report or to further understand peoples' experiences.

There are multiple types of observation study, mainly cross-sectional, cohort, and case-controlled (Thiese, M. S. 2014.).

Cross-sectional observational study involves assessing a sample representative of its population at a single point in time based on their exposure status without regard for their outcome status (i.e, there is no specific desired outcome). Sometimes, this is the first step before carrying out cohort observation.

Cohort observational study involves identifying sample groups based on their exposure status and either tracking or following them over time to identify which participants develop the outcome of interest by looking back at data that was created prior to the development of the outcome. Usually, cohort studies begin with cross-sectional study to categorize exposure and identify specific cases from the beginning.

Lastly, case-controlled observational study involves researchers identifying sample participants based on their case status. Quantification of the number of individuals among the cases and the controls who are exposed allow for statistical associations between exposure and outcomes to be established. However, case-controlled studies are susceptible to recall bias due to the known case status of sample participants.

Other than the beneficial aspects, observational studies have its limitations too. Biases may be associated to some degree during observational studies. Collecting data through observation is a subjective approach, making it susceptible to observer bias which arises when individuals perceive and interpret differently, resulting in varying and inconsistent results. Observational studies could also be subjected to response bias as subjects may modify their behavior to present their best selves when they are aware that they are being studied. Recall bias is another bias that could occur when respondents cannot accurately remember past events or experiences, leading to inaccuracies. Other biases include selection and sampling bias which occurs when the sample size chosen is too small to be representative of the population, leading to skewed and distorted patterns in results. These biases could ultimately affect the reliability and accuracy of the data obtained.

Chapter 3: Methodology

This project aims to enhance the SATI Line Official with a new feature and functionalities designed to engage underprivileged children with essential support systems and facilitate connections with them.

This chapter will focus on three primary objectives: (1) Understanding the background of Burmese refugee children in Thailand (2) Identifying the additional feature within the SATI Line Official to connect with underprivileged children and (3) User engagement tracking after presenting the prototype

3.1 Understanding the Background of Burmese Refugee Children in Thailand

Employing qualitative and quantitative analysis methods, including interviews, focus groups, secondary data, and observational research to understand Burmese refugee children's daily challenges and needs.

3.1.1 Interviews

Our initial step involved conducting interviews with both SATI staff members and Rangsit caretakers. The purpose of these interviews is to gain a deeper understanding of the distinct needs, experiences, and challenges faced by Burmese refugee children in the Rangsit community. By engaging in these interactions, we aim to collect valuable insights that will guide our efforts in offering customized support and assistance to address the unique circumstances of this group.

Interview SATI staff

During the interview, we inquired about the backgrounds of the children under the care of the SATI Foundation, seeking to gain a comprehensive overview of their circumstances. Additionally, we aimed to identify and document the various challenges that SATI staff members currently face in their efforts to support these children effectively. By exploring these aspects, we strived to develop a comprehension of the intricate challenges faced by Burmese refugee children residing in the Rangsit market community. This would enable us to implement more informed and precise interventions tailored to meet their specific needs.

Interview Rangsit caretaker

We initiated discussions with them to gather insights into the backgrounds of the Burmese refugee children in the Myanmar Students Learning Center situated at the Rangsit market, as well as to understand the various challenges they encounter. Through these interactions, we sought to gain a comprehensive understanding of the socio-economic circumstances, educational backgrounds, and any other pertinent factors affecting these children. By delving into these details, we aimed to identify the specific issues and difficulties they face, enabling us to develop more targeted and effective interventions to address their needs.

3.1.2 Focus group

Subsequently, for the focus group, our approach was to assemble children approximately 15-20 within the SATI Foundation to discuss what difficulties they faced both in the past and at the present. As advised by the SATI's staff, we would undergo a training session first to ensure we ask appropriate questions. This was crucial because the questions might be sensitive and can affect the children's thoughts and emotions. Therefore, all focus group questions were subject to approval by the sponsor prior to implementation.

Furthermore, we would focus on Burmese Refugee children who are taken care by SATI Foundation aged between 13 to 17 years old in Myanmar Students Learning Center who live near Rangsit Market, and had mobile phones as a target group. The reason that we selected this target group is firstly, their maturity enables them to provide sincere responses, crucial for our research objectives. Secondly, within this age range, individuals have encountered genuine challenges, contributing to a deeper understanding of various issues.

3.1.3 Secondary Data

We planned to use the secondary data to research the two main elements. Firstly, it relied on secondary data, specifically examining the prevalence of lack of essential resources among underprivileged children and accessing existing global and local data from credible sources. We would access pre-existing and prior statistics and information from online journals and websites, ensuring we obtain information from credible and reliable sources. This served as a foundational understanding of the issue.

3.1.4 Observational Research

The observational research was conducted to gain insights into the primary reasons motivating youths to attend Myanmar Students Learning Center, aiming to address root causes and effectively tackle the core issue. The observation involved studying their accommodations, tracking by counting the number of underprivileged children observed in different locations or accommodations to estimate the population in these areas. Additionally, active participation in SATI Foundation's weekly activities allows for the observation and tracking of participation numbers, contributing valuable insights into the dynamics of the issue. Through the combination of secondary data analysis and observational research, the study aimed to provide a comprehensive and subtle understanding of the challenges faced by the youth.

Observational study also came in the form of observing the children participate in the activities and watching their body language, verbal and non-verbal cues, and to collect data about behavior, expression of feelings, and interaction between our subject, the youth at Myanmar Students Learning Center and sample, in this case, the SATI Line Official. To back this up as we could not interpret actual information just by observation, we would interact and engage with the children and staff there and enquire on the activities and perception of the application itself, to obtain impartial and unbiased answers that will be easier to analyse. Additionally, to ensure that we did not commit any form of bias, we would craft the questions to be that of a neutral manner, without leaning towards any pre-existing ideas or prior conformed perception.

3.2 Identifying the Additional Feature within the SATI Line Official to Connect With Underprivileged Children

3.2.1 Identify problems from the current SATI Line Official account

Before initiating the addition or development of any new feature within the SATI Line Official, it was important to gain a comprehensive understanding of the precise challenges driving the SATI Foundation to enhance the feature. This entailed conducting interviews with the staff members who currently serve as administrators of the SATI Line Official account. Through these interviews, we aimed to elucidate the specific issues they encounter and their expectations regarding our project. This information served as a foundational step in aligning our development efforts with the genuine needs and aspirations of the SATI Foundation.

3.2.2 Identify the preferred feature of the users

This method integrated both qualitative and quantitative analyses to identify additional feature that would enrich the developmental experience of SATI Line Official for children. The interview component of this method would concentrate on soliciting insights into the feature desired by the children for enhancing the interactivity and accessibility of SATI Line Official. Simultaneously, a survey would be administered to gather essential data from the children, probing into their phone usage habits. This survey would be done on the Google form platform and employ multiple-choice questions to capture insights into their behavioral patterns, shedding light on the likelihood of children utilizing SATI Line Official.

Furthermore, teenagers would be prompted to indicate their preferred feature by ranking them from least to most favored. Nevertheless, before finalizing these questions, extensive training would be conducted to ensure their sensitivity, as they have the potential to influence the emotions and perspectives of the children. Additionally, it was imperative to assess the current user base of SATI Line Official and their frequency of engagement with the application.

The utilization of both qualitative and quantitative data was paramount in gathering comprehensive information. This approach enabled us to better comprehend the requirements of underprivileged youths, thereby generating additional ideas for new feature. These feature had the potential to modernize and enhance SATI Line Official, augmenting its interaction and accessibility with the youth demographic.

3.2.3 Feature Development

After gathering all the pertinent information, the next step involved a meticulous analysis of the data to determine which feature warrant development and enhancement. Utilizing insights gleaned from the results, we would identify existing feature within SATI Line Official that require refinement or enhancement. Subsequently, the newly identified feature would be integrated, and a prototype will be introduced to foster and amplify user engagement, guided by feedback from our target group.

Following the incorporation of necessary modifications to the application, the enhanced version aimed to achieve the overarching objective of providing more effective assistance to its users. This iterative process of data collection, analysis, and implementation ensured that

SATI Line Official remains responsive to the evolving needs of its user base, ultimately enhancing its utility and impact in supporting youth development initiatives.

3.3 User engagement tracking after presenting the prototype

3.3.1 Implement methods to collect data

For short-term results

- Implement methods to collect data on the app’s usage and its impact on connecting with underprivileged children over 1 month, but less than 1 year.
- Data we needed to collect in order to evaluate application usage include the following:
 - 1) Number of active users. This is so we could observe the impact of the enhanced application on attracting more users and to understand more about user engagement. Assessing daily active user (DAU) to monthly active user (MAU) ratio can be expressed as a percentage to further observe the changes in active users over time. A low DAU to MAU ratio can act as an indication that the content and relevance of the application has room for improvement and requires an update or enhancement to further appeal to users (Fundingsland et al. (2022)). An increase of active users can indicate that more youth find the app helpful and are appealed to use it as it can benefit and impact them positively.
 - 2) Frequency of use and session duration to analyze how long users are active on the application itself. If a user returns to the website again after several hours or days, it will be counted as a new session and can be used as an indicator of how engaging the application is in pulling in users to use the application. Whereas if the user stays on the app for longer duration, it might suggest that they are spending more time utilizing the applications feature, while a shorter duration may suggest poor application and feature usability and room for improvement (Fundingsland et al. (2022)).
 - 3) Page views. This refers to the number of pages that a user visits during a single session of using the app and can act as an indication of the extent the user is engaging with the website and its feature. For example, if users are accessing a website but not interacting with additional feature or pages, this can indicate a problem with the website's usability, a feature issue, or difficulty with user interface and experience (Fundingsland et al. (2022)). Additionally, a ‘bounce rate’ analysis can be used to assess the amount of users who leave the website without further interaction beyond an additional page. This gives an insight to user engagement within the website and its feature. The bounce rate indicates users who are not achieving the desired interaction with the website. A high bounce rate may suggest a usability issue steering users away from the page.

Analyze gathered data to assess the effectiveness of the improved SATI Line Official in addressing the issues faced by underprivileged children. After that, we will use this information to suggest whether the added feature can be used for long-term results or not.

If we observe an increase in active users, page views, frequency of use, and session duration, we could make an indirect observation that the enhanced application does impact youth using it. Otherwise, we could evaluate the issues regarding usability or interface to rectify the issue and observe the change in data after correcting the problems.

For long-term results

- As Krungsri Group are the initial developers of the application itself before handing it over to SATI Foundation, we can get the Sati Line app admin staff and IT team of Krungsri Group to gather app usage data and its impact on engaging underprivileged children over a period exceeding one year, reassuring and emphasizing on the objective. Krungsri Group is included here as they have access to insight data as the developers of the application while SATI Foundation only has access to surface level data on the administration side.
- Examine the compiled data such as the number of the youth's daily check-in to evaluate how successful the added feature in the Line Official account are in dealing with the problems experienced by underprivileged children. We will prepare the prototype' infographic about the check-in feature for the SATI Foundation and IT of Krungsri Group.
- Partnering with other various organizations from non-government organizations such as Childline Thailand Foundation who share a common vision and mission with SATI Foundation. (Childline Thailand, n.d.) to promote professional recognition and growth by collaborating on projects or events. In turn, this can increase the network of similar organizations with the same vision as SATI's, to protect, provide, and keep youth safe.
- Although promoting the application for professional recognition and growth is not a main goal of SATI Foundation, collaborating with other organizations can increase network and exposure of services offered by SATI and in turn, increase the connection between SATI and underprivileged children if they decide to use it, expanding the value of SATI's services and the application itself. This itself ties into SATI's goal of connecting to underserved youth to provide them with basic necessities to safeguard and protect them.

Chapter 4: Results and Analysis

This chapter summarizes the conclusions gathered from multiple interview groups. As the information gathered covers diverse results and perspectives, we will categorize our interview groups appropriately and briefly outline how each finding aligns with our objectives. Then, we compared and contrasted a series analysis data from interviews within each group, depending on the interviewers.

4.1 Understanding insight background of Burmese refugee youth by caretakers perspective

This section describes the results obtained through interviews with caretakers at the organizations we explored: the Myanmar Students Learning Center - Rangsit market and two caretakers from the SATI Foundation. We gathered numerous findings supporting the exploration of the backgrounds of youths and addressing the issue of Burmese refugee children *Understanding the background of Burmese refugee children in Thailand* (objective 1).

4.1.1 Finding

By analyzing the information gathered from our interviews, through the analyzing of the data collected in our interviews, we have identified the following insights.

Finding 1 : The local Burmese refugee youth encounters the impact of exclusion from society.

According to interviews with the Rangsit caretakers and SATI staff, as a result of getting displaced from their home country due to war, the Burmese refugee youth experience an immense sense of not belonging and exclusion from Thai society. This may stem from a myriad of issues, ranging from illegally entering the country, to not exploring the country out of fear of getting caught and deported. They also feel a sense of unfamiliarity as their homes in Myanmar were surrounded by lush nature and greenery, which they do not receive in Thailand, due to its urbanization as compared to Myanmar.

When given the choice and option to roam free around the country to explore, the youth feel unsafe and insecure due to not having a Thai legal card, or pink card, and fear that they will get caught and arrested, or in worse cases, deported back to Myanmar. Hence, due to this fact, they prefer to stay within their comfort zones and familiar areas rather than to explore Thailand and assimilate with the locals. This significantly contributes to their exclusion from society and feeling left out.

Even online, they face issues communicating as their first language is Burmese, and they type and speak online completely in Burmese. This makes it hard for them to communicate in Thai, which contributes to their exclusion from society when they are unable to properly convey information and emotions and affect their ability to form bonds with the local youth and such.

The exclusion of Burmese children from Thai society poses significant challenges in physical and mental forms and undermines their rights and opportunities for development. Addressing the root causes of exclusion and implementing inclusive policies and interventions are crucial

steps towards promoting the well-being and integration of Burmese children into Thai society.

Finding 2 : Some of the children opt to reach out to individual caretakers, leading to communication difficulties between SATI staff.

Despite efforts made by SATI staff to encourage youths to utilize the Sati Line Official platform for communication purposes, the youths prefer to reach out to specific caretakers with whom they are more comfortable with when it involves personal matters, regardless of the caretakers specialty, through personal message.

The problem lies in the ability of the application to streamline youth to the respective specialized caretakers in various fields. However, it is important to note that the youth are only comfortable speaking to certain caretakers about certain issues and a streamlined solution might cause another problem– youth having to talk to caretakers they are less comfortable with, which calls into question the efficiency of a streamlined counseling system.

The persistence of this trend is a growing challenge for the team as problems such as time management and prevalence of boundaries between the team and the youths they serve arise. Caretakers who become focal points for personal communication may find themselves overwhelmed with requests that will compromise their ability to allocate their time effectively across the youths they serve.

Finding 3: Children either seek a sense of welcoming from friends or opt for independence.

It was discovered that the youth are not consistently taken care of by their parents as they tend to work very hard at the nearby Rangsit Market or tending to businesses. This is a contributing factor as to why they are sent to the Myanmar Students Learning Center where they are joined by other Burmese youths within the same age range. Due to this, they might seek comfort, support and affection from their friends of whom they spend most of their time with. Additionally, they tend to frequently relocate as they have no permanent place of residence, affecting their ability to make long-term friendships and form stable connections. The majority of these youth rent rooms or apartments and choose to seek independence and convenience, as they tend to prefer things that are easily attainable and require little to no significant effort. Usually this is accompanied by a fear of incapability to accomplish certain tasks. However, to make ends meet, these independent youth are likely to enter the workforce at a young age, often getting themselves involved in sex work, drug trafficking or other illegal activities.

4.2 Understanding the current utilization of Sati Line Official to connect with underprivileged youth

This section presents the results obtained from an interview with the SATI Line Official admin at the SATI Foundation. We collected diverse information about the challenges faced by the SATI admin in relation to the current feature and their ideas for improvement to enhance engagement with the youth. The following findings are essential to support *Identifying the additional feature within the SATI Line Official to connect with underprivileged children* (objective 2).

4.2.1 Finding

By analyzing the information gathered from our interviews, we have identified the following findings concerning the current SATI Line Official.

Finding 4 : The inefficiency of SATI Line Official in connecting with Burmese refugee youth arises from their unfamiliarity with the application and challenges within the app.

The attempt to engage with Burmese refugee youth through the utilization of the SATI Line Official appears to be ineffective due to a significant lack of familiarity among the target group. Given that the majority, if not all, of these youth have never encountered the application before, they are unlikely to be aware of its existence or the services it offers to provide aid and assistance. Consequently, the lack of familiarity with the application contributes to low user engagement levels, undermining its efficacy in connecting with Burmese refugee youth effectively.

The insufficient reach of the SATI Line Official among Burmese refugee youth highlights the need for alternative outreach strategies to effectively engage with this marginalized population. Without adequate awareness and understanding of the application's features and benefits, these youth are unlikely to utilize it as a resource for accessing support and assistance. As a result, the current approach fails to effectively bridge the gap between the SATI Line Official and its intended beneficiaries, hindering its ability to fulfill its intended purpose of assisting Burmese refugee youth.

To address this challenge, it is essential to explore alternative methods of communication and outreach that resonate with the cultural and social contexts of Burmese refugee youth. This may involve partnering with local community organizations, leveraging social networks and community leaders, and utilizing culturally sensitive messaging to raise awareness about the application and its potential benefits. By adopting a more targeted and culturally relevant approach to outreach, it may be possible to enhance the effectiveness of the SATI Line Official in connecting with Burmese refugee youth and addressing their needs more comprehensively.

Finding 5 : The application faces issues of inconvenience and incompatibility

The SATI Line Official faces several challenges that undermine its user-friendliness and efficiency, ultimately hindering its effectiveness in connecting with Burmese refugee youth. One of the most notable issues is its compatibility, as it does not operate seamlessly on certain mobile devices. This lack of compatibility effectively excludes a portion of potential users who may rely on these devices, thereby limiting the application's reach and accessibility among the target demographic. Without broad compatibility across various devices, the application fails to fulfill its potential as a widely accessible resource for Burmese refugee youth in need of assistance.

Moreover, the complexity of the SATI Line Official's user interface presents another significant hurdle for users. Navigating through the various features and functionalities of the application can be cumbersome and confusing, particularly for individuals with limited digital literacy or unfamiliarity with technology. This complexity may deter users from engaging with the SATI Line Official effectively, as they struggle to navigate its interface and access the support and resources it offers. As a result, the overall user experience is

compromised, diminishing the SATI Line Official's utility and effectiveness in serving the needs of its intended beneficiaries.

These issues, compounded by the SATI Line Official's compatibility limitations and complex user interface, collectively detract from its overall usability and efficiency. Without addressing these fundamental challenges, the SATI Line Official is unlikely to fulfill its intended purpose of effectively connecting with Burmese refugee youth and providing them with the support they need. To improve the SATI Line Official's effectiveness, it is imperative to prioritize enhancements that enhance compatibility across a wider range of devices and streamline navigation to create a more intuitive and user-friendly experience. By addressing these key areas of improvement, the SATI Line Official can better serve its target audience and maximize its impact in supporting Burmese refugee youth in their time of need.

Finding 6 : Lack of appealing interface results in low motivation for user engagement

The SATI administration has acknowledged the challenges associated with the SATI Line Official, particularly highlighting concerns about its unappealing user interface, especially for children. Through discussions with SATI staff regarding the SATI Line Official's interface and overall design, it became evident that its current design is perceived as unattractive, which directly impacts children's reluctance to engage with it. This lack of visual appeal and user-friendly design contributes to a notable lack of motivation among the target audience, particularly children, to actively use the SATI Line Official as intended.

Updating the SATI Line Official's user interface is thus deemed necessary to address these shortcomings and enhance usage within the system. This entails comprehensive improvements to both the aesthetics and visuals of the application, aiming to create a more engaging and intuitive user experience for children. By addressing these design issues, the SATI administration aims not only to increase user engagement but also to ensure that the application effectively resonates with its target audience, particularly children. A more visually appealing and user-friendly interface has the potential to foster a more positive and encouraging environment, encouraging children to actively participate in the SATI Line Official platform and utilize its services effectively.

Moreover, enhancing the application's user interface aligns with broader objectives of improving accessibility and inclusivity within the SATI Line Official system. By making SATI Line Official more visually appealing and intuitive, the SATI administration can better cater to the diverse needs and preferences of its users. This approach reflects a commitment to fostering a supportive and empowering environment where all users, regardless of age or background, feel encouraged and empowered to seek assistance and support through the SATI Line Official platform. Thus, investing in user interface updates represents a strategic and essential step toward maximizing the application's effectiveness and impact in serving its target audience, particularly children in need of assistance and support.

4.3 Identify the additional feature from children survey

This section describes the findings from google form with the children in the Myanmar Students Learning Center at the Rangsit market. We gathered numerous information about the preference and benefit of using the mobile phone. The following findings are essential to support *Identifying the additional feature within the SATI Line Official to connect with underprivileged children* (objective 2).

4.3.1 Finding

By analyzing the information gathered from data analysis using the children's responses in the survey, we have identified the following insights.

Finding 7 : The SATI Line officials are unfamiliar among the Burmese children.

When surveyed about the SATI Line Official, a notable proportion of Burmese youth responded that they had never encountered or heard of the SATI Line Official previously. This lack of awareness indicates a significant gap in the SATI Line Official's reach and visibility within this specific demographic. Consequently, these youth were unfamiliar with the SATI Line Official's purpose, features, and potential benefits, which directly contributed to its limited engagement among this target group. The absence of prior exposure to the SATI Line Official hindered their ability to fully grasp its potential usefulness in providing assistance and support.

Despite their lack of familiarity with the SATI Line Official, when presented with the concept of an SATI Line Official that could offer services to aid them, the response from Burmese youth was notably positive and enthusiastic. Many expressed interest in such a SATI Line Official and were eager to share their thoughts and opinions on how it could potentially benefit them. This suggests a latent demand for support services among this demographic, indicating that the lack of engagement with the SATI Line Official was primarily due to a lack of familiarity rather than a lack of interest or need.

It is reasonable to infer that had these youth been aware of the existence and purpose of the application, they would have expressed a greater willingness to utilize it. This underscores the critical importance of effective communication and outreach strategies to raise awareness about the SATI Line Official application among its target audience. By increasing visibility and promoting understanding of the application's features and benefits, a larger number of Burmese youth would likely be inclined to engage with it, thus maximizing its potential impact in providing assistance and support to those in need within the community.

Finding 8 : Most of Burmese youth are interested in game feature

In addition to the insights gathered from the Google Forms survey as shown in figure 3, it becomes evident that mobile phones serve as a platform for gaming among the surveyed demographic, consisting of 21 respondents. A majority of 19 youths actively engage in gaming activities notably the preferred towards first-person shooting and thrilling games.

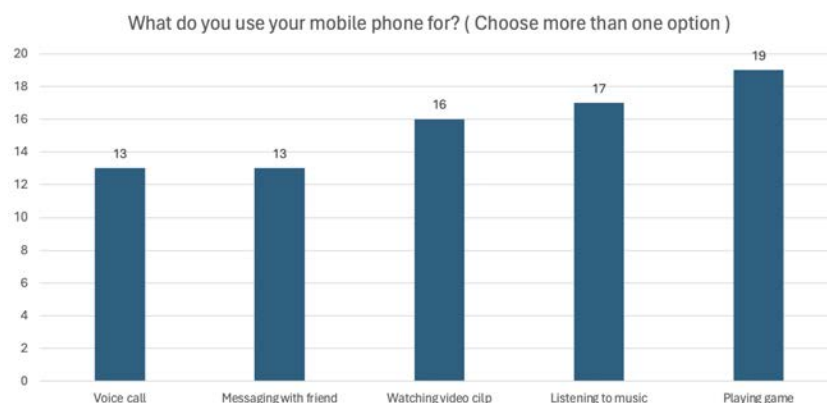


Figure 3: Bar chart of the question from children survey about the most of youth use mobile phones for

Moreover, adventure games, particularly exemplified by the popularity of titles like Temple Run, have garnered substantial favor among 17 out of the 21 surveyed individuals (shown in figure 4). We could incorporate some feature from these games into the application to pique their interest in using the app. However, we must be careful to ensure that the features included do not promote any form of violence as FPS games are known to be quite violent in nature as well as do not promote any negative behavior.



Figure 4: Bar chart of the question from children survey about the most youth normally playing games

Finding 9 : Developing the feature involves a delicate balance between meeting the desires of caretakers and addressing the needs of the youth.

After we compiled data from both caretakers and youths, our analysis revealed stark contrasts in their feature preferences. Caretakers preferred a counseling room feature, citing its potential to streamline their work processes and facilitate scheduling arrangements. In contrast, children overwhelmingly favored the game feature and showed comparatively least interest in the counseling room feature. This discrepancy emphasizes the divergent needs and priorities of caretakers and children. Taking into consideration the observed differences in attention towards the counseling room and game feature, we started on an analysis to understand underlying factors driving these differences, which led us to consider the influence of children's behavior as a crucial determinant shaping their preferences. Understanding the importance of addressing these behavioral differences, we carefully designed a set of prototypes to give a clear picture of our plans. By letting the youth experience our ideas firsthand, we hope to spark their excitement again and gather helpful feedback to improve our approach.

Finding 10 : Burmese refugee youth show increased enthusiasm for prototypes in recent surveys.

Following surveys with Burmese refugee youth at the Myanmar Students Learning Center situated in the Rangsit market, a remarkable increase in enthusiasm towards our prototype was observed compared to previous fieldwork endeavors. The children's reactions seemed notably more sincere and involved, signaling a genuine interest in the feature we are proposing, especially as we were able to present them with a comprehensive draft for their review. This heightened level of engagement underscores the significance of tailoring our

approach to effectively resonate with the unique needs and preferences of the target demographic.

4.4 Tracking the engagement after presenting the prototype

In this section, the data collected during the survey with the children in the 2nd fieldwork is presented. The purpose of gathering this data was to observe the perception of children to our prototype. These findings are crucial for supporting *User engagement tracking after presenting the prototype* (objective 3).

4.4.1 Finding

By analyzing the information gathered from our interviews, through the analyzing of the data collected in our interviews, we have identified the following insights :

Finding 11 : Hundred percent of children interested in the prototype that we presented.

After presenting a visualization prototype with the children on the 2nd fieldwork, the team was able to identify the interests of the children with the additional feature. All the children in the Myanmar Students Learning Center were eager to try out the application after hearing more about it. The findings could be instrumental in supporting the Krungsri team's initiatives, serving as valuable insights to guide future updates to the feature. This suggests a promising outlook, indicating a high likelihood that children will actively engage with the prototype if it is further improved and introduced.

Finding 12 : Balancing preferences and risks is crucial in addressing child safety in game development.

Based on the findings of the recent survey, we had the youths complete the survey again with the same group of 14 students who did the survey last time as shown in figure 5. It was observed that children typically prefer games characterized by shooting or thrill elements. However, the direct development of such feature may contribute to an increase in criminal and violent tendencies. Consequently, we have opted to incorporate these elements indirectly through the check-in system. Following the presentation of the prototype to children, it is evident that the check-in system is not aligned with their preferences and expectations, resulting in a noticeable decline in its desirability.

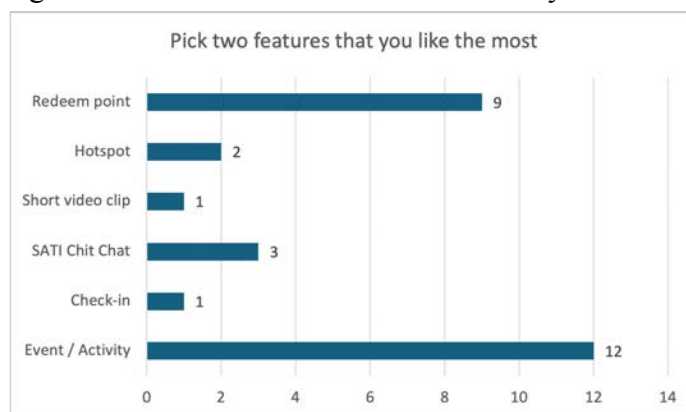


Figure 5: Bar chart of the question from children survey about the feature that children prefer

Finding 13 : The layout and color scheme of the prototype are the concerning in our prototype

According to the survey results presented below (shown in figure 6 and 7), both children and SATI staff strongly agree that the prototype's layout is not formal and the color scheme has a colorful tone that may not be appealing to boys. Furthermore, SATI staff recommended that we modify the format to be inclusive for both boys and girls. They also suggested adopting a neutral theme for our prototype, emphasizing its potential effectiveness. In response to this feedback, the team has taken a proactive approach by initiating revisions to the prototype's layout. The aim is to better cater to the preferences and requirements of the intended users, with the ultimate goal of ensuring that the prototype aligns more closely with their expectations and desires. This demonstrates a commitment to refining the design based on valuable feedback to enhance the overall appeal and effectiveness of the prototype.

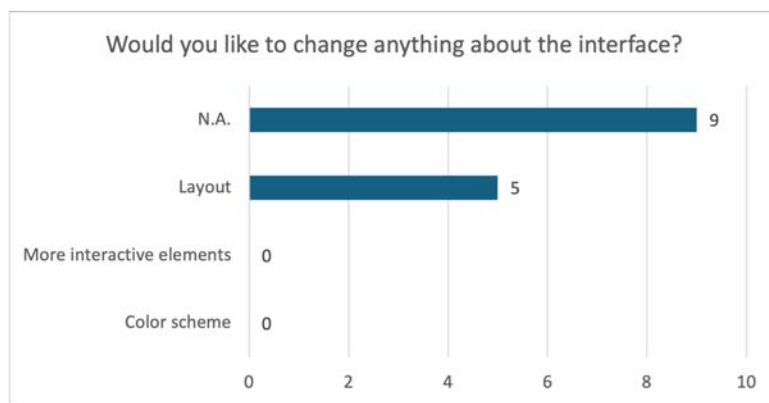


Figure 6: Bar chart of the question from children survey about the suggestion in our prototype

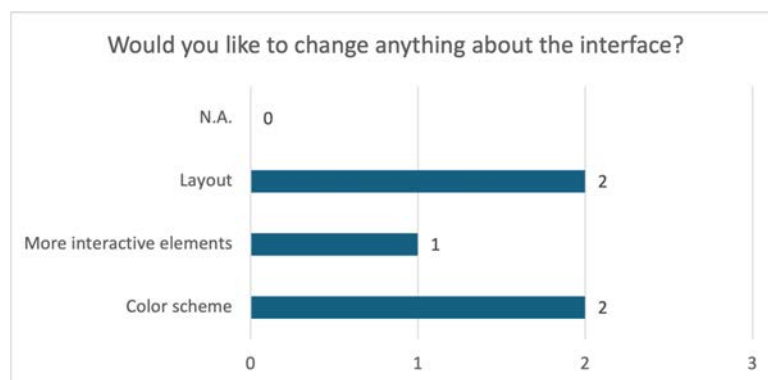


Figure 7: Bar chart of the suggestion in our prototype from the SATI staff

4.5 Potential development of prototype into SATI Line Official

In this section, we present the outcomes derived from our interview sessions with the Krungsri team builder. Through these interviews, we meticulously gathered data from the standpoint of the developer, aiming to gain insights into potential challenges our prototype may encounter. These findings play a pivotal role in bolstering both *Identifying the additional feature within the SATI Line Official to connect with underprivileged children (objective 2)*, and *User engagement tracking after presenting the prototype (objective 3)*.

4.5.1 Finding

By analyzing the information gathered from the interview, we have pinpointed certain discoveries that raise concerns regarding our prototype.

Finding 14: Potential limitations of the gaming feature in SATI Line Official could be identified.

Our prototype features a check-in system which extends into a game if youth opt to get more points. However, upon discussion with Krungsri Team Builder, multiple problems arise if the prototype were to actually be developed into the actual application.

Firstly, the game, integrating both Pac-man and Temple Run attributes, including the Pac-man maze, might pose a challenge for developers. If this game is to be linked outside the application itself, they might not have access or possess the ability to include an external game into the application as the game itself does not belong to them, and they have trouble gaining copyrighting rights to include the game into the application.

Developing the game itself from scratch is a more feasible approach. However this too has its fair share of concerns— most, if not all of the developers are not experienced or trained in game design. Although it poses a significant challenge for the team if the job scope is beyond the developers skill, it is more possible as developing their own game will not face any copyright issues as all scene and character images fully belong to Krungsri themselves.

Finding 15: Unlikeliness of enhanced application to become obsolete through changing trends

To ensure our prototype remains appealing to users and relevant, it is important to keep up with the ever-changing trends to avoid obsolescence. Initially, a concern we harbored included maintaining the application's relevance and attraction towards various target groups and their needs, as well as keeping up with volatile and fast-paced changing trends. This stems from the initial problem we faced whereby the sponsors' wants differed from the target groups' wants, which will keep changing with trends.

However, upon consultation with Krungsri, we were reassured that our application is unlikely to go outdated as it is relatively easy to use, featuring icons that are not complicated to understand. It also maintains an informal visual appeal, promoting a feeling of comfort and safety as compared to formal visuals which are more likely to be outdated due to low appeal to the target group. We were also advised to obtain a color scheme similar to that of our sponsors branding colors.

Chapter 5: Conclusion

The findings from our background research underscored the alarming vulnerability of underprivileged youth, particularly those dwelling on the streets, to the dangers of substance abuse and sexual exploitation, among many other risks. The background research highlights the concerning reality that numerous children in Thailand lack stable homes and adequate support systems. It is crucial and imperative to guide them away from these dangers to prevent any lasting negative impacts on their mental and physical well-being and future aspirations and prospects.

As an effort to address these pressing issues, our collaboration with SATI Foundation aims to aid and connect with underprivileged children by updating new features within the SATI Line Official account. Additionally, we conducted interviews and focus groups, and utilized secondary data and observational research techniques to obtain insight information about our target group to achieve our objectives and to further understand our project and goals better.

Tailoring new features based on children's preferences and needs for a useful and beneficial application could significantly enhance their connectivity and assistance, leading to an improved quality of life in the long run. This effort promises a better and seamless experience, providing hope and prospects for a brighter future.

5.1 Recommendations

This section highlights the various aspects in which the project's direction could be extended and further improved to benefit its current users, and attract a larger pool of audience to increase the quality of life for underprivileged youth all over Thailand, and possibly on a global scale too. While extensive research and innovation has been carried out throughout the entire duration of this project, there is still room for improvement in many other aspects, including but not limited to directly improving the data collection functions of Sati Line Official to track progress, to utilizing mobile trucks as a means of extending services beyond mobile phone users. Such recommendations give light to a myriad of possibilities that could stem from this project and prior related work.

Recommendation 1: Research audience knowledge and preference to produce engaging and trendy feature

As the current feature proposed in this report are tailored to our target audience preferences, it is essential to recognize that youth preferences are subject to change over time and also across different age groups. Hence, obtaining regular feedback from the users becomes imperative to better understand the unique preferences and needs of the youths. This feedback ensures that the app remains attractive and relevant to the youths so that they would continue using the application. By keeping up with the evolving preferences and behaviors of the youths, the app can be better adapted to introduce new feature that align with their interests. This helps to enhance user engagement to contribute to overall app satisfaction and achieve long-term user retention and loyalty.

Recommendation 2: Utilize application feature insights to track progress

Currently, there are a few ways in which we integrate data collection through the enhanced feature to ease long and short term data analysis later on after launching the redesigned application.

Firstly, we implemented a feedback system after the counseling room feature known as ‘SATI Chit-Chat’. This feedback system allows for youth to express their emotions through a series of emoticons after the counseling session. They are also allowed to give other feedback regarding the session or feature itself.

Secondly, the check-in system can also be used to observe the amount of user engagement within a stipulated time frame to track how efficient the enhanced application is to attract users and increase user engagement within the application.

Thirdly, the hotspot feature also utilizes location to see where the youth are located. Although this feature was not initially designed for any long or short term data collection and analysis, it can still be adjusted to indirectly show the frequented locations of the underprivileged youth. By utilizing location services, we are able to track popular places that the children frequent, or hang out at more and can be used for future purposes such as setting up events or for reaching out to more underprivileged youth that might gather there too.

Though there are already some attempts of utilizing application features to track progress in the form of user engagement and user experience, there are still other ways the application feature can be refined for better quality of tracking progress of the application growth.

Recommendation 3: Expanding services offered in the application beyond mobile phone users

While our project mainly focuses on youth who already own mobile phones, the inevitable truth is that there are many underprivileged youth roaming without mobile phones. Personally, we have noticed that the younger children do not own mobile phones, however some youth who own phones still face issues regarding the compatibility of the application. One imperative recommendation would be to extend the services offered in the application outside mobile phone users to reach a wider audience and uphold the SATI Foundation vision– to protect, safekeep and guard underserved youth. This part will discuss the various ways to explore expanding services beyond mobile phone users.

Utilization of mobile trucks

Inspired by mobile healthcare trucks in Singapore, and food trucks in various parts of the world, the typical everyday vehicle proves itself to be of multifunctional use. While food trucks are common all around Thailand, it too could be utilized to accommodate various healthcare procedures such as a portable dental treatment center, portable x-ray center, and even portable optician. By choosing a mobile way of transporting the services to the underprivileged youth, a wider audience is reached while providing them with healthcare needs that they might not have access to. This suggestion also allows for services to expand to rural areas and hill tribes to offer services to other SATI Foundation youth that they work with, in addition to underprivileged children scattered all across Thailand.

Currently, UNICEF has already modeled this idea by organizing mobile safety classes for children in Ukraine to educate youth on life-saving topics such as fire safety and road safety (*UNICEF Organizes 15 Mobile Safety Classes for Children*, n.d.). This proves that the idea itself is feasible, and has potential to widely expand SATI Foundation services beyond mobile phone users.

Kiosks at public terminals

Installing kiosks, booths, or stands at public terminals where underprivileged youth often gather can also extend SATI Foundation services beyond mobile phone users. While a portable service makes its way around the country and is not at a permanent location, a kiosk can serve underprivileged youth at places they publicly gather to ease their efforts of acquiring services or resources. For example, a kiosk with free food, blankets, warm clothes, sim cards, or even feminine products could be set up at Hua Lamphong Railway Station, where it has been conveyed to us by a SATI staff that underprivileged youth often gather, for them to obtain their various needs at a permanent public location instead of relying on their mobile phone applications for the nearest resources. This could largely benefit underprivileged youth who do not own mobile phones, and those who do not know where else to go for everyday items. Furthermore, the staff manning the kiosk could redirect or inform them about the various SATI Foundation shelters if they are unfamiliar with it and guide them to proper and more stable assistance.

Ideally, one could perceive the idea of a kiosk at public terminals as the point of contact between underprivileged youth gathered there and receiving proper and stable assistance.

Recommendation 4: Application compatibility in various phone models

To ensure broader accessibility among the target youths, the application should be made compatible across various phone models. Incompatibility of the app restricts the accessibility of the app, hindering the ability to reach out and expand to a larger pool of audience. To address this issue, efforts to optimize the app on a wider range of phone models, preferable catering to the phone models commonly used by the underprivileged youths. App developments may need to assess the technical aspect of the app processes to ensure compatibility across different phone operating systems. By making the app readily available and accessible on all phone models, it can significantly enhance the effectiveness in reaching and connecting with more underprivileged youths to provide them with the essential support they require.

Recommendation 5: Marketing efforts to raise awareness of the application

While there are numerous directions for future work to branch out to, we go back to the root problem, that underprivileged youth are not even aware about the existence of the application, which leads to low user engagement. Thus, one crucial recommendation for future work is for increased marketing efforts to raise awareness of the application not only to the underprivileged youth, but to the general public as well.

Advertisements and brochures

A traditional way to achieve marketing efforts is by distributing brochures and putting up physical advertisements or online advertisements. Social media is a fast-paced tool which could be used to an advantage when utilized to spread information. By altering the advertisement to follow current trends or styles, it can capture the attention of users and encourage them to find out more about the organization and application itself. Advertisements or brochures that appeal to viewers' ethos, pathos, and logos can also garner attention and raise awareness.

Additionally in this fast-paced digital age where advertisements and brochures might no longer attract the eye as it used to, marketing strategists can opt for other styles such as zines, and illustrations to appeal to both underprivileged youth and the general public to raise awareness about the application. These media forms too are creative in nature and may offer something different and exciting as a means to raise awareness.

Furthermore, utilizing media psychology in marketing strategies allows for exploration of prints, broadcast and digital media on consumers attitudes, behaviors, and perceptions on certain matters, allowing it to be a substance that invokes persuasiveness to know more about the content showcased (Kraak, V. I., Holz, A., Woods, C. L., Whitlow, A. R., & Leary, N. (2023)).

Collaboration with other organizations / companies / brands

SATI Foundation could also collaborate with other well-known companies or brands to promote the application. As the main developer of the application itself, Krungsri Nimble could also promote the application as a means to market it and increase awareness about it. By collaborating with another popular brand for marketing purposes, the current consumers will be introduced to the application to take notice and interest in, branching out the applications viewer reach and raising awareness through current consumers of another well-known brand.

SATI Foundation could collaborate with other organizations that share the same cause, goal, and vision to safeguard and protect youth, such as The Hub, or Childline Thailand amongst many others.

Recommendation 6: Community outreach to foster positive social change regarding underprivileged youth

The effort of protecting and safeguarding underprivileged youth also falls in the hands of the general public's knowledge and perception of them. According to an interview with SATI Foundation staff, it was discovered that some underprivileged youth are treated undesirably due to negative connotations and disdainful social stigmas surrounding underprivileged children. One way to abolish this is for community outreach to facilitate positive social stigmas regarding underprivileged youth.

Fundraiser or social events

One exciting way to reach out to the general public is to organize fundraising events surrounding underprivileged youth. These events could feature talks, discussing the problems

and background of the underprivileged youth and how the general public could make a difference in advocating for them. Interactive workshops or activities could also be featured to get participants or attendees more involved in learning about the underprivileged children to shift their perception of underprivileged youth from negative or unheard of into a more positive one.

In the event of a fundraiser, there could also be various activities in which financial assistance is raised towards the cause of the underprivileged youth. For example, a marathon in which money is raised per kilometer ran for each attendee.

With time, the aim of such events would result in a more healthy and positive perspective of the general public towards underprivileged youth, which may tremendously help the youth in the long run when job hunting and efforts to assimilate back into society.

Pop-up booths

Pop-up booths are also an alternative idea to which a small booth would be set up in major events to promote the shift of stigma around underprivileged children. Advertisements and brochures could also be distributed at these booths as well as staff manning the booth to converse with the general public on underprivileged children with the hope of raising awareness about the truth these youths face.

Feature influencers and celebrities to advocate the issue

Celebrities and influencers are often seen on billboards or advertisements promoting a product. While this garners enthusiastic reactions from fans all around the world, it could also boost awareness and recognition of a product or service, due to the degree of media attention received and ability to influence or shape not only their fans, but also public perception. Their elevated voices and presence has made them a platform for advocacy, and able to change or mobilize movements.

For example, celebrity business leader, Sir Richard Branson, managed to convince President Barack Obama that the Great Barrier Reef was threatened by climate change upon his visit to Australia in 2014. This was credited to a letter sent by the business tycoon to the World Heritage Committee, critiquing the effects of climate change on the destruction upon natural wonders in the reef. Coupled with engaging sustainability efforts, this eventually brought more attention to the public eye and that of people with power to implement change, such as President Obama himself (Wright & Nyberg, 2022).

Using this strategy could diversely expand the recognition of SATI Line Official, and shine light onto SATI Foundation itself. In the long run, other services and efforts produced by SATI Foundation would garner more attention if emphasized by famous Thai celebrities such as model and celebrity Cindy Sirinya Bishop, who advocated alongside UNICEF to end violence and abuse against women (Press Release: Thai Celebrity Cindy Sirinya Bishop Campaigning for Women's Rights as New UN Women Regional Goodwill Ambassador for Asia and the Pacific, 2020).

A powerful tool, a celebrity's voice could speak for the thousands who are affected by the cause.

Recommendation 7: Integration of underprivileged youth into society

Refugees make up the majority of underprivileged youths in Thailand. In this report, our target audience, Burmese refugee youths, having fled their home country due to war often struggle with having a sense of belonging in Thai society. Multiple contributing factors such as illegal entry into the country and the fear of getting deported and acclimating to the urban environment in Thailand. This part will discuss the ways that can help integrate these groups of youths into the society to address the challenges they face.

Community events between locals and underprivileged youth

Organizing community events that bring the locals and underprivileged youths together can help foster a sense of belonging and inclusion. Having such events provide opportunities for cultural exchange and interaction to help break down existing stereotypes and barriers. By actively involving underprivileged youths in community activities, it can help promote social integration and create a supportive and inclusive environment where the underprivileged youths feel accepted and valued. An example of a community event would be a community pizza making activity whereby the underprivileged youths can demonstrate their creativity while building camaraderie among the local and other underprivileged youth participants.

Skill upgrading for ease of job searching

Skill upgrading initiatives can empower underprivileged youths with skills and resources they require to secure and seek employment opportunities. Drawing inspiration from successful programs like Singapore's Yellow Ribbon Project and MySkillsFuture, which focus on rehabilitation and skills development for ex-offenders. Similar initiatives can be developed to meet the needs of underprivileged youths such as providing vocational training, career counseling and job placement services that can help them gather experience to enhance their employability in the future that facilitates their integration into the workplace.

5.2 Limitations

5.2.1 Limitation of the survey

As the aim of this project is to enhance and expand features within SATI Line Official, several significant limitations have emerged for the survey. Firstly, the target demographic for gathering feedback is restricted to children who possess mobile phones, thereby limiting the potential pool of respondents. This constraint reduces the sample size available for data collection.

Moreover, the age range of the target audience, spanning from 12 to 17 years old, this narrower age bracket imposes limitations on the comprehensiveness of the collected data.

Another noteworthy limitation stems from the challenge of ensuring clarity in survey questions for the majority of children. Since the target group is the Burmese youth, some of them cannot understand Thai, which may lead to misunderstanding in the question. This ambiguity may result in responses that we may not want and cannot use for comprehensive analysis, thus it may impact the validity and reliability of the data obtained.

Additionally, the unpredictability surrounding the participation rates of children in SATI activities every week presents a notable challenge. The fluctuating number of attendees complicates the estimation of sample sizes for each data collection session. Consequently, during the second fieldwork phase, the sample size decreased significantly from 21 to 14 responses due to unforeseen variations in attendance.

In summary, these limitations, ranging from constraints in sample size and demographic representation to challenges in survey clarity and unpredictable participation rates, underscore the complexities inherent in gathering comprehensive and reliable data for enhancing SATI Line Official.

5.2.2 Limitation in adding the new feature into SATI Line Official

Due to limitations in both manpower and time limitation for our project, we faced considerable challenges in smoothly integrating all the prototypes we developed into the existing SATI Line Official platform. The scarcity of programming expertise among our team members significantly impeded our ability to execute this task efficiently. Recognizing the complexity of the endeavor, we ask the Krungsri team builder, renowned for their program development proficiency and collaborating with the SATI Foundation for help to implement and integrate new features into the SATI Line Official platform.

Our objective was to transition our prototypes into fully functional models and seamlessly incorporate them into the SATI Line Official platform. However, the urgency of our project timeline posed challenges in effectively reaching out to and aligning schedules with the Krungsri team within the designated time frame. This limitation hindered our capacity to fully integrate additional features into SATI Line Official as originally envisioned.

Despite encountering this setback, we have already initiated collaboration efforts by presenting our prototype to the Krungsri team builder. Through ongoing discussions and coordination with their team, we have successfully secured a commitment that our prototype will undergo development by the Krungsri team builder in May 2024. However, it is regrettable that the envisioned game feature, integrated with the check-in system, cannot be added in SATI Line Official due to exceeding the technical capabilities of the team. Instead, they have proposed incorporating short video clips, wherein users earn coins upon watching the entirety of the video. While this adjustment deviates from our initial concept, it represents a creative solution to maintain user engagement within the platform.

This partnership represents a crucial step forward in our mission to enhance the functionality and effectiveness of SATI Line Official in serving its users, and we remain dedicated to overcoming any obstacles to achieve this goal.

5.3 Further Research

5.3.1 Collaborate with the Krungsri team builder to effectively incorporate the feature into SATI Line Official

Considering the time limitations in enabling the Krungsri team builder to effectively develop and integrate the feature into SATI Line Official, we recommend seeing the process for incorporating the feature within the SATI Line Official of Krungsri team builder.

Looking ahead, we also recognize the importance of delving deeper into research to facilitate more meaningful engagement with the Krungsri team builder. This involves actively seeking their insights on feasible features that could be integrated into SATI Line Official, as well as welcoming any additional suggestions for its enhancement to ensure its relevance and usability. By conducting thorough research and fostering open communication channels, we aim to ensure that SATI Line Official remains up-to-date and responsive to the evolving needs of its users.

Through this collaborative effort, we anticipate harnessing the expertise of the Krungsri team builder to assist us in seamlessly implementing these identified features into SATI Line Official. By leveraging their knowledge and experience, we aim to enrich the platform's functionality and enhance the overall user experience. Ultimately, our goal is to create a platform that not only meets the immediate needs of its users but also remains adaptable and innovative in the long term.

5.3.2 Collect engagement data after adding feature to SATI Line Official

We suggest commencing the process of data collection regarding user engagement with the newly added feature within SATI Line Official. This involves systematically gathering usage data from users daily, both in the short term and over an extended period, to comprehensively evaluate the impact of the feature on engagement levels. To initiate this data collection process, we propose focusing initially on a specific target group, such as the Burmese refugee children attending the Myanmar Students Learning Center.

This group presents an ideal starting point for data collection due to their accessibility and demonstrated interest in utilizing mobile phones. By engaging with this demographic, we can gather valuable insights into their interactions with the newly added feature and assess its effectiveness in enhancing their engagement with SATI Line Official. Furthermore, this data serves as primary evidence to inform the SATI Foundation about the success and impact of the feature, thereby facilitating informed decision-making regarding its potential expansion to other groups within the foundation.

Should this initial group demonstrate positive engagement and reception towards the feature, it opens up opportunities for its broader implementation and utilization across other groups supported by the foundation. By gradually expanding the user base to include additional demographics, we can maximize the reach and impact of the feature, ultimately enhancing the overall effectiveness of SATI Line Official in serving its diverse user population.

In summary, by systematically collecting and analyzing user engagement data, starting with the Burmese children at the Myanmar Students Learning Center, we can gain valuable insights into the effectiveness of the newly added feature within SATI Line Official. This data-driven approach not only informs decision-making within the SATI Foundation but also

lays the groundwork for the potential expansion of the feature to benefit other groups within the foundation's care.

Bibliography

- Abdullah, M. A., Basharat, Z., Lodhi, O., Wazir, M. H. K., Khan, H. T., Sattar, N. Y., & Zahid, A. (2014). A qualitative exploration of Pakistan's street children, as a consequence of the poverty-disease cycle. *Infectious Diseases of Poverty*, 3(1). <https://doi.org/10.1186/2049-9957-3-11>
- Aynew, M., Kabeta, T., & Woldemichael, K. (2020b). Prevalence and factors associated with substance use among street children in Jimma town, Oromiya national regional state, Ethiopia: a community based cross-sectional study. *Substance Abuse Treatment, Prevention, and Policy*, 15(1). <https://doi.org/10.1186/s13011-020-00304-3>
- Balcom, S., Doucet, S., & Dubé, A. (2021). Observation and Institutional Ethnography: Helping Us to See Better. *Qualitative health research*, 31(8), 1534–1541. <https://doi.org/10.1177/10497323211015966>
- Bar-Tal, D., & Vered, S. (2016). Peace and reconciliation. In Elsevier eBooks (pp. 249–257). <https://doi.org/10.1016/b978-0-12-397045-9.00162-2>
- Bhukuth, A., & Ballet, J. (2015). Children of the Street: Why are they in the Street? How do they Live? *Economics & Sociology*, 8(4), 134–148. <https://doi.org/10.14254/2071-789x.2015/8-4/10>
- Childline Thailand. (n.d.). International Day for Street Children - Childline Thailand. <https://www.childlinethailand.org/idsc/>
- Childline Thailand. (n.d.). The Hub. [online] Available at: <https://www.childlinethailand.org/what-we-do/the-hub/#:~:text=Children%20living%20in%20street%20situations> [Accessed 9 Dec. 2023].
- Child Multidimensional Poverty in Thailand | OPHI. (n.d.). <https://ophi.org.uk/child-multidimensional-poverty-in-thailand/>
- Citizensinformation.Ie. (n.d.). Measures to address educational disadvantage. <https://www.citizensinformation.ie/en/education/the-irish-education-system/measures-to-address-educational-disadvantage/>
- Consortium for Street Children. (2021, November 25). Digitally Connecting Street Children - CSC. <https://www.streetchildren.org/tools-and-resources/digitally-connecting-street-children/>
- Durso, L. E., & Gates, G. J. (2012). *Serving Our Youth: Findings from a National Survey of Services Providers Working with Lesbian, Gay, Bisexual, and Transgender Youth who are Homeless or At Risk of Becoming Homeless*. The Williams Institute.
- Economic disadvantage and its toll on young people in Australia. (2021, April 20). <https://www.missionaustralia.com.au/stories/people-and-communities/economic-disadvantage-and-its-toll-on-young-people-in-australia>

Fundingsland, E. L., Fike, J., Calvano, J., Beach, J., Lai, D., & He, S. (2022). Methodological Guidelines for Systematic Assessments of Health care Websites using Web Analytics: tutorial. *Journal of Medical Internet Research*, 24(4), e28291. <https://doi.org/10.2196/28291>

Glover, A.C., Schueller, S. M., Winiarski, D. A., Smith, D.L, Karnik, N. S., & Zalta, A. K. (2019). Automated Mobile Phone–Based Mental Health Resource for Homeless Youth: Pilot Study Assessing Feasibility and Acceptability. *JMIR mental health*, 6(10), e15144. <https://doi.org/10.2196/15144>

Hagan, J., & McCarthy, B. (2017). *Mean streets: Youth crime and homelessness*. Cambridge University Press.

Hammer, H., Finkelhor, D., & Sedlak, A. (2002). *Runaway/Thrownaway Children: National Estimates and Characteristics*. Retrieved from <https://www.ncjrs.gov/pdffiles1/ojjdp/196469.pdf>

Jepsen, P., Johnsen, S. P., Gillman, M. W., & Sørensen, H. T. (2004). Interpretation of observational studies. *Heart (British Cardiac Society)*, 90(8), 956–960. <https://doi.org/10.1136/hrt.2003.017269>

Kraak, V. I., Holz, A., Woods, C. L., Whitlow, A. R., & Leary, N. (2023). A Content Analysis of Persuasive Appeals Used in Media Campaigns to Encourage and Discourage Sugary Beverages and Water in the United States. *International journal of environmental research and public health*, 20(14), 6359. <https://doi.org/10.3390/ijerph20146359>

Liu, J. C. J., & Ellis, D. (2021). Editorial: Eating in the Age of Smartphones: The Good, the bad, and the Neutral. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.796899>

Mean Streets: Youth Crime and Homelessness | Office of Justice Programs. (n.d.). <https://www.ojp.gov/ncjrs/virtual-library/abstracts/mean-streets-youth-crime-and-homelessness>

Migrants & Refugees. (2020, September 29). Thailand - Migrants & Refugees Section. Migrants & Refugees Section. <https://migrants-refugees.va/country-profile/thailand/>

Mobile training unit makes a difference to street children in Thailand. (n.d.). United Nations : UNODC Regional Office for Southeast Asia and the Pacific. <https://www.unodc.org/roseap/en/2014/10/childhood-mobile-training/story.html>

Myanmar Situation: Refugee Preparedness & Response Plan - Thailand (July - December 2022) - Thailand. (2022, July 29). ReliefWeb. https://reliefweb.int/report/thailand/myanmar-situation-refugee-preparedness-response-plan-thailand-july-december-2022?gad_source=1&gclid=Cj0KCQIAtaOtBhCwARIsAN_x-3J6JKLXgHQdCx8l5jnm-V_ZhsCQXJFWa5IirbO4BYIU2FAvLbiRevoaAurmEALw_wcB

Naing, I. (2023, January 12). Stranded Myanmar refugees seek answers in Thailand. Voice of America.
<https://www.voanews.com/a/stranded-myanmar-refugees-seek-answers-in-thailand-/6914924.html>

NATIONAL ACTION PLAN OF ALTERNATIVE CARE phase 1 (2022-2026). (n.d.). Available at:
<https://www.unicef.org/thailand/media/10141/file/National%20Action%20Plan%20of%20Alternative%20Care.pdf> [Accessed 9 Dec. 2023].

National Center for Homeless Education (NCHE). (2019). Education for Homeless Children and Youths Program: Data Collection Summary. Retrieved from
<https://nche.ed.gov/wp-content/uploads/2019/05/FY18-Data-Collection-Summary.pdf>

National Statistical Office of Thailand. (2021). Survey on the Situation of Children and Youth in Thailand. Retrieved from
https://service.nso.go.th/nso/nsopublish/themes/files/youth_situation_64.pdf

Neiditch, D. (n.d.). Why we should care about underprivileged children. Dan Neiditch. <https://danneiditch.org/why-we-should-care-about-underprivileged-children/>

No child left behind: No less than 120,000 children in institutional care in Thailand. (2023, April 1). UNICEF Thailand.
<https://www.unicef.org/thailand/reports/no-child-left-behind-no-less-120000-children-institutional-care-thailand>

Ponio, J. (2021, July 26). Underprivileged children: What can we do for them? Our Father's House Soup Kitchen. <https://ofhsoupkitchen.org/underprivileged-children>

Press release: Thai celebrity Cindy Sirinya Bishop campaigning for women's rights as new UN Women Regional Goodwill Ambassador for Asia and the Pacific. (2020, October 15). UN Women – Headquarters.
<https://www.unwomen.org/en/news/stories/2020/10/press-release-new-regional-un-women-ambassador-cindy-bishop>

Protecting and Responding to Children at Risk of Abuse, Neglect, Violence and Exploitation MANUAL OF PROTOCOLS AND PROCEDURES PROTECTING AND RESPONDING TO CHILDREN AT RISK OF ABUSE, NEGLECT, EXPLOITATION, AND VIOLENCE. (n.d.). Available at:
https://www.dcy.go.th/public/mainWeb/file_download/1645691655378-874443945.pdf

Rays of youth. (n.d.). Help Without Frontiers.
<https://helpwithoutfrontiers.org/our-work/rays-youth>

Refugees in Thailand - Thailand. (2017, February 7). ReliefWeb.
<https://reliefweb.int/report/thailand/refugees-thailand>

Safe Child Thailand. (2022, August 24). Our vision - Safe Child Thailand.
<https://www.safechildthailand.org/about-us/our-vision/>

- Sapiro, B., & Ward, A. (2019). Marginalized Youth, Mental Health, and Connection with Others: A Review of the Literature. *Child and Adolescent Social Work Journal*, 37(4), 343–357. <https://doi.org/10.1007/s10560-019-00628-5>
- Sheppard, S. (2022, February 9). The mental health effects of living in foster care. Verywell Mind. <https://www.verywellmind.com/the-mental-health-effects-of-living-in-foster-care-5216614>
- Sheoran, B., Silva, C. L., Lykens, J. E., Gamedze, L., Williams, S., Ford, J. V., & Habel, M. A. (2016). YTH StreetConnect: Development and Usability of a Mobile App for Homeless and Unstably Housed Youth. *JMIR MHealth and UHealth*, 4(3), e82. <https://doi.org/10.2196/mhealth.5168>
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2018). Homelessness and Behavioral Health. Retrieved from <https://www.samhsa.gov/homelessness-behavioral-health>
- Sundholm, M. (2018, November 19). Office of the United Nations High Commissioner for Refugees - Office of the Secretary-General's Envoy on Youth. Office of the Secretary-General's Envoy on Youth. <https://www.un.org/youthenvoy/2013/09/office-of-the-united-nations-high-commissioner-for-refugees/#:~:text=Its%20primary%20purpose%20is%20to,resettle%20in%20a%20third%20country.>
- Tanaka, K., Yamamoto, M., & Sato, Y. (2019). Culturally Sensitive Approaches to Promoting Online Safety for Youth: Lessons from a Community-Based Intervention in Thailand. *Journal of Cybersecurity Education*, 8(2), 123-140. doi:10.5678/jce.2019.2.3
- Thailand's approach towards youth crime prevention strategy at national level based on a study on National Strategies on Youth Crime Prevention. (2014). Thailand Institute of Justice. Internet: https://www.tijthailand.org/public/files/highlight/073/1-youth_crime_prevention_pni_workshop_knccyy_ps_rev1.pdf
- Thailand Country Office Strategy. (2018). Save The Children. https://thailand.savethechildren.net/sites/thailand.savethechildren.net/files/library/SC%20THA_Strategy%20Summary_2016-18_Eng_3feb16_0.pdf
- Thiese M. S. (2014). Observational and interventional study design types; an overview. *Biochemia medica*, 24(2), 199–210. <https://doi.org/10.11613/BM.2014.022>
- Thomas J. Dishion and Robert J. McMahon (n.d.). Parental Monitoring and the Prevention of Problem Behavior: A Conceptual and Empirical Reformulation https://archives.nida.nih.gov/sites/default/files/229-259_Dishion.pdf

Tsang, J. (2023, September 15). Introducing SATI Foundation — the mindful agent of change for Thailand’s At-Risk youth. THE SKATEROOM.
<https://theskateroom.com/news/introducing-sati-foundation>

Underprivileged Children | Social Justice for Kids | ChildFund. (n.d.).
<https://www.childfund.org/campaigns/sponsorship/underprivileged-children/>

UNESCO. (2012). EFA Global Monitoring Report 2012: Youth and Skills - Putting Education to Work. Retrieved from
<http://unesdoc.unesco.org/images/0019/001912/191209E.pdf>

UNHCR Thailand Fact Sheet (30 June 2023) - Thailand. (2023, August 2). ReliefWeb.
<https://reliefweb.int/report/thailand/unhcr-thailand-fact-sheet-30-june-2023>

UNICEF CHILD MULTIDIMENSIONAL POVERTY IN THAILAND. (n.d.). UNICEF.
<https://www.unicef.org/thailand/media/3171/file/Child%20Multidimensional%20Poverty%20in%20Thailand.pdf>

UNICEF: New report details shocking deprivation of children living on the street. (n.d.).
<https://www.unicef.org/bangladesh/en/press-releases/unicef-new-report-details-shocking-deprivation-children-living-street>

UNICEF Thailand Child Protection Programme. (n.d.). UNICEF Thailand.
<https://www.unicef.org/thailand/documents/unicef-thailand-child-protection-programme>

US: Aptekar, L. (2014b, December 17). Across cultures, street children and homeless youth face similar problems. Fair Observer.
https://www.fairobserver.com/region/north_america/across-cultures-street-children-homeless-youth-face-similar-problems-34760/

Wright, C., & Nyberg, D. (2022). The roles of celebrities in public disputes: climate change and the Great Barrier Reef. *Journal of Management Studies*, 59(7), 1788–1816. <https://doi.org/10.1111/joms.12800>

www.thailandcourt.com. (2021). The Juvenile and Family Courts | Thailand Courts. [online] Available at: <https://www.thailandcourt.com/the-juvenile-and-family-courts/> [Accessed 9 Dec. 2023].

Yoder, K. A. (1998). Homeless and Runaway Youth and Sexual Risk-Taking: An Extension of Problem Behavior Theory. *Youth & Society*, 30(4), 422–449.
<https://doi.org/10.1177/0044118X98030004002>

Youth Homelessness Overview | The Homeless Hub. (n.d.).
<https://www.homelesshub.ca/toolkit/youth-homelessness-overview>

Youth and skills: putting education to work. (2023, March 13). Global Education Monitoring Report.

https://www.unesco.org/gem-report/en/youth-skills-putting-education-work?TSPD_101_R0=080713870fab2000b9bdfb81243dc8eb564ae7ffe294a69b9b1cb7cf48e7623916be273f3af1421c080296ab27143000475c9451e0a3a4d52c7b2bea3dde4aaf5ac21ff28ecbdaa66f36865c32dc73f2db73b96ff20cea1db17c6f54a5ff1a2c

Appendices

Appendix A: Consent form



SATI

มูลนิธิ ساتิ SATI Foundation

3/22 ซ.สุขุมวิท 31 (สวัสดี) แขวงคลองเตยเหนือ เขตวัฒนา กทม. 10110

17 มกราคม 2567

เรื่อง ขออนุญาตจัดกิจกรรมเพื่อการศึกษาแก่เป้าหมาย โดย มูลนิธิ และนักศึกษา

เรียน ผู้อำนวยการศูนย์การเรียนรู้รังสิตเพื่อการศึกษาของเด็กและเยาวชนเมียนมาร์ในประเทศไทย

ด้วยมูลนิธิ (SATI Foundation) พร้อมด้วยนักศึกษา จำนวน 15 คน มีความประสงค์จะจัดกิจกรรมเพื่อการศึกษาแก่เป้าหมาย ให้แก่นักเรียนอายุระหว่าง 13-18 ปี จำนวน 15 คน เพื่อจัดเก็บข้อมูลด้านการปฏิบัติงานของมูลนิธิติดกับเด็กและเยาวชน นำไปสู่การออกแบบข้อมูลเพื่อจัดทำเป็นสื่อการเรียนรู้ และสิ่งอำนวยความสะดวกด้านสุขภาพจิต

ในการนี้ มูลนิธิฯ จึงขออนุญาตใช้ศูนย์การเรียนรู้ของท่าน เป็นสถานที่ในการจัดกิจกรรม นอกจากนี้มูลนิธิฯ มีความประสงค์ขออนุญาตถ่ายภาพนิ่ง เพื่อจัดทำผลการดำเนินงานโครงการหลังจากสิ้นสุดกิจกรรม และขอความร่วมมือจากท่าน ประชาสัมพันธ์ให้คณะครู นักเรียน และผู้ปกครองทราบ เพื่อให้แก่นักเรียนอายุระหว่าง 13-18 ปี จำนวน 15 คน ที่สนใจเข้าร่วมงาน เข้ากิจกรรมดังกล่าว ณ ศูนย์การเรียนรู้รังสิตเพื่อการศึกษาของเด็กและเยาวชนเมียนมาร์ในประเทศไทย ในวันเสาร์ที่ 20 มกราคม พ.ศ.2567 หากท่านมีข้อสงสัย ต้องการสอบถามข้อมูลเพิ่มเติม สามารถติดต่อได้ที่ นางสาวอาทิตย์า นพอด ผู้ประสานงานโครงการ เบอร์โทรศัพท์ 083-937-5321

จึงเรียนมาเพื่อโปรดพิจารณาอนุญาต และขอขอบคุณมา ณ โอกาสนี้

(นายเสกสรร รวยภิรมย์)

ผู้อำนวยการมูลนิธิ

(นาย เอ มิน Tun)

ผู้อำนวยการศูนย์การเรียนรู้รังสิตเพื่อการศึกษา

ของเด็กและเยาวชนเมียนมาร์ในประเทศไทย

Volunteer Duty Agreement Contract

This Agreement entered into this January 18, 2024

Under Programs Interactive Science and Social Project of Chulalongkorn University (ISSP2: Protecting Runaway Youth from Crime and Violence by Developing SATI's Line Official)

Between

- (1) SATI, a non-governmental organization is a grass-roots non-profit founded in Thailand in 2013 that aims to improve healthcare and education for at-risk and underserved children and youth at the address 3/22 Soi Sukhumvit 31 (Sawasdee), North Klongtoey Subdistrict, Wattana District, Bangkok 10110, hereinafter referred to as "SATI Foundation".
- (2) Name Assistant Professor Dr. Numpon Insin
Address Room 1314 Mahamakut Building, Department of Chemistry, Faculty of Science Chulalongkorn University Phayathai Road, Patumwan Bangkok 10330, THAILAND
Contract Number 02-2187730
Hereinafter referred to as "Volunteer"

Whereas :

- (1) SATI Foundation is a non-governmental established with the primary mission of providing assistance and care to children and youth in the city of Bangkok. Furthermore, SATI Foundation focuses on providing education to youth who are disadvantaged or facing social difficulties or need of social, psychological, educational, health assistance. In provincial areas, there will be health care and education activities in disadvantaged areas of Thailand.

Having considered and thoughtfully understood the terms and conditions hereof, that each term and condition is fair and reasonable, and the parties here to do hereby agree as follows:

1. Definition

- 1.1. **"Program"** mean a project or activity that made or organized by **SATI Foundation(SATI Foundation)**
- 1.2. **"Target group"** mean the group of people that the SATI foundation helps in various ways according to the objectives of the program
- 1.3. **"SATI Foundation Staff"** mean a person who has the duty to perform duties on his/her behalf of **SATI Foundation**.

2. Qualification

- 2.1. From the beginning of the program to the end, volunteer must meet the following requirements:
 - 2.1.1. Willing to help and assist the Target group, children, and youth under **SATI Foundation** program.
 - 2.1.2. Having a knowledge and skill to help and cooperate to accomplish objective of the program.
 - 2.1.3. Having empathy and understanding about variation of the target group, such as education, family, and community, without judging target gorup with **Volunteer** own experiences or feelings.
 - 2.1.4. Be patience and able to approach the target group.
 - 2.1.5. Able to work together with others as a team.
 - 2.1.6. Attend orientation meetings, to prepare to volunteer for SATI Foundation, at least 1-2 meetings. Orientations can be adjusted flexibly according to the convenience of the volunteers.
- 2.2. If **SATI Foundation** encounters any of the incomplete circumstances in Article 2.1, the **Volunteer** agrees to comply with Article 6 of this Agreement.

3. Volunteer Duties and Scope of Work

- 3.1. Volunteer must cooperate with **SATI Foundation staff** in working with target group; As assigned by the **SATI Foundation Staff**.
- 3.2. Design programs for target groups in collaboration with **SATI Foundation staff**.

4. Confidentiality

- 4.1. **Volunteer** are not allowed to record any picture, video or any medthod of recording images or sounds of the target group or other people in the area of the program, except with the consent of the **SATI Foundation** or **SATI Foundation staff**.

The picture or video that allowing to record must be picture or video that not sensitive, not confidential, no element contrary public order, morality, or in any other case contrary to the purpose of photography or motion pictures that reasonable person should do.

- 4.2. **Volunteers** are not allowed to use photos or videos to advertise for income or donation or any form of commercial acts.
- 4.3. In the performance of **Volunteer** work, there may be a target group to be consulted and discussed. On sensitive matters information **Volunteers** must be inform with **SATI Foundation** only. **Volunteer** cannot disseminate information to third parties.

Additionally, **Volunteer** are not allowed to speak to the target group in person or exchange any personal contact as this is contrary to the policy of the **SATI Foundation**.

- 4.4. **Volunteers** may use picture or videos from the program only if they follow the following steps :
 - 4.4.1. The picture or video comes from the **SATI Foundation**.
 - 4.4.2. **Volunteer** has notified **SATI Foundation**. Where the picture or video will be published, in what way, and what the message will be.
- 4.5. If it is found that the **Volunteer** violates any of the section in this Article 4, the volunteer agrees to indemnify the Injured Person and the SATI Foundation.

5. Welfare

5.1. SATI Foundation will provide as follows:

- 5.1.1. Food, snacks, drinks
- 5.1.2. Accommodation (for upcountry programs)
- 5.1.3. Equipment for activities in the program.

5.2. In case of having any equipment or other items that Volunteer must bring their own, SATI Foundation will notify Volunteers in advance.

6. Discontinuation of Duty

6.1. If any behavior or circumstance appears that does not comply with Article 2 to 4 of this Agreement, SATI Foundation has the authority to exercise its discretion to stop Volunteer performing immediately with an appointment to give notice of the reason for stopping the compliance.

This agreement supersedes all previous understanding, agreements, either in written or by oral, and the modification, amendment or revocations of any terms and conditions shall be done only by an instrument in writing and signed by both parties.

IN WITNESS WHEREOF SATI Foundation and Volunteer have executed this Agreement with the corporate seal on the date abovementioned.

| | |
|--|--|
| name _____ (<i>Atitaya nopyod</i>) SATI Foundation | name _____ (<i>Numpon Insin</i>) Assist. Prof. Dr. Numpon Insin Volunteer |
|--|--|

| | |
|------------------------------------|---|
| name _____ (_____) Witness | name _____ (<i>Narumon Chepdumrong Sakul</i>) Witness |
|------------------------------------|---|

Figure 8: Consent form

Appendix B: Interview Question

The list below includes interview questions with the Rangsit caretakers. Throughout our interviews, we adhered to the provided question list and posed additional follow-up queries when deemed necessary.

B.1 Interview question of Burmese children from 1st observation

1. How frequently do you use your mobile phone per day?
 - less than 1 hour
 - 1-3 hours
 - 3-5 hours
 - more than 5 hours

2. In which time do you use your mobile phone?
 - morning
 - afternoon
 - evening
 - before bed

3. What do you use your mobile phone for? (Choose more than one option)
 - voice call
 - messaging with friends
 - watching video clips ex.youtube
 - listening to music
 - playing games

4. How important do you think mobile phones are in your daily life?
 - very much
 - Moderate
 - little
 - not important at all

5. Have you known/used SATI Line Official before?
 - YES
 - NO

6. Which feature on SATI's line official do you prefer?
Rank (1-Least liked, 5-Most liked)
 - Games
 - Counseling room
 - SATI check-in system (collecting stamp for prize)
 - Hotspot location for medicine, food, snacks, sanitary napkin
 - Short video clips

7. What game do you normally play?
- Adventure ex. Cookie run
 - Fighting ex. ROV, Pubg, Free Fire
 - Farming/ Simulation ex. Hayday, Cooking mama
 - Card game ex. UNO
 - Matching game ex. Candy crush
 - Others
8. What types of games do you want to play ? (select only 3 choices)
- bubble shoot pet game

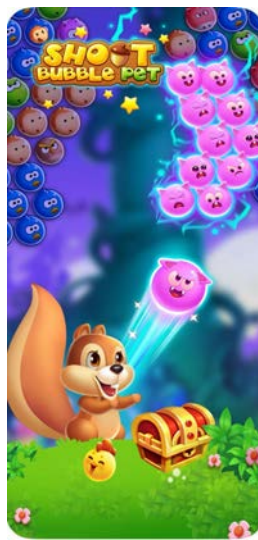


Figure 9: Bubble shoot pet game

- O-net Online



Figure 10: O-net Online game

- Temple run



Figure 11: Temple run game

- Candy crush



Figure 12: Candy crush game

- Coloring games



Figure 13: Coloring game

- Juicy stack games

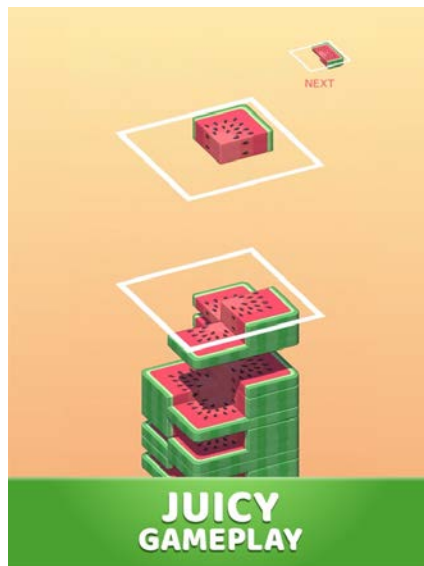


Figure 14: Juicy stack game

B.2 Interview question of Burmese children & SATI staff from 2nd observation

1. Are you interested in our prototype? / Do you see yourself using these feature?
 (ဂုဏ်အားရပါးရဖို့အတွက်ကျွန်ုပ်တို့၏ ရှေ့ပြေးပုံစံကို သင်အသုံးပြုမိမိသလား။)

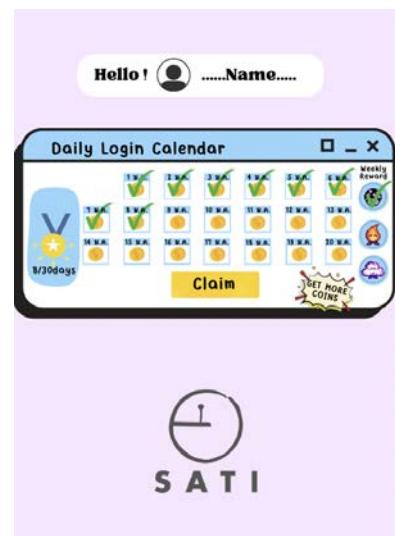
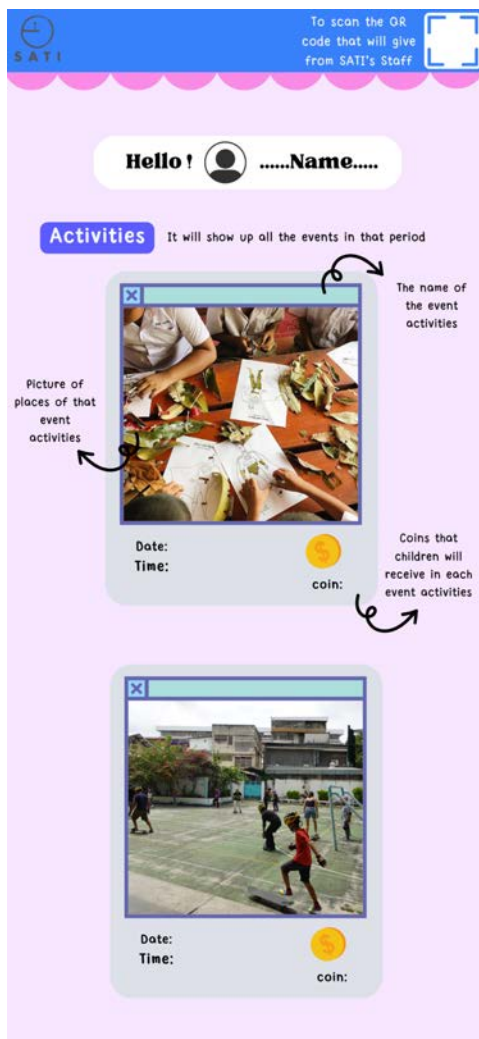
- Yes / ခုတ် / ဟုတ်တယ်
- No / မဟုတ် / မရှိ

2. Pick two feature that you like the most ?

(ဂုဏ်အားရဖို့အတွက်အကြိုက်ဆုံး အင်္ဂါရပ်နှစ်ခုကို ရွေးပါ။)

Event/Activities

Check-in



Sati Chit Chat



Short video clip



Hot spot



Redeem Point

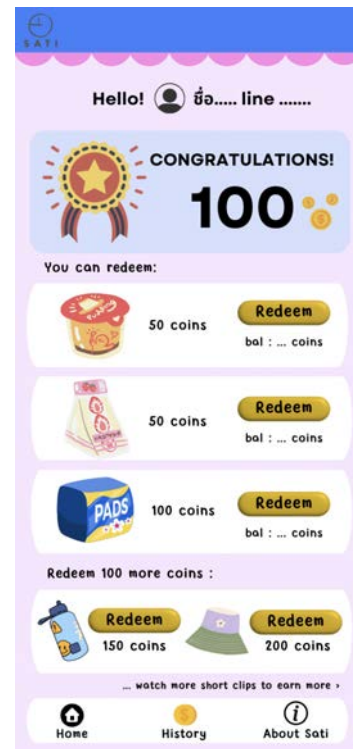


Figure 15: Examples of each feature prototype

3. Is the interface easy to understand?
(ဖိဘျော့ကိုမြင်ရှာဖွေရတာလွယ်ကူပါသလား။)

- Easy (လွယ် / လွယ်လွယ်လေး)
- Moderate (ပါးနပ် / အလယ်အလတ်)
- Difficult (ခက် / ခက်တာ)

4. Do you like the overall enhanced feature? (5 = Most Liked, 1 = Least Liked)
(ဖိဘျော့ကိုနှစ်သက်ပါသလား။ (5 = နှစ်သက်ဆုံး, 1 = နှစ်သက်နည်းဆုံး / အလုံးစုံအဆင့်မြင့်တင်ထားသော အင်္ဂါရပ်များကို သင့်နှစ်သက်ပါသလား။ (5 = အကြိုက်ဆုံး, 1 = အကြိုက်နည်းဆုံး))

- 1
- 2
- 3
- 4
- 5

5. Would you like to change anything about the interface?
(ဖိဘျော့ကိုပြောင်းလဲလိုပါသလား။)

- Color scheme (ရောင်စုံ / အရောင်အစီအစဉ်)
- More interactive elements (အင်္ဂါရပ်များကိုနှိပ်စားရန်အတွက် အခြားအင်္ဂါရပ်များကို ထပ်မံထည့်သွင်းပါ)
- Layout (စီမံ / အပြင်အဆင်)
- N.A (မရှိ / မရှိဘူး)

6. Please elaborate on your choice in question 5
(ဖိဘျော့ကိုပြောင်းလဲလိုပါသလား။ အဘယ်ကြောင့်လဲ။ (5 = အများဆုံး, 1 = အနည်းဆုံး တွင် သင့်ရွေးချယ်မှုအပေါ် အသေးစိတ်ရှင်းပြပါ။)

.....

.....

B.3 Interview question of SATI staff

| Interview question of SATI staff |
|--|
| 1. Can you briefly describe the street children's background? |
| 2. What problems are you facing with the target youth? |
| 3. If the street children do not listen to the sati staff or not participate in weekly activities, what will you do? |
| 4. Do you know the street children's monthly phone bill? And How do they pay for it? |

Table 1: Interview question of SATI staff

B.4 Interview question of Rangsit caretakers

| Interview question of Rangsit caretakers |
|--|
| 1. Overall, the children's background? |
| 2. How did the street children arrive at the Myanmar Students Learning Center in Rangsit market? |
| 3. If the street children do not listen to the caretakers or not participate in weekly activity, what will you do? |
| 4. Do you know if the youth has any specific concerns or issues that they are struggling with? |

Table 2: Interview question of Rangsit caretakers

B.5 Interview question of SATI Line Official admin

| Interview question of SATI Line Official admin |
|---|
| 1. What are the current features that already exist? |
| 2. What is the problem they faced with the function, etc.? |
| 3. Why do children under the foundation not use it? |
| 4. Which features do you think we should add in the SATI Line Official account to gain more engagement and be more interested in accessing Line ? |

Table 3: Interview question of SATI Line Official admin

B.6 Interview question of Krungsri team builder

| Interview question of Krungsri team builder |
|---|
| 1. Which feature prototype that we do can or cannot be put in SATI Line Official? |
| 2. Any suggestions for the prototype? |
| 3. Are there any limitations to the prototypes we have designed? |
| 4. How do you recommend our prototype to be designed so that it aligns with changing trends and does not go outdated? |

Table 4: Interview question of Krungsri team builder

Appendix C: Interviewee' information

C.1 Survey answer of Burmese children from 1st observation

1.

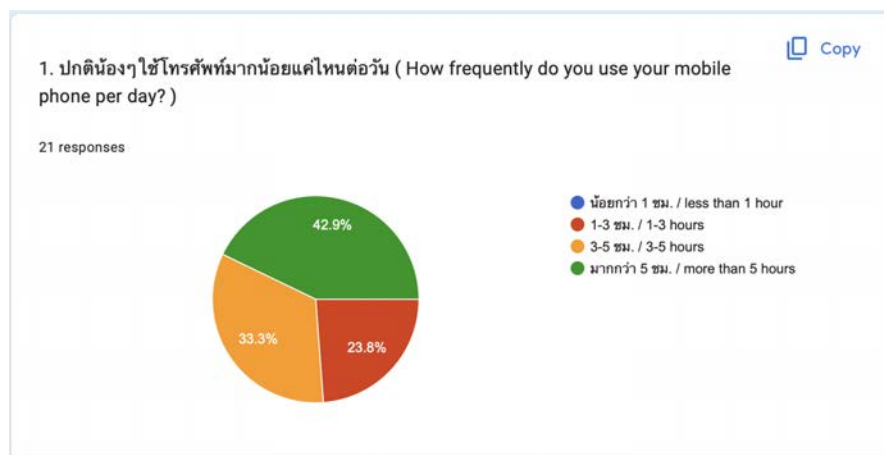


Figure 16: Pie chart of the result from children survey about how they frequently use the mobile phone

2.

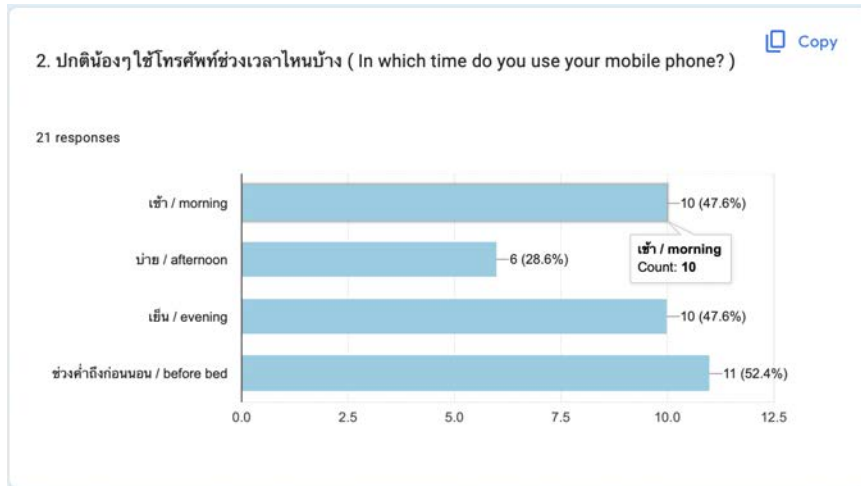


Figure 17: Bar chart of the result from children survey about which time they use the mobile phone

3.

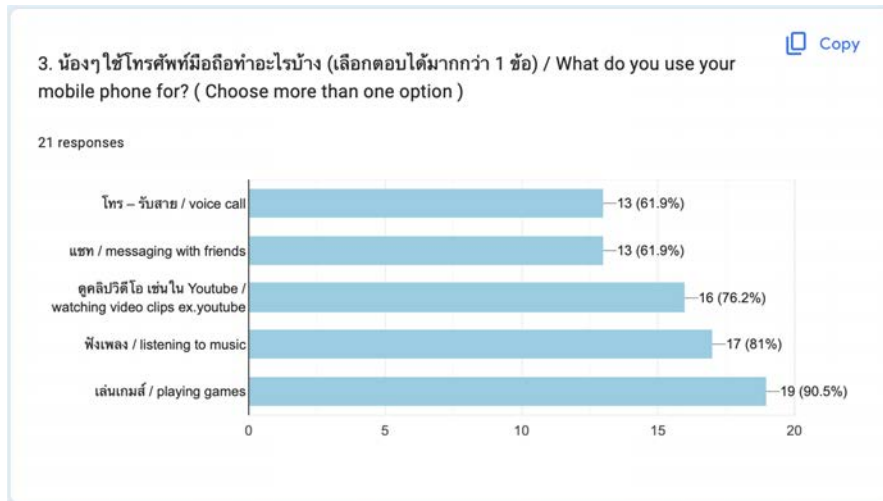


Figure 18: Bar chart of the result from children survey about what they use mobile phone for

4.

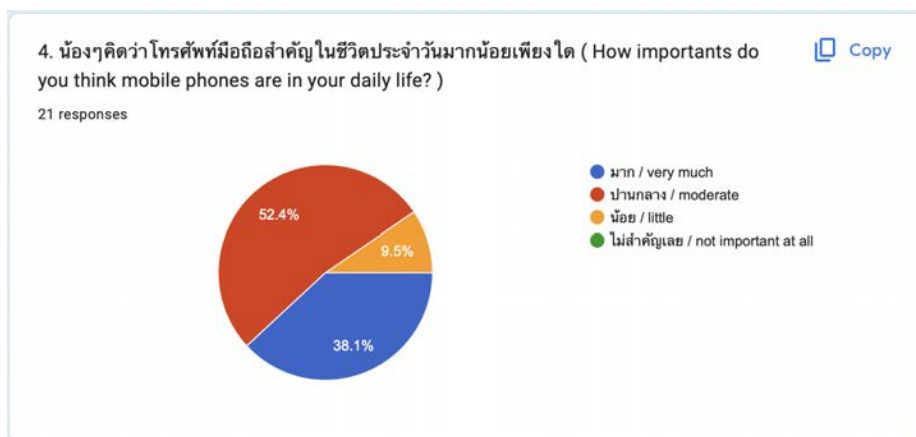


Figure 19: Pie chart of the result from children survey about how important they think mobile phones are

5.

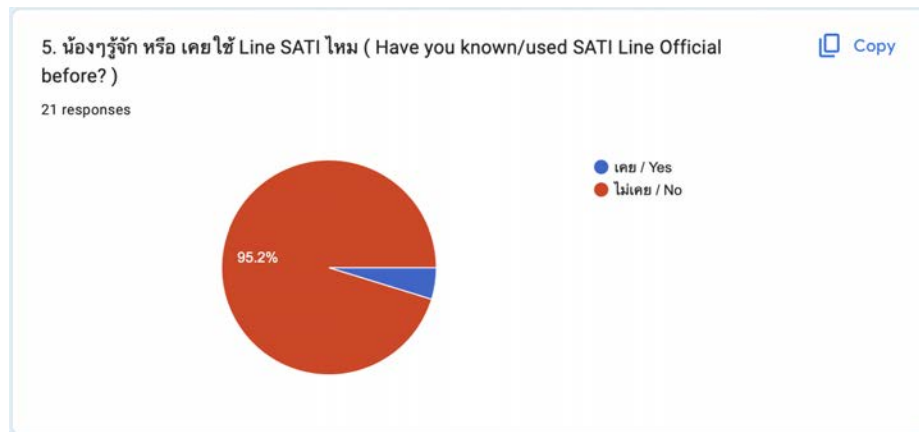


Figure 20: Pie chart of the result from children survey about children knowing towards SATI Line Official

6.

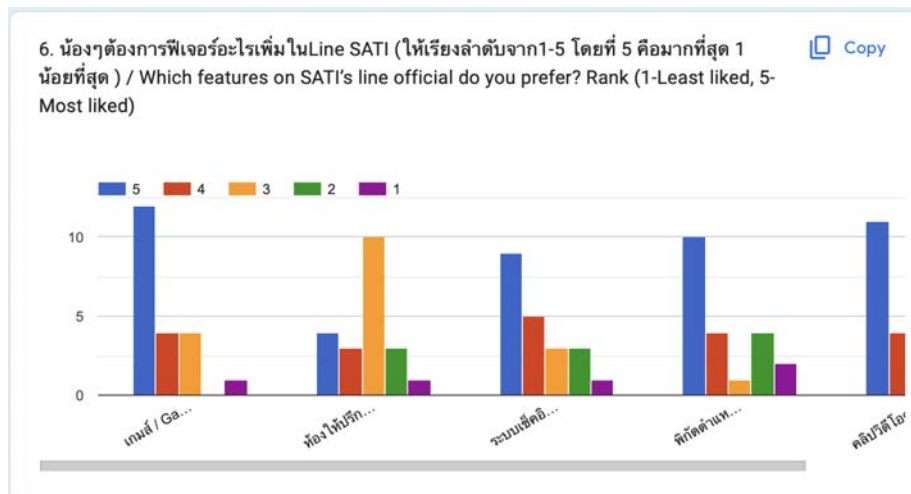


Figure 21: Bar chart of the result from children survey about ranking the feature

7.

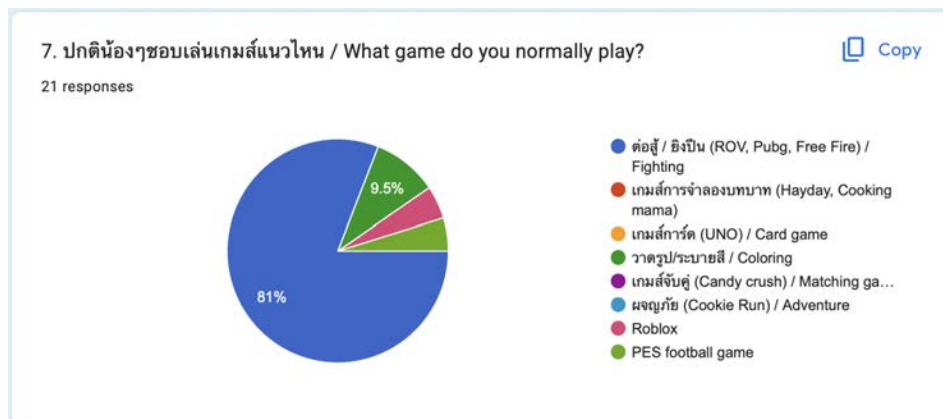


Figure 22: Pie chart of the result from children survey about what game they normally play

8.

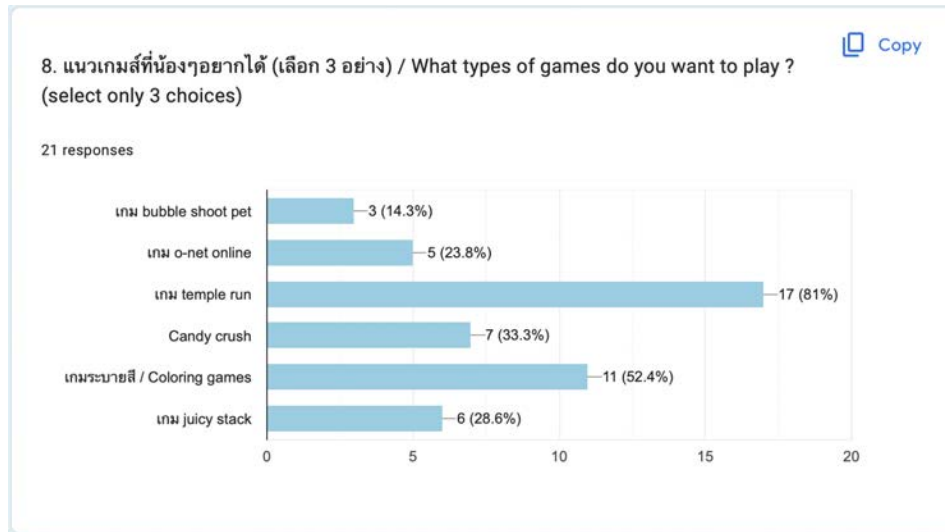


Figure 23: Bar chart of the result from children survey about the type of game they want to play

C.2 Survey answer of Burmese children & SATI staff from 2nd observation

Boy A (Knant Min 16 years old) : He is interested in our prototype, finding the interface easily comprehensible. The features that appeal to him the most are events and the hotspot feature. Due to his preference for cartoons, he prefers video content for information about SATI staff in SATI chit-chat.

Boy B (San Htet Aung 12 years old) : He has expressed interest in our prototype, perceiving the interface as moderately understandable. His preferred features are events and the redeem points. Given his like watching YouTube, he favors video content for obtaining information about SATI staff in SATI chit-chat.

Boy C (Newin 17 years old) : He shows interest in our prototype, noting that the interface is moderately understandable, leading to a suggestion for a layout change. The features he particularly likes are events and redeem points. Because of his preference for watching YouTube, he offers video content to get information about SATI staff in SATI chit-chat.

Boy D (Ngen Tha 15 years old) : He is interested in our prototype, finding the interface easily comprehensible. The features he finds most appealing are events and redeem points. Due to his preference towards watching YouTube, he favors video content to describe SATI staff in SATI chit-chat.

Boy E (Swam 17 years old) : He exhibits interest in our prototype, noting the easily comprehensible interface. The features he favors the most are events and the hotspot feature. As he enjoys watching TikTok, he prefers video content to learn more personal details about SATI staff in SATI chit-chat.

Boy F (Mon 17 years old) : He expressed interest in our prototype, finding it user-friendly. Additionally, he showed a preference for Short video clips and Redeem points. Given his fondness for watching YouTube, he leans towards video content to learn about SATI staff in SATI chit-chat.

Boy G (Gift 14 years old) : He is interested in our prototype, finding the interface easy to comprehend. The features he particularly enjoys are events and redeem points. As he likes watching YouTube, he proposes video content for the description of SATI staff in SATI chit-chat.

Boy H (Kit 14 years old) : He is expressed in our prototype, appreciating the easy interface. His favorite features are events and check-ins. Given his preference is to read cartoons, he prefers to read information about SATI staff in SATI chit-chat.

Girl A (Sandi 15 years old) : She shows interest in our prototype, finding the interface moderate to understand. The features she likes the most are events and SATI chit-chat. She enjoys watching YouTube but she prefers to read descriptions about SATI staff in SATI chit-chat.

Girl B (Naw Lu Thar 15 years old) : She demonstrates interest in our prototype, describing the interface as moderately comprehensible. Her preferred features include events and SATI chit-chat. Although she enjoys watching YouTube, she opts for reading descriptions about SATI staff in SATI chit-chat.

Boy I (Nay Lin Khaing 15 years old) : He expresses interest in our prototype , noting the moderate comprehensible interface and suggesting a layout change. His favorite features are events and redeem points. Due to his preference for watching YouTube, he prefers to read information about SATI staff in SATI chit-chat.

Boy J (Dodo 13 years old) : He demonstrates interest in our prototype, acknowledging the moderately comprehensible interface and proposing a layout adjustment. His preferred features include events and redeem points. Because of his preference for watching YouTube, he tends to favor video content for learning about SATI staff in SATI chit-chat.

Boy K (Joey 17 years old) : He demonstrates interest in our prototype, emphasizing the easily comprehensible interface and recommending a layout adjustment. His preferred features include SATI chit-chat and redeem points. Given his preference for YouTube, he proposes video content to obtain information about SATI staff in SATI chit-chat.

Boy L (Tun Pyae Phyo 12 years old) : He expressed interest in our prototype, highlighting the moderate interface. His favorite features are events and redeem points. Due to his preference for cartoons, he leans towards video content to gather information about SATI staff in SATI chit-chat.

SATI staff (K.Nune) : She demonstrates interest in our prototype and mentioned that the interface is easy to understand. Her favorite features are SATI chit-chat and redeem point. She also gave a suggestion in color scheme and layout to make a format for both boys and girls.

SATI staff (K.Mon) : She expressed interest in our prototype and noted that the interface is easy to understand. Her favorite features are SATI chit-chat and Check-in. She also mentioned changing the color scheme and more interactive elements in the interface.

SATI staff (K.Dream) : He shows interest in our prototype, mentioning that the interface is moderate. His preferred features include Event/Activities and Redeem Point. Additionally, he recommended modifying the layout and advised notifying K. Sakson about his preferred color tone.

C.3 Survey answer of SATI staff

Interviewer : Can you briefly describe the street children's background?

Interviewee : Street children are generally those whose families have problems or love to change places. They didn't receive love from close people. If the children were from other provinces, they would take the train to Hua Lamphong Station and gather there. More and more became a gang. When new people come, they will take this person on a trip to eat. The children love his friends very much and help each other but may help each other in the wrong way, ex. doing drugs, but there is also a good way that the children did because there will be a center called the hub where the children can go to sleep, have food, and have older people to talk to. Also, K.Sakson and SATI will take the child for a health check every week, both physically and mentally, and it will allow us to get to know each other. Because SATI's children do not have a place to live. They will rent an apartment room. But as for the part that P'Mon takes care of, there will be scholarship students who are in the foundation. Sometimes the children change rooms when they face problems with their girlfriends. From birth to 25 years old, most of them are children of parents who have become pregnant when they are still teenagers. Sometimes we take care of their children too. What we can help with is counseling. For example, right now there are two younger siblings who are suffering from depression and sometimes cut their arms. We take them to the hospital and take care of their education and medical expenses too. For children under the age of six, we focus on their development. But six to twelve will focus on studies. But teenagers usually have problems with friends and society. The street children need freedom and ease and are quite lazy. The things that are hard, they won't do. If it's difficult, they will be afraid to do it. Also, they have a variety of jobs ranging from age twelve but occupations may not be legal, such as robbery and prostitution. If he's not used to it, at first they'll be worried and discouraged. So, we have to empower him and encourage him that he can do it.

But for the Rangsit group, most of them are refugees from Myanmar because of war and some of them do not have a Thai birth certificate. However, the parents were legally born in Thailand. The parents work in the Rangsit market as labor. But the problem is when the parents go to work, who will take care of the children? Therefore, there were people with good education who were here before and started building a Burmese school at Rangsit Market. It's called Burmese School which teaches the same Thai school style, using Thai and English. The main languages spoken there are Thai and Burmese. The Ages range from preschool to high school, approximately 100-120 people, and all of these children are in education and are good children. But there will be stories of different backgrounds. Some people are Burmese, rich and poor. Some people can speak Thai, and some people can speak English. It can be observed from answering the questions. When we go to do activities, we have to help and support them.

Some parents own the market or work in the market with various careers. Burmese families take good care of their children. They rarely use violence against their children, but they receive violence from their bosses and Thai employers. For example, they get hit and their parents may come down on them, but from what we can see, very little comes down to their children. They teach his children quite well. But older children rarely find it moody; however, he rather feels like he's not part of society. When someone needs to come by themselves and doesn't have a SATI staff to pick them up to do the activities, they are afraid that someone will arrest them because some people don't have IDs according to Thai law. Also, children from Burma want nature. There is an activity where they can draw a picture that looks like themselves. Most of the time, they didn't draw animals according to the questions they ask, instead they drew mountains and trees. This is because they miss their home they left and Bangkok has buildings and no trees at all. If the activity focuses on nature, the children will really like it.

Interviewer : What problems are you facing with the target youth?

Interviewee : In terms of activities, it is very difficult to follow the children. Normally, we promote and let people scan the QR code of the SATI Line Official but kids don't use it. When the children want to talk privately, she tells the children to send the message but they end up not saying hello or follow up. After another month, the children disappeared. It's very difficult to track down each child. As for me, I would like to have a counseling room as well. Because I normally talk to children. When it comes to personal lines, setting a time is quite difficult. For example, the feature the team has proposed, I really like. And some groups must have motivation to get them to do activities, such as money and toys. In this community, if we don't say that we have toys, the children won't have motivation and for homeless children at Hua LamPhong, if we didn't provide travel expenses for them, they won't come.

Interviewer : If the street children do not listen to the sati staff or not participate in weekly activities, what will you do?

Interviewee : From what I've done, I still haven't found it much because if I normally would ask and research myself about the children first, what are they interested in? and make it relevant to their interests.

Interviewer : Do you know the street children's monthly phone bill? And How do they pay for it?

Interviewee : The Burmese children use it daily, but some people's rooms have Wi-Fi so they use Wi-Fi. The school also has Wi-Fi, but if they go out, they will pay daily. The daily bill is about 30 baht per day but no one has ever used it per month.

C.4 Survey answer of Rangsit caretakers

They mentioned that they would like to come and take care of children's health. 85% of the children do not have a Thai birth certificate at all and cannot enter Thai schools. Must enter Burmese school only. Most of them are Kriang people and 90% of their parents have no education. The parents work in the market. And there will be some children who come to live here because their parents work at night and during the day they will sleep. So they don't have time to take care of their children. So most of the children would go and play in the

market. After that, the caretakers wanted to cooperate with community leaders. And have set up a Myanmar learning center at Rangsit market which is now 14 years old. But there will be a collection of 1000 baht from each child's parents. But it's not forced. In the beginning, there were some losses, but when the Sati organization came to help, it got better.

Transportation for the children involves motorcycles or bicycles, and occasionally, parents drop them off from the market. In the environment, If compared to Thai children, this group of children will be more obedient to teachers and parents because they live in a society that is not as open as Thai children. But the environment is quite divided. which in the market will be very clearly seen. Because there is quite a lot of discrimination against Burmese children. So, the caretakers took the children to places that made them not feel afraid, such as taking them to Sati Na Cafe.

In terms of education, students at the center can pursue studies and obtain certificates for completing Mathayom 5 & 6, enabling them to attend university in Burma. In the past, some students graduated and were sent back to university in Burma, but due to war conflict, they were returned.

C.5 Survey answer of SATI Line Official admin

Interviewer : What are the current features that already exist?

Interviewee : There are about 2-3 children scan and contact to talk with the SATI staff per month. They haven't used other features before.

Interviewer : What is the problem they faced with the function, etc.?

Interviewee : I used to use Android and some Android devices cannot be turned on. So, some of the children couldn't find that button, and didn't see anything to press.

Interviewer : Why do children under the foundation not use it?

Interviewee : I think that this must be surveyed by the user. I also want to know what is the reason why they didn't use it too.

Interviewer : Which features do you think we should add in the SATI Line Official account to gain more engagement and be more interested in accessing Line ?

Interviewee : I prefer the appointment feature, like being told how many SATI staff are, who you want to appoint with and what time the children prefer. It needs to be clear. For example : If you want to talk about mental health problems, it needs to have a page to show what each member of the team has as an expert topic with. We want a clear press type of the page because for now it's more like a normal chat. Because we have also given a personal line to the children. Sometimes the children will send the message to me at night, which is a time when we are resting and it makes it difficult for us to work as well. SATI Line Official will frequently be used during August - March which during the time I went to do activities in Chiang Mai and Chiang Rai. Normally, we have a projector that shows the QR code of SATI , but they might not be interested, probably because we didn't show what features exist in the SATI Line Official. We just say that if you have a problem or want to talk, you can always

add us to talk. The children in Chiang Mai and Chiang Rai often privately message to P'Nune and P'Mon. P'Nune talks to about 6 people, P'Mon has about 2-3 people who greet us every day during this month, which it's a red case such as sending me a picture of yourself being harmed. So, we told the kids that if it wasn't an urgent matter, I won't answer after 9 p.m. because I want to separate work and personal matters from each other. I don't want to join LINE anymore because it's very tiring because right now there are a lot of kids in my personal LINE. Another problem is that me and my team has 5 people and some of the kids feel comfortable talking to just a few of them. So everyone had to update each other on what they talked with children about today. When it was a private chat, they had to sit and talk for a long time. But if we have this feature it will make working easier.

C.6 Survey answer of Krungsri team builder

Interviewer : Which feature prototype that we did can or cannot be put in SATI Line Official?

Interviewee : I will discuss with my team and tell you later.

Interviewer : Any suggestions for the prototype?

Interviewee : I think your prototype is very perfect.

Interviewer : Are there any limitations to the prototypes we have designed?

Interviewee : If the game linked to the other websites (link to existing games like Pacman) that it is not our own development, it may be unable to use the provided games. On the other hand, if it is linked to the game that we develop. It should be possible on the developer's side., but our team does not have that much of an expert in games development. For character images, scene images, if developed on our own, will not face copyright issues.

Interviewer : How do you recommend our prototype to be designed so that it aligns with changing trends and does not go outdated?

Interviewee : From the prototype that you presented, the design is beautiful and easy to use. For the part that can last a long time without becoming obsolete, I think your design is unlikely to go outdated because it uses easy-to-grasp icons, and is not very formal. Also, you may need to look more for the colors that match with SATI branding.

Appendix D: Prototype

D.1 Draft

SATI User Interface (UI)

Within the front pages of the official SATI Line, there are six interfaces, namely Event, Check-in, Chit-Chat, Video Clips, Hot Spots, and Profile

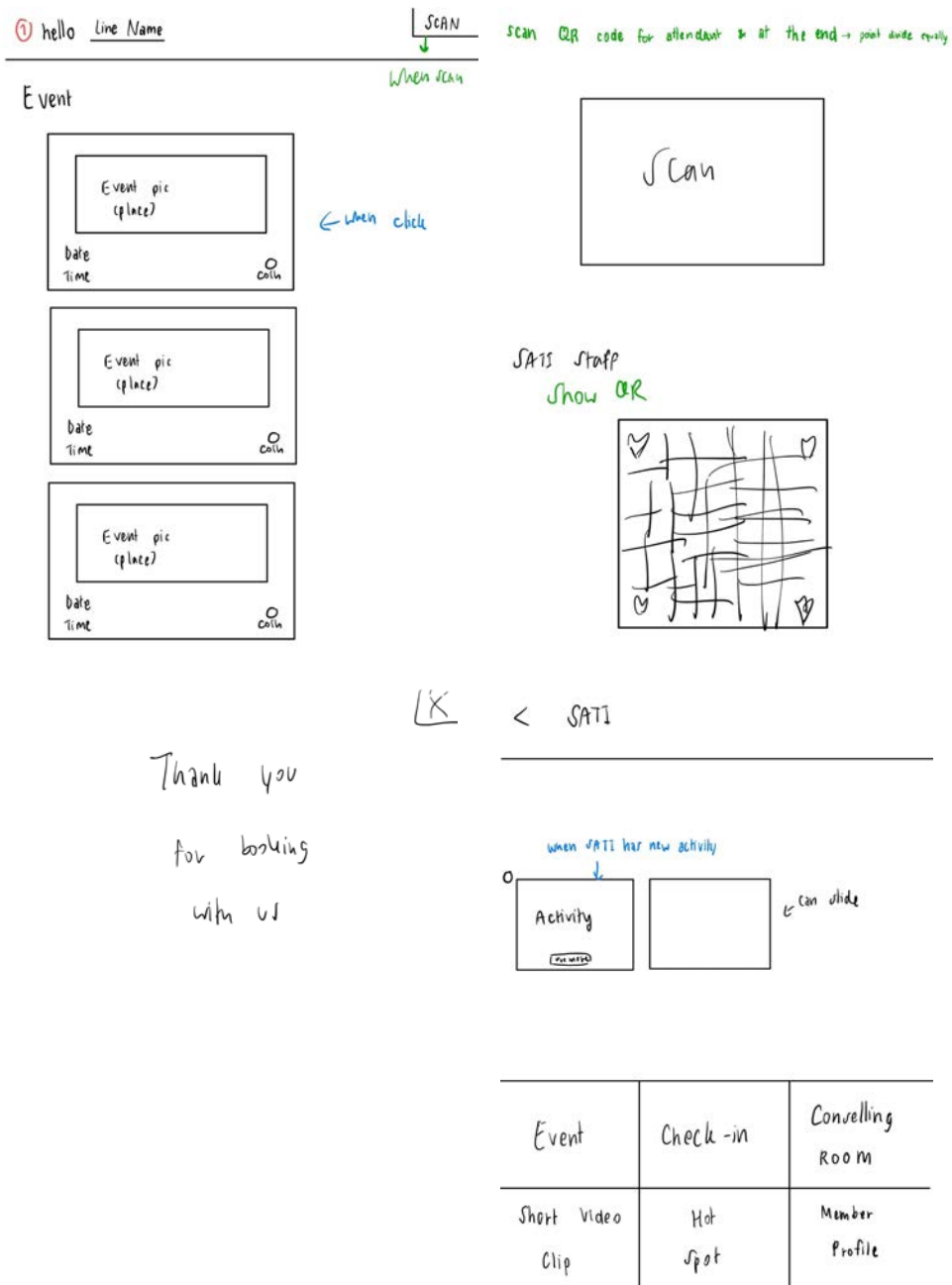


Figure 25: Event feature draft

Check-in system

The Check-in system feature is designed to track how often the children log in to the application.

- When the children click the check-in button, a calendar pop-up displays on their mobile screens. This calendar visually represents their check-ins by displaying a tick on the specific days they log in, indicating that they have earned a point for that day. If the children consistently check in every day for one week or more, without missing a day in between, they can redeem a mini gift. For instance, a new character for the game

- In the same calendar popup display, there will be a button that says ‘get more points’ which redirects them to the game.

GET MORE POINTS:

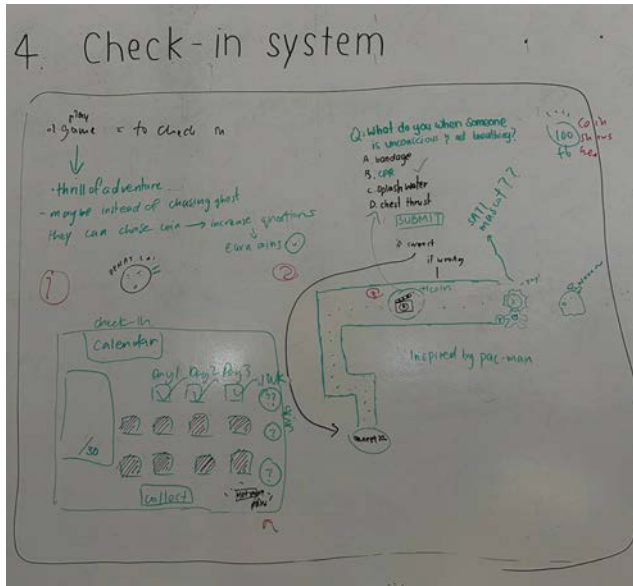
- Inspired by Pac-man and Temple Run, we incorporate the thrill of getting chased and trying to escape the monster into the game. The user will have control of the character (Maybe SATI mascot) to walk through the maze to avoid getting caught by the monster. Once arriving at a checkpoint, the user will be prompted to watch the video of the day, featuring a video from one of many topics in the short-video list (e.g first aid, survival skills etc.)
- After watching the video, the user will have to answer questions related to the video.
- If correct → they can move on and will get a point. If wrong → can rewatch once again to answer all questions through the maze. If wrong again → try again tomorrow.

Inspiration:



Figure 26: Inspiration of game in Check-in system

Draft:



ref

ref

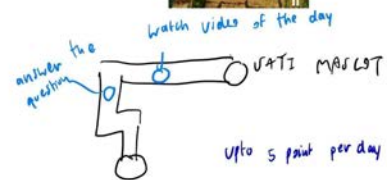


Figure 27: Check-in feature draft

Counseling room or SATI CHIT-CHAT

In this feature, Children can communicate their personal problems with the caretaker. Initiate the process by providing an option to select a caretaker, accompanied by detailed descriptions for each. Following the selection of the preferred caretaker, children can then proceed to choose their desired appointment time and day. Finally, the confirmation message will be received before 1 hour of the appointment time. After communication with the caretaker, children can express their feedback by selecting from five emotional emojis.

Draft:





Figure 28: Counseling room or SATI CHIT-CHAT feature draft

Short Video Clip

- In this feature, the children can choose the video clip to watch to earn coins in order to get a reward. The feature preferences are similar to Line today including top clips, for you, and others. However, the children can earn 20 coins by watching for the first time without skipping. If the children watch all of the clips, they will receive the maximum coin without earning more in the next time.
- Most of the video clips will be about giving knowledge to the children such as first aid, CPR, how to use bandages, cooking and others.

Draft:

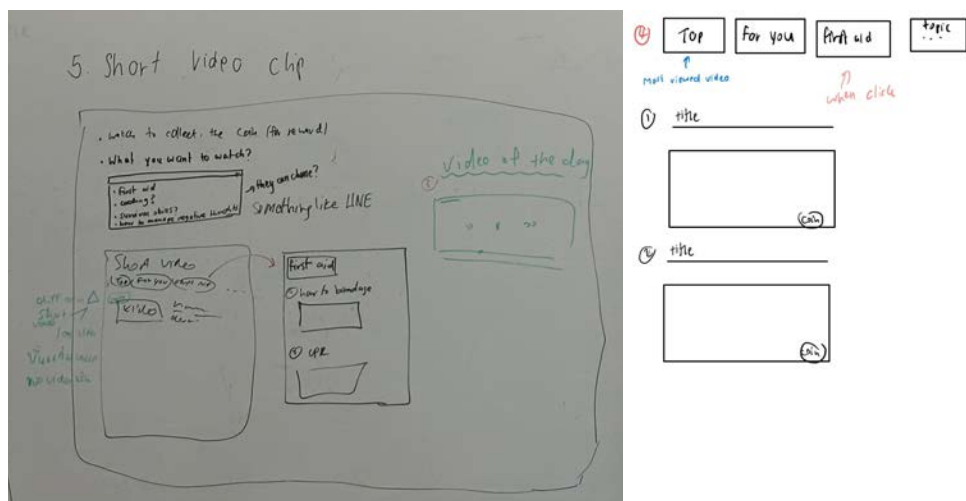


Figure 29: Short Video Clip feature draft

Hotspot location

- Inspired by BKKDW2024, the hotspot feature will display various resource locations based on the district/area the user is in. For example, if they are in Samyan-Chula district, the hotspot map will show food locations, hospitals, shelters, and SATI offices or events nearby according to various icons.
- Reference pic:

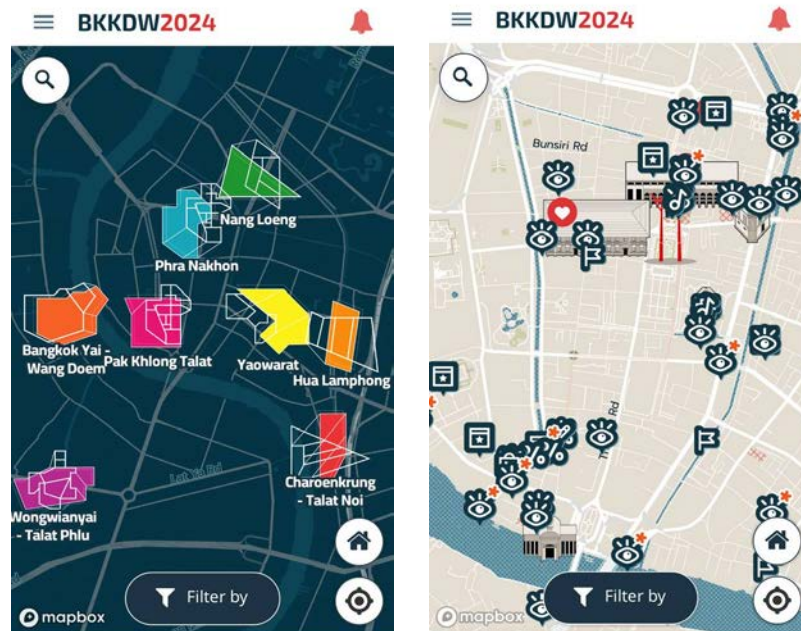


Figure 30: BKKDW2024

- If the user allows for location to be detected, the hotspot feature can show them the nearest resources to them within a 1-2 km radius. If the user clicks onto the icon where they want to go, the feature will then show them the directions (might link address/location to google maps to show direction).

Draft:



Figure 31: Hotspot location feature draft

Profile & Redeem Point

- The Points page will show the amount of points the user has accumulated over time. If the user has accumulated enough points to redeem a reward, the list of redeemable rewards will be shown alongside the number of points needed to redeem it, as well as the balance of points if the user chooses to redeem said reward.
- There is also a section highlighting what the user can redeem if they choose to keep the points to accumulate more, alongside other ways to redeem more points.

E.g: Add \$680 more, get \$10 off delivery fee!

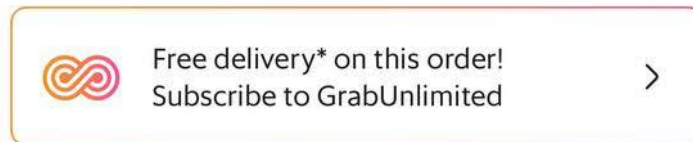
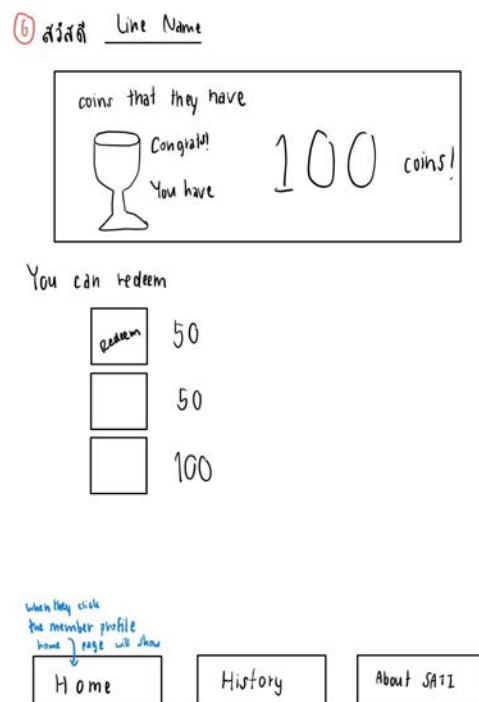
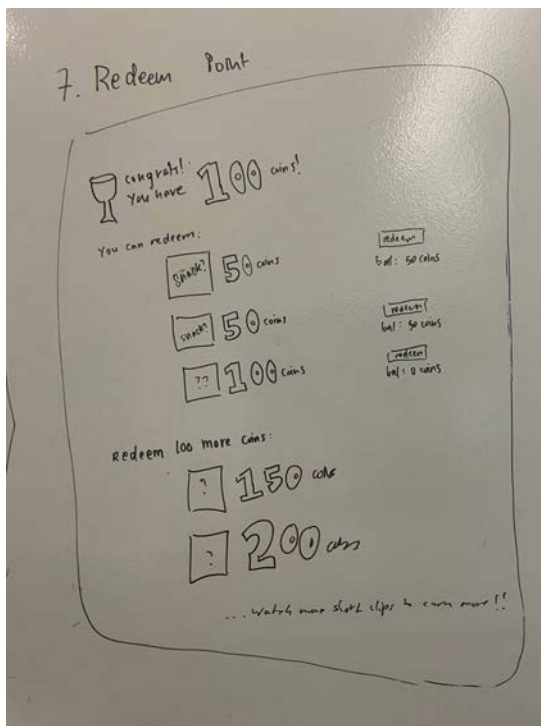



Figure 32: GrabUnlimited icon


Draft:



6) ವಿವರಣೆ Line Name

History

+  50 Activity

-  50 Redeem

6) ವಿವರಣೆ Line Name



Figure 33: Profile & Redeem point feature draft

D.2 First Prototype

SATI User Interface (UI)

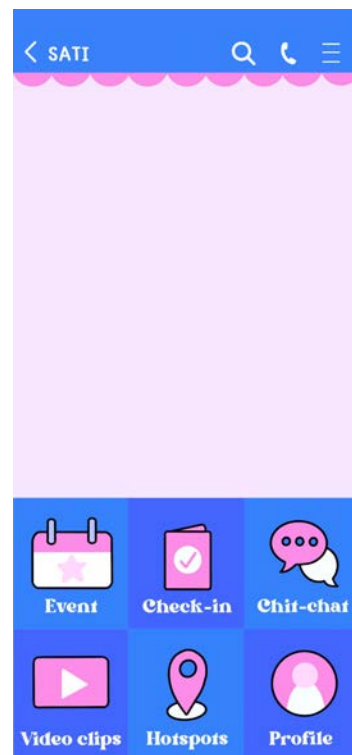


Figure 34: SATI User Interface (UI) first prototype

Event

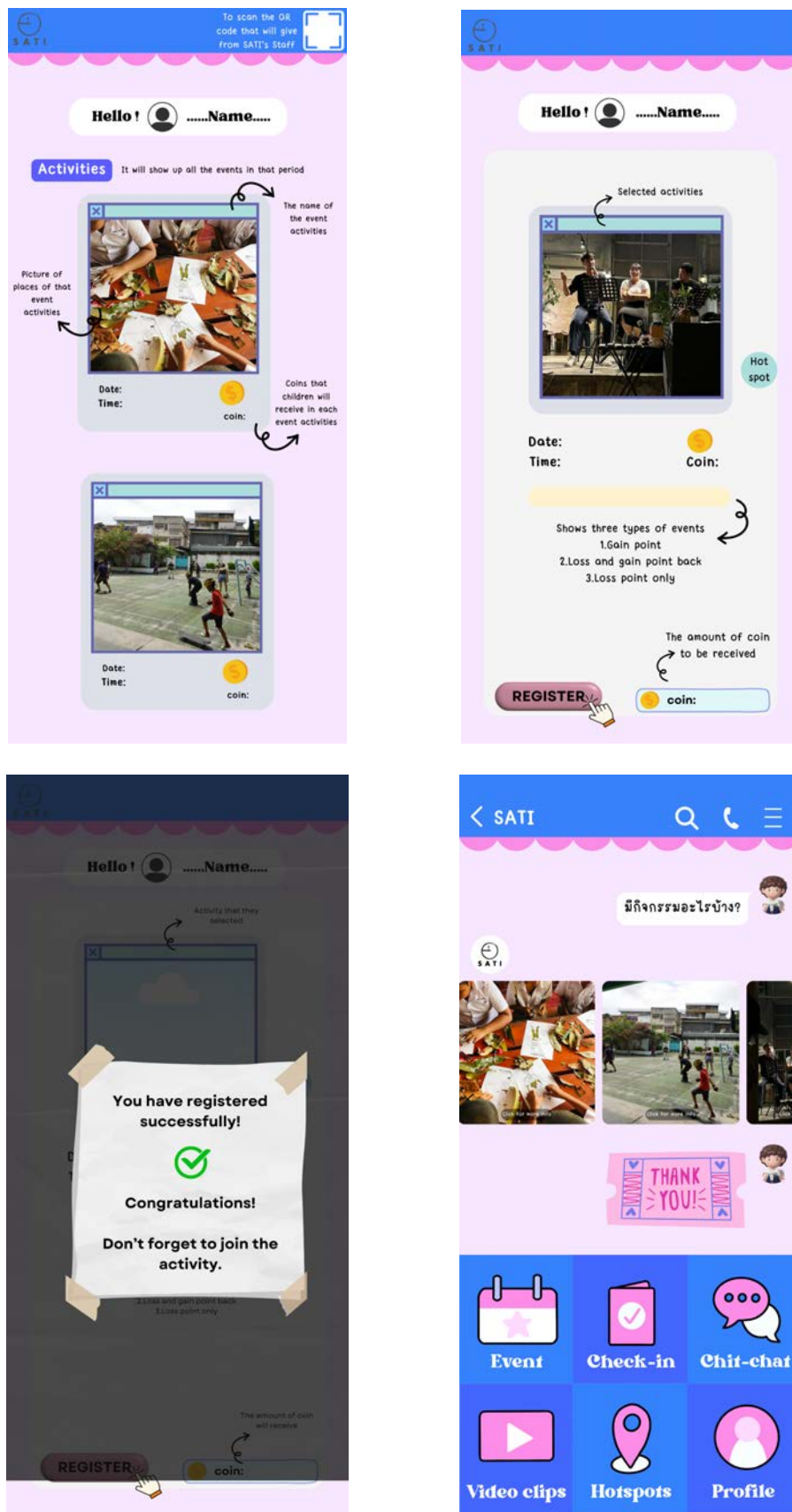


Figure 35: Event feature first prototype

Check-in system

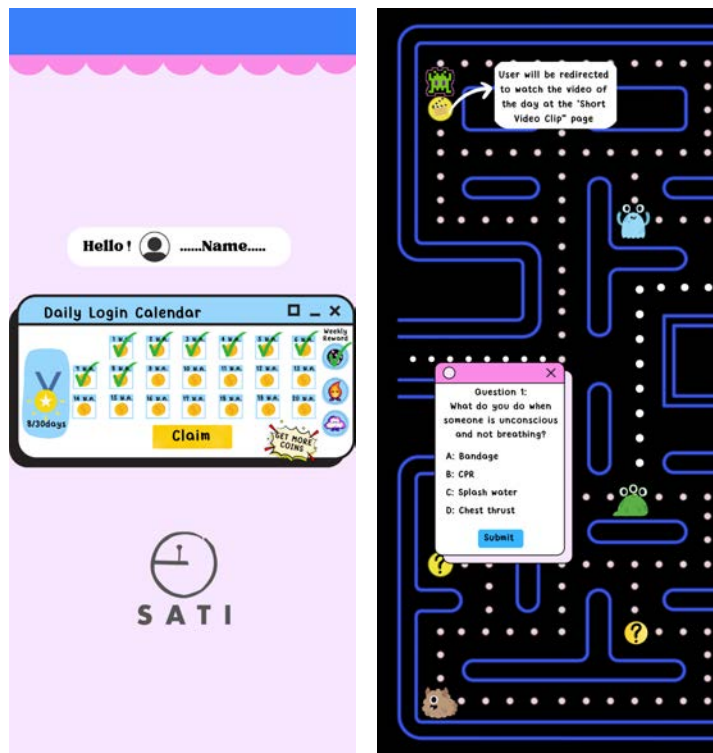
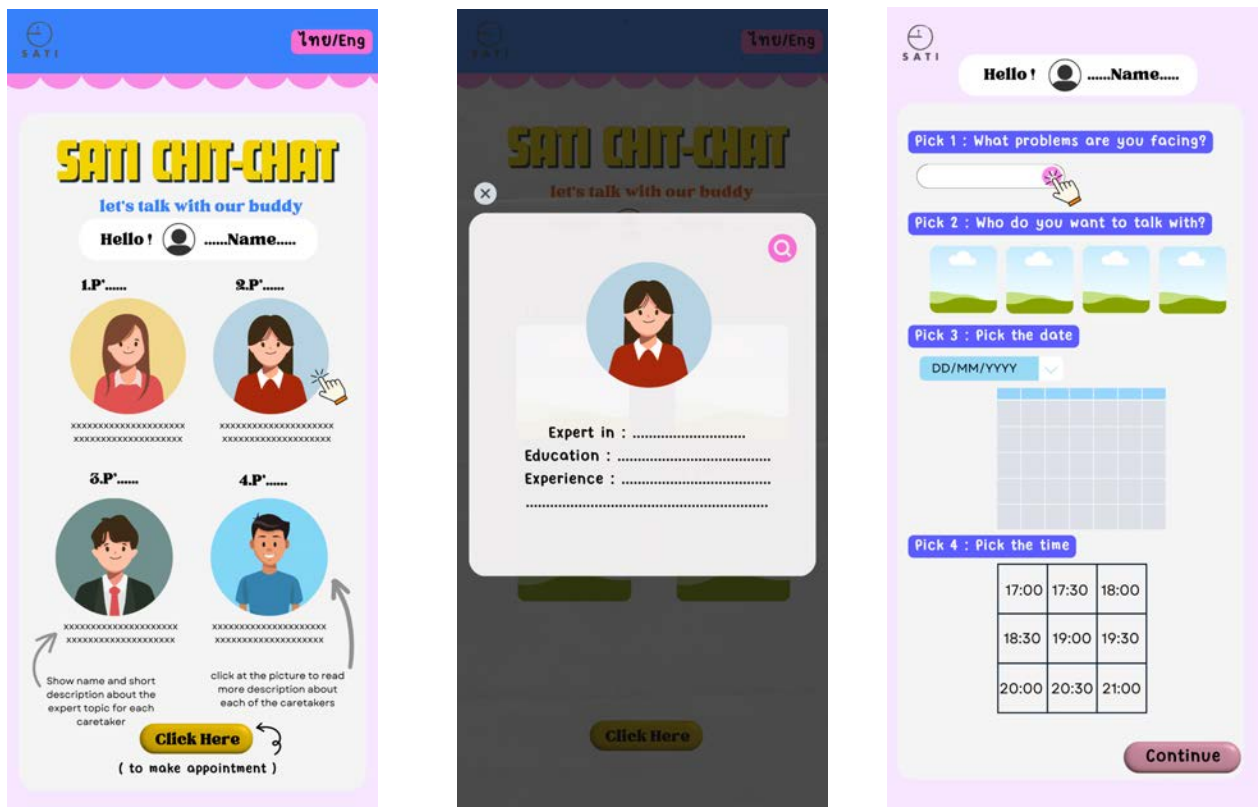
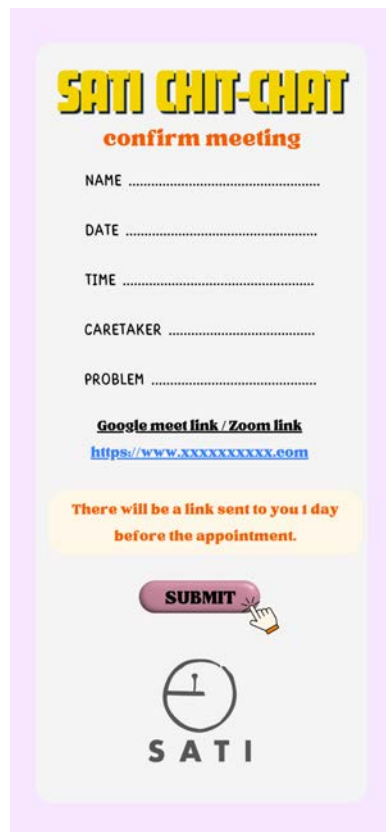
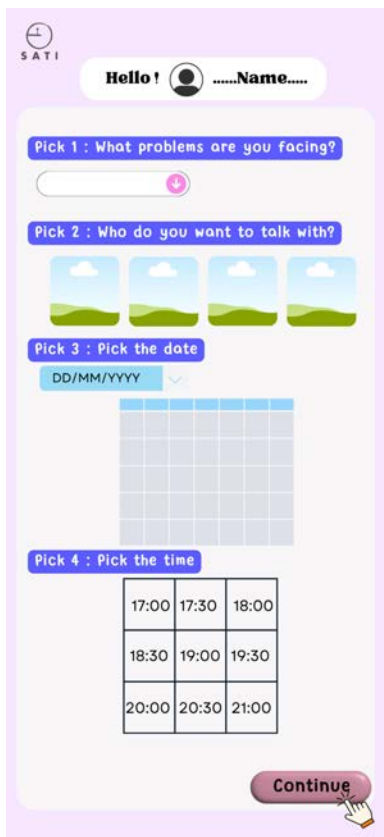
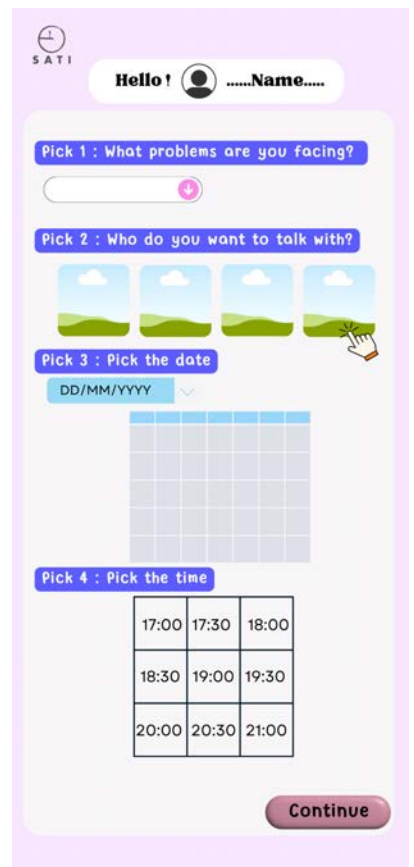
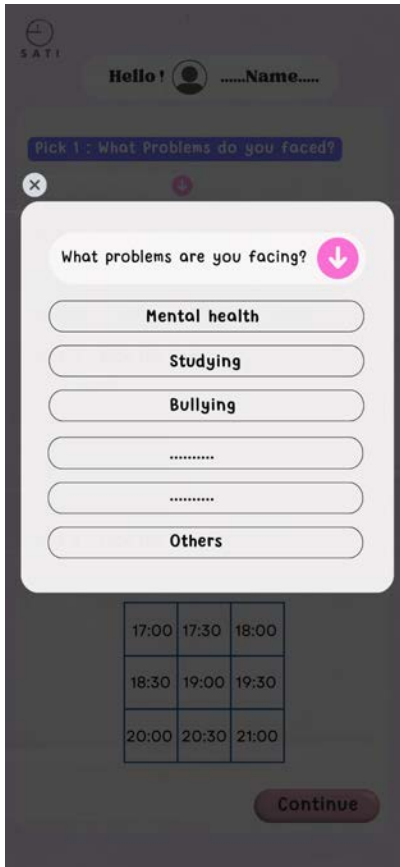


Figure 36: Check-in feature first prototype

Counseling room or SATI CHITCHAT





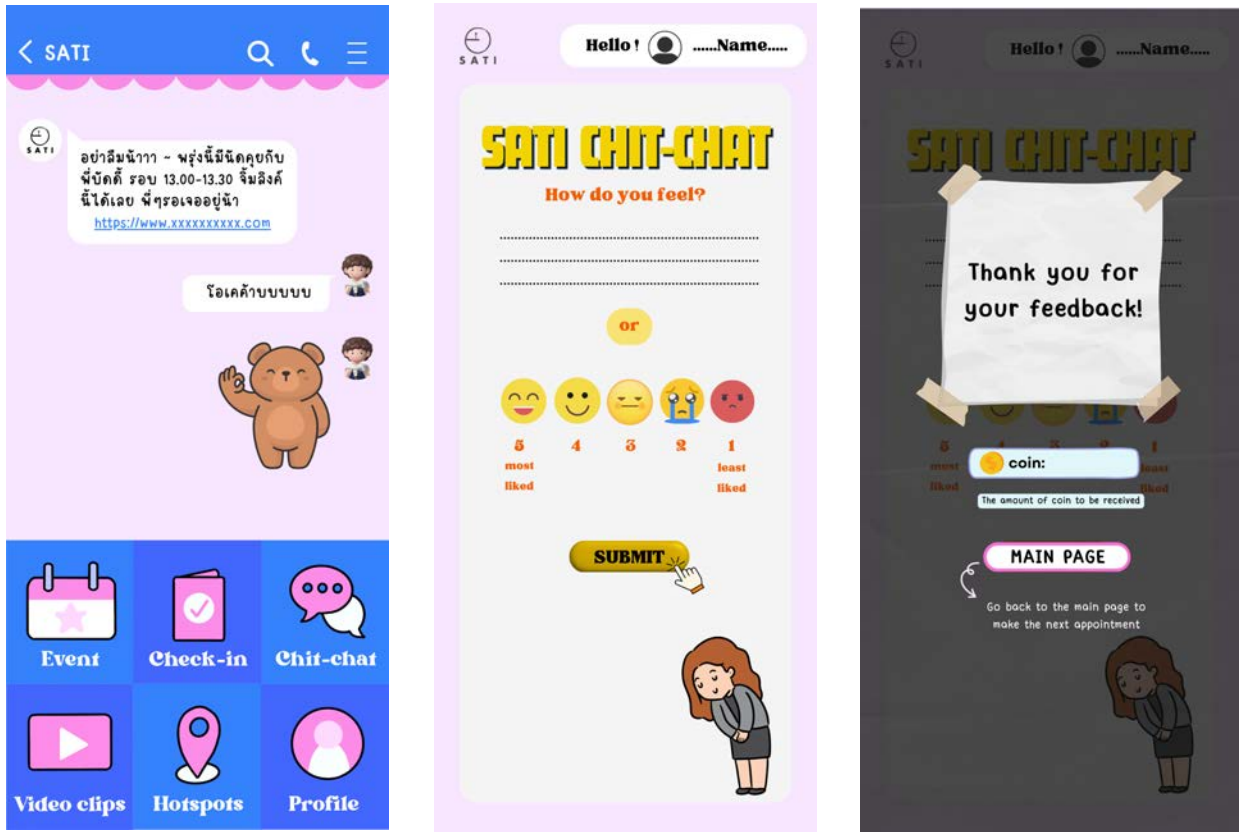


Figure 37: Counseling room or SATI CHIT-CHAT first prototype

Short Video Clip



Figure 38: Short Video Clip feature first prototype

Hotspot location

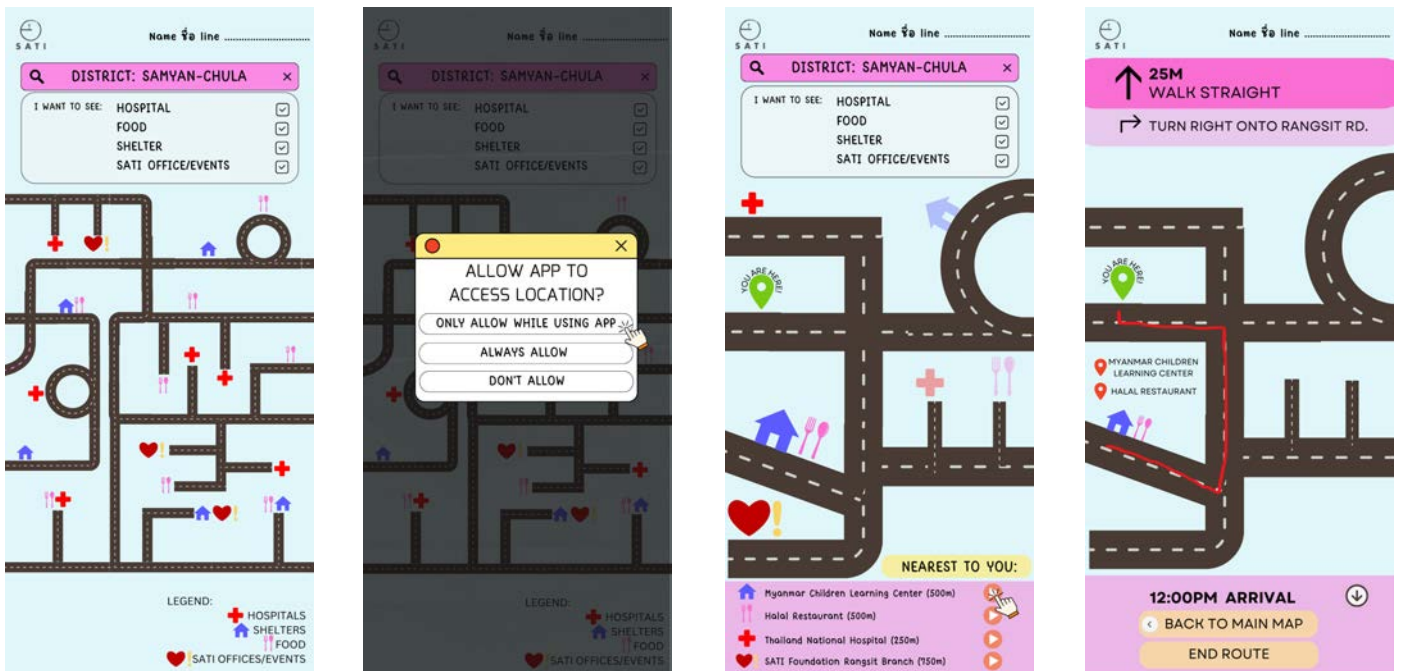


Figure 39: Hotspot location feature first prototype

Profile & Redeem Point

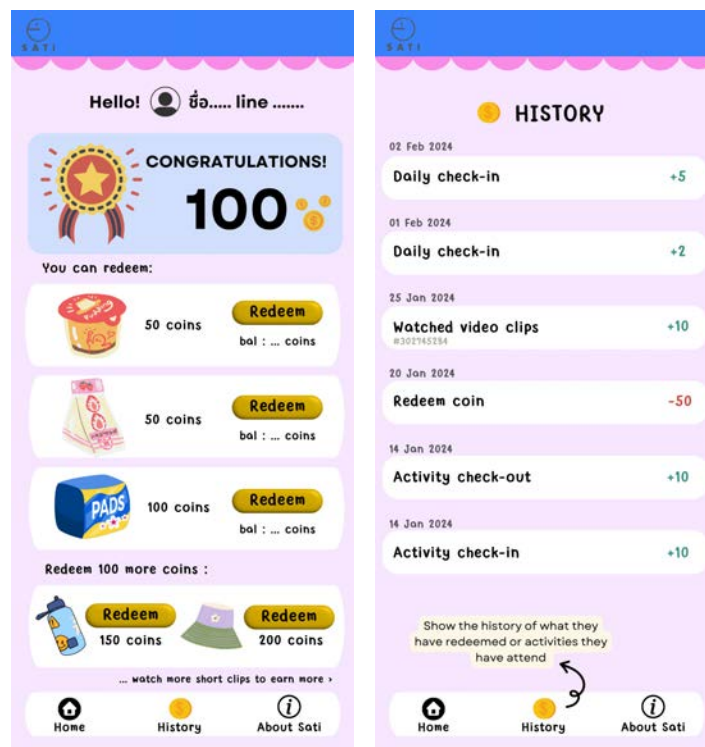


Figure 40: Profile & Redeem point feature first prototype

D.3 Adjusted Prototype

SATI User Interface (UI)

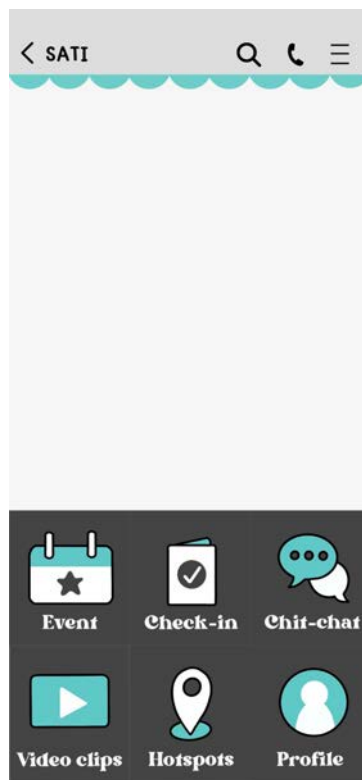
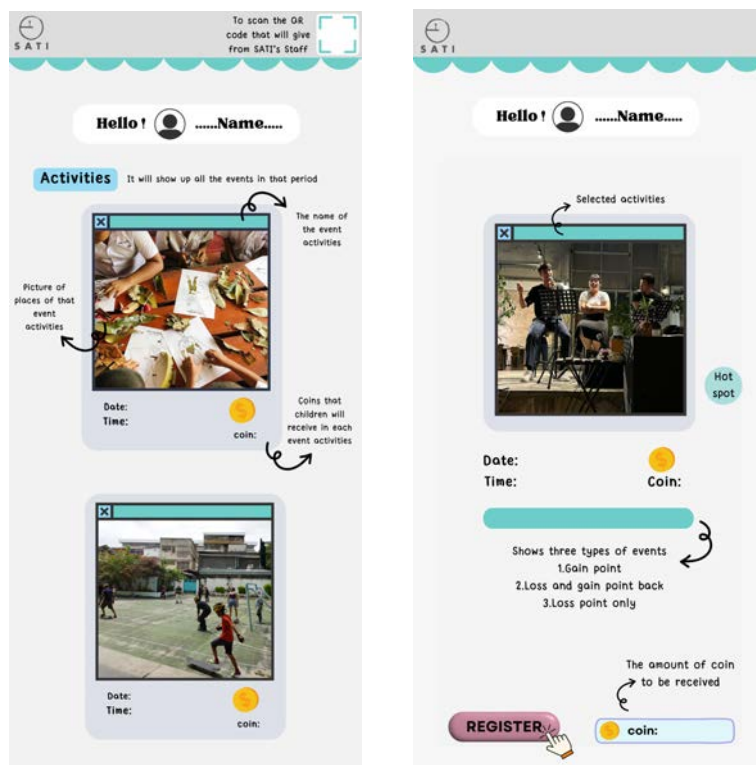


Figure 41: SATI User Interface (UI) adjusted prototype

Event



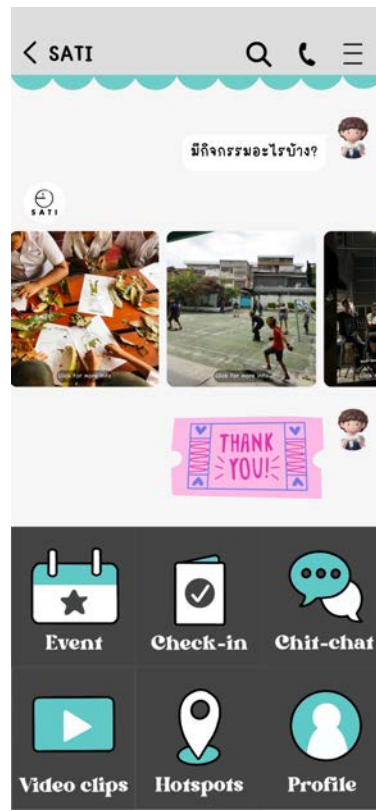
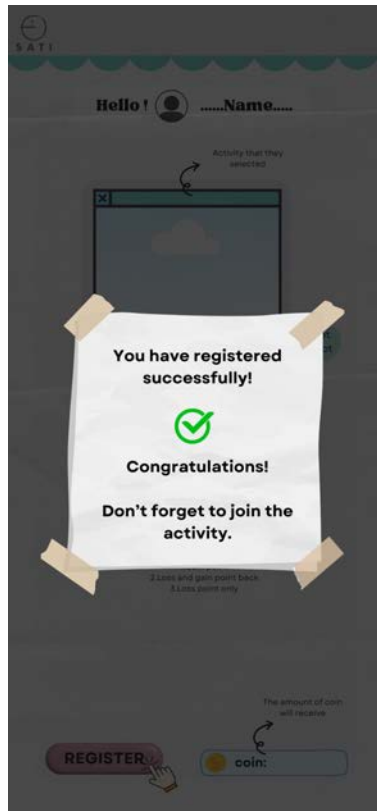


Figure 42: Event feature adjusted prototype

Check-in system

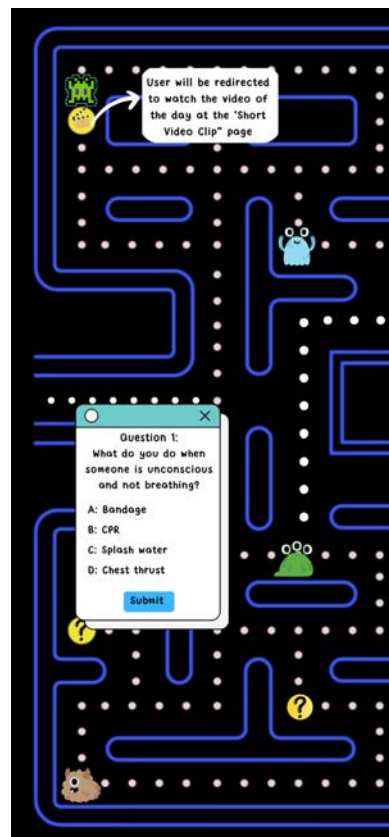
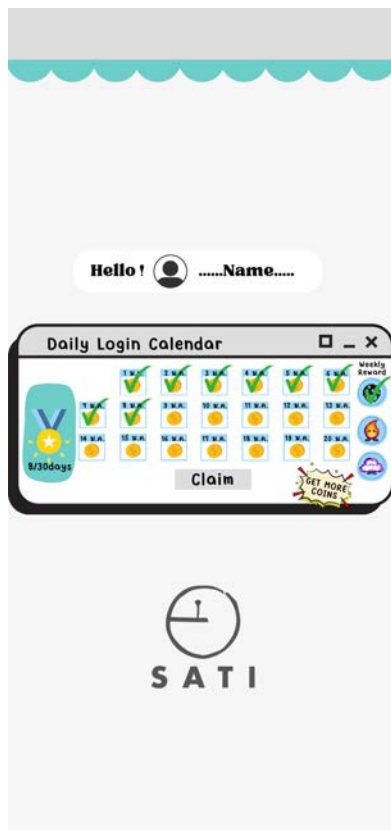
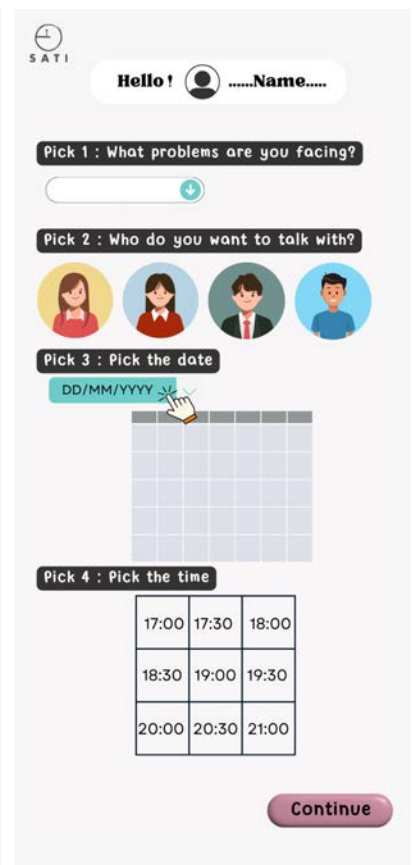
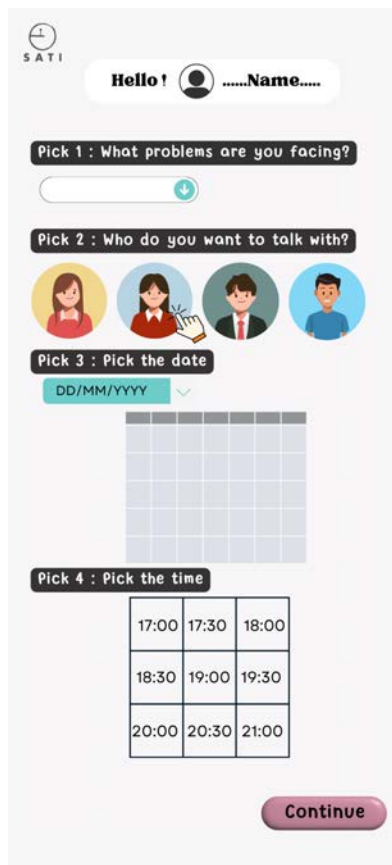
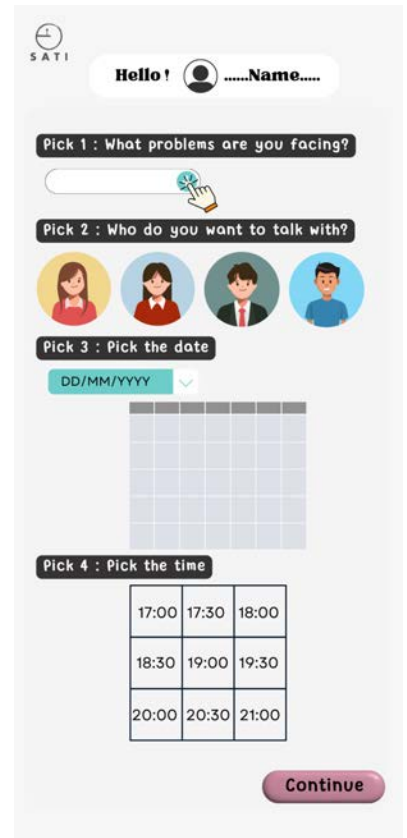
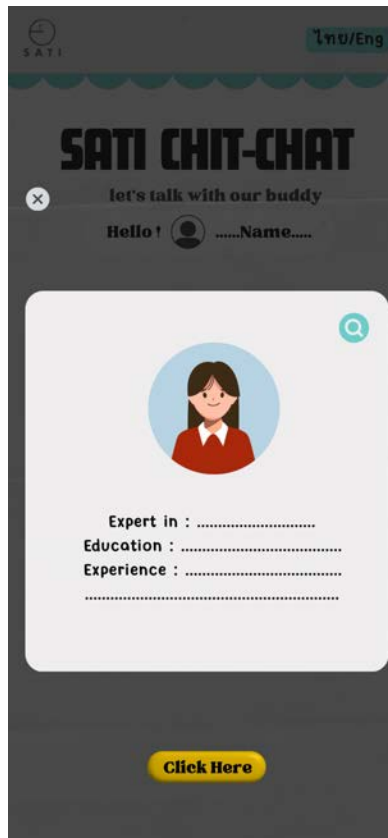
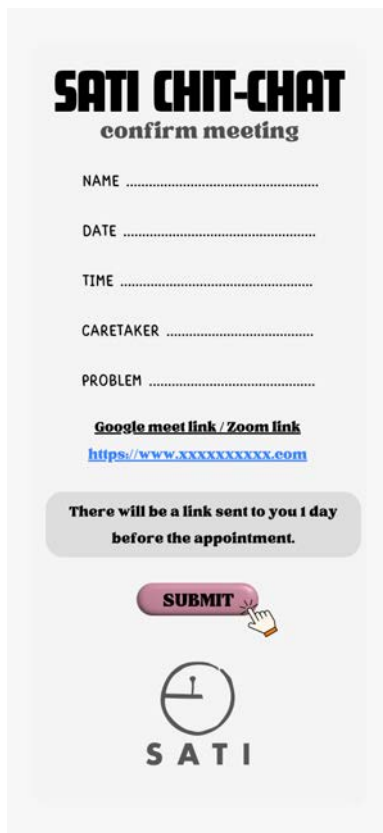
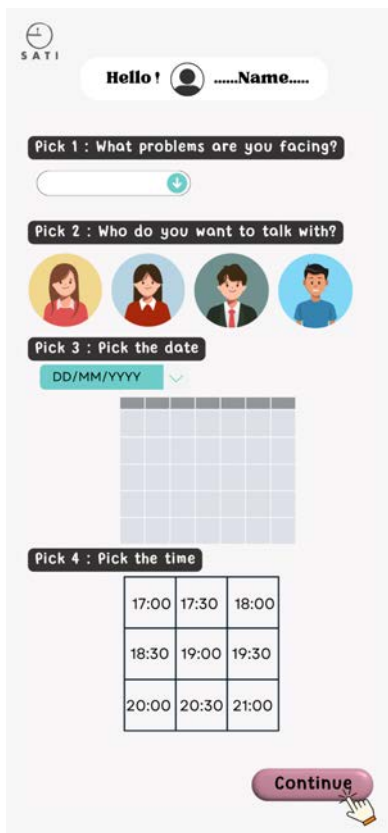
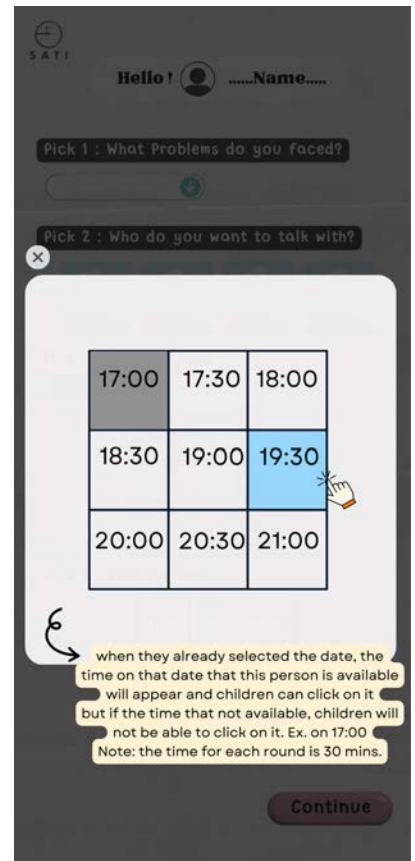
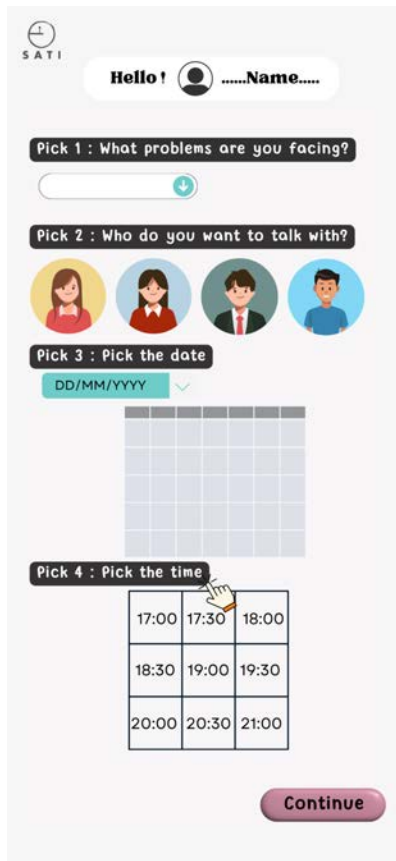
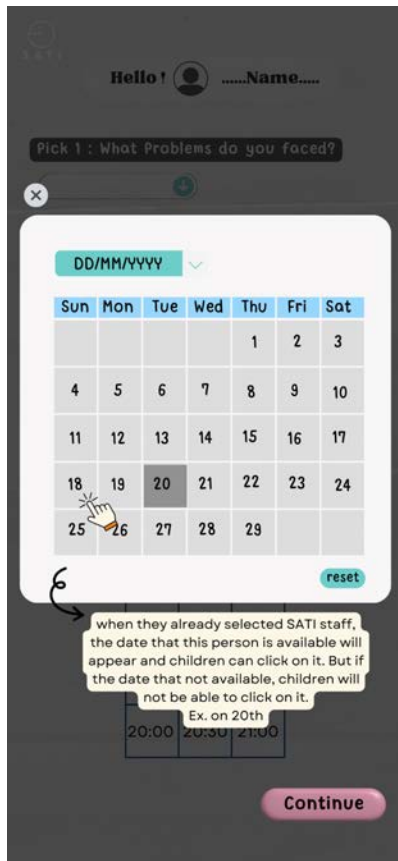


Figure 43: Check-in feature adjusted prototype

Counseling room or SATI CHIT-CHAT





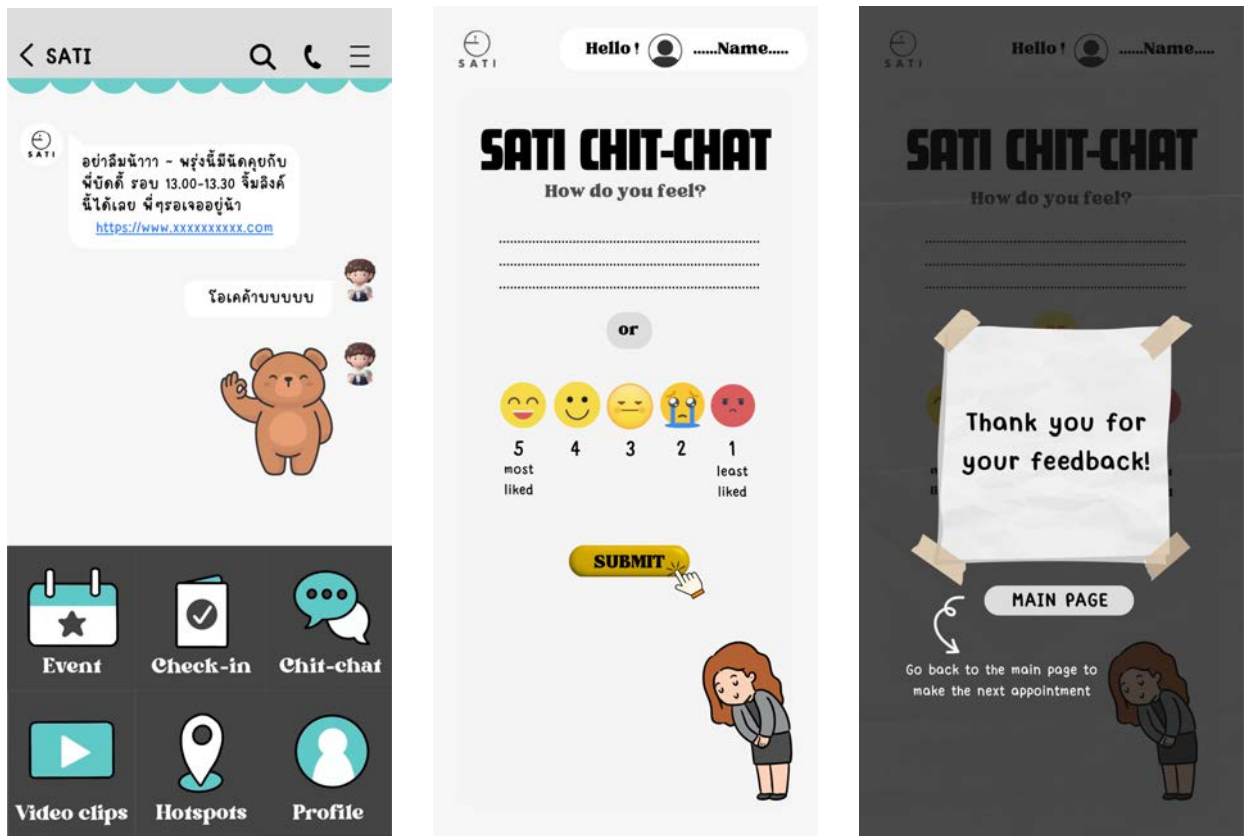


Figure 44: Counseling room or SATI CHIT-CHAT adjusted prototype

Short Video Clip



Figure 45: Short Video Clip feature adjusted prototype

Hotspot Location

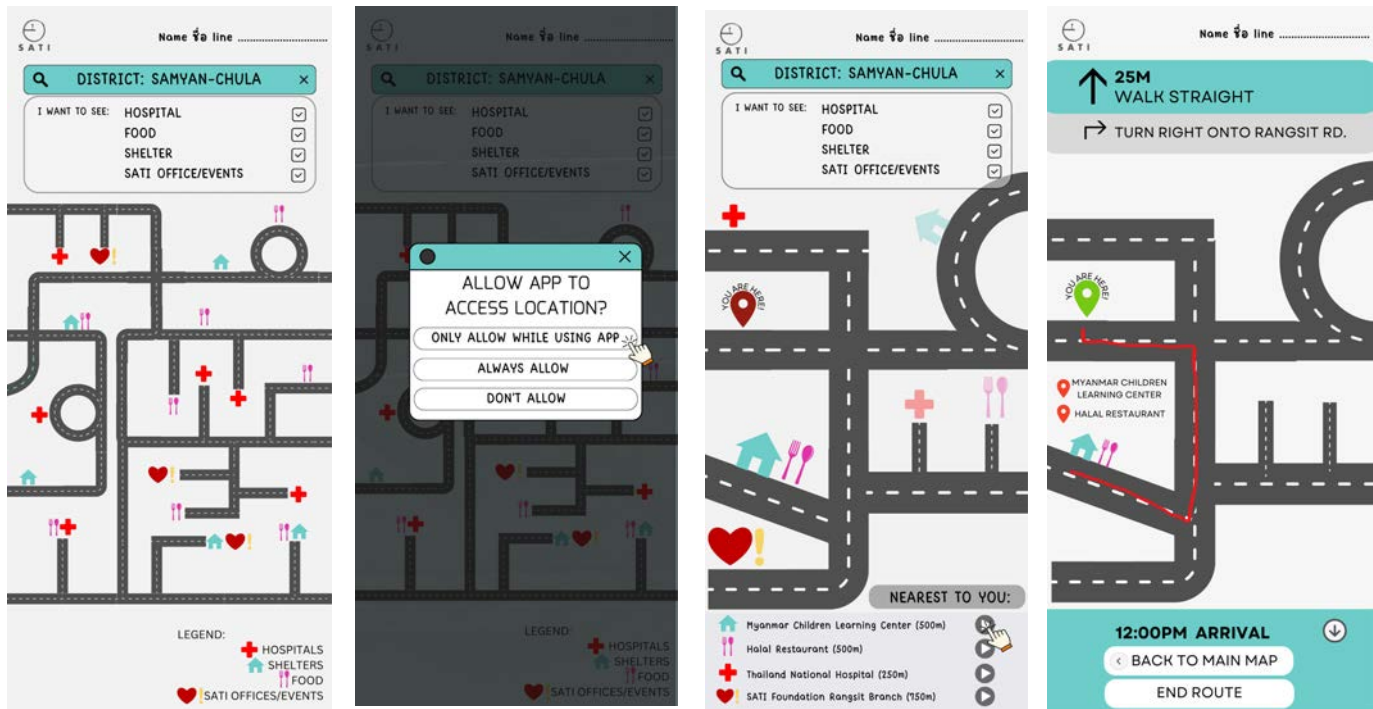


Figure 46: Hotspot location feature adjusted prototype

Profile & Redeem Point

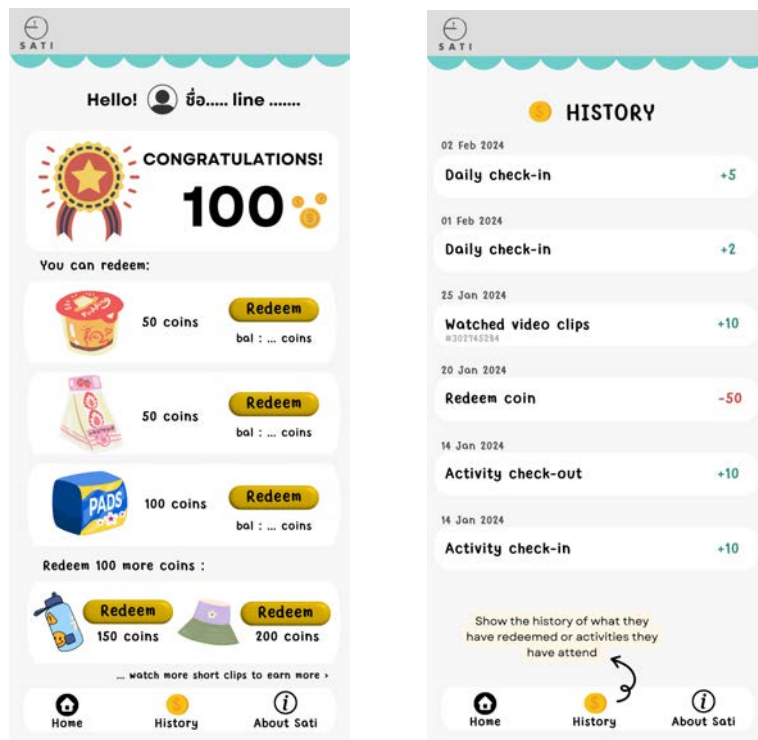


Figure 47: Profile & Redeem point feature adjusted prototype

D.4 Prototype Introduction Clip

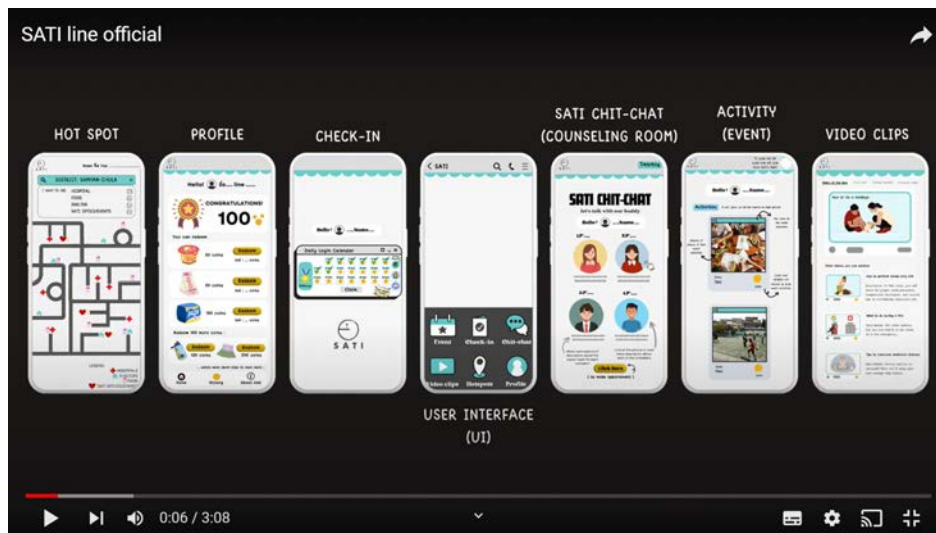


Figure 48: Prototype introduction clip from youtube



Figure 49: QR code for prototype introduction clip

Youtube Link: <https://youtu.be/0sZ6x8efQQY?si=RwVd7JEp-J97Y3tD>

Appendix E: Project Timeline

| ACTIVITIES | WEEK 1 (8 JAN - 14 JAN) | WEEK 2 (15 JAN - 21 JAN) | WEEK 3 (22 JAN - 28 JAN) | WEEK 4 (29 JAN - 4 FEB) | WEEK 5 (5 FEB - 11 FEB) | WEEK 6 (12 FEB - 18 FEB) | WEEK 7 (19 FEB - 25 FEB) | WEEK 8 (26 FEB - 3 FEB) | WEEK 9 (4 FEB - 10 FEB) |
|--|-------------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|
| Prepare for data collection and activities | █ | | | █ | | | | | |
| Fieldwork at the real study area | | █ | | | █ | | | | |
| Data analysis | | | █ | | | | | | |
| Creating prototype | | | | | █ | | | | |
| Revise prototype | | | | | | █ | | | |
| Working on report and presentation | █ | | | | | | | | |

Table 5 : Project Timeline