

INTRODUCTION

What is Unlocked

Unlocked is a family-oriented mobile app that serves to curb early-onset mobile phone addiction in young children and adolescents within the home environment by way of providing families with a platform to better manage their children’s screen time. The application includes basic functions such as task setting, usage tracking, app-locking, and a timer function. Through persuasive technology, *Unlocked* hopes to gain further insight into how mutual parent-child trust can instill a sense of responsibility into their child.

Aim

Unlocked aims to teach teenagers time management skills through a gamified experience, and to instill responsibility into teenagers by using the mutual trust between them and their parents. These combined should consequently reduce mobile device usage and hence eliminate chances of mobile addiction. The biggest challenge faced during development was to ensure that teenagers were in charge of their learning process and parents

An important aspect considered was how to make use of parental guidance without having the child feel controlled and restricted . Unlocked seeks to use and build upon existing parent-child trust to create a controlled and independent learning environment.

RESEARCH

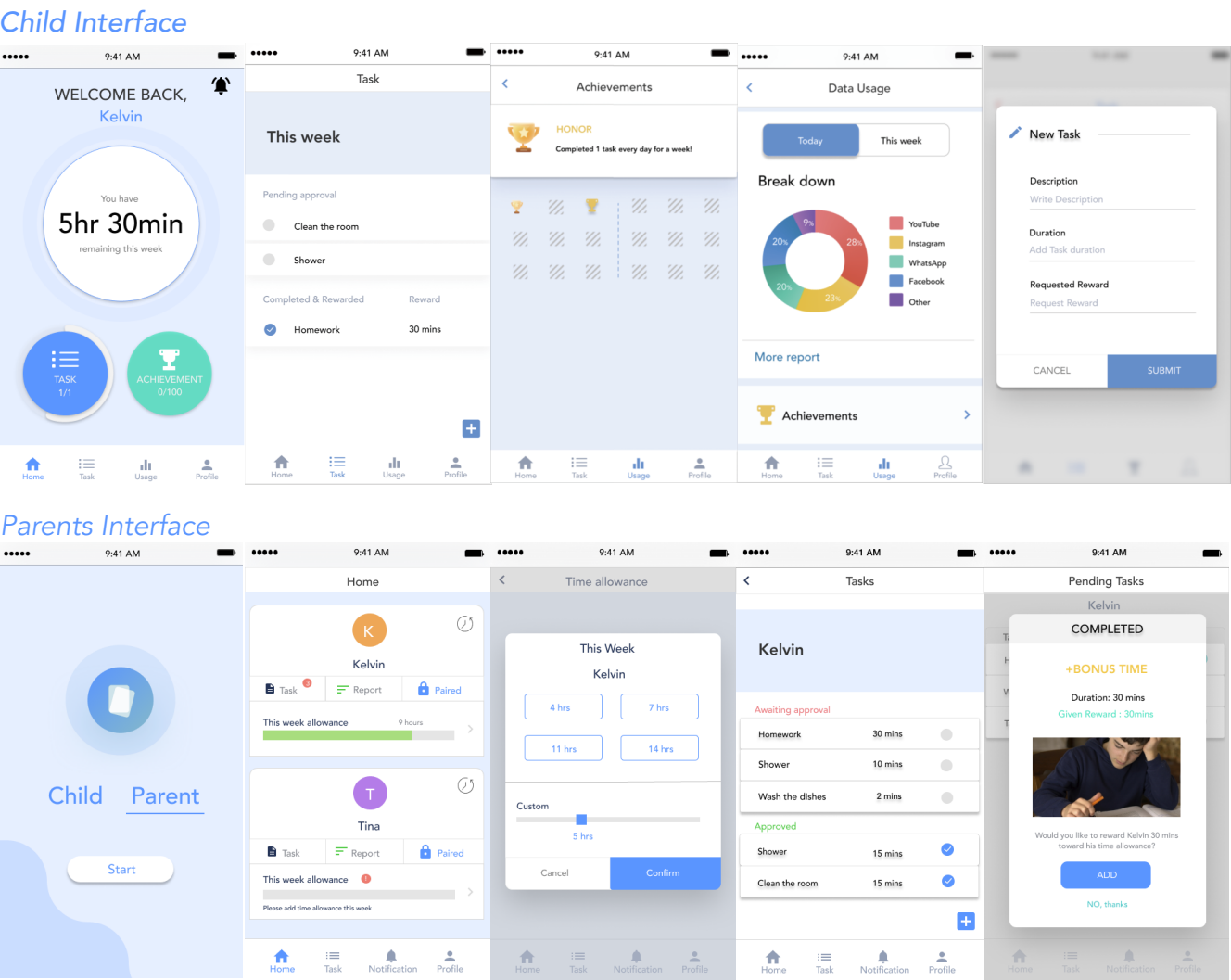
Research revealed numerous factors that contributed to excessive use included early exposure, lack of self control and awareness, harsh and regulative parents, stress, and social network size. These insights drove our team to incorporate gamification methods, and led to critical decisions in designing Unlocked.

Gamification and Persuasive Technology

Unlocked aims to persuade users to change by making the process of correcting a behaviour enjoyable. This is done by gamifying the experience, which provides as a strong motivation for teens to use the application. Badges, achievements, and rewards provide users with a feeling of self accomplishment and personal affirmation, boosting their self efficacy. Initial design included a leaderboard, which would trigger the competitive spirit in users to do better, however it was removed after user testing indicated it had minimal to no effect on them.

Trust instilling a sense of responsibility

Through analysing existing applications, we determined that successful applications were designed for users to learn independently, and applications that failed were designed for parents to restrict their children. Unlocked limits the power given to parents for monitoring and controlling their children, and gives teens the freedom to set their own tasks and rewards. This creates an independent learning environment based on trust, instilling a sense of responsibility for teens to do better, and foster good relationships rather than drive them apart from their parents.



DESIGN PROCESS

Conceptualization

The idea of Unlocked came about when the team discussed about the deep seated implications behind the excessive use of electronics, more specifically mobile phones, among young children and adolescents within the home environment. Through plenty background research and brainstorming, we came up with the idea of creating something that had the potential to prevent mobile phone addiction and whilst boosting inter-family bonding and trust.

Development and User Testing

Initial surveys indicated that designing an application that balanced authority and independent learning would be a challenge. From surveys it was clear that parents wanted more options and tools to monitor their child, whereas teenagers expressed that too much permissions given to parents made them feel controlled and without freedom.

Our team initially started out with pencil sketches and wireframes, then paper prototypes. Finally, a high-fidelity prototype was developed to allow for user testing through a mobile device. Although the testing was scaled down to allow for higher quality data to be collected, the live interactions made for a realistic experience with Unlocked.

At the end of every prototyping phase, an extensive and in-depth user test plan for both parent and child interfaces was planned and created. These targeted Aesthetics, Functionality, and Navigation of both interfaces and through testing our prototype, we gained numerous insights on how to improve our design.