



Ministry of Education and Training

Hanoi, December, 2019

Capstone Project Document

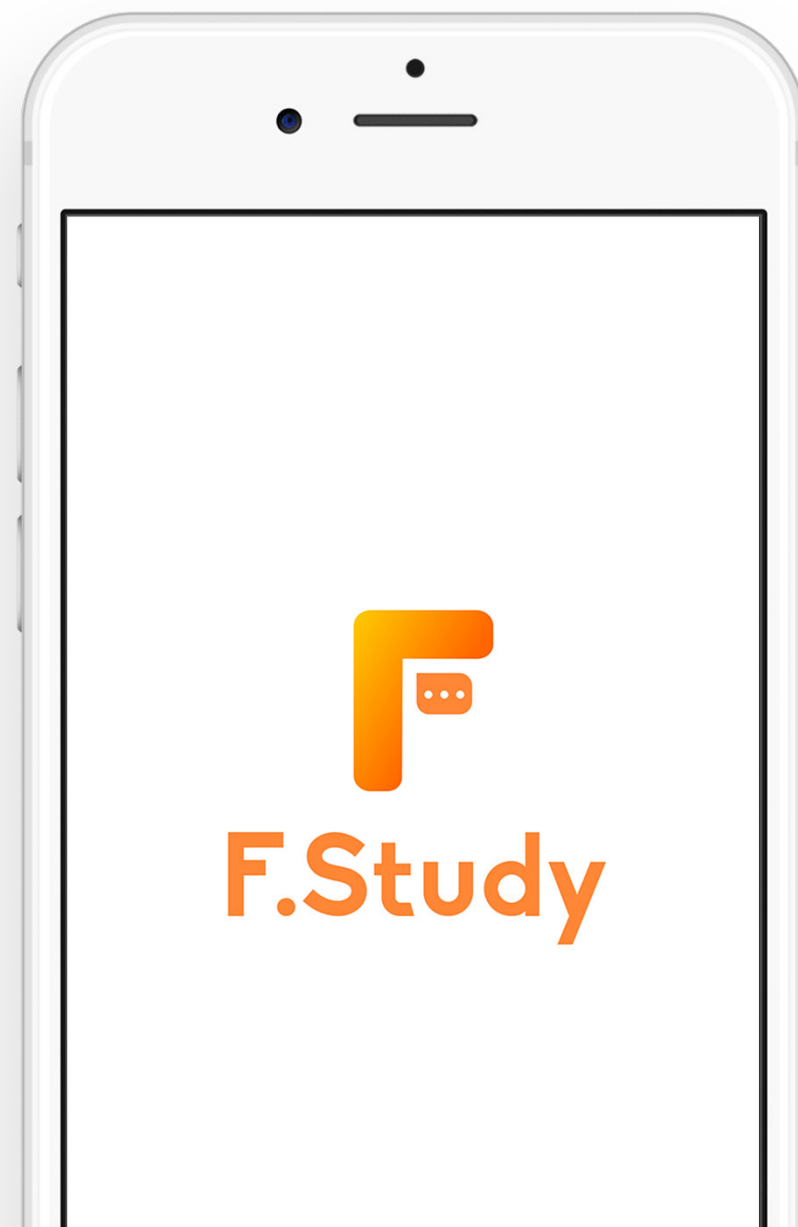
F.Study

Electronic contact book application

Supervisor: *Bui Van Phat*

Student: *Nguyen Trung Hung - SE04946*
Tran Khanh Linh - SE06010

Capstone Project Code: *GDP491_G3*



CONTENT

Report No.1: CP Proposal — 4

1.1. Problem Definition	5
1.1. Name of Capstone Project	6
1.2. Problem Abstraction	7
1.2. Project Overview	8
1.2.1. Defind Problem	9
1.2.2. Research	11
2.2.1. State of affairs	12
2.2.2. Obstacles in the making of F.study	18
2.2.3. Technology	21
2.2.4. Competitors Research	25
2.2.5. Survey	35
2.2.6. Offline Interview	42
2.2.7. Personas	45
1.3. Specify Requirement	51
1.3.1. Problems – Solutions	52
1.3.2. Functional Requirements	53

Report No.2: Design Proposal — 56

2.1. The First Sitemap	57
2.2. Workflow	58
2.3. Lo-fi Prototype	60

Report No.3: Pre Design — 62

3.1. First Testing	63
3.2. The Second Sitemap	64
3.3. Wireframe	65

Report No.4: Design Finalization — 67

4.1. First Visual Design	68
4.2. Second Testing	69
4.3. Visual Language	70
4.3.1. Color Research	71
4.3.2. Design Inception Worksheet	72
4.3.3. Moodboard	73
4.4. Branding	74
4.4.1. Logo Structure	75
4.4.2. Logo Variation and Palette	76
4.5. Style Guide	77
4.5.1. Color Palette	78
4.5.2. Typography	79
4.5.3. Iconography	80
4.5.4. Buttons and other elements	82
4.6. Visual Design	90
4.6.1. Second Visual Design	91
4.6.2. Testing Second Visual Design	94
4.6.3. Final Visual Design	96

Report No.5: Simulation Function – 103

About Us

With all the effort and passion for Graphic Design, we are pleased to bring you one of the products that we spent four months to be able to create. We hope that this product will be able to be applied practically and give users the best experience and can contribute to the improvement and contribution to the development of domestic education.



Tran Khanh Linh
SE06010



Nguyen Trung Hung
SE04946

01

Report 1: CP Proposal

1.1

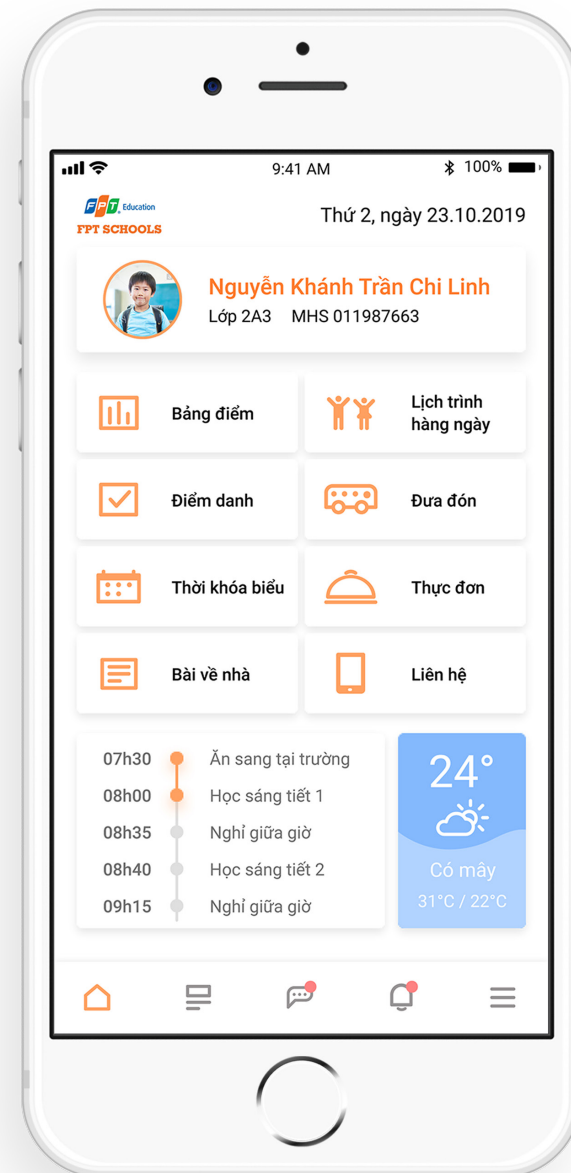
Problem Definition

What is F.Study? Why did we choose this project? What we have learned, the difficulties and the first steps of the project.

1.1

Name of Capstone Project

F.Study is an Electronic contact book application on mobile phones for parents.



1.2

Problem Abstraction

Today, parents have less and less time to care for their children because their work is taking up too much time. In order to support parents in managing their children's activities at school, the school has been offering many different services such as transportation, boarding school services, e-contact book, etc. But all these services are still inconsistent and there are many problems that cause difficulties not only for parents to use but also difficult to transmit information to connect between schools and parents.

The question is how can we help parents and the school to solve these problems? To answer this question, we have to dig deeper on this issue to find out the solution.



1.2

Project Overview

Below is the process of orientation, problem identification
and detailed study of the project.

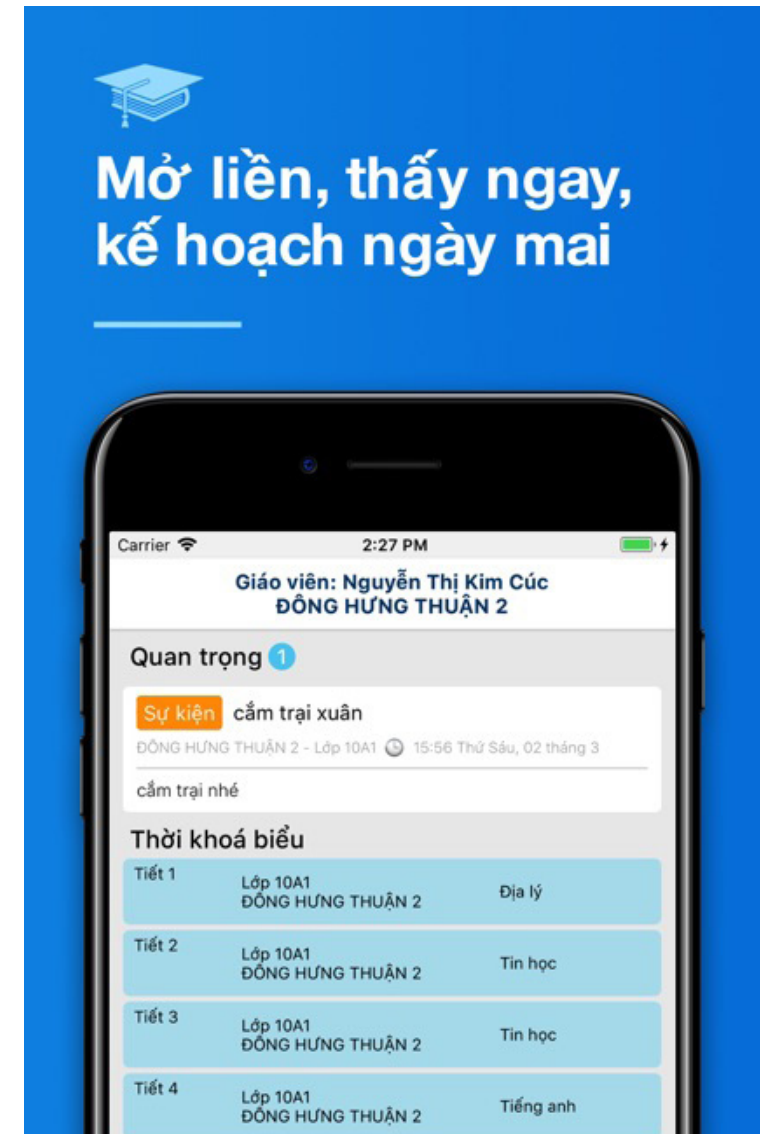
1.2.1

Defind the Problem

Pursuant to the Ke hoach So.2507/KH-SGDĐT dated 19/6/2018 on the deployment of specialized software of Education and Training department of Hanoi, from 2018-2019, the department will provide free electronic contact book software for all elementary, middle and high schools in Hanoi.

The electronic contact book will become the main channel to quickly and effectively provide information between home and school. According to statistics from the department, nearly 100% of schools in Hanoi area have been using this communication method.

With the electronic contact book, schools can provide a lot of information such as: attendance, scores, timetables, notification, etc. However, depending on each school, will need to provide additional information about their services such as school transportation or boarding school services, so they will need to use additional external software at the same time with the electronic contact book to provide information to parents. All of this information is given to parents in a variety of ways, like websites, phone apps, automated sms messages or emails, which leads to inconsistencies between information flows, causing difficult for parents to use.



In addition, this electronic contact book platform currently has many issues like: difficult to use, have to pay to maintain, not updated enough information, etc. So many parents chose to use the traditional communication channel system, meaning contacting teachers directly or using SMS notifications from school rather than using apps. But all traditional information channels always have weaknesses: passive, lack of information, delayed information updates and many more, which making it harder for parents and students to get the information from school.

Understanding these problems and difficulties of the user, F.Study was created to help parents receive their children's information from the school fully, quickly, easily, consistently and reliably.



1.2.2

Research

1.2.2

Research

2.2.1

State of affairs

Trouble maker: The Overload, The Service and The Inconsistency.



1.2.2

2.2.1

Research**State of affairs*****Trouble maker: The Overload***

According to statistics of the General Statistics Office, from 2017 to date, there are about 14,937 primary schools and 10,091 secondary schools in Vietnam. In Hanoi, there are currently 727 primary schools and 605 secondary schools.

In 2019, according to Mr. Pham Quoc Toan, Head of the Department of Examination and Educational Quality Control from the Hanoi Department of Education and Training, the number of students entering 1st grade compared to 5th grade has increased by 30,000, the number of learners 6th grade birth increased by about 2,000 compared to the previous year. It can be seen that the number of students is getting bigger and faster each year. Not to mention, for the years when the Vietnamese concept is a lucky year, the number of students will probably double or triple. With such a large number of students, it will often cause overcrowding, resulting in a lot of pressure for the school to manage students.

For example, at FPT Group's Fschool primary school, in the school year 2018-2019, the number of students is 432, but by 2019-2020, the number has increased to 910 students - that is, increased 200% over the previous year. In fact, the increase in the number of students will be inversely proportional to the amount of time that teachers and schools can allocate to each student. That will make it more difficult for each school to communicate directly with each parent. Because of the above, parents themselves will have difficulty obtaining information about their child's learning from the school.



1.2.2

Research

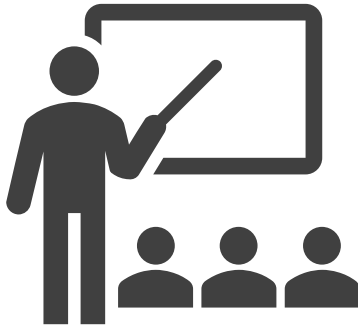
2.2.1

State of affairs



1332

1st and 2nd school
in Hanoi



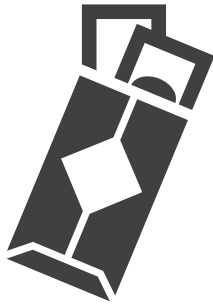
557,609

1st and 2nd students
in Hanoi



30.000

1st grade in 2019



3

times of number
if lucky year

1.2.2

Research

2.2.1

State of affairs

Trouble maker: The Service

In today's society, parents have less and less time to care for their children because the job has taken so much of their time. Every day seems to be longer and more tiring for them even like taking their kids to and from school every day, especially for families living in big cities.



According to the Nhan Dan newspaper, on average each month, Hanoi has about 27,000 new motorized vehicles, of which about 5,000 cars and about 22,000 motorbikes. In addition, about 1.2 million vehicles from other localities participate in traffic in the city. With such a high traffic density and constant traffic congestion during peak hours, just taking the children to and from school every day without being late for work has become a "challenge" for some parents.

Recognizing this difficulty, many schools have provided bus transportation services but this service still has many potential risks. For example, in early August to September 2019, there were 3 cases of forgetting children on the bus, making parents extremely worried, asking many questions about the quality of this service.

1.2.2

Research

2.2.1

State of affairs

Not only that, most of the information about day-boarding services and daily meals menu of the school has not been paid much attention. Although almost 100% elementary schools provide lunch for students, many incidents involving this issue have occurred. Specifically, unhealthy menus, unsuitable dishes for students, reduced rations compared to reality, etc. have been reported by many newspapers and TV stations.

From these incidents, parents are increasingly confused about the quality of school services. Partly because the above services have not provided all necessary information for parents during the use of the service, the notification methods are outdated, not updated quickly. So when an incident occurs, parents often do not catch the incident in a timely manner, the school is also confused in contacting parents to quickly handle and control the situation.

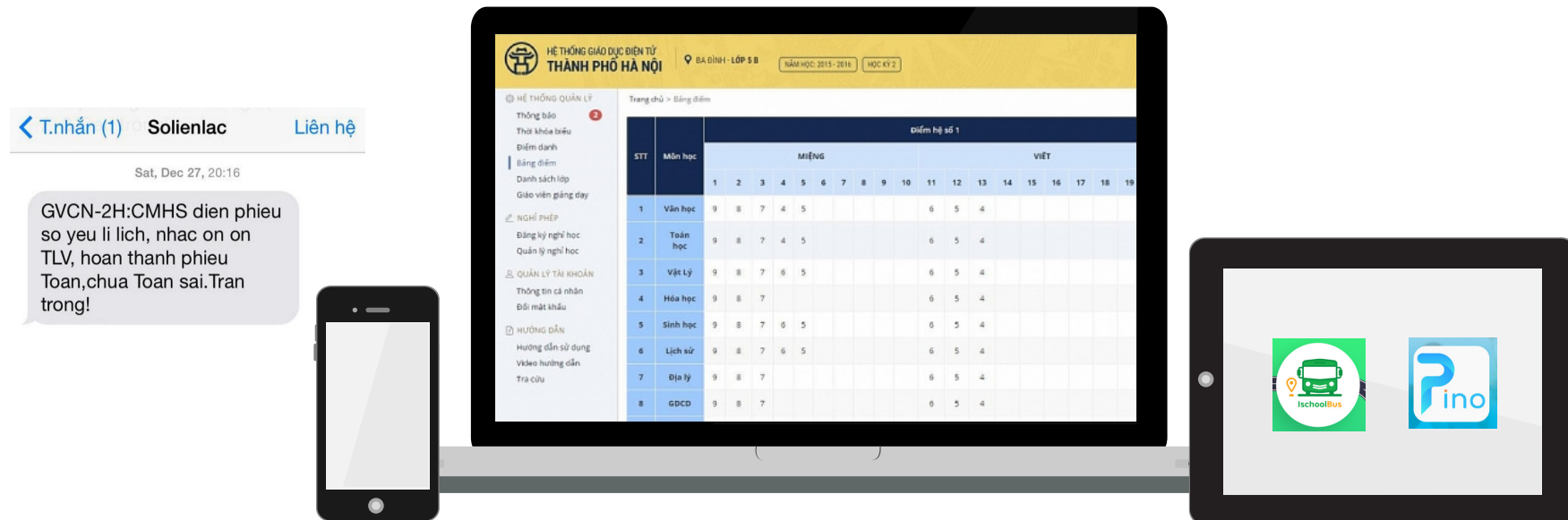


1.2.2

Research

2.2.1

State of affairs

***Trouble maker: The Inconsistency***

Currently, according to information from the Ministry of Education and Training, 100% of schools in the area of Hanoi use electronic contact books as a communication channel between the school and parents. Based on the needs of each school and service provider, electronic contact forms are provided based on many different types of platforms, including: websites, SMS or mobile applications. However, the above platforms still unable to provide a unified information flow.

The repeated access to different platforms to update daily invisible information makes many parents feel awkward to use. The asynchronous and unified information flow also makes it difficult for parents to update information, especially for those who are not familiar with technology, which making parents feel dissatisfied.

1.2.2

Research

2.2.2

Obstacles in the making of F.study application



1.2.2

Research

2.2.2

**Obstacles in the making
of F.study application**

The biggest difficulty is that we need to gather large amounts of information from the schools.

We need this information to know how the schools operate, the services they provide, as well as the service platforms. However, to be able to delve into the specialized data of the education sector is almost impossible because every school has absolute confidentiality in its operation and the data structure to keep the student information confidential.

More specifically, we need to learn about the scoring structure, student assessment as well as the curriculum framework of each school. Regarding the transcript structure, depending on the school, there will be regulations on recording, updating points according to different schedules as long as it is in line with the requirements of the Ministry of Education.



1.2.2

Research

2.2.2

Obstacles in the making of F.study application

In addition, services such as transportation or school menu vary from school to school, some will offer but some won't. The same goes for providing introductory information and updates on extracurricular activities. Public schools in the region often have no need, but private schools that are strong in extracurricular activities need this.

For example, schools in the educational system of FPT Corporation, from elementary school to university, all promote students to participate in extracurricular activities and physical education to train soft skills and health for students. Not only that, each school will have its own characteristics, slogan to suit the image and style of the school, this will greatly affect the interface design of the app. So in order to develop F.Study, we had to contact Fschool's school administrators directly to gain access to the necessary data. But this is not the case for other schools.

With an educational viewpoint that is liberal, FSchool provides a fun and inspiring learning environment to inspire the potential of all students. With a dynamic, creative and keen style to keep up with the 4.0 trend, students are regularly exposed to practical experiences through extracurricular sessions and state-of-the-art learning facilities.

From all of the above, we have made the decision that we will build F.Study as an electronic contact book application built specifically for Fschools at primary and secondary schools, with the goal of using F.Study as an official communication channel between parents and the school.

- Service: School meals, boarding services, school buses
- Total number of students in 2019-2020 : 910
- Number of primary students : 551
- Number of secondary students : 359
- Number of students using school's catering service : 910
- The average age of parents: 37 (mother) and 40 (father)

1.2.2

Research

2.2.3

Technology

The reasons why we have chosen the app platform, the technologies we use and the advantages of this to our users.



1.2.2

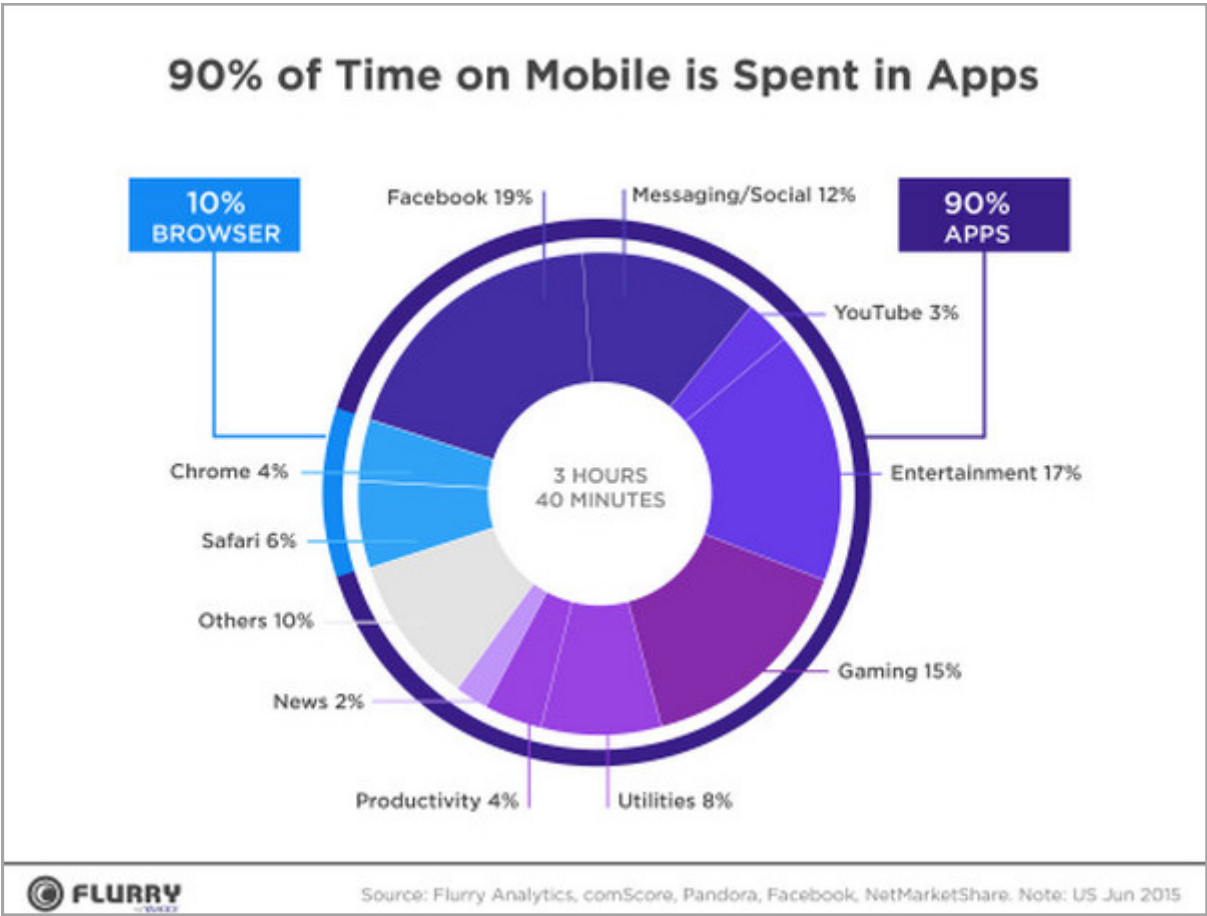
2.2.3

Research

Technology

Nowaday, using mobile phones has been an extremely popular thing not only in the world but also in Vietnam.

According to the Appota report, in the first half of 2018, the percentage of smartphone users in Vietnam amounted to 72% of the total, and up to 25% of smartphone owners use the internet on mobile regularly, perform various tasks, services that make mobile phones not only a communication tool, it is becoming an official working tool of many people. The most recent study of Flurry Analytics shows that 90% of the time users use the phone is interacting with the mobile app, only 10% is using a browser to access the internet.



Flurry Analytics (2018)

1.2.2

Research

2.2.3

Technology

Mobile application is a platform with many strengths, superior to the web platform, bringing benefits to users such as:

Mobile device features

Mobile app has an advantage over website because it can integrate mobile device features such as camera, contacts, locator, call history, etc. This makes the customer experience become more interesting. The features that the app integrates with phones can make it easier for customers in many ways.

For example, if the customer has to fill in a bank application and attach his or her image on it, the camera phone will help the customer take a photo and upload it immediately.

Customers don't have to wait

Mobile apps provide a faster and easier alternative to web browsing. The user needs to launch a web browser and enter the URL and wait for the site to load for accessing the business website. On the contrary, mobile apps are quick and take only a few seconds to launch. As there is no waiting time, customers will be attracted towards the mobile app.

The most recent study of Flurry Analytics shows that 90% of the time users use the phone is interacting with the mobile app, only 10% is using a browser to access the internet.

The ease of sending notifications to users

There are 2 types of notifications: push and in-app notifications. Both are alternatives to email for effective customer contact.

In-app notifications are notifications that users can only receive when they open the app. On the other hand, push notifications are a type of notification that will appear on a user's electronic device screen regardless of what they're doing. Push notifications bring 40% clicks from users.

Mobile app is more personalized

Personalization is the introduction of useful information to users based on their interests, location, buying behavior and customer information. With the mobile app, providing users with personalized experiences is easy.

1.2.2

2.2.3

Research

Technology



Statcounter: Mobile System market (2019)

Along with that, according to Statcounter, in September 2019, the proportion of Android and iOS users accounted for about 90% of the total smartphone users in Vietnam.

Therefore, we decided to create F.study on the app platform and choosing both Android and iOS operating system to built it.



GPS System



Google Firebase



iOS System



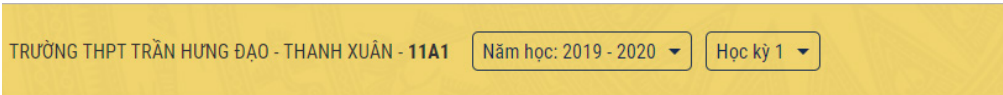
Android System

1.2.2

Research

2.2.4

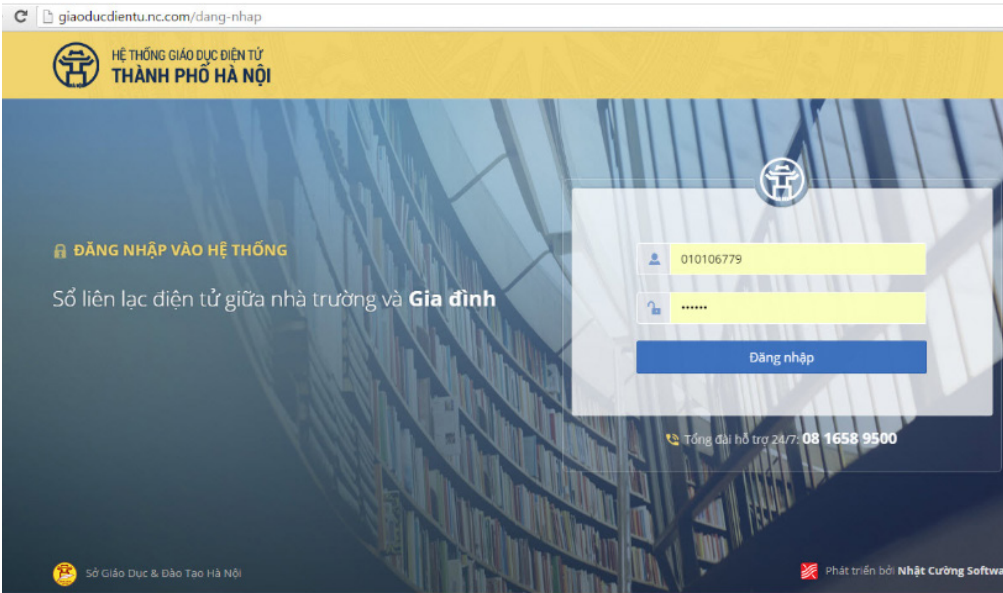
Analysis of apps with similar functions



Phụ huynh sử dụng dịch vụ sổ liên lạc điện tử

Hình 1

Để bắt đầu sử dụng các dịch vụ của "Sổ liên lạc điện tử" PHHS (Phụ huynh học sinh) phải đăng nhập vào



Hình 2

Trên danh mục bên trái, PHHS sẽ chọn các dịch vụ cần thiết như:



1.2.2

Research

During the research, the next difficulty we encountered was the time we needed to research and gather information about similar electronic contact book apps.

For security reasons, most applications can only log in with a separate account for each user who has previously registered information with the school. In addition, no one will have access to the above information. We feel that if it is only possible to comment on the application through images of the application without experiencing it in the real world, then we may not be able to make full and unbiased comments or may cause a lack of omission.

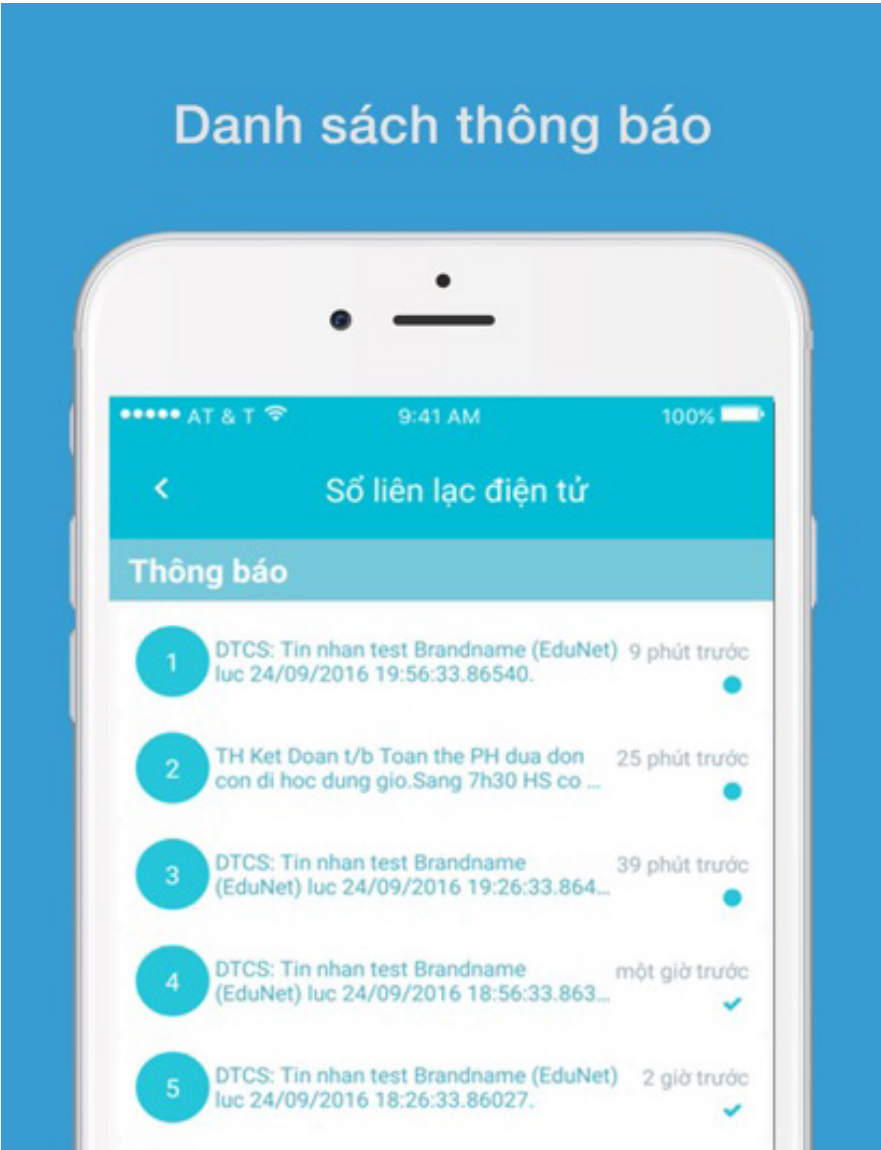
But in the process of surveying and collecting information from parents, we had some help and were able to access one of the most popular electronic contact book applications today, Pino.

Therefore, when analyzing similar applications, we will mainly focus on analyzing Pino application and Pino’s website platform, as known as an electronic contact book application approved by the Ministry of Education to disseminate to many schools in Hanoi. After that is the data of the electronic contact book platform currently used by Fschool as well as the accompanying application to track the school bus transportation process that the school is using is ISchoolBus.

And here is the information we have got.

2.2.4

Analysis of apps
with similar functions



1.2.2

Research

2.2.4

Analysis of apps
with similar functions

Pino

Application is available on CH Play and App Store.

Pino on CH Play:

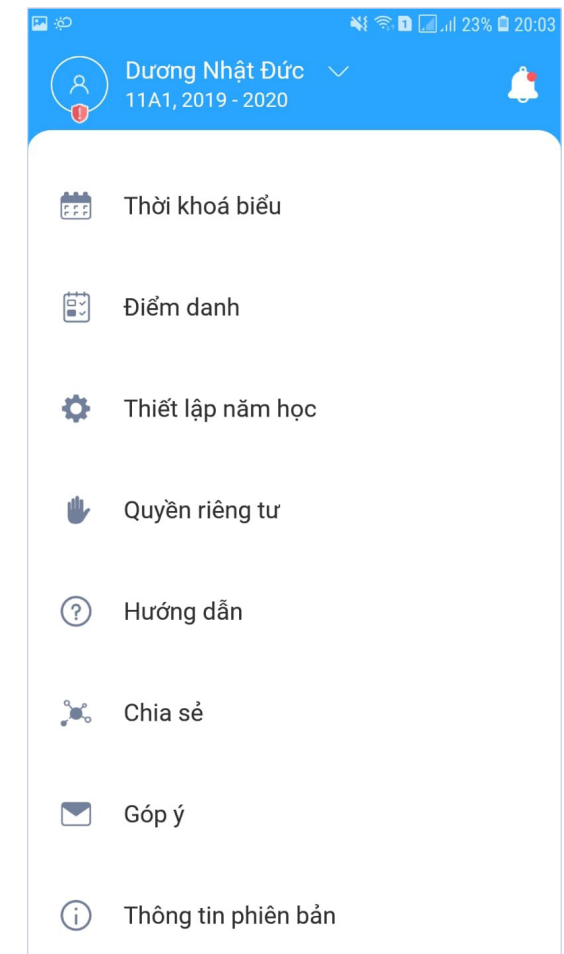
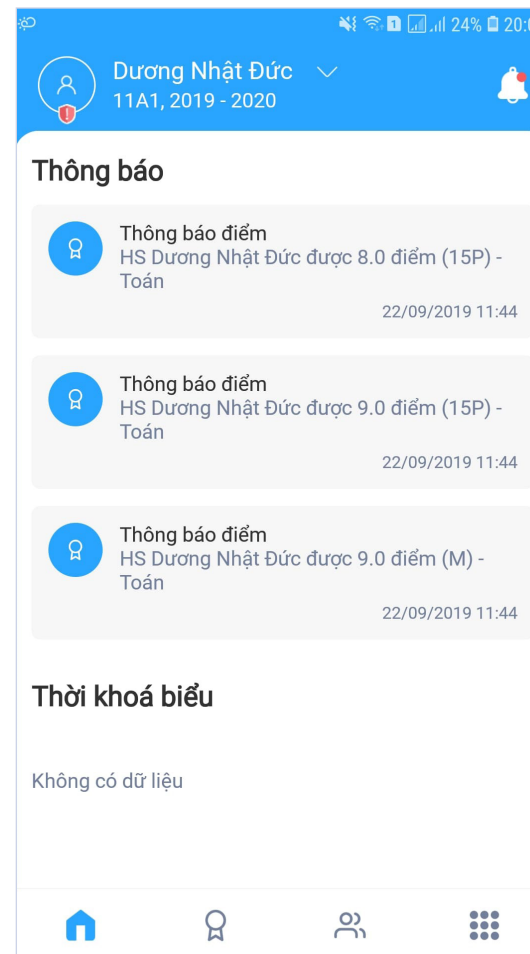
Rating: 3.6/5

Number of reviews: 5.329

Number of downloads: 100.000+

Launched on August 27, 2018, Pino software has been distributed to all schools in Hanoi by the Hanoi Department of Education and Training. Introduced as an electronic contact book software that helps to provide information between the school and parents, helping parents to track their child's learning and training processes accurately. and the fastest. Parents can receive information and interact with the school through <http://solienlacdientu.hanoi.gov.vn> or via the PINO application installed on smart mobile devices.

The app is said to be able to provide the following prominent functions: view timetables, view transcripts, check attendance, receive school notices, contact teachers, contact parents students in the class, make suggestions to the school... However, until the time we collected the data, Pino is currently having a lot of problems, especially with the phone app.



1.2.2

Research

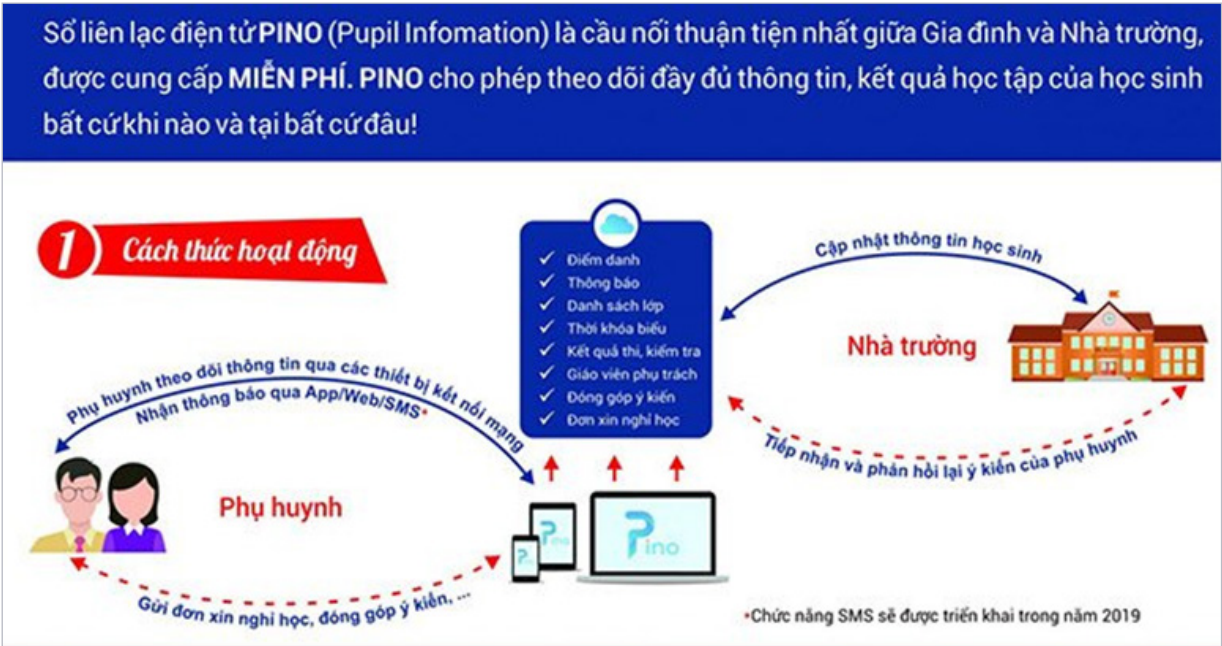
2.2.4

Analysis of apps
with similar functions

During the operation period of nearly 2 years, Pino has changed the interface to better suit the functions of the application. But when the interface was changed, Pino also changed and reduced the functions that they initially said would provide fully.

This can be a good move for Pino when the change in interface is mostly satisfied by the parents. However, changing the interface also causes a few obstacles when the tasks are still unorganized, hidden and there are many changes. That makes it difficult to use for parents because they are so familiar with the previous version without specific instructions in this new version. In addition, Pino application with almost basic functions such as announcements, transcripts and timetables is more suitable for lower secondary and high school levels but is not suitable for primary level.

For the primary level, except for Mathematics and Vietnamese, the students were assessed through comments from the teachers such as “A completed his homework today, the teacher praised A”. It is important to recognize their learning progress in the learning process because for elementary students, this is the time for them to form logical thinking and build a learning routine.



According to a study from Van Hien University science magazine No. 11, about learning social adaptation of primary school students in the school: due to the content, quality, purpose of the subjects have changed compared to Preschool levels have led to a change in the children in terms of method, form, learning attitude. They are required to focus their attention and be more self-conscious learners; With extracurricular activities, some of the collective social activities of the children are very active (sometimes more active than the whole family). Especially the children want to admit that they are adults, want to be known to many people.

1.2.2

Research

2.2.4

**Analysis of apps
with similar functions**

However, if there is no attention and discipline from the beginning and comes from the school and parents, the wrong behaviors will be formed, causing children to be discouraged, sometimes even refusing to learn or lazy to learn. Therefore, being evaluated and monitored by teachers in each lesson will help parents to monitor the situation of learning and develop behaviors closely will help a lot.

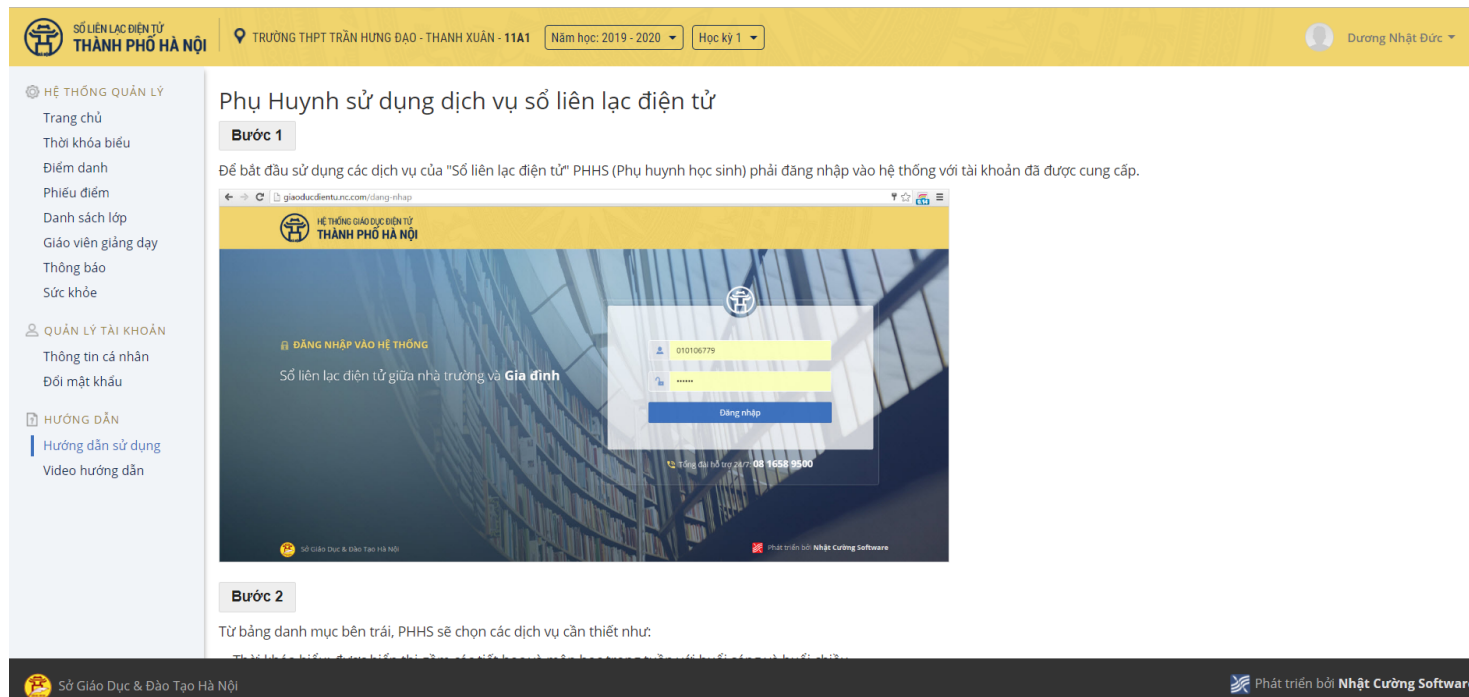
As a result, the application of Pino only provides too basic functions such as notifications from schools, class schedules or class lists, which are not enough for parents to update information adequately and accurate about their children while studying at school. Equivalent to the function of Pino has not been fully completed and many shortcomings. Information items such as bus pick-up information and menu information are not provided. According to some comments from the parents who are currently using the application, they also added some weaknesses of the application such as: The parent's manual is displayed in the application, but it has an error, the information is not update regularly, the arrangement is not appropriate function, etc.



1.2.2

Research

2.2.4

Analysis of apps
with similar functions

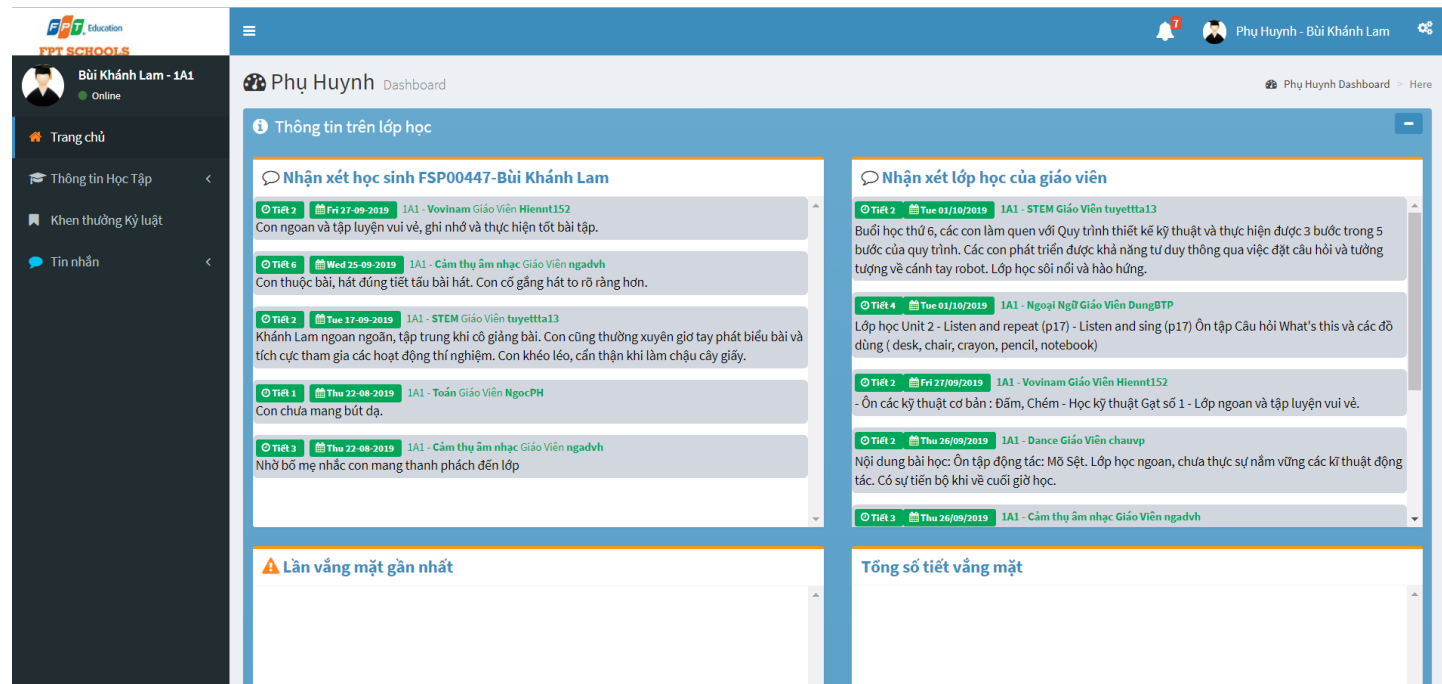
<https://solienlacdientu.hanoi.gov.vn>

In addition to the Pino application on the phone, the Ministry of Education also provides a website for parents to access information that is <https://solienlacdientu.hanoi.gov.vn>. Compared to the Pino application, this site is updated more quickly, completely and clearly. The information about scores is also fully stored and accessible. However, because of the reliance on up-to-date information from teachers, some functions, though given, are not fully updated. Except for some information as mentioned on the application, functions such as: timetable, attendance, health are not working. In addition, updates on services such as transportation and boarding are not available at all. In terms of design sometimes there are points that are not reasonable.

1.2.2

Research

2.2.4

Analysis of apps
with similar functions

Website of Fschool electronic contact book

For Fschool, the school also provides electronic contact book, but in the form of sms or via the website. However, the use of these two platforms still faces many shortcomings. For the web, the daily use of a computer to check ongoing information cannot always be met by parents. Depending on the workload, parents will sometimes not be able to access the website daily to look up information about their children. As for the SMS notification method, it is easy for parents to miss information because every day in addition to school notices, they may also have to receive message notifications from different sources. The same goes for email methods. Not everyone has the habit of checking emails every day especially for older parents not too familiar with the methods of using technology.

1.2.2

Research

2.2.4

Analysis of apps
with similar functions

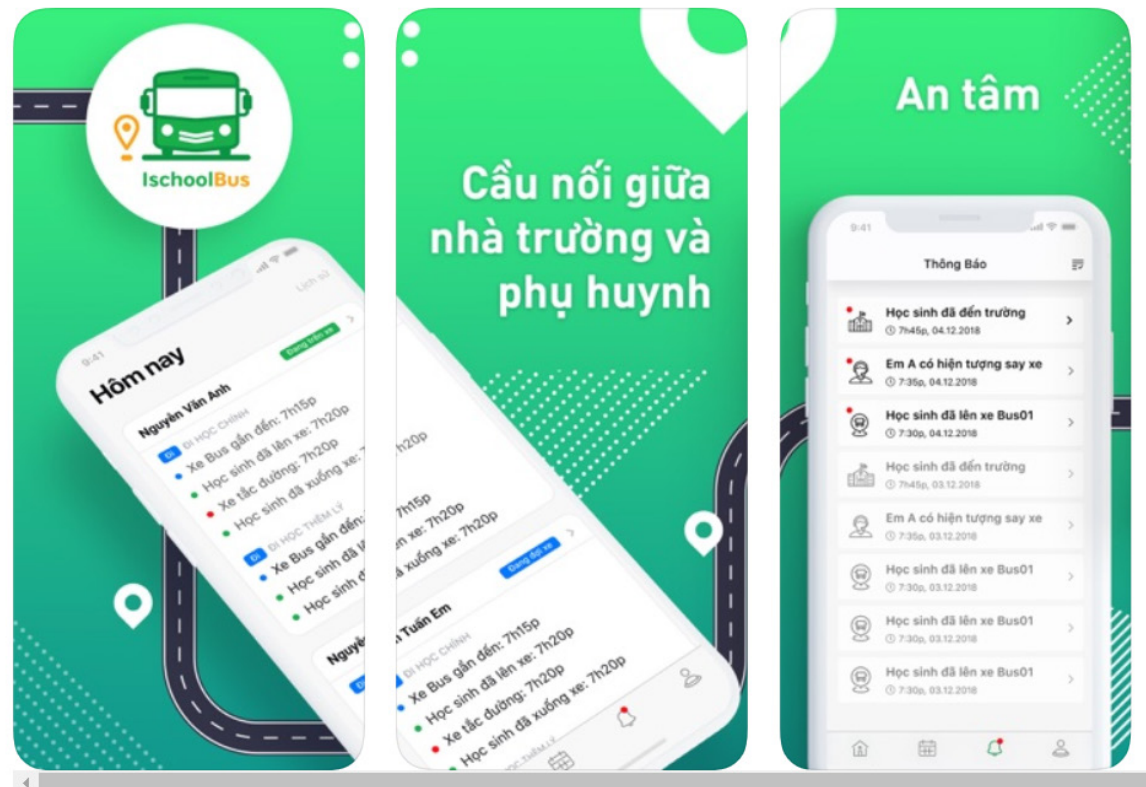
IschoolBus

<http://liberal.vn/ischoolbus/>

Application is available on CH Play and App Store. Because the website was unable to provide transportation information, the school had to use an external third party app, which is ISchoolBus to provided bus transportation information daily. However, this will make parents confused in the process of receiving information because they have to access too many sources including web, sms and accompanying applications.

However, except for the main tasks for accessing and tracking the bus information of the school bus service, the application does not provide any other information. After students come to class, parents need to log in to the web or wait for notification messages to update their child's learning status.

iPhone Screenshots







1.2.2

Research

2.2.4

Analysis of apps
with similar functions

	Advantages	Disadvantages
 Pino	<ul style="list-style-type: none"> Supported on mobile application platforms. Beautiful interface. High popularity. The basic functions are relatively easy to use. 	<ul style="list-style-type: none"> The notification method is not suitable for primary school students because it is not detailed enough Being popular but not fully instructed so many parents do not use. Notification section is too sketchy, has not followed the information about the student. No functional information on shuttle service or daily menu.
 https://solienlacdie.ntu.hanoi.gov.vn	<ul style="list-style-type: none"> Information about the score is shown fully There are sections that provide school notices Easy access to information than the application Neat and easy to understand interface design 	<ul style="list-style-type: none"> Some functions do not work. Also lacking information. Apart from school notices, there are no announcements about individuals or other services.
 FPT SCHOOLS http://daotaofscg.fpt.edu.vn	<ul style="list-style-type: none"> Information provided is relatively complete. The notice is clearly and effectively decentralized. Can contact the teacher directly through the text messages. 	<ul style="list-style-type: none"> The interface is not yet good and suitable. The information is not organized properly. Because it is only available on the web, access from devices other than computers is difficult. Although full notice but many items are repeated. Does not provide information about shuttle service. Does not provide daily menu information.
 Ischoolbus	<ul style="list-style-type: none"> Provide information about the schedule, the process of the school bus fully and conveniently. Nice interface, easy to understand. 	<ul style="list-style-type: none"> In addition to information about the shuttle service, do not provide any other information Can not update on the website but must be in the application to update information

Summary of function comparison results with similar application platforms

1.2.2

2.2.4

Research

Analysis of apps
with similar functions

Functions	Pino	solienlacdientu.hanoi.gov.vn	Fschool's econtact website	ISchoolBus
Attendance	Yes	Yes	Yes	No
Timetable	Yes	Yes	No	No
Transcript	Yes	Yes	Yes	No
Student shuttle service information	No	No	No	Yes
Notification	Yes	Yes	Yes	Yes
Hierarchical notification	No	No	Yes	No
Student list of classes	Yes	Yes	Yes	No
Teacher list	Yes	Yes	Yes	No
Contact information	Yes	Yes	Yes	Yes
Teacher's comments	No	No	Yes	No
Message with teachers	No	No	Yes	No
Homework	No	No	Yes	No
Daily menu	No	No	No	No
Application for absence	No	No	No	No
History of academic results	Yes	Yes	Yes	No
Reward or discipline	Yes	Yes	Yes	No
Health information	No	Yes	No	No
Extracurricular activity information	No	No	No	No

Summary of function comparison results with similar application platforms

1.2.2

Research

2.2.5

Survey

Summarize the questions and results we receive after conducting the survey



1.2.2

Research

2.2.5

Survey

- Survey form: online survey form (Google survey).
- There were about 100 people participating in the survey, reaching 83,3% of the expected (120 people).
- Purpose of the survey: To find out about difficulties of parents in managing, monitoring the learning process of children at school and their difficulties in using the existing electronic communication forms.

The screenshot shows a web-based survey form. At the top, there are tabs for 'CÂU HỎI' (Questions) and 'CÂU TRẢ LỜI' (Answers), with a counter '103' next to the answers tab. Below the tabs, it says 'Phần 1 / 2' (Part 1 / 2). The main title of the survey is 'Khảo sát về nhu cầu sử dụng ứng dụng Sổ liên lạc điện tử cho phụ huynh học sinh các trường tiểu học và THCS'. The text is in Vietnamese. It starts with a greeting 'Kính chào các bậc phụ huynh!' (Respected parents!). Then, it explains the purpose: 'Nhóm của chúng tôi đang xây dựng một ỨNG DỤNG nhằm cung cấp cho các vị phụ huynh có được những thông tin đầy đủ và chính xác trong việc quản lí và đồng hành cùng các em học sinh tiểu học/THCS trong quá trình học tập tại trường. Với mục tiêu đó, chúng tôi mong muốn có được những ý kiến đóng góp của quý phụ huynh trong quá trình thiết lập để có thể xây dựng ứng dụng một cách hiệu quả nhất, an toàn nhất và đầy đủ nhất.' (Our group is building an APPLICATION to provide parents with full and accurate information in managing and accompanying their elementary school/THCS students during their learning process at school. With this goal, we hope to receive your valuable contributions during the setup process to build the application in the most effective, safest, and most complete way.) It ends with a closing statement: 'Chúng tôi xin ghi nhận và cảm ơn chân thành những ý kiến đóng góp của các vị. Xin cảm ơn.' (We acknowledge and sincerely thank you for your contributions. Thank you.) At the bottom, there are navigation buttons: 'Sau phần 1' (After part 1) and 'Tiếp tục tới phần tiếp theo' (Continue to the next part).

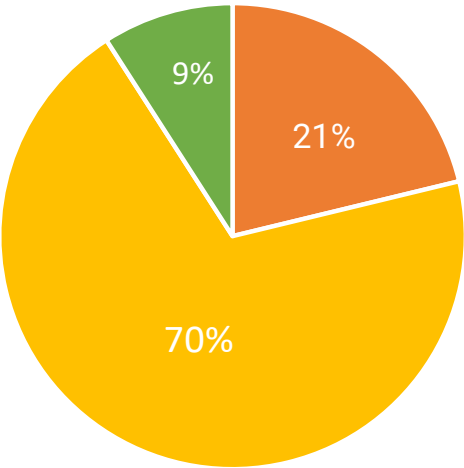
1.2.2

Research

2.2.5

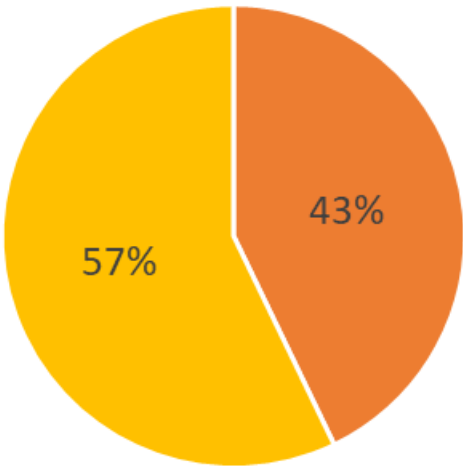
Survey

Tỉ lệ phụ huynh gặp khó khăn trong việc quản lí và theo dõi quá trình học của con tại trường



■ Rất khó khăn ■ Đôi chút khó khăn ■ Không gặp khó khăn

Tỉ lệ độ tuổi trẻ em hiện đang đi học đối với các gia đình được khảo sát



■ 6 - 11 tuổi (Học sinh tiểu học) ■ 11 - 15 tuổi (Học sinh THCS)

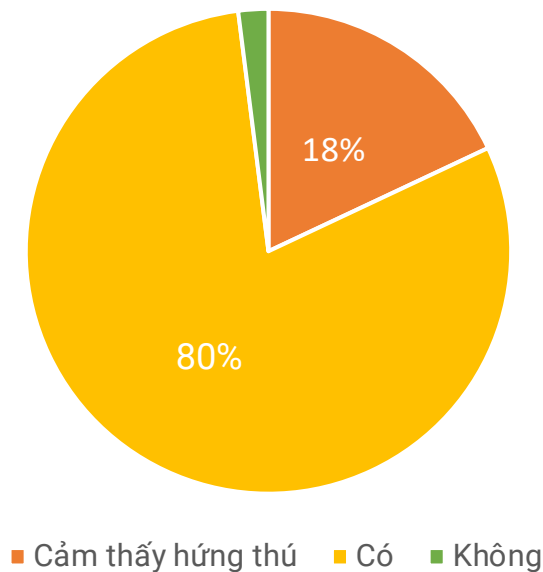
1.2.2

Research

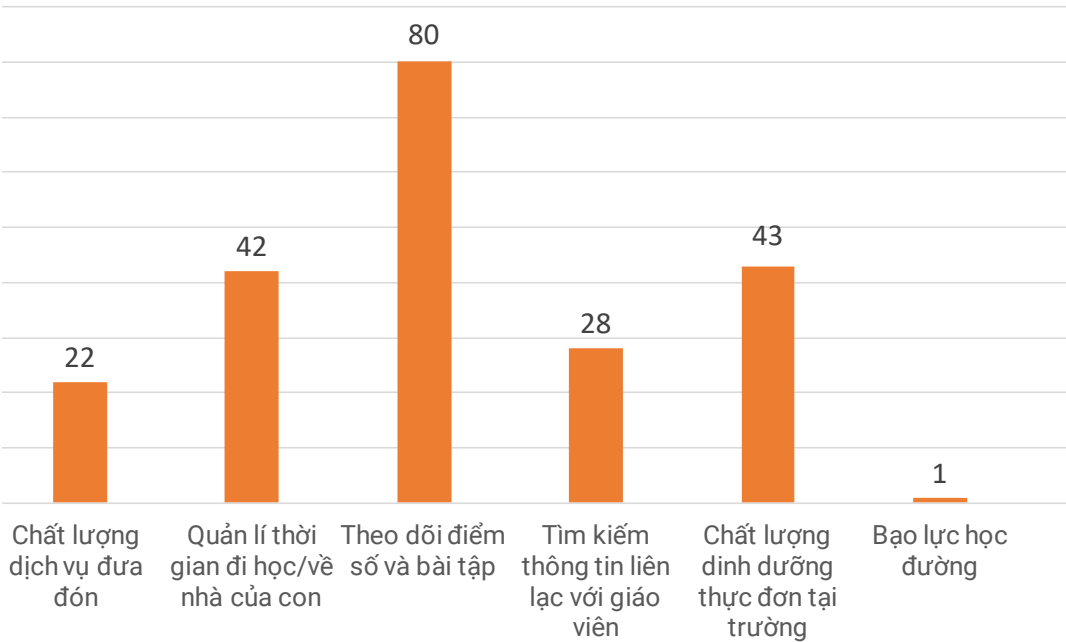
2.2.5

Survey

Tỉ lệ ý kiến về việc đồng ý sử dụng nếu có một ứng dụng Sổ liên lạc điện tử để dàng sử dụng, khắc phục được những khó khăn của phụ huynh



Thống kê những khó khăn, lo lắng về việc quản lí, theo dõi quá trình học tập của con tại trường mà phụ huynh hay gặp phải



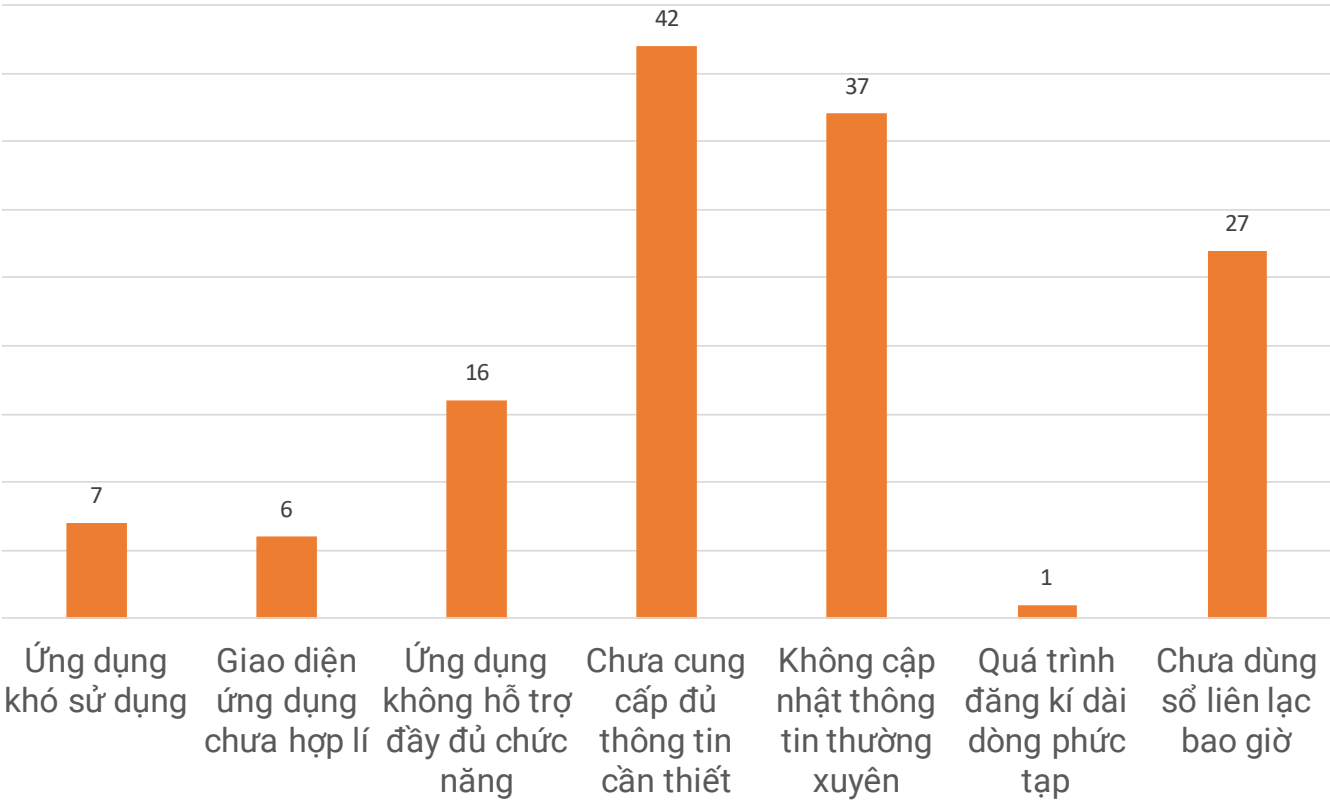
1.2.2

Research

2.2.5

Survey

Các khó khăn hoặc điều chưa hài lòng khi sử dụng ứng dụng Sổ liên lạc điện tử



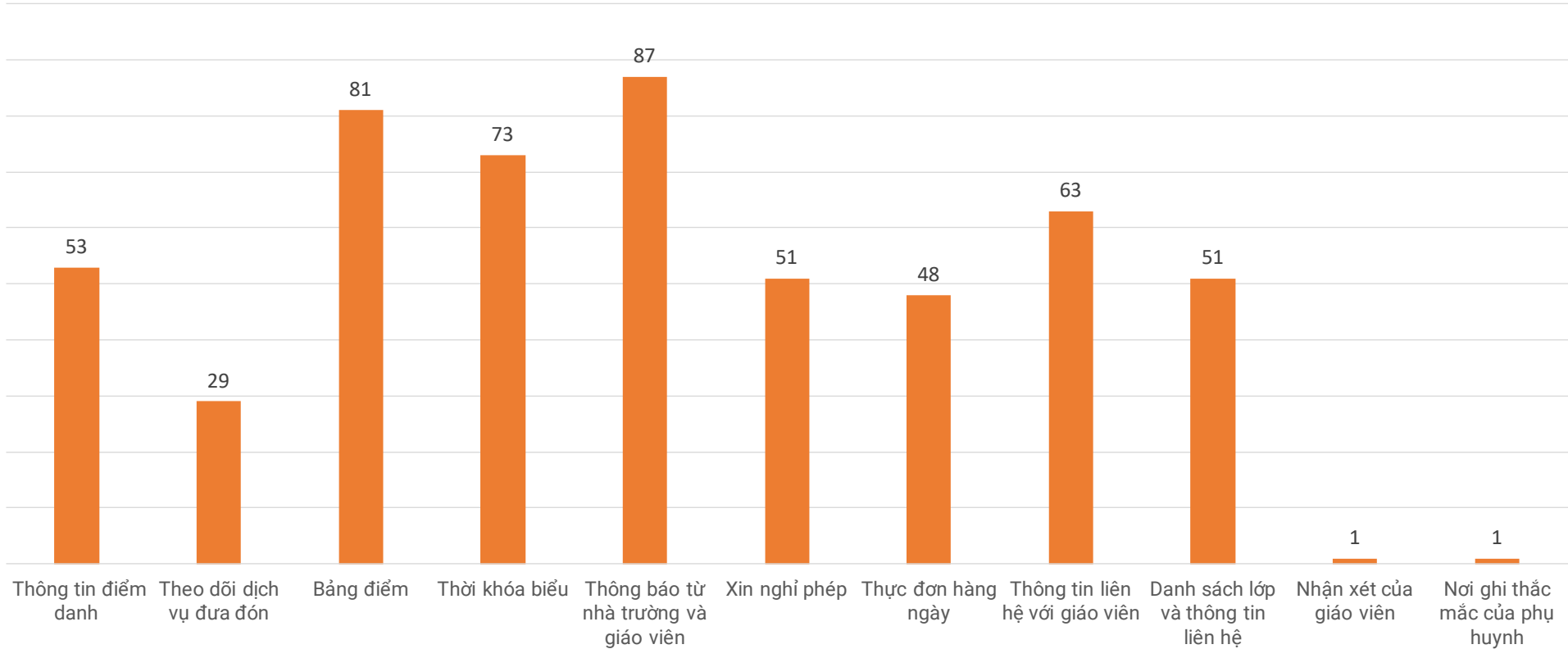
1.2.2

Research

2.2.5

Survey

Những chức năng phụ huynh mong muốn được cung cấp trong ứng dụng Sổ liên lạc điện tử



1.2.2

2.2.5

Research**Survey**

Survey summary

- Many parents still have difficulty managing their children.
- Most parents already know and use electronic contact books, but there are many obstacles that make parents unsatisfied and lead them to not using it by web or mobile applications form. Instead, most of them use automated SMS form.
- 98% of parents have the need and desire to use a better electronic contact book application.
- The functions that parents want in the electronic contact book application:
 - School notices
 - Grades
 - Timetable
 - Teacher contact information
 - Class lists and student information
 - Attendance
 - Application for absence from school
 - School menus
 - Information about student transportation services



1.2.2

Research

2.2.6

Offline Interview

The results obtained after direct interviews with parents and teachers.



1.2.2

2.2.6

Research

Offline Interview

Summary of requests from parents

After collecting information from parents in Hanoi, we went to Fschool to interview the parents directly and ask for the school's information from the school administration. Information collected is listed through the table below:

	Pain points	Needs
Mrs. Nga	<ul style="list-style-type: none"> The work is too busy, sometimes missed notifications because often contact teachers through group chat of Zalo, Facebook 	<ul style="list-style-type: none"> Want a convenient notification system in the app
Mr. Quang	<ul style="list-style-type: none"> Not good at technology He doesn't know where to find information about his child's homework and is afraid to ask the teacher about it Having trouble finding teachers' contact information 	<ul style="list-style-type: none"> Wants something to help him easily look up his child's homework Want to have notification hierarchy such as school level, grade level, personal level and be combined into one portal to be able to actively select the information to see
An anonymous parent	<ul style="list-style-type: none"> The notifications in the group chat of Zalo, Facebook is drifted away very quickly, making it difficult to look up news 	<ul style="list-style-type: none"> She wants information about her child at school such as: timetable, menu, attendance, shuttle service, is there any problem?,... The exercises can have room to share English listening files, exercise files ... right on the app Suggestions that it would be great if could text on the app

1.2.2

2.2.6

Research

Offline Interview

Summary of comments from teachers

During the survey process, we were very fortunate to meet Mr. Tuan Anh, who currently works at the Culture, Media and Sports Center of Ha Dong district. He participated in the development and dissemination of the electronic score book and electronic contact book of the Ministry of Education in the Ha Dong area. Acquiring his informations, we knew that we had to gather more information about teachers to understand more about how the school worked. From there, we collate information collected between parents and teachers to be able to find the most suitable solution.

Below are the comments of teachers that we have synthesized.

	Comments
Mrs. Ly	<ul style="list-style-type: none"> • Too many channels for parents' information such as web, app, sms, email • Causing confusion for the parents • The app should only have the most necessary information for the parent, if too much will make the app too complicated. • Parents want to use SMS more because it's so convenient, there's no need to open it up but they still know the notification. • Due to the fact that it is difficult for technologies such as GPS tracking in real time or attendance check by QR code, face ID, forecast of vehicle arrival time,... can be done effectively, so the attendance check of the shuttle service will be done manually.
Mrs. NgaDVH	Teachers will find it difficult to comment on each child individually every day, which is almost impossible.
Mrs. NgaNT	Teachers will not mind if they have to enter daily scores on the electronic contact book.

1.2.2

Research

2.2.7

Persona

Personas are fictional characters, which you create based upon your research in order to represent the different user types.



1.2.2

2.2.7

Research

Persona

After identifying user issues through the results of the survey and live interviews, we created two personas that match the criteria and target customers that we want to target and focus on. We then synthesized the characteristics to become a complete persona to guide the goals that need to be achieved during the project.

Name	Mr. Tuan	Mrs. Giang
Age	40	37
Mobile System	Android and IOS	IOS
Background information	Mr. Tuan is currently a construction contractor, having one daughter in elementary school. Despite having time to care for and bringing his daughter to school, he still wants to know everything about his children's education and doesn't want to miss any announcements from school.	Giang is an office worker, married and has 1 child at primary school. The busy working time makes her not much time to follow the progress of studying of her children.
Pain points	<ul style="list-style-type: none">• Too many information and notice from difference source• Have to categorize all the notice by himself• Too many spam message in group chat make him sometimes miss the notice	<ul style="list-style-type: none">• She doesn't have much time• Can't check her child daily activities at school quickly• Need to do it manually
Needs:	<ul style="list-style-type: none">• Can check the information he wants• Never miss a notice	<ul style="list-style-type: none">• Can check the information she wants by a quickly way• It can be completed by automatically
Goals	Systematic notifications for ease of use	<ul style="list-style-type: none">• Create a way to help her quickly see the information she wants• It should be automatic and easily accessible for her.

1.2.2

Research

2.2.7

Persona

**Name: Nguyen Van Tuan****Age: 40****Mobile system: IOS and Android**

Background information

Mr. Tuan is currently a construction contractor, having one daughter in elementary school. Despite having time to care for and bringing his daughter to school, he still wants to know everything about his children's education and doesn't want to miss any announcements from school.

Pain Points

- Too many information and notice from difference source
- Having to categorize all the notice by himself
- Too many spam message in group chat make him sometimes miss the notice
- Can't checking on his child daily activities at school quickly

Needs

- Never miss a notice
- Can check the information he wants by a quickly way
- Notices can be completed by automatically

Goals

- Systematic notifications for ease of use
- Create a way to help her quickly see the information he wants
- It should be automatic and easily accessible for him.

1.2.2

Research

2.2.8

User Journey Mapping

A user journey map is a visual representation of the customer experience – and is a useful tool for everyone in your company to look at your website from the user's point of view and can be a key part in user experience design and optimization.

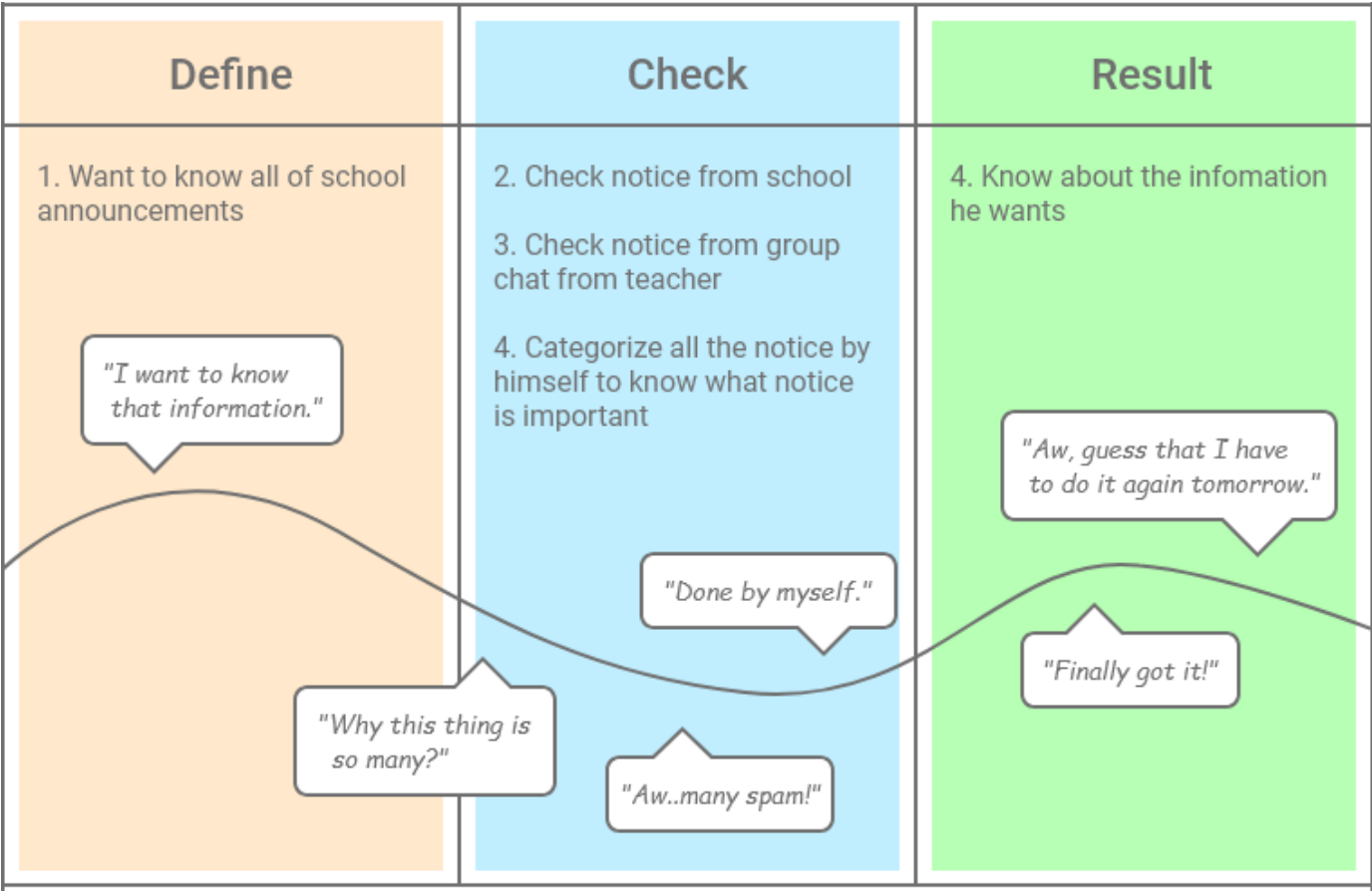


1.2.2

2.2.8

Research

User Journey Mapping



In the process of building User Journey Mapping, we built a simulation story to understand the concerns and difficulties of users in the process of using the electronic contact book. This is an example of the process of viewing information about daily notifications.

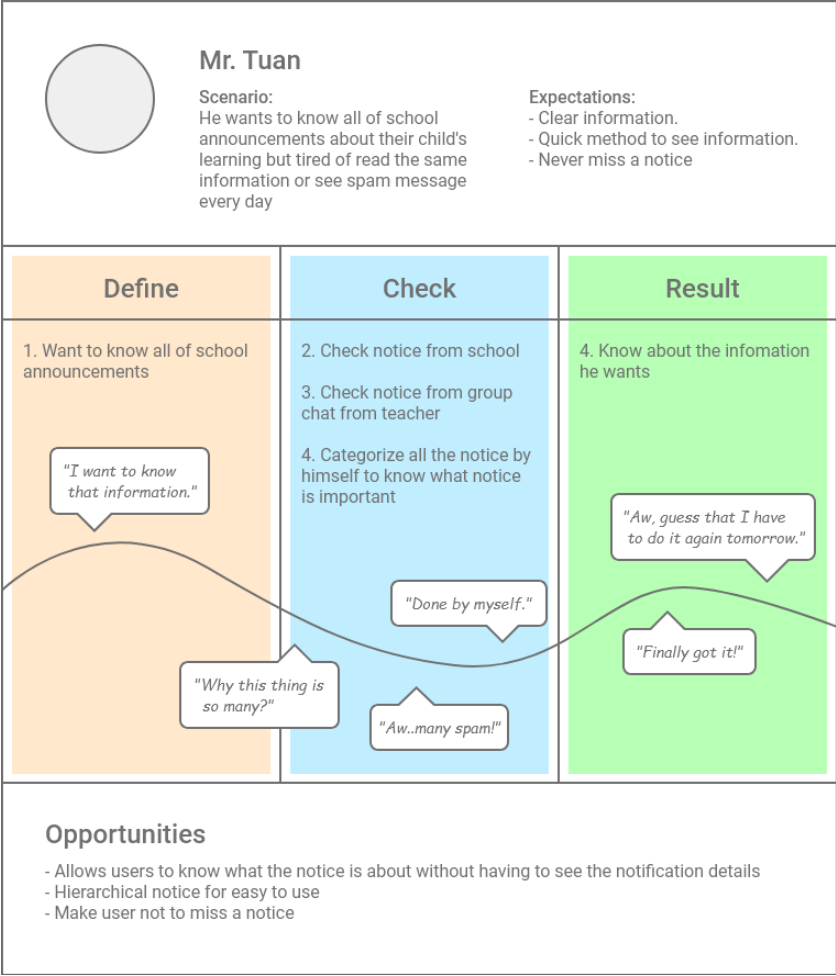
View Notification flow

1.2.2

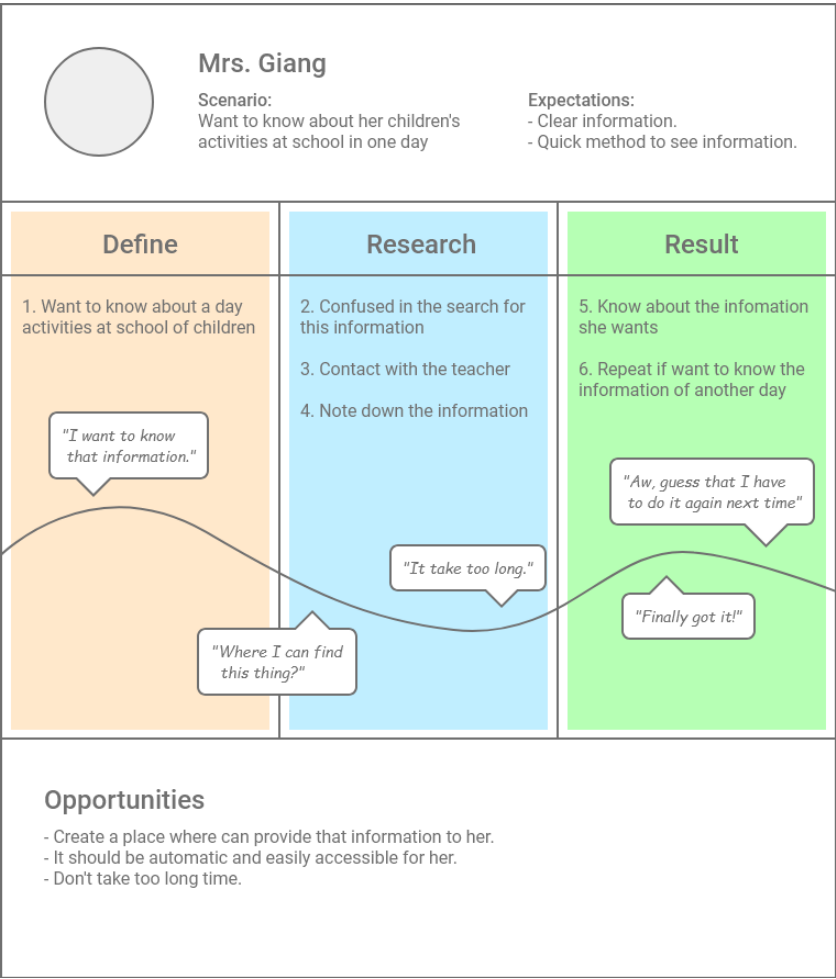
2.2.8

Research

User Journey Mapping



View Notification



View Daily Activities

1.3

Specific Requirement

Through the research process, we have identified difficulties and solutions for users through the F.study application.

1.3.1

Problems - Solutions

Through questions for users, we have synthesized key issues and solutions:

Users' Pain Points	Possible solutions
Have difficulty keeping track of their child's grades and assignments.	Create an application that can track and manage student's learning easily.
Worry about menu nutrition at school.	Provide information about the daily menu on the application.
Find it difficult to manage their child's go to school/home time.	Provide attendance information in a detailed and accurate manner.
Have difficulty in finding contact information with teachers.	Provide contact information with teachers on the application.
Parents are concerned about the quality of student transportation.	Provide detailed information about the timelines for transportation, with specific notifications of students getting in and out of the car and notice if something goes wrong.
Concerned about school violence.	Build the application into an official information channel between the school and parents, helping parents can contact teachers and the school quickly and reliably.
Sometimes missed notifications because often contact teachers through group chat of Zalo, Facebook.	There will be repeated reminders for push notifications, in case of emergency, there will be automatic SMS or direct notification call.
Not good at technology, have difficulty using complex applications.	Building applications is simple, effective and easy to use.
Doesn't know where to find information about child's homework and feels awkward having to ask teachers often about it.	Has the function of providing homework information.
Feel embarrassed about having to ask for information from teachers directly to update child's situation.	There is a specific notification function about the situation of school, class and individual students so that teachers can give suggestions and parents can easily access to their own comments about their child.

1.3.2

Functional Requirement

After reviewing the issues and solutions we came up with, we have summarized the functions we need to include in our application.

Functions	
Current account information	<ul style="list-style-type: none"> • Displays the name of the student being displayed information application • It is possible to change quickly to another student in case the parent has many children attending the same school
Notifications	<ul style="list-style-type: none"> • See announcement from the school. • The notifications are clearly decentralized into school notices, grade notices, and individual announcements
Transcript	<ul style="list-style-type: none"> • See transcripts of student's subjects. • There is an archive of the old school year transcript to review as needed. • The interface will change accordingly depending on the elementary or junior high school student account.
Attendance	<ul style="list-style-type: none"> • See attendance information for each class. • See attendance information and status notice of shuttle service. • See attendance records for the whole school year.
Timetable	<ul style="list-style-type: none"> • View class Timetable by week. • There are notes about upcoming school activities for the week.
Menu	<ul style="list-style-type: none"> • Daily menu information for students, can be week or month depending on the reality of the school.

Summary of Main Funtion

1.3.2

Functional Requirement

After reviewing the issues and solutions we came up with, we have summarized the functions we need to include in our application.

Functions	
School Assistants list	<ul style="list-style-type: none">• View information about School Assistant such as: telephone, school's address,...
Teachers list	<ul style="list-style-type: none">• View information about student's teachers, including contact information.
News	<ul style="list-style-type: none">• School news or event information
Application Information	<ul style="list-style-type: none">• About app update information
Daily activity information	<ul style="list-style-type: none">• Information about daily activities and extracurricular programs organized by the school.
Homework	<ul style="list-style-type: none">• Information about student's homework.• Can download the attachment to your device or allow the browser to access website data.
Log in/out	<ul style="list-style-type: none">• Log in/out.

Summary of Main Funtion

1.3.2

Functional Requirement



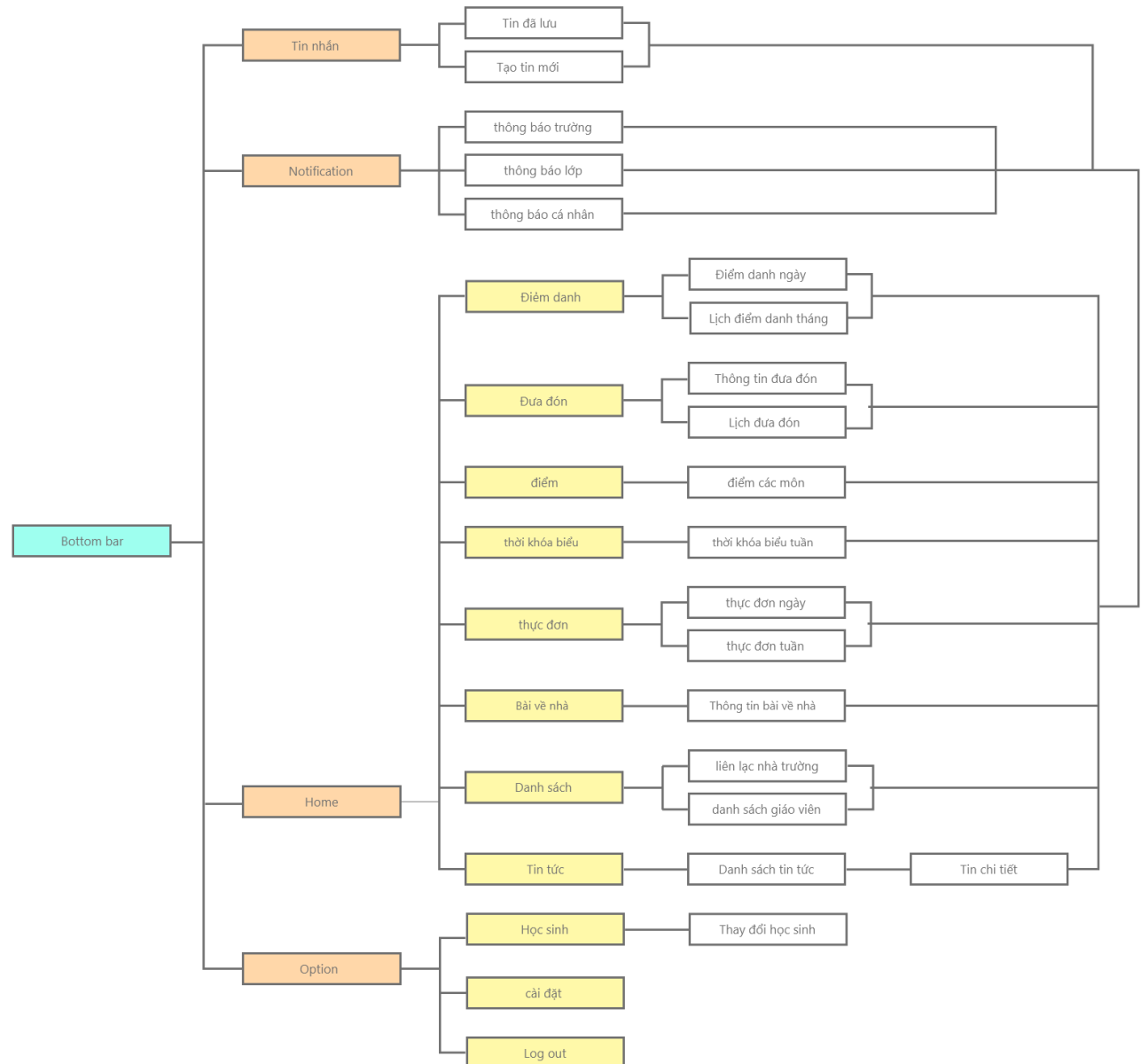
Summary of Main Funtion

02

Report 2: Design Proposal

2.1

The First Sitemap

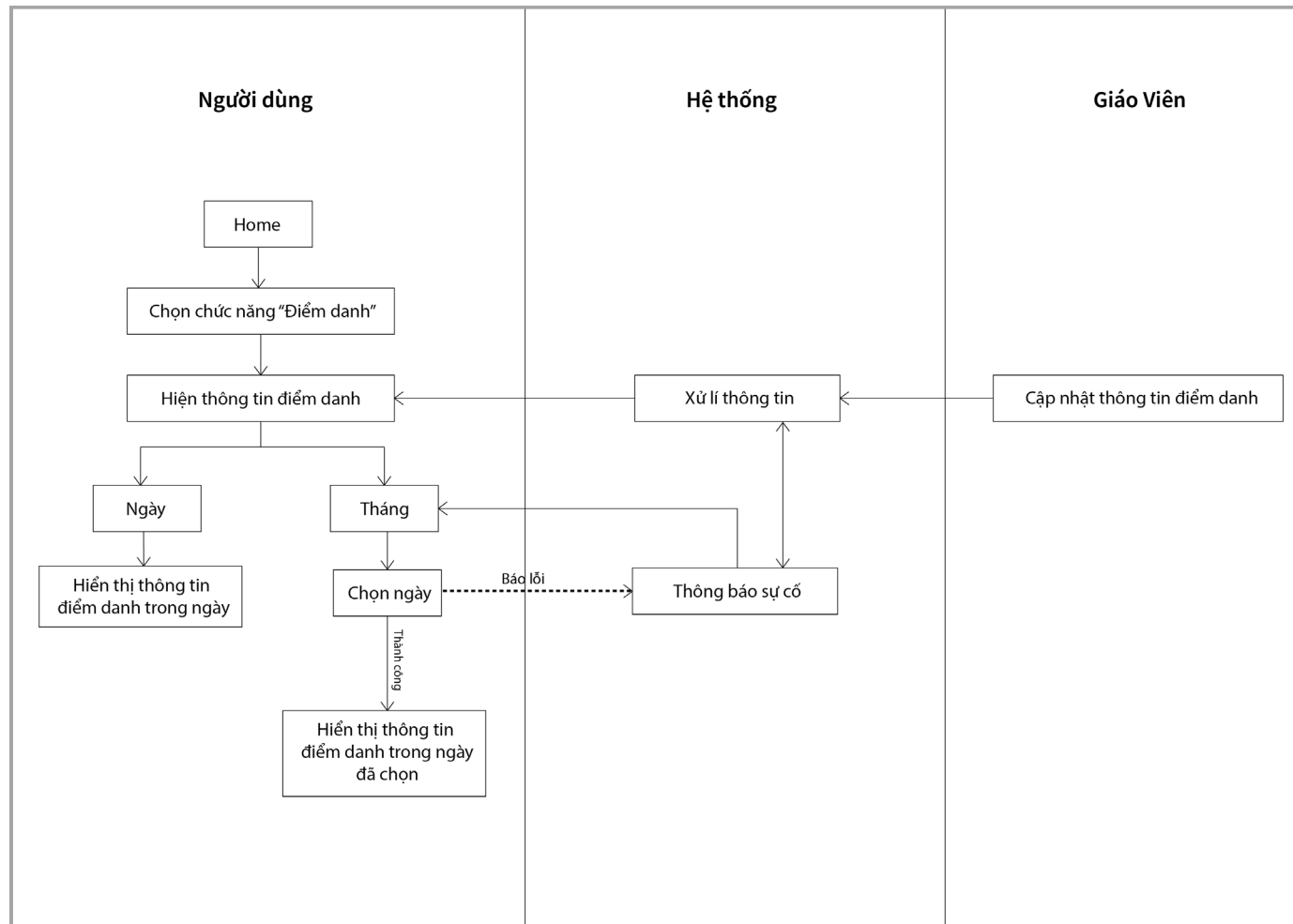


We want to maximize the convenience and understandability for the user to use, so we have put in place the function to view the information right at the home page of the application.

In addition, we categorize the information types of application and organize them down the bottom bar so that users can access the information flow they need at any time.

2.2

Workflow



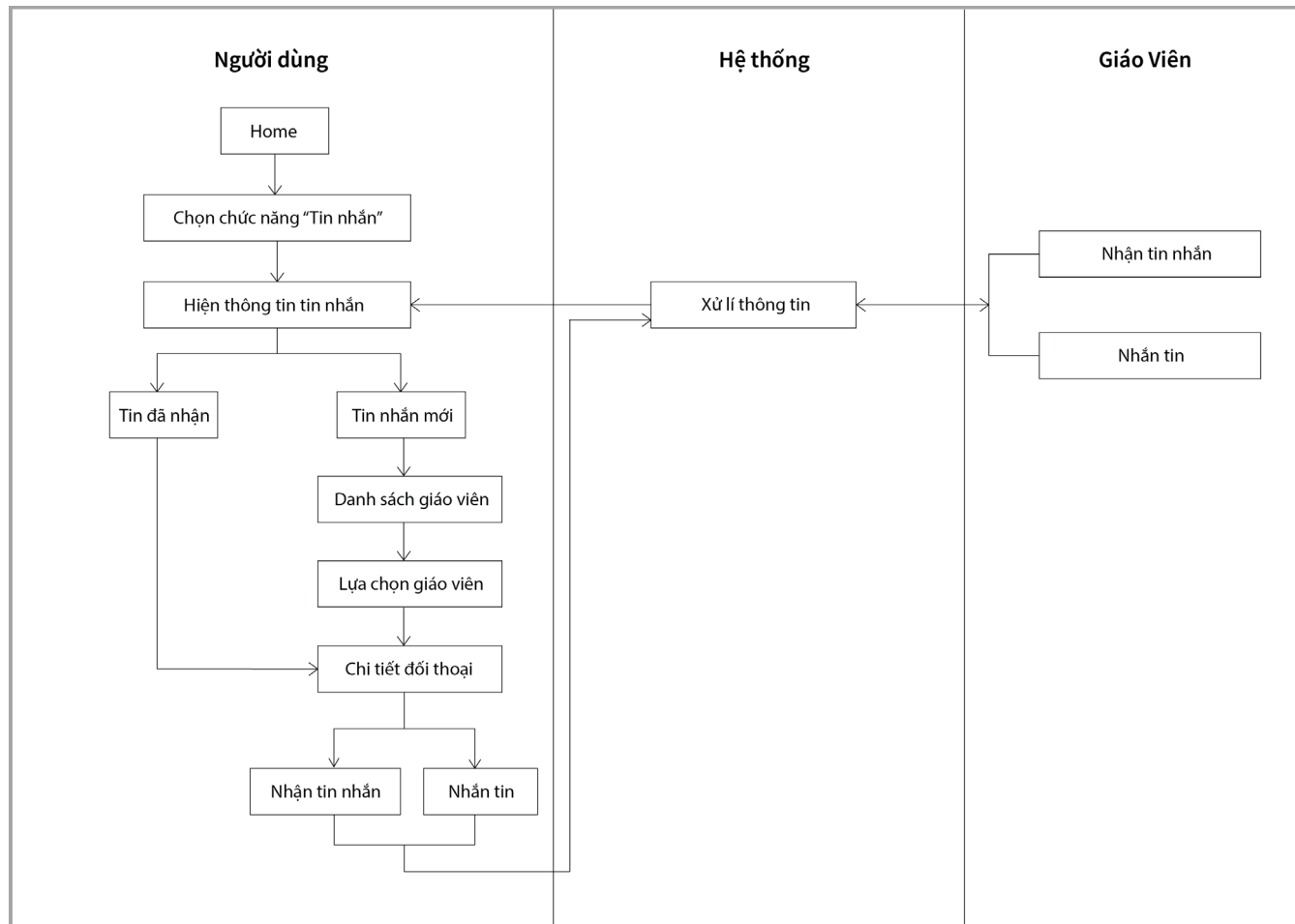
We classify information types of applications into two main information flows: active information and passive information.

With passive information, users can only view the information the school has provided in the application. For example, by checking attendance information, parents will know attendance information after the school has provided data on the application. Parents will access the application to view information.

An example of a passive information flow workflow: View Attendance

2.2

Workflow



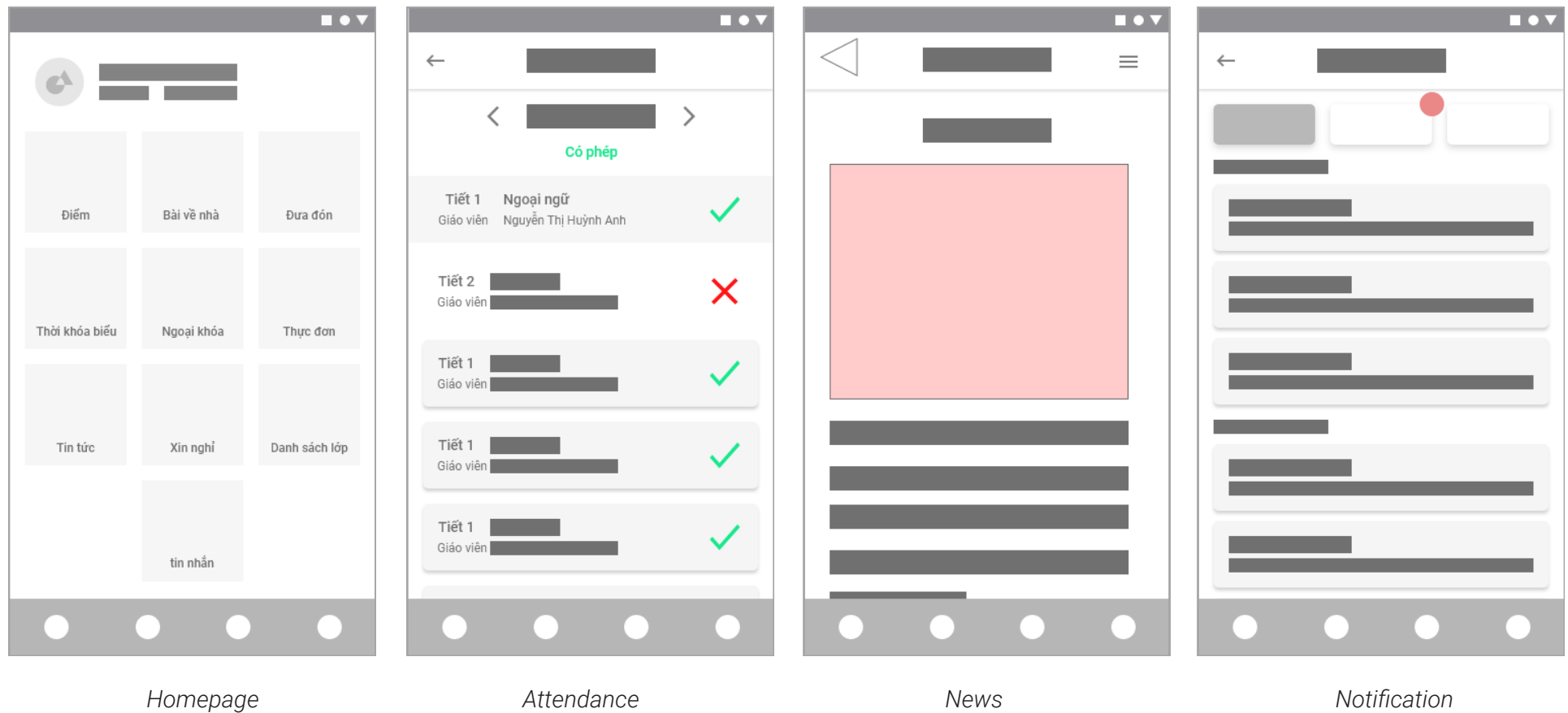
With proactive information, parents will be able to contact the teacher to request necessary information.

For example, for the texting function, parents will directly contact the teacher to collect the necessary information about the student actively. Teachers will also be able to actively contact each parent through the app's messaging function.

An example of an active information flow workflow: Message

2.3

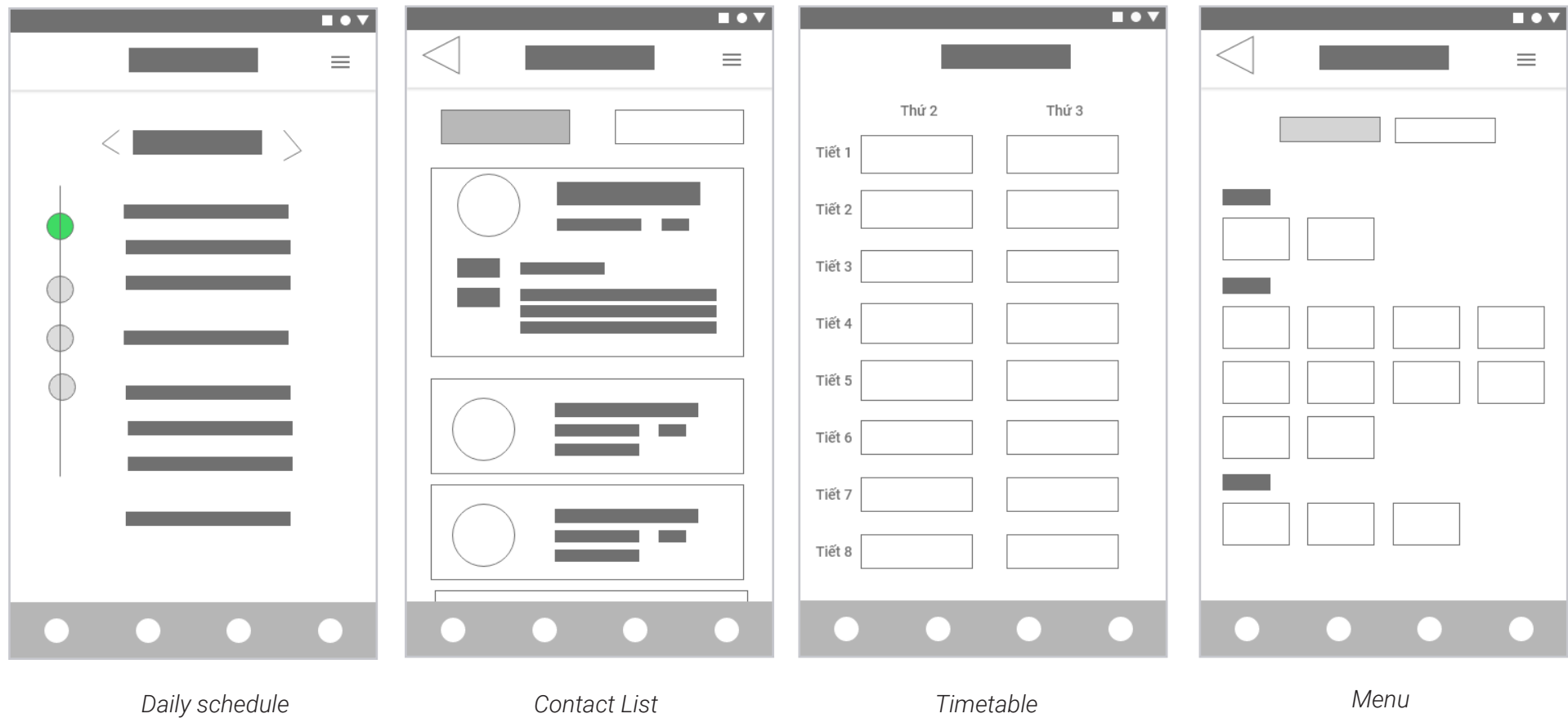
Low-fi Prototype



Example of Lo-fi prototype screen

2.3

Low-fi Prototype



Example of Lo-fi prototype screen

03

Report 3: Pre Design

3.1

First Testing

Day of the Test: 22/10/2019
Checking for the 1st Prototype

Schedule

- Adding more details about the main classroom
- Modify the schedule, add a function that can view the schedule by month
- Adding class information right below the lesson information
- Include a club activity schedule with the weekly schedule

Homework

- Add subject names, subject tags to the exercise information

Transcript

- There is an option to view information for each school year, which will reset the fixed year after exiting the function
- Add a summary of points and comments at the end of the school year
- Divided into two categories as detailed and general points

Contact list

- Change the information about the student list to contact information with the school

Attendance

- More lessons for club activities
Add time frames for each lesson

Menu

- There is a reminder when there is a change in the menu
- There is a section to contact the student to report and change the menu with cases of students' allergies

In the first test, we have received a lot of comments from the school and users about the functions and how the application functions. We realize that streamlining the functions is very important because the amount of information needed to communicate to the user is a lot. Therefore, in order to keep the application realistic, we need to be more thorough in designing it to fit the actual situation.

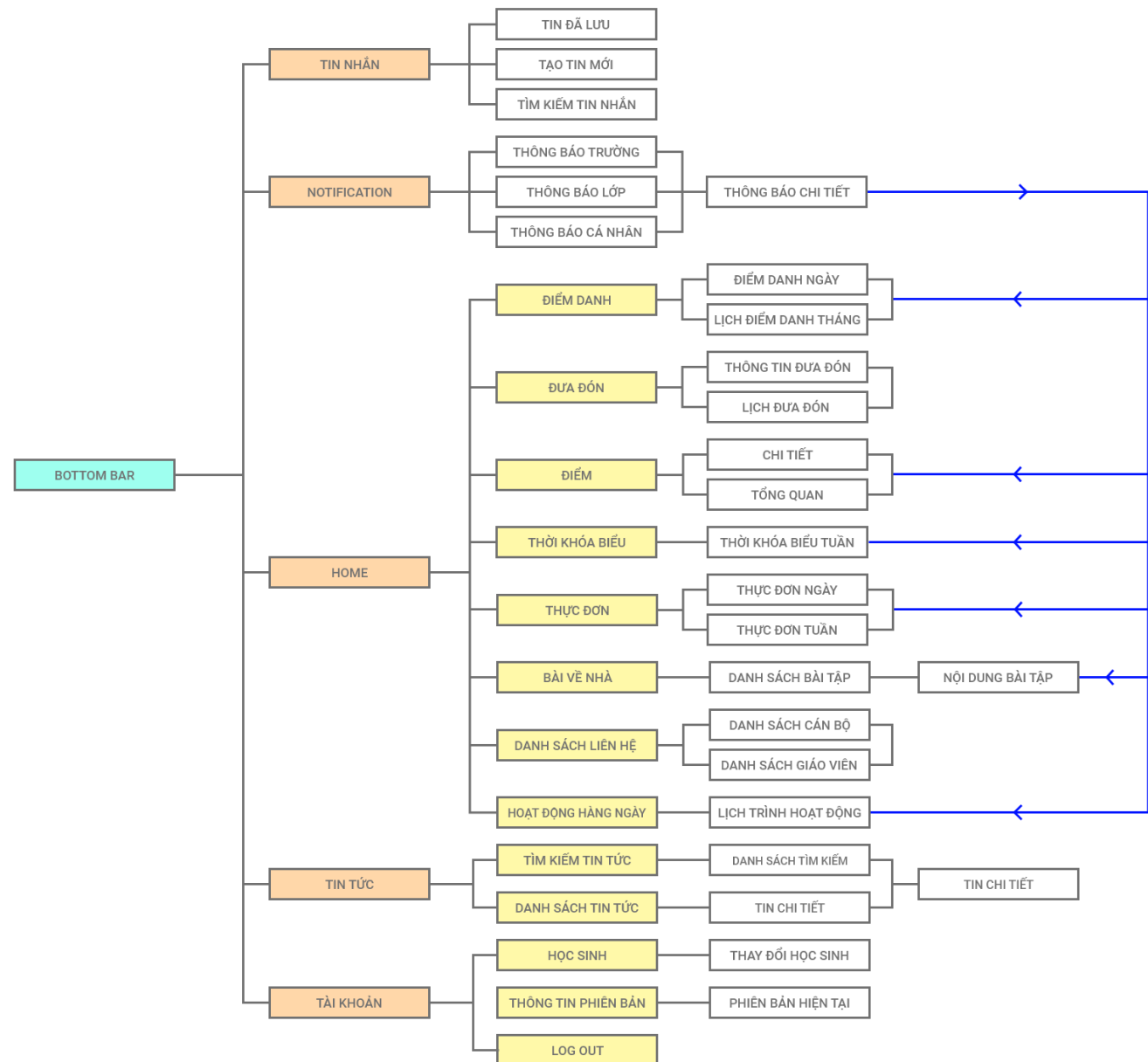


3.2

Final Sitemap

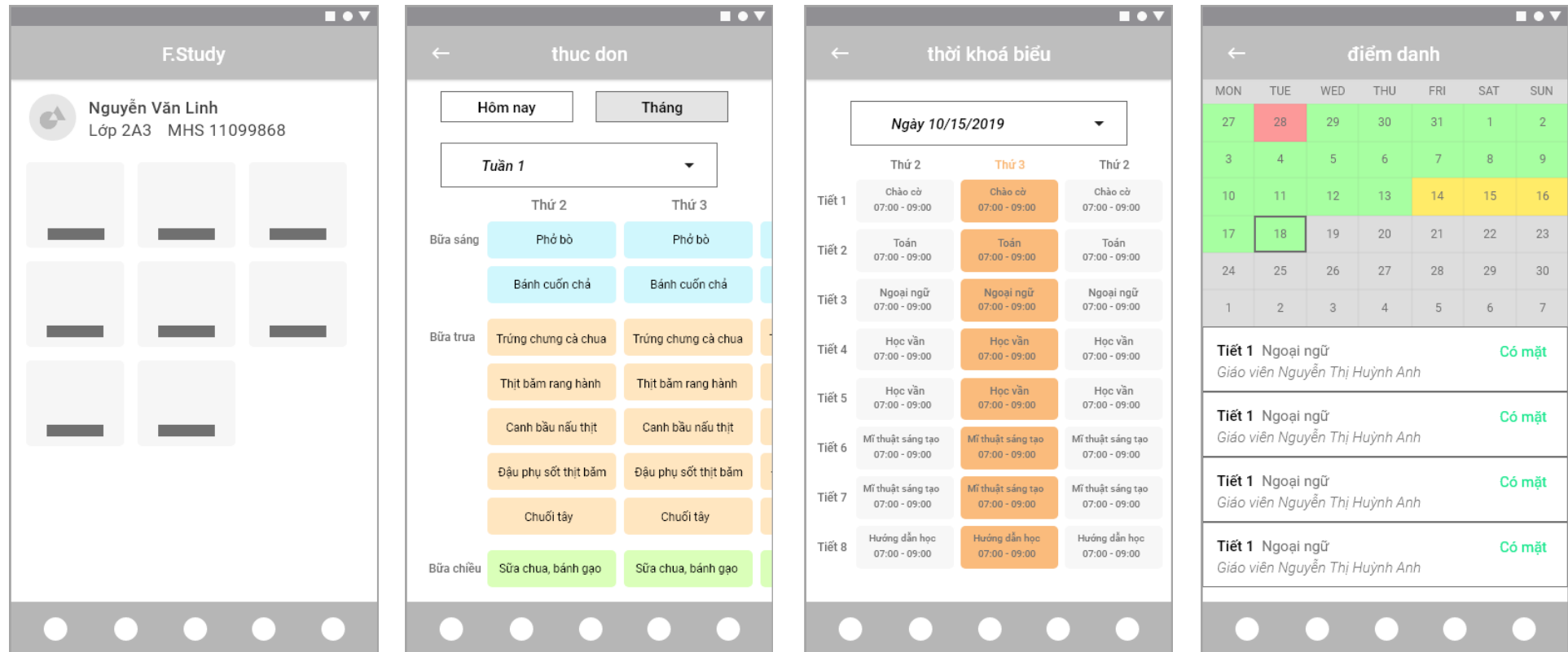
After the first test, we had the sitemap changes compared to the first version.

We have modified the functions to make it more appropriate, for example, the news function is separated into a separate function at the bottom bar. In addition, we found that we were quite clear and on the right track for the remaining functions so there was no need to modify them too much because they were quite consistent with what we wanted for the application.



3.3

Wireframe



Homepage

Menu

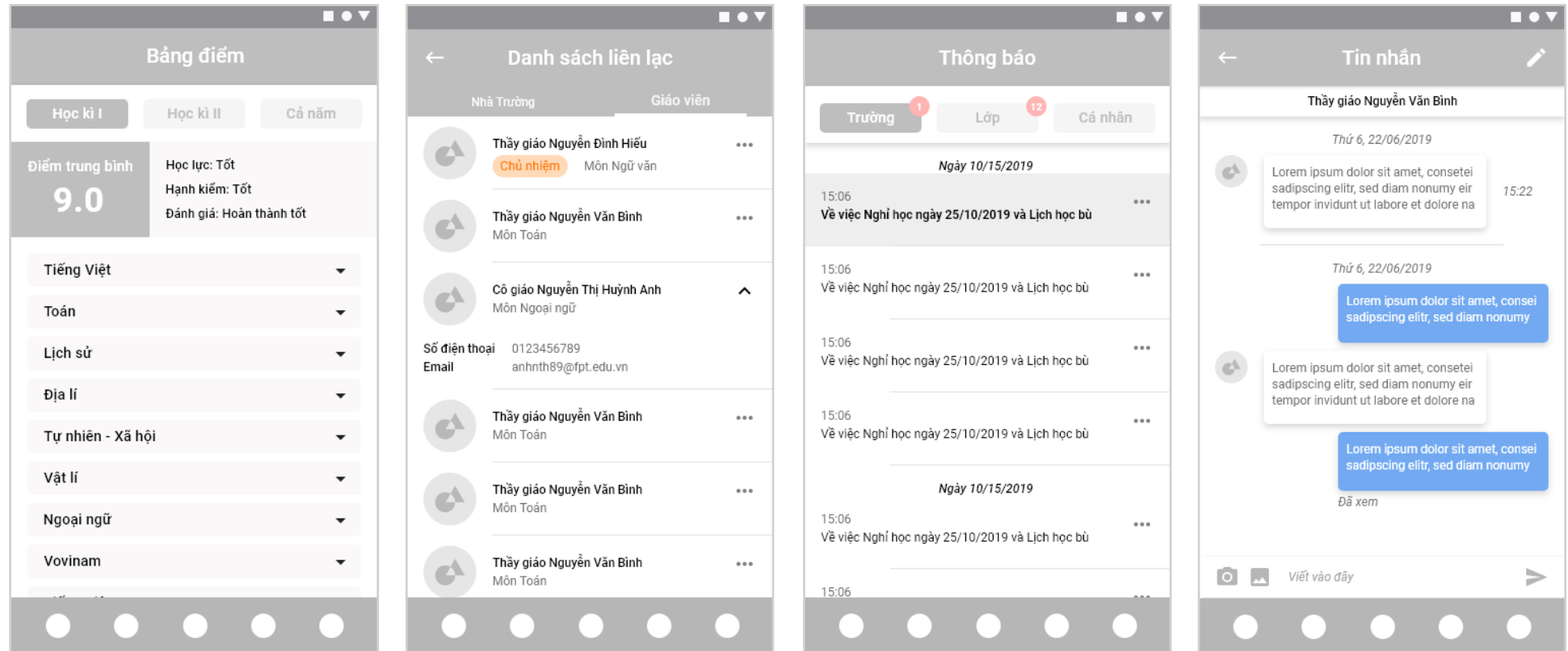
Timetable

Attendance

Example of Wireframe screen

3.3

Wireframe



Transcript

Contact List

Notification

Message

Example of Wireframe screen

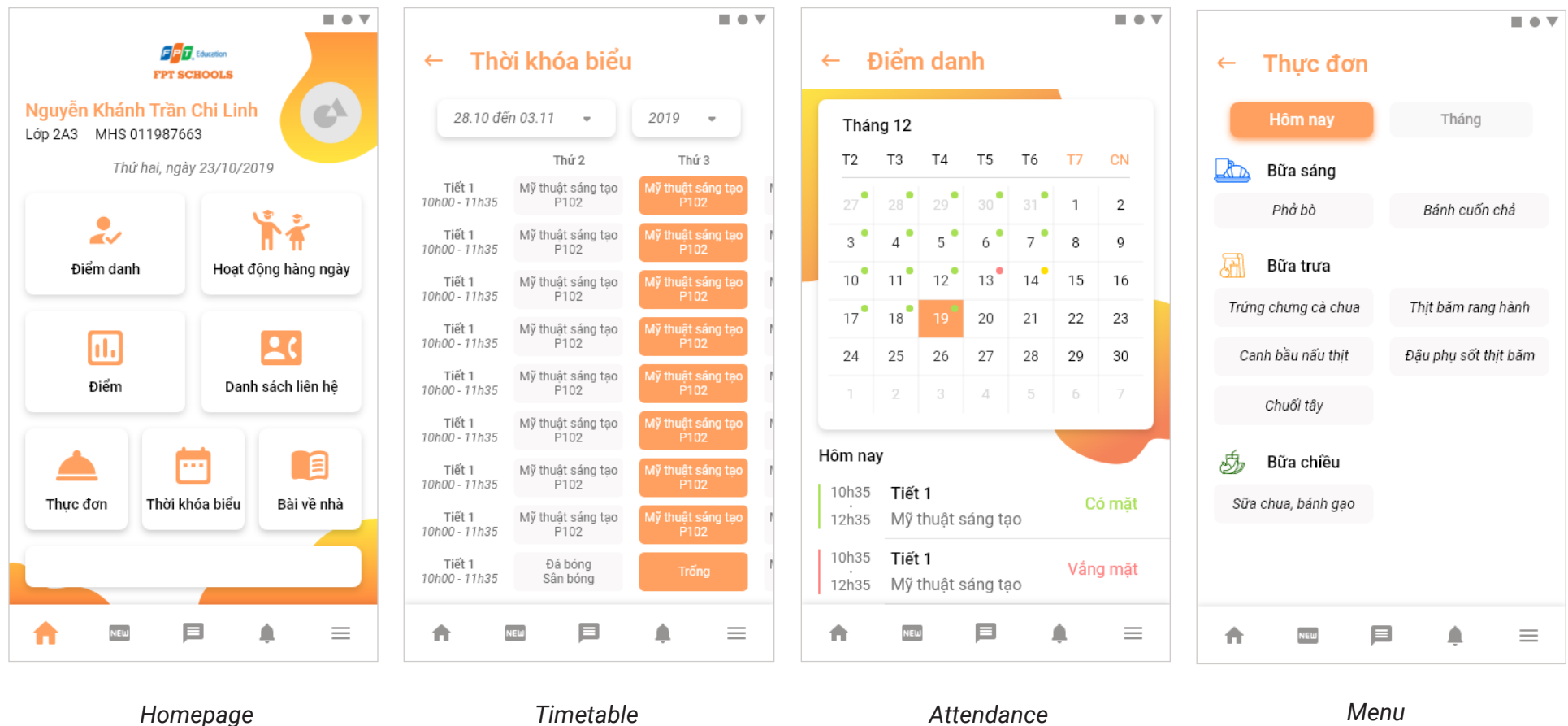
04

Report 4: Design Finalization

4.1

First Visual Design

After completing the wireframe, we proceed to the first visual design. Aiming at the freedom-free style, plus the brand identity of Fschool, we created dotted orange cloud patterns on the white background in the first version.



4.2

Second Testing

Day of the Test: 2/11/2019

Checking for the First Visual Design

Homework

- Add the day / week / month picker

Homepage

- Fix the student photo block's background
- Highlight the date

Teacher contact list

- Edit the title of the teacher shortened message
- Additional subjects taught in the message header

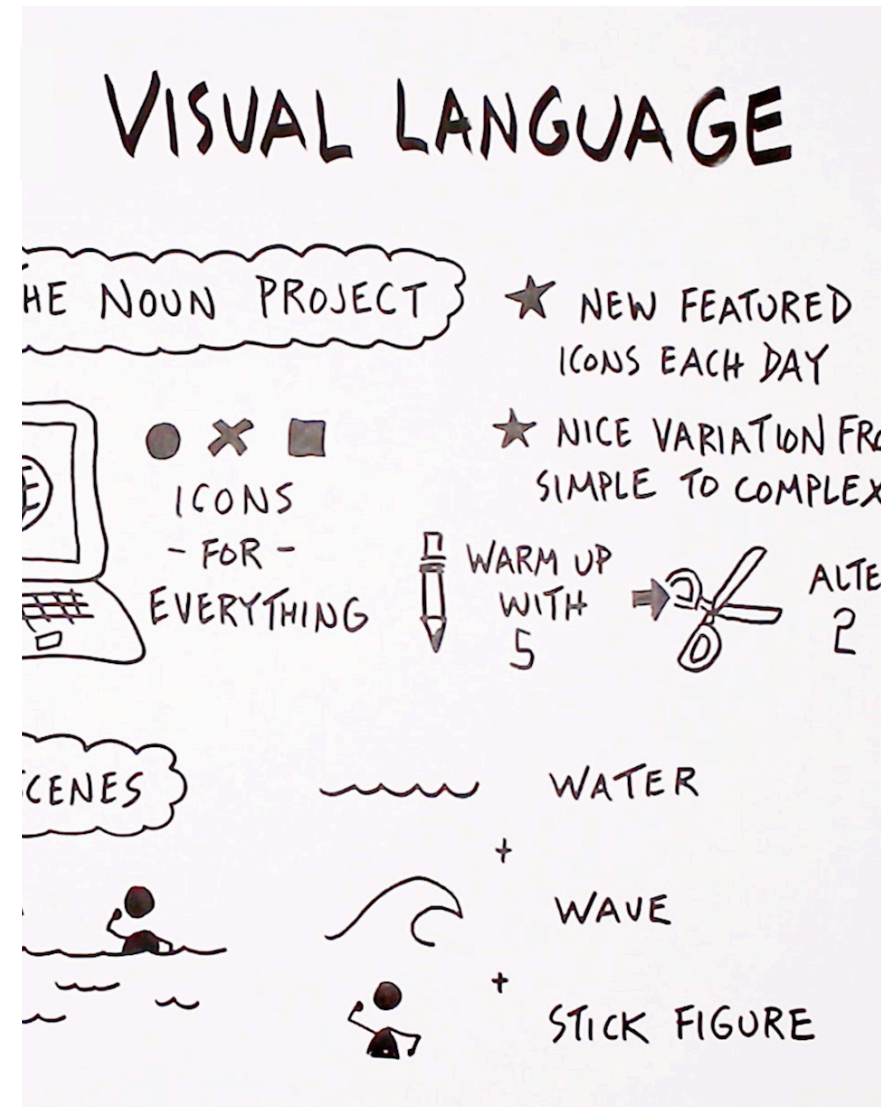
By the second test, we had a lot of positive responses. The functions are streamlined and the school's side is pleased. The comments made after the first test were also learned and learned from us, thereby editing the application to be more reasonable and practical.



4.3

Visual Language

A visual language includes both the written and spoken elements of a website or brand, as well as every design technique, photo, icon, logo and item, users can see on the screen.



4.3

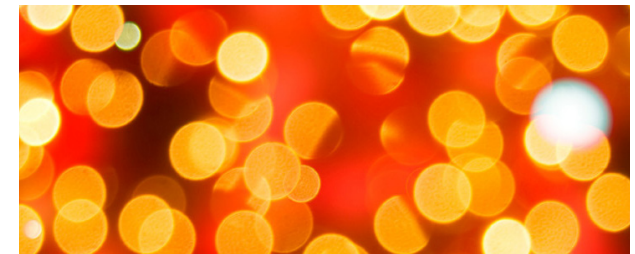
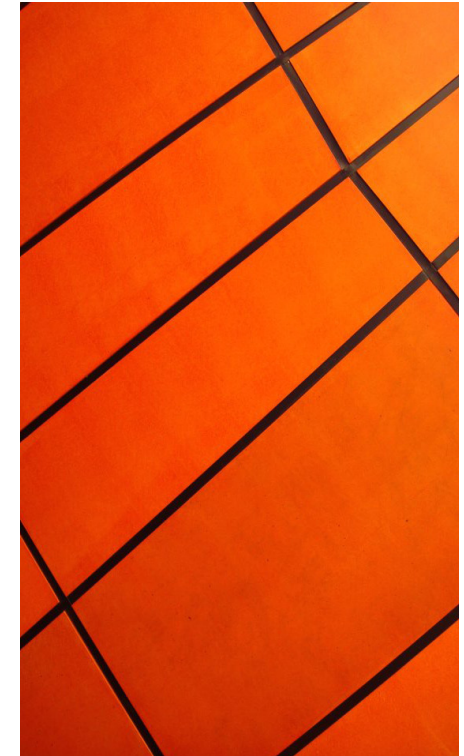
4.3.1

Visual Language**Color research**

According to research from Color Wheel Pro, Orange combines the energy of red and the happiness of yellow. It is associated with joy, sunshine, and the tropics. Orange represents enthusiasm, fascination, happiness, creativity, determination, attraction, success, encouragement, and stimulation.

To the human eye, orange is a very hot color, so it gives the sensation of heat. Nevertheless, orange is not as aggressive as red. Orange increases oxygen supply to the brain, produces an invigorating effect, and stimulates mental activity. It is highly accepted among young people. Orange is the color of fall and harvest. In heraldry, orange is symbolic of strength and endurance and orange is the typical color of FPT education, as well as Fschool.

From the above reasons, we decided to choose Orange as the main color for F.Study.



4.3

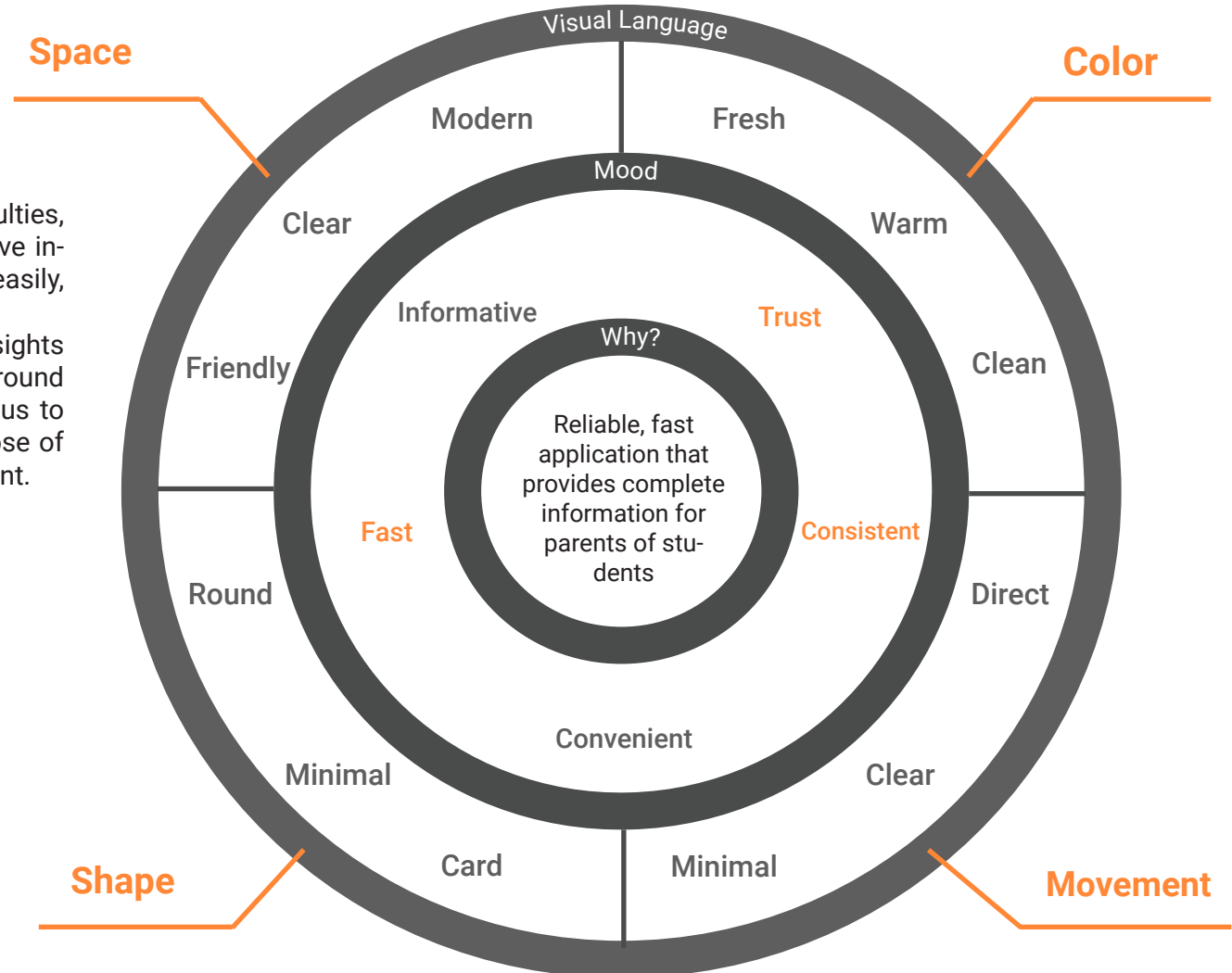
Visual Language

4.3.2

Design Inception Worksheet

Understanding these problems and difficulties, F.Study was created to help parents receive information from the school fully, quickly, easily, consistently and reliably.

From there, we have synthesized these insights on a design inception worksheet. Built around the WHY question this document helped us to summarize with keywords the main purpose of the product as well as its visual environment.



4.3

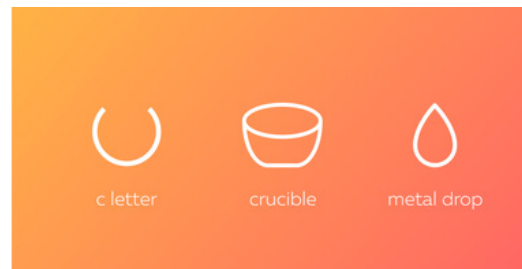
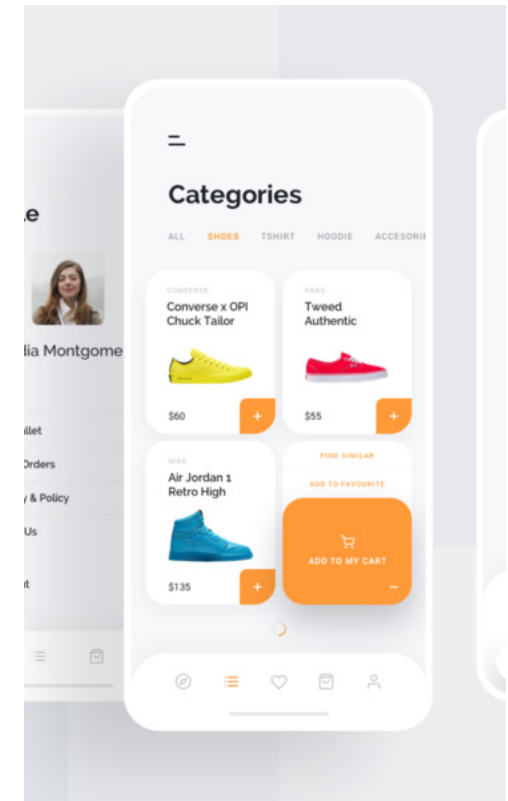
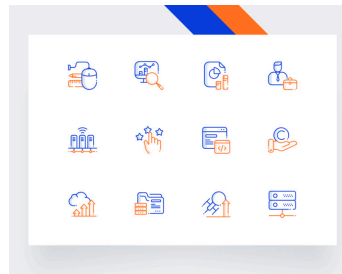
Visual Language

F.Study's moodboard is built upon friendly images, letters and color designs, warm and neat colors. Application design inspired by clean, minimalist, information priority and practical applicability.



4.3.3

Moodboard



4.4

Branding

According to Business Dictionary, a brand is a unique design, sign, symbol, words, or a combination of these, employed in creating an image that identifies a product and differentiates it from its competitors.



4.4

4.4.1

Branding

Logo Structure

Idea



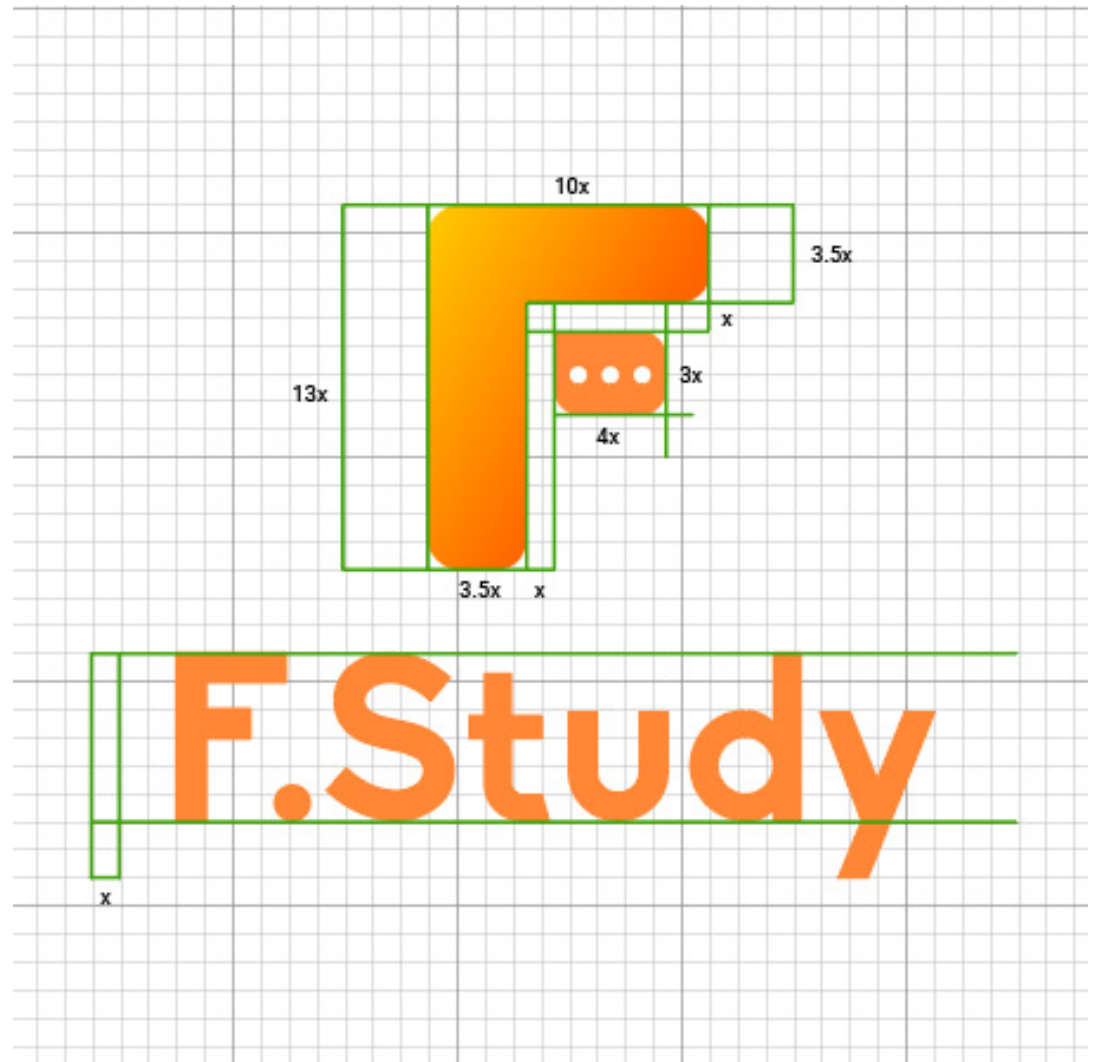
Inspired by the distinctive letter F of FPT education system and the exchange and announcement block, we created the F.Study logo with the message of becoming a bridge, a source of information between parents, teachers and the school.

Color



#ff8736

Typography

Biko bold

4.4

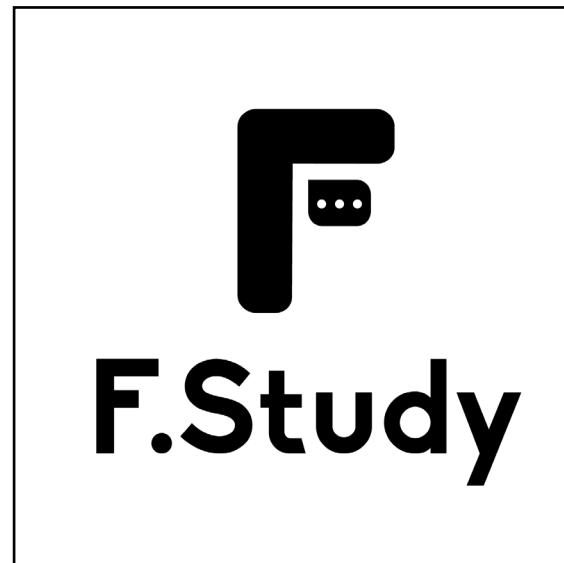
Branding

4.4.2

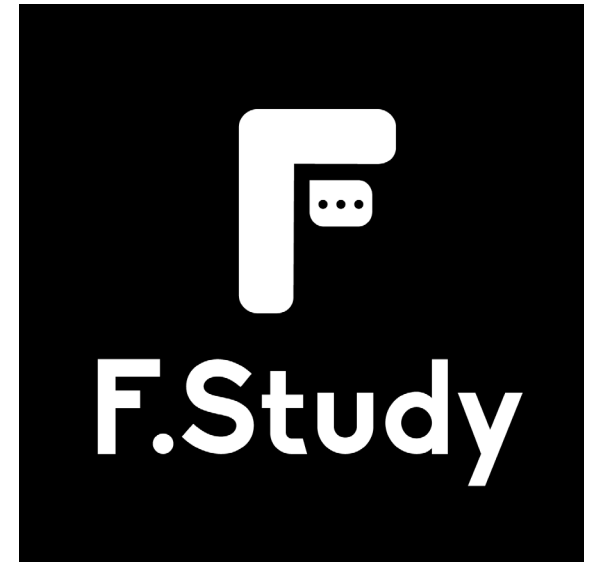
Logo Variation and Palette



Logo with Color



Logo with black and white version



4.5

Style Guide

A style manual, or style guide, is a set of standards for the design of documents of other brand identifier.



4.5

4.5.1

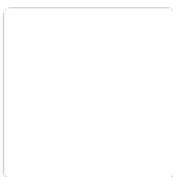
Style Guide

Color Palette

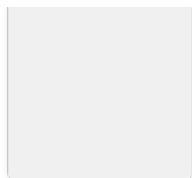
Base Colors



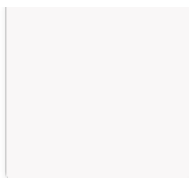
#FFA060



#FFFFFF



#F1F1F1



#FAF8F8

Typography & icons



#000000

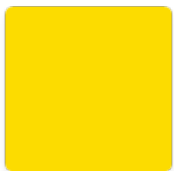


#707070



#969393

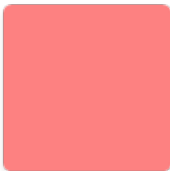
Primary Colors



#FDDD00



#B4E46D

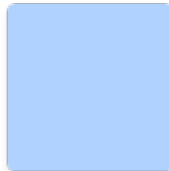


#FE8282

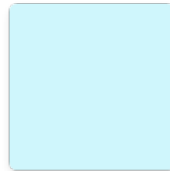
Secondary Colors



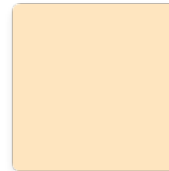
#84B9FD



#B1D3FF



#D0F7FD



#FFE6C0



#DAFFB9

4.5

Style Guild

4.5.2

Typography

H1 - 34px

Font Weight-	Bold	Line Spacing-	72px	Character Spacing-	16
Font Weight-	Medium	Line Spacing-	61px	Character Spacing-	16
Font Weight-	Medium	Line Spacing-	61px	Character Spacing-	16
Font Weight-	Medium	Line Spacing-	61px	Character Spacing-	16
Font Weight-	Medium	Line Spacing-	44px	Character Spacing-	16
Font Weight-	Italic	Line Spacing-	38px	Character Spacing-	16
Font Weight-	Medium	Line Spacing-	29px	Character Spacing-	16
Font Weight-	Regular	Line Spacing-	38px	Character Spacing-	16
Font Weight-	Regular	Line Spacing-	29px	Character Spacing-	16
Font Weight-	Light Italic	Line Spacing-	29px	Character Spacing-	16

Aa
Roboto Regular

Aa
Roboto Italic

Aa
Roboto Medium

Aa
Roboto Bold

H2 - 24px

H3 - 20px

H4 - 17px

H5 - 15px

Subtitle1 - 15px

Subtitle2 - 13px

Body1 - 15px

Body2 - 13px

Body3/Caption - 13px

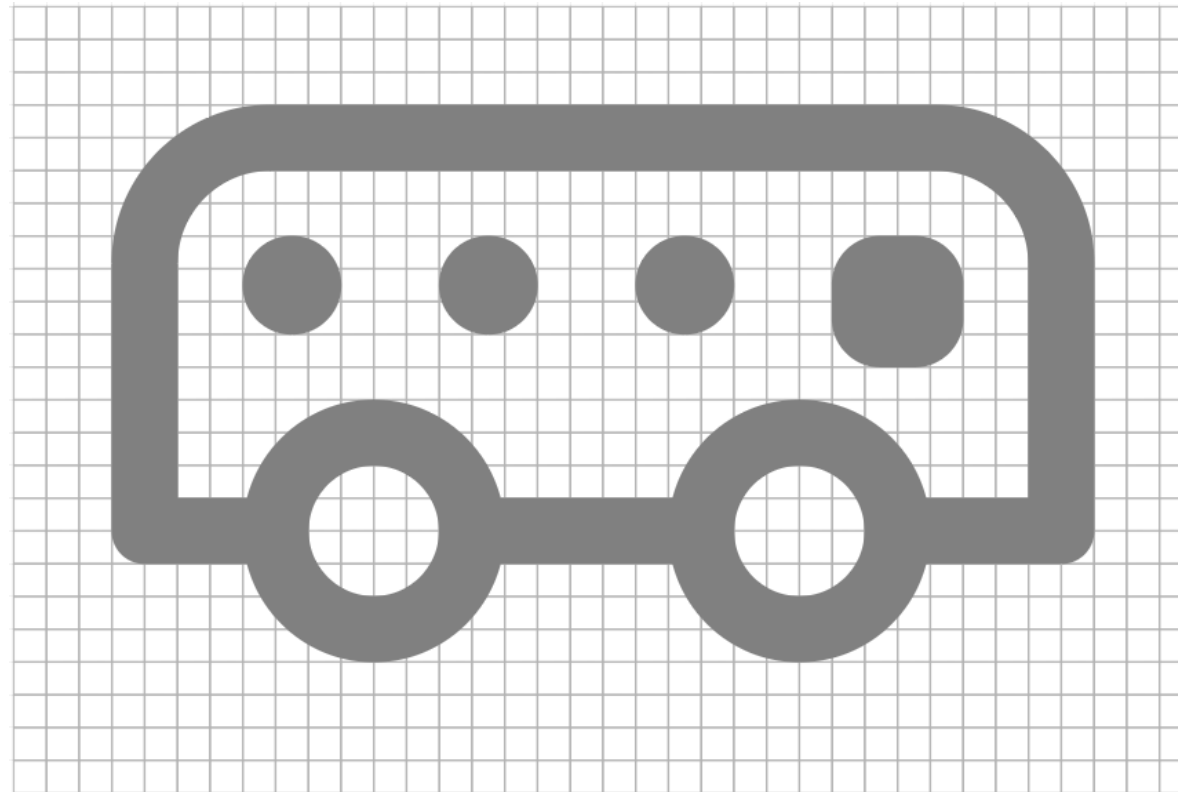
4.5

4.5.3

Style Guide**Iconography**

Icons Structure

When designing this Icon set, we aimed at a minimalist and flat style. The corners have been used to make the Icon's shape softer and more in line with our design styles. Icons will depend on the purpose and time of use that are divided into two main types: Icons for Bottom Bar and Other Icons.



4.5

Style Guide

4.5.3

Iconography

Bottom Bar

Size : 25x25 px



Active



Inactive



Have new notifications (only for Message & Notice icon)



Others

Size : ~54x36 px



Size : 25x25 px



4.5

Style Guide

4.5.4

Buttons and other elements

Buttons

These are the Button buttons that will be used in the application. They will have the status of active, inactive or notified depending on the usage.

Tab Button

Corner : 5
Height : 40px

The length varies depending on the function or screen ratio

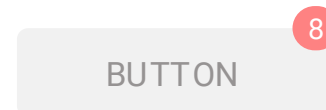
Active



Inactive



Have new notifications

*Less Than 10**From 10 To 99**More than 99*

New Message Button

Diameter : 60px
Shadow : 0x 3y 6b #000000 10%



4.5

Style Guide

4.5.4

Buttons and other elements

Cardview

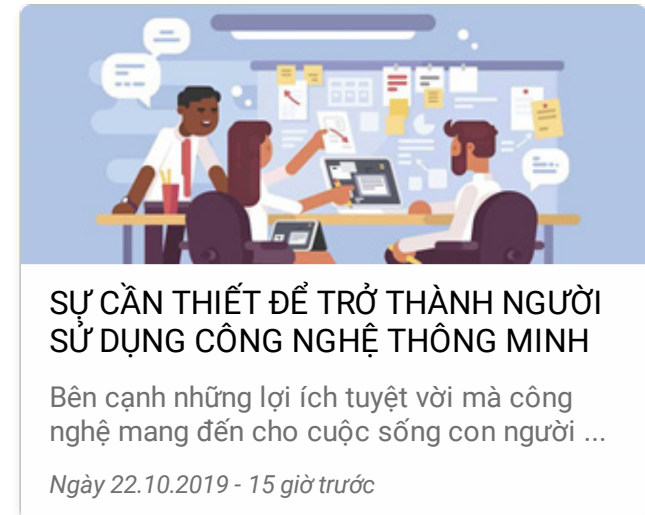
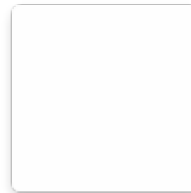
Cardview will often be used in functions such as calendar, news, active dropdown, etc. Using Cardview in design helps the components to be put into blocks neatly and cleanly. This will help users to track information and read more easily during use.

Normal Card

Corner : 5

Shadow : 0x 3y 6b #000000 10%

Apply for cards like : calendars, news, active dropdown,...

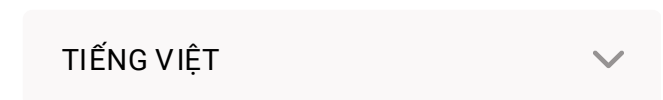
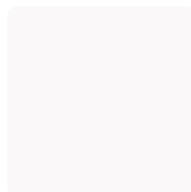


Examples

Dropdown Card

Corner : 5

Apply to dropdown card when it is in active.



Examples

4.5

Style Guide

4.5.4

Buttons and other elements

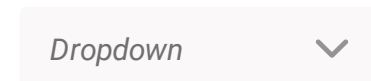
Dropdown

Dropdown is often used to indicate that the menu is being dropped when necessary. Using this design will help optimize the space utilization, users will also have a better experience with this type of interaction.

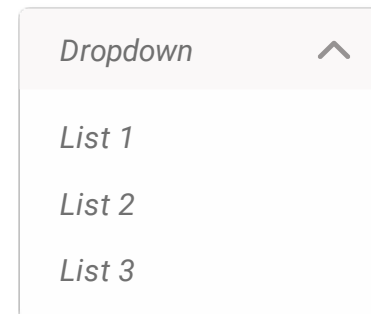
List

The dropdown has the content in the form of a list.

Inactive



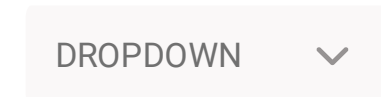
Active



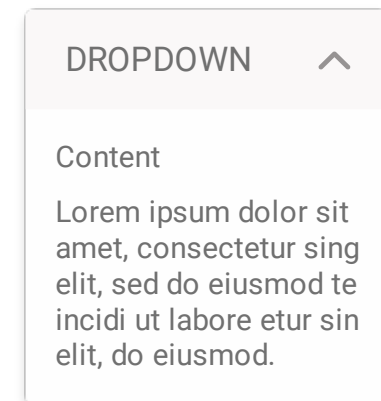
Content

The dropdown has the content in the form of a list.

Inactive



Active



4.5

4.5.4

Style Guide

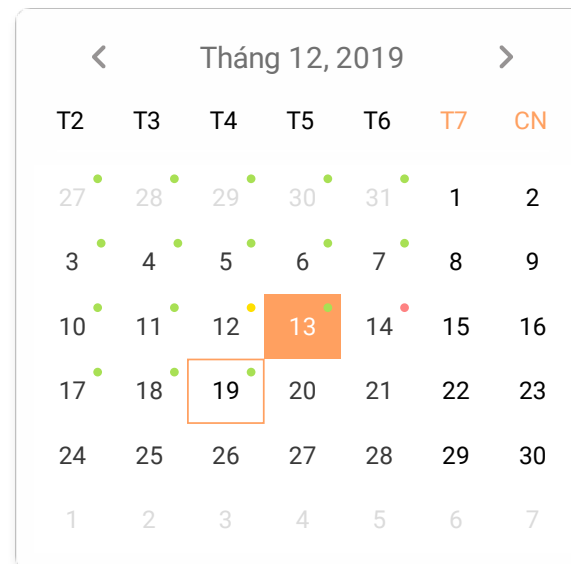
Buttons and other elements

Datepicker

Datepicker is often used in two forms: Normal card and Dropdown. Datepick will be used in functions such as daily schedules and transportation schedules. Datepicker will help users easily select the date to be able to track the schedule quickly and conveniently.

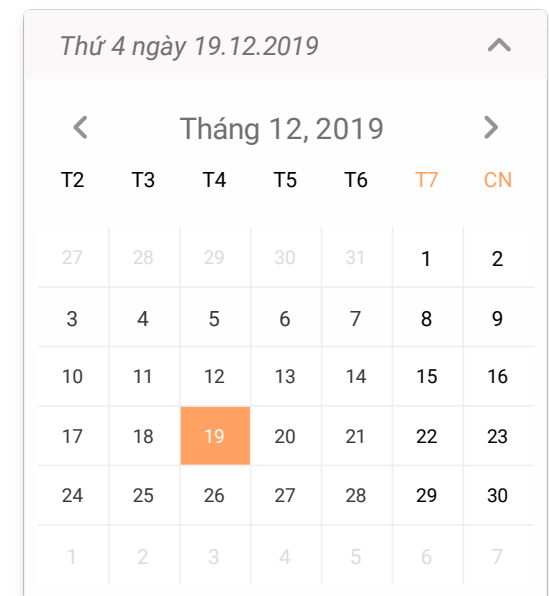
Normal Card

Date picker in the form of normal cardview.



Dropdown

Date picker in the form of dropdown



4.5

Style Guide

4.5.4

Buttons and other elements

Bubble chat

Bubble chat will be used in the messaging function between teachers and parents. The color is light blue to easily display information, Bubble chat will display conversations in a certain time, so that users can text and follow conversations easily.

From Other

Lorem ipsum dolor sit ametcon
sadipscing elit, sed diam gtiho
gramena.

Corner : 0 5 5 5
Width max : 242px on Android
256px on ios

From User

Lorem ipsum dolor sit amet, cons
sadipscing elit.

Corner : 5 5 5 0
Width max : 246px on Android
256px on ios

The height varies depending on the content

4.5

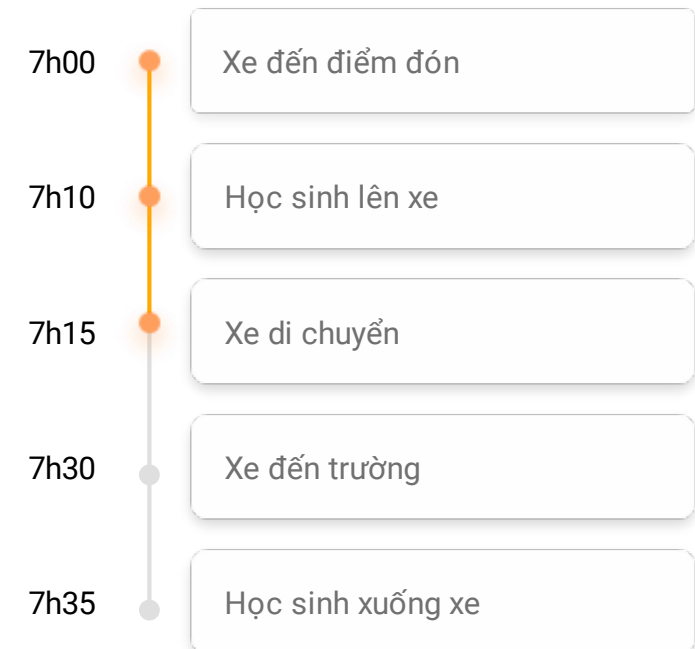
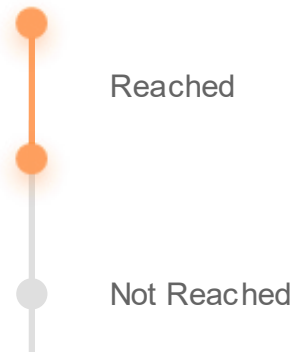
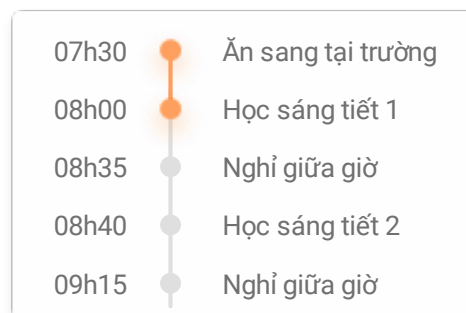
4.5.4

Style Guide

Buttons and other elements

Progress Bar

Progress bar will be used for tracking daily schedules and shuttle schedules. In addition, Progress bar is also displayed just outside the main screen to be easily monitored. The progress bar will accurately display time information according to the time frame the school provides so parents can closely monitor the student's travel and activity.



4.5

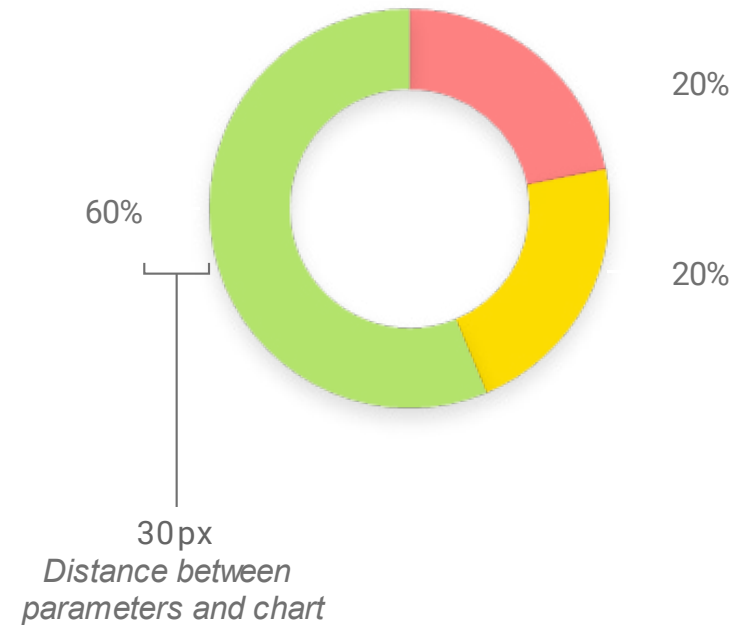
Style Guide

4.5.4

Buttons and other elements

Chart

Chart will be used in the overview of a semester or school year. The Chart chart summarizes students' grades and learning information in an easy to understand and simple way.



Diameter : 186px

3 colors represent 3 levels of low, medium and high depending on the content to be shown

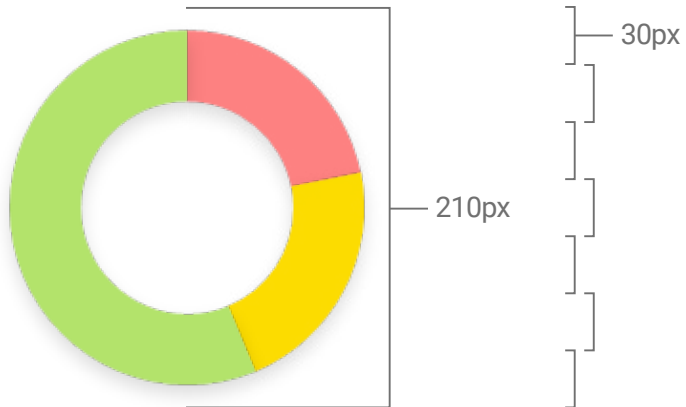
High	#B4E46D
Medium	#FDDD00
Low	#FE8282

4.5

4.5.4

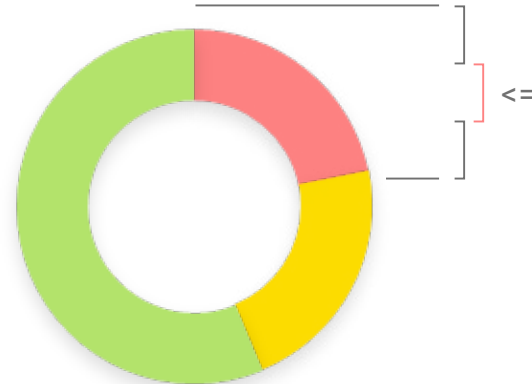
Style Guide**Buttons and other elements**

Position Parameters Appear



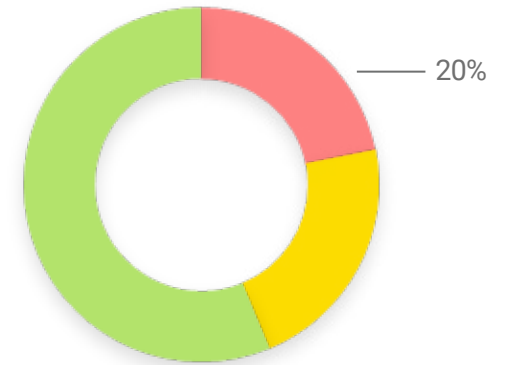
Divide the height of the chart into 7 sections.

Depending on whether the lower, middle, and high parts of the chart are located relative with the section, the parameters will appear in the middle of that section.



As an example, the low part with red color is positioned horizontally with the top three section

=> Select the middle of the 3 section is the position of parameters appear

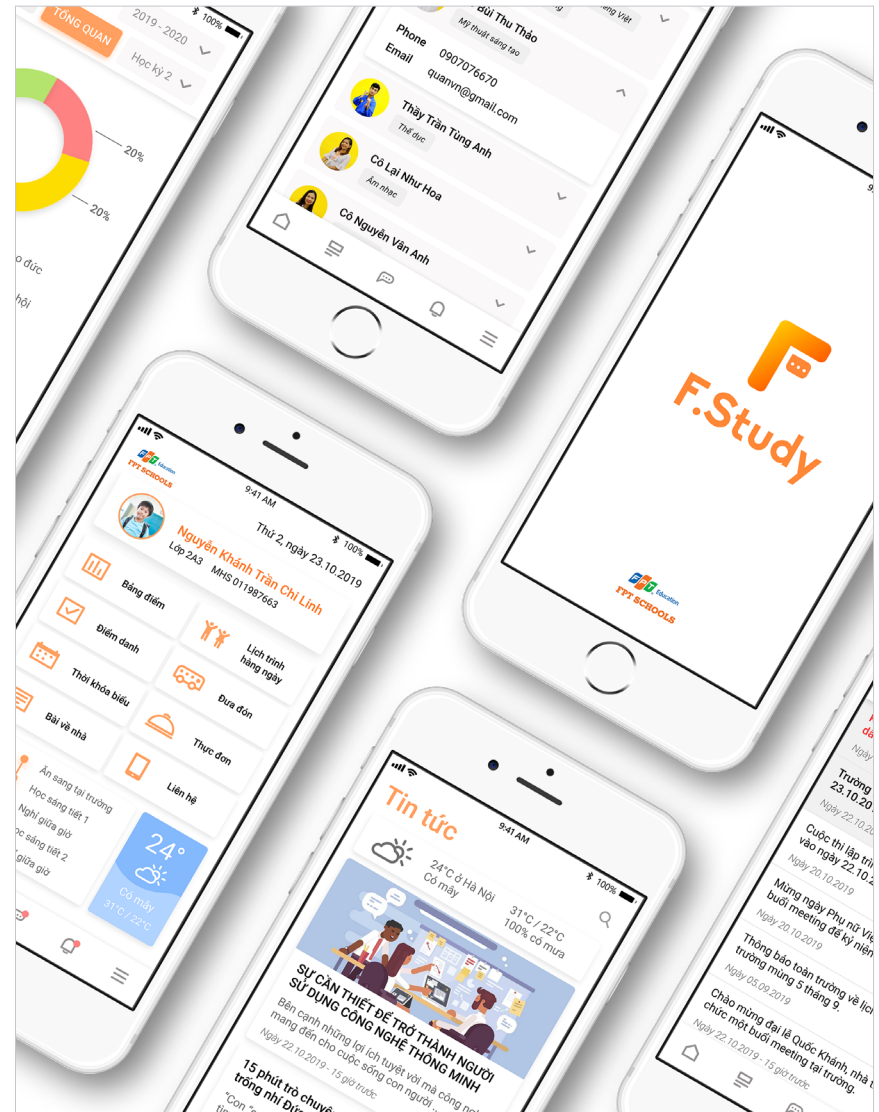


Final result

4.6

Visual Design

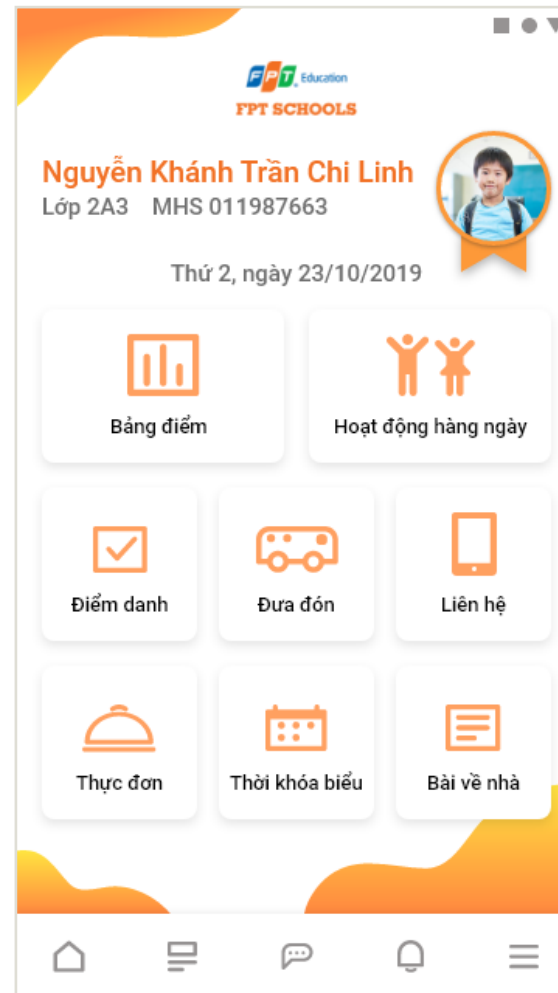
Visual design aims to shape and improve the user experience through considering the effects of illustrations, photography, typography, space, layouts, and color on the usability of products and on their aesthetic appeal.



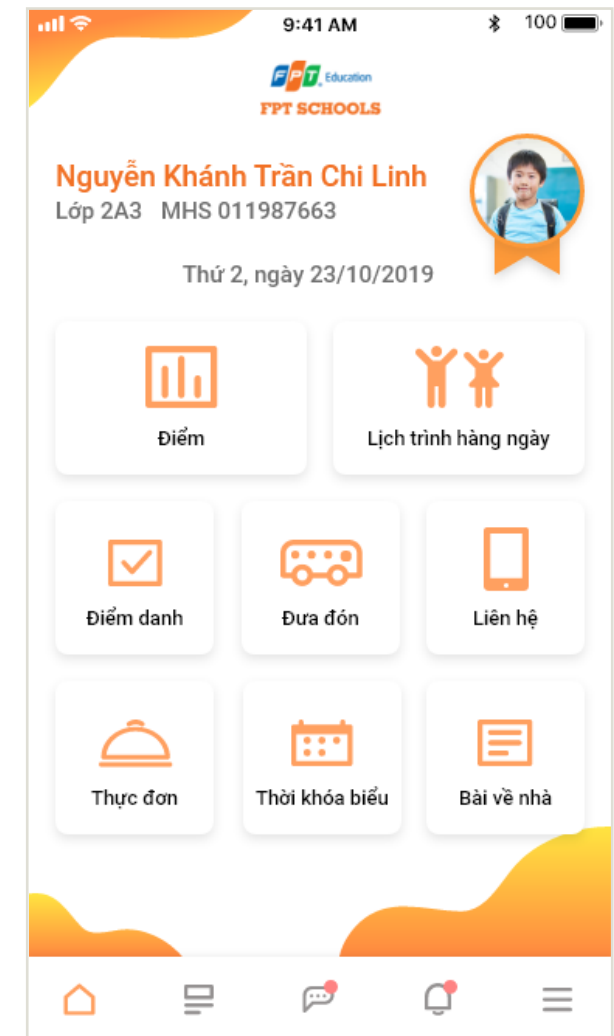
4.6.1

Second Visual Design

Because the two phones have different aspect ratios for Android and iOS, we have made some adjustments between the two versions to get the best product for each version.



Android Version



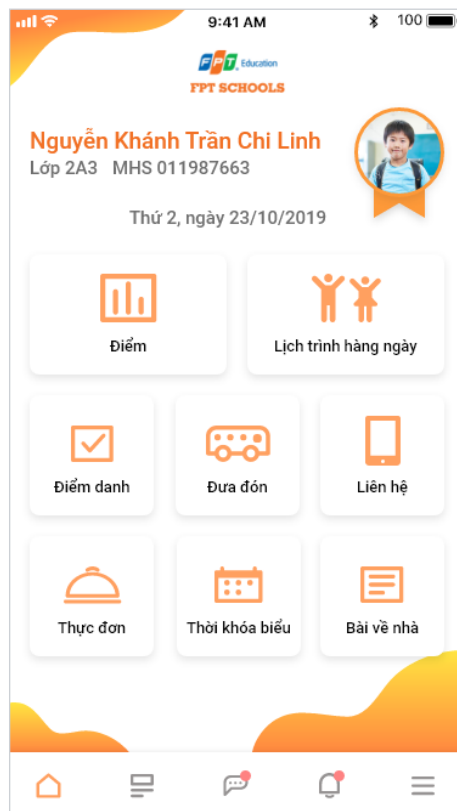
iOS Version

4.6.1

Second Visual Design

4.6.1.1

IOS Version



Homepage



News



Timetable



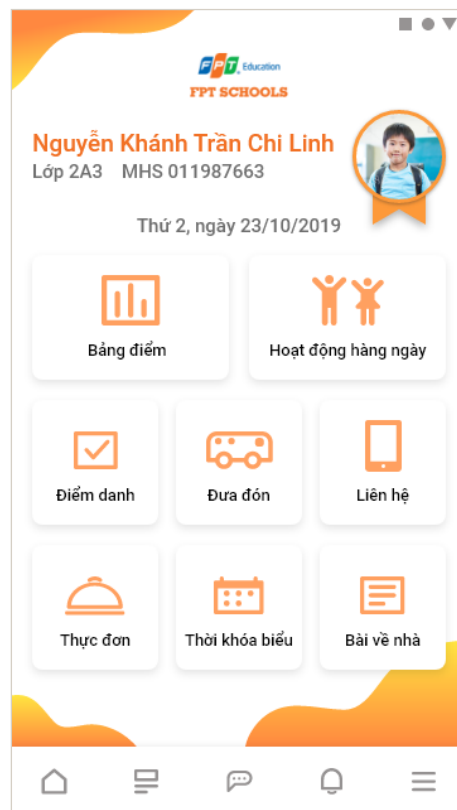
Notification

4.6.1

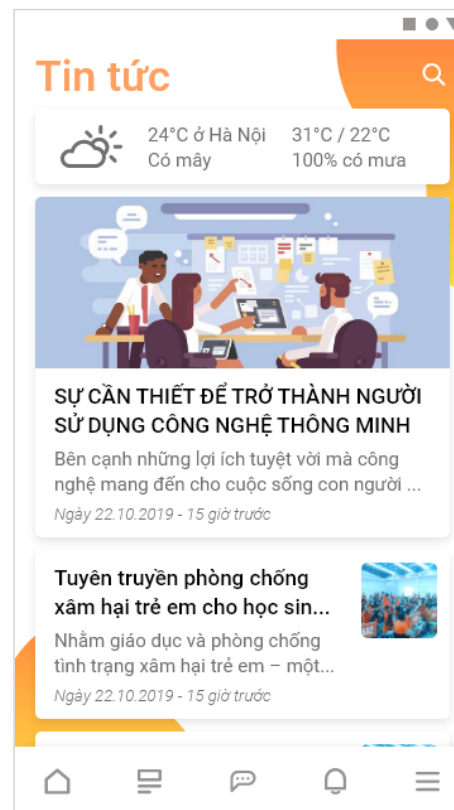
Second Visual Design

4.6.1.2

Android Version



Homepage



News



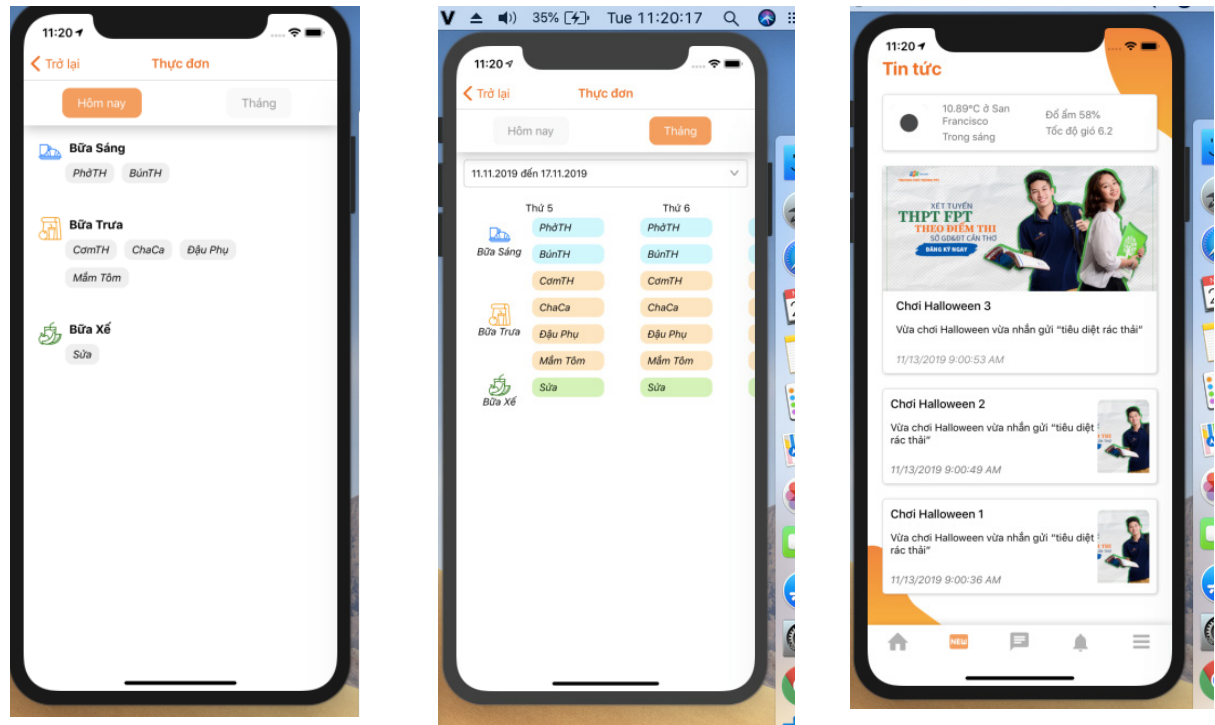
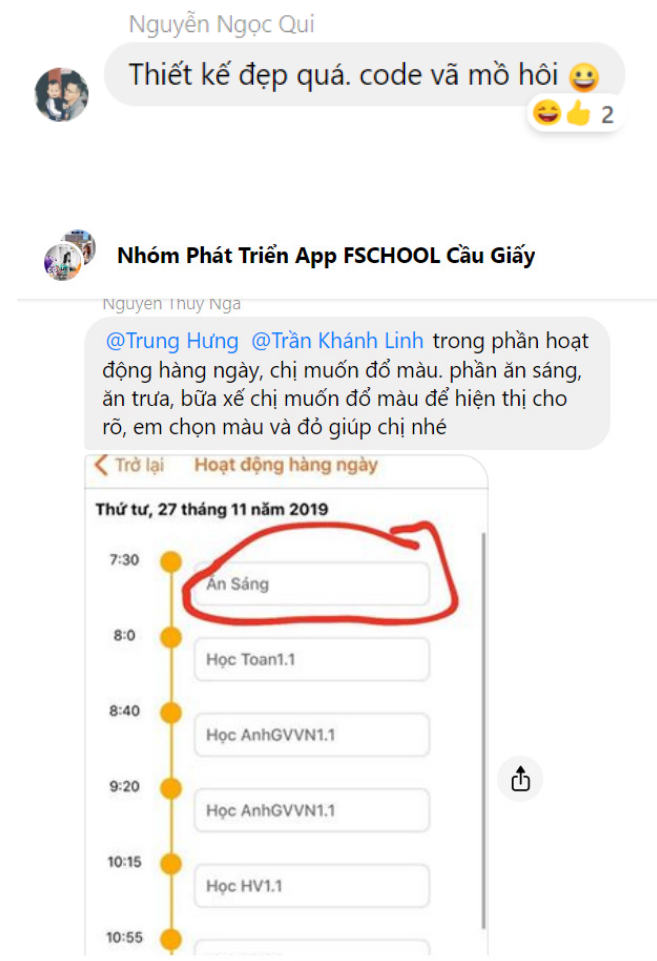
Timetable



Notification

4.6.2

Testing Second Visual Design



After creating the second Visual Design, we continue to test it with the school through online methods, using Facebook and Adobe XD. The feedback we have received is very positive, but we still want to be able to optimize the product even more.

4.6.2

Testing Second Visual Design

Day of the Test: 29/11/2019

Checking for the Second Visual Design

Homepage

- There is a need for better interaction

Attendance

- Icons need to be tweaked and modified more carefully

Icons

- The color patches need to be replaced or removed for a better view

We have continued to test the product with the test Capstone project and have collected a lot of comments from teachers to be able to complete our product.

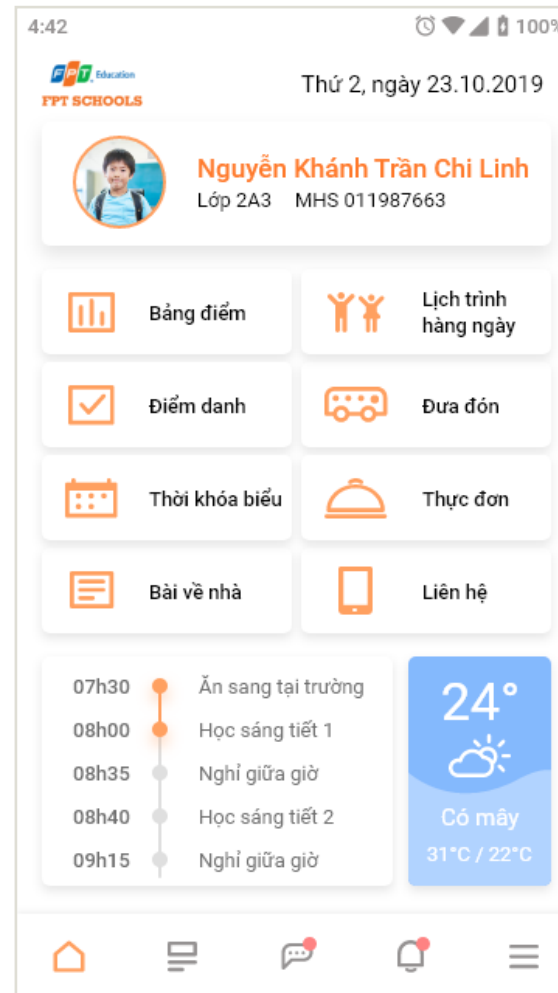


4.6.3

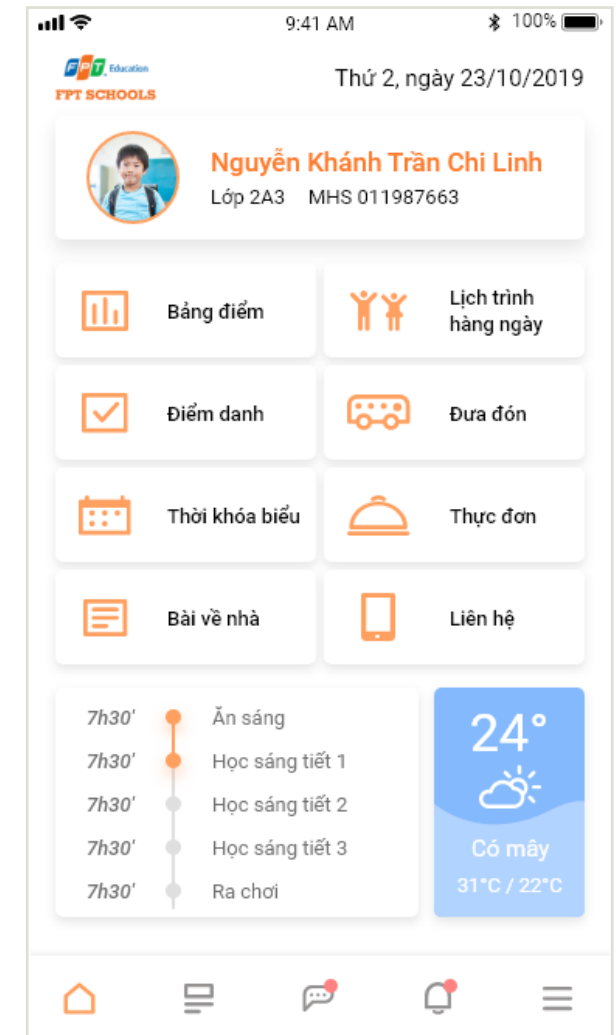
Final Visual Design

After considering the final suggestions and comments, we decided to make certain adjustments to improve our product. And here are the official design images for our products.

Because the two phones have different aspect ratios for Android and iOS, we have made some adjustments between the two versions to get the best product for each version.



Android Version



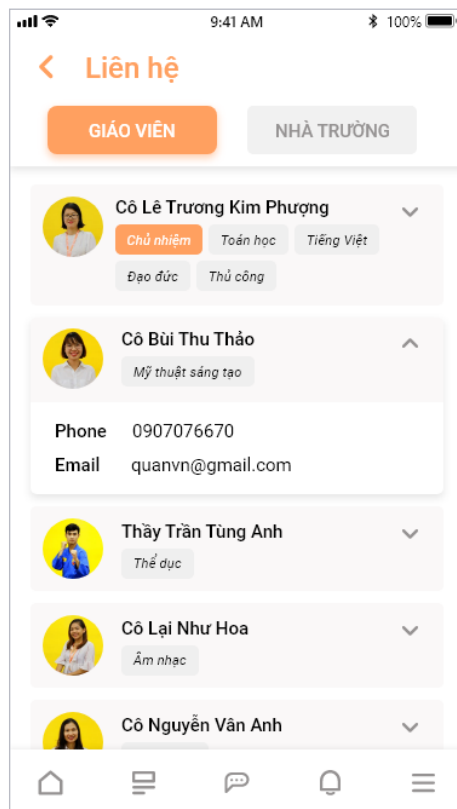
iOS Version

4.6.3

Final Visual Design

4.6.3.1

IOS Version



Contact List



News



Timetable



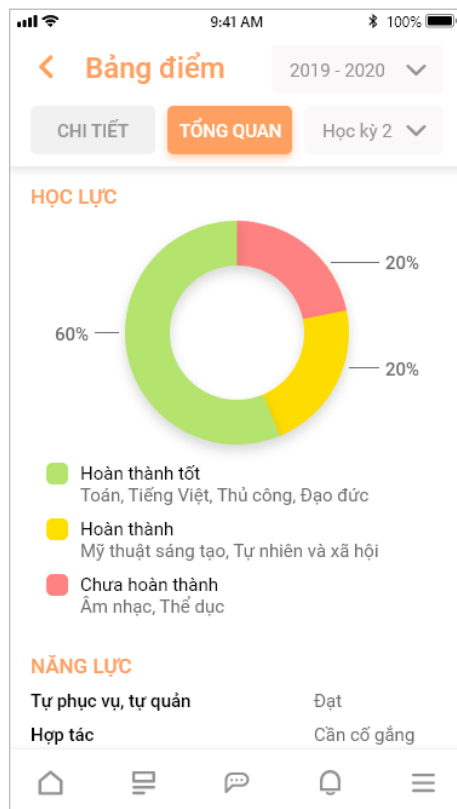
Notification

4.6.3

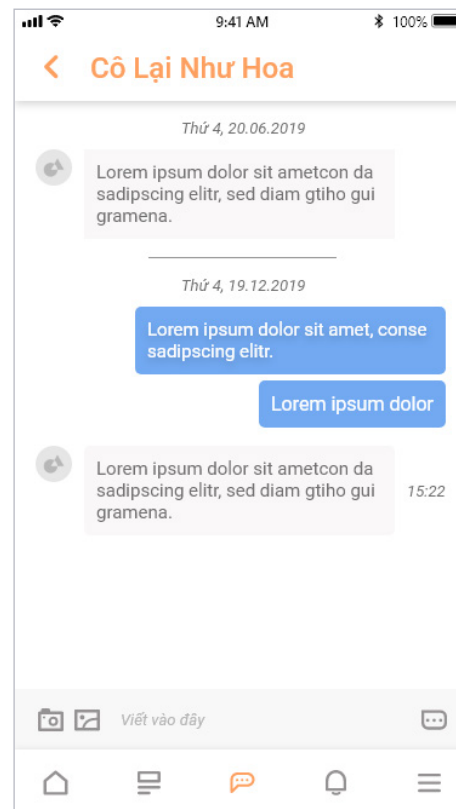
Final Visual Design

4.6.3.1

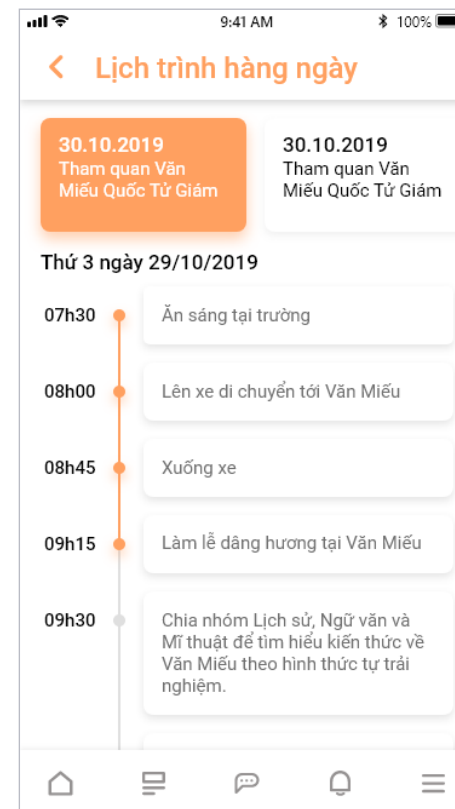
IOS Version



Overview of transcript



Message



Daily Schedule

Bảng điểm 2019 - 2020

CHI TIẾT **TỔNG QUAN** Học kỳ 2

TOÁN	
TIẾNG VIỆT	
Điểm đọc	9
Điểm viết	9
Điểm giữa kỳ	
Điểm chung	
Nhận xét :	Chưa có nhận xét
NGOẠI NGỮ	
MỸ THUẬT SÁNG TẠO	
HỌC VĂN	

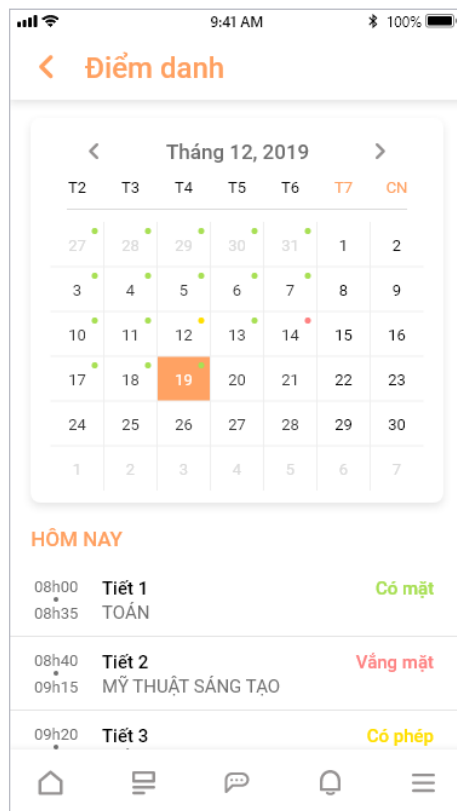
Transcript

4.6.3

Final Visual Design

4.6.3.1

IOS Version



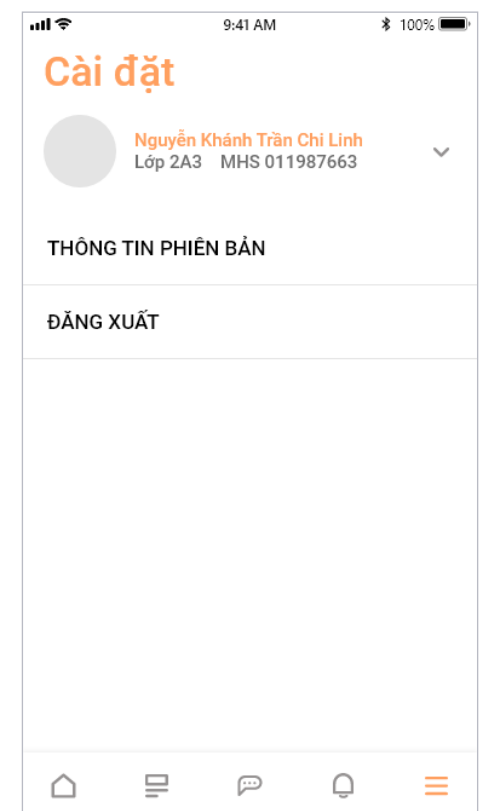
Attendance



Shuttle Service Information



Menu



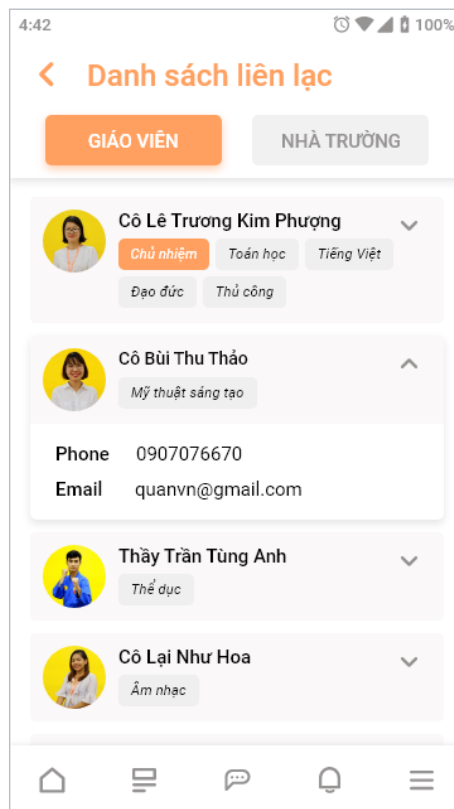
Setting

4.6.3

Final Visual Design

4.6.3.2

Android Version



Contact List



News



Timetable



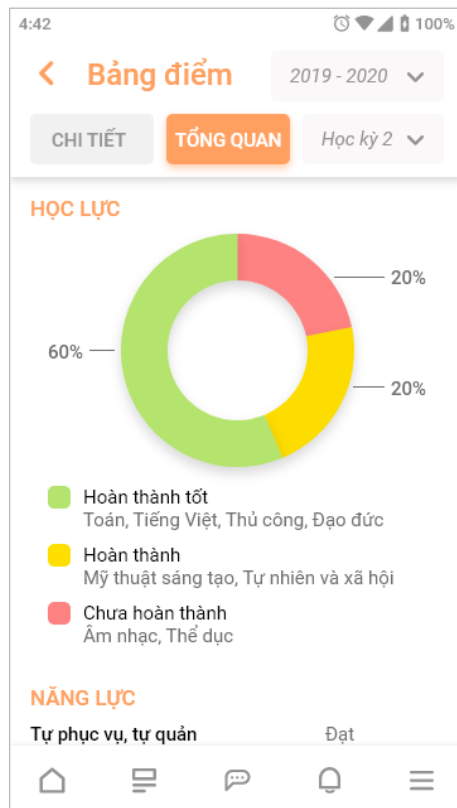
Notification

4.6.3

Final Visual Design

4.6.3.2

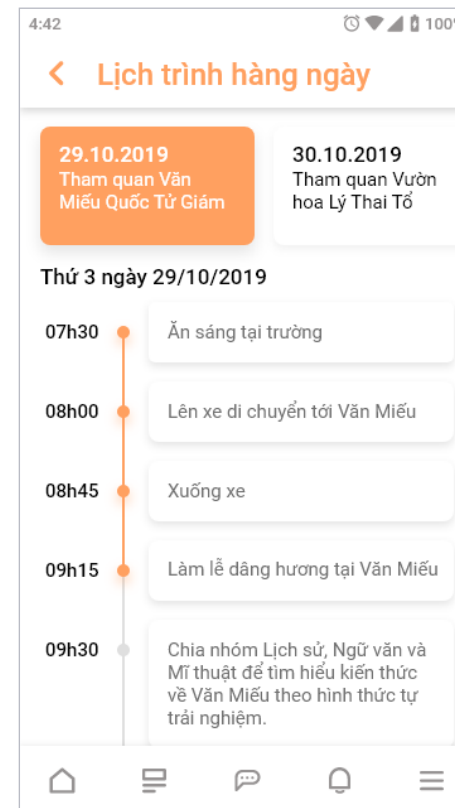
Android Version



Overview of transcript



Message



Daily Schedule

4:42 100%

< Bảng điểm 2019 - 2020

CHI TIẾT TỔNG QUAN Học kỳ 2

TOÁN

TIẾNG VIỆT

Điểm đọc 9

Điểm viết 9

Điểm giữa kỳ

Điểm chung

Nhận xét : Chưa có nhận xét

NGOẠI NGỮ

MỸ THUẬT SÁNG TẠO

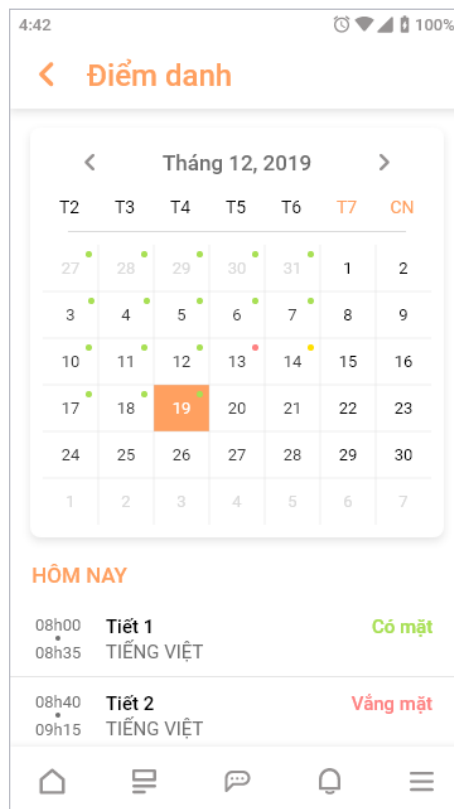
Transcript

4.6.3

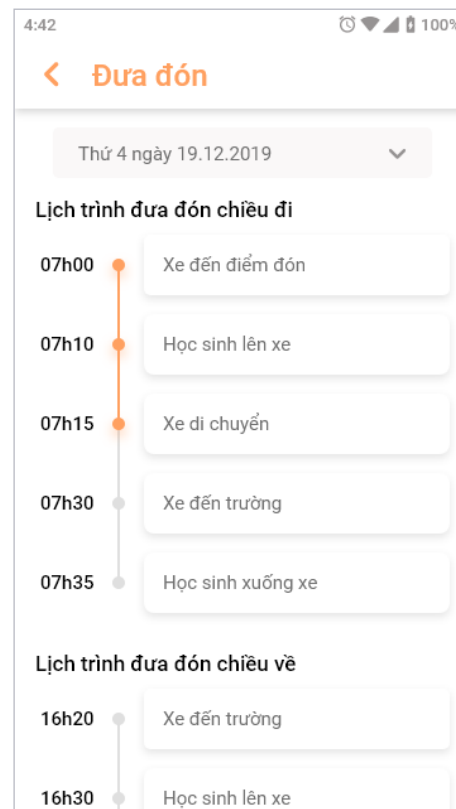
Final Visual Design

4.6.3.2

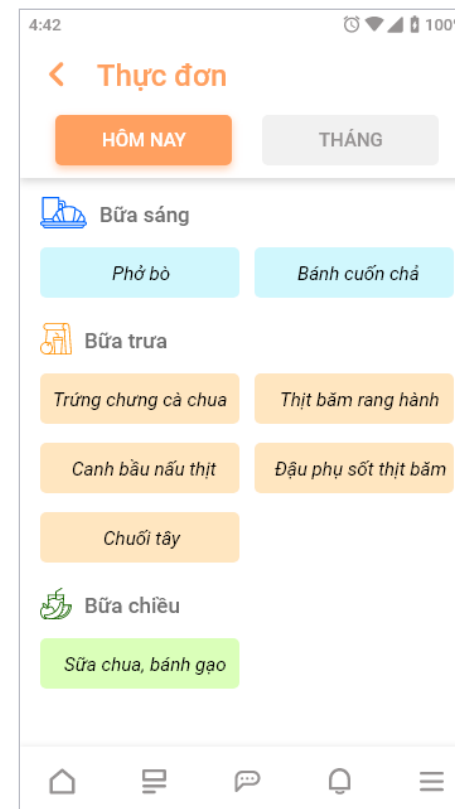
Android Version



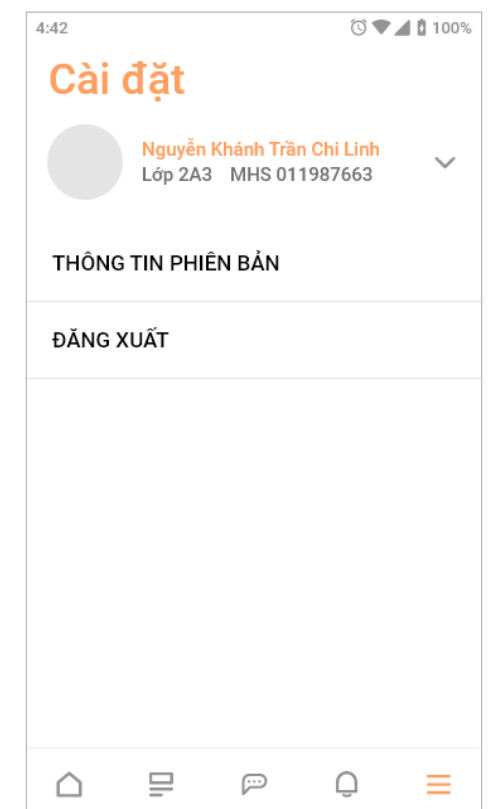
Attendance



Shuttle Service Information



Menu



Setting

05

Report 5: Simulation Functions

5.0

Simulation Function

To experience F.Study to the fullest, we will link to interact with the app below through Adobe XD software:

Android Version:

<https://xd.adobe.com/view/1b07de22-ad38-4a79-71c3-5a44f928483d-6d36/?fbclid=IwAR0KHZFqeJuRpVHeOSyl57WJdBvxbu-MiqBAQ-zcRnESWzz2EbMSESzZUnaM>

IOS Version:

<https://xd.adobe.com/view/f8efc3c7-90fe-4d0c-6e72-27811ba8e792-8ede/screen/a3f9230b-6cab-4ae9-a0db-c584f4504dd5/home?fbclid=IwAR2aTB3OrPxx3ynvxDBj7SNzgvx9V0ZQHj4qU-k8QGv3tM2sV5s42Q4KqQo>

References

Tổng cục thống kê. (2019, September). Số liệu thống kê số trường học, lớp học, Số giáo viên và học sinh phổ thông.

Retrieved from <https://www.gso.gov.vn/default.aspx?tabid=722>

Anh Nhàn, Hà Phương. (2019, September 25). Nỗi lo chất lượng bữa ăn bán trú của học sinh. *Lao Dong*.

Retrieved from <https://laodong.vn/giao-duc/noi-lo-chat-luong-bua-an-ban-tru-cua-hoc-sinh-756325.laod>

Duy Anh. (2019, April 19). Hà Nội: Đầu vào khối tiểu học năm 2019 tăng 30.000 học sinh, báo động quá tải. *An ninh thủ đô*.

Retrieved from https://anninhthudo.vn/doi-song/ha-noi-dau-vao-khoi-tieu-hoc-nam-2019-tang-30000-hoc-sinh-bao-dong-qua-tai/807620.antd?fbclid=IwAR3y4Aud7Csgjnkrt_kDZUIxsSGYkGv2blfCxVSb3DPLtsAIHv_wW-R-zLw

Đặng Chung. (2019, August 7). Học sinh Trường Gateway bị bỏ quên trên xe ô tô: Quá đau lòng, không thể tin. *Lao Dong*.

Retrieved from <https://laodong.vn/giao-duc/hoc-sinh-truong-gateway-bi-bo-quen-tren-xe-oto-qua-dau-long-khong-the-tin-748251.laod>

Khải Lâm. (2019, March 13). Giảm ùn tắc giao thông phải đồng bộ giải pháp. *Nhan Dan*.

Retrieved from <https://www.nhandan.com.vn/chinhtri/item/39475002-giam-un-tac-giao-thong-phai-dong-bo-giai-phap.html>

Nguyễn Hà. (2019, September 17). Trẻ mầm non 3 tuổi bị bỏ quên trên xe: Quy trình lỏng lẻo, tài xế tự đón trẻ. *Tien Phong*.

Retrieved from <https://www.tienphong.vn/giao-duc/tre-mam-non-3-tuoi-bi-bo-quen-tren-xe-quy-trinh-long-leo-tai-xe-tu-don-tre-1464837.tpo>

Nguyễn Thị Vân. (2016, May). Tìm hiểu sự thích ứng xã hội của học sinh tiểu học trong Nhà trường tại Tân Phú, TP.HCM. *Van Hien University Magazine*, 11.

Retrieved from <https://www.vhu.edu.vn/Resources/Docs/SubDomain/qlkh/T%C3%ACm%20hi%E1%BB%83u%20s%E1%BB%B1%20th%C3%ADch%20%E1%BB%A9ng%20k%E1%BB%B9%20n%C4%83ng%20x%C3%A3%20h%E1%BB%99i%20c%E1%BB%A7a%20h%E1%BB%8Dc%20sinh%20ti%E1%B%83u%20h%E1%BB%8Dc%20trong%20nh%C3%A0%20tr%C6%B0%E1%BB%9Dng%20t%E1%BA%A1i%20T%C3%A2n%20Ph%C3%BA,%20TP.HCM.pdf>

Tuệ Nguyễn. (2019, September 16). Bị bỏ quên trên xe đưa đón, bé trai 3 tuổi ở Bắc Ninh phải nhập viện. *Thanh Nien*.

Retrieved from <https://thanhvien.vn/thoi-su/bi-bo-quen-tren-xe-dua-don-be-trai-3-tuoi-o-bac-ninh-phai-nhap-vien-1126475.html>

References

APPOTA. (2018). Viet Nam Mobile app market report, section 3 *The smartphone user habit*, 19.

Retrieved from https://appota.com/uploads/report/Vietnam_mobile_app_market_Report_2018_EN.pdf?fbclid=IwAR3mV4RFy8SGA4ESHYaGbC-BrSQzWrFbTeaEKK7yeTUgnfAmIFLFpm_VmLAM

Simon Khalaf, SVP Publishing Products. (2015, August 26). Seven Years Into The Mobile Revolution: Content is King... Again. *Flurry Analytics Blog*.

Retrieved from https://www.flurry.com/blog/post/127638842745/seven-years-into-the-mobile-revolution-content-is?fbclid=IwAR03i9mflPLkg_N1intZ-p1EIAfat3sVHGbO2m_KI6_v09rAWUJZRkdch7oo

Statcounter. (2019, September). Mobile Operating System Market Share Viet Nam.

Retrieved from https://gs.statcounter.com/os-market-share/mobile/viet-nam?fbclid=IwAR3wB6DFzbLagzjKJRKPb1gUQXSG6F0xSJKN7mHK_sTH4e5f-4pRyAULap1Q

Thank you

And this is the last page of our project. We would like to send our deepest thanks to:

Mr. Bui Van Phat

For being the most devoted instructor and helping us in every way
so we can complete this graduation project.

Mrs. Pham Thi Khanh Ly, Mrs. Pham Ngoc Hang, Ms. Nguyen Thuy Nga

and all the teachers at Cau Giay Fschool
For helped us in the process of product research and testing.

Mr. Bach Tuan Anh

For advising and sharing a lot of education knowledge and practical experience
in the first steps of this project.

Mr. Nguyen Ngoc Qui

For helping us make F.Study a reality project.

Special thanks

to all the parents, family and friends for helping us in the process of creating F.Study. We would not
have been able to complete this project without all the enthusiastic help from everyone.

Sincerely thank you very much!

