

ParentTech.... Connecting school to home

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Abstract –This is a research regarding, how can we bring up more interaction between the parents and teachers. Our app can help to improve this situation. It is an online platform where the teachers and parents and directly connect to each other to share the required data. This application would also provide a great platform to the parents in this Pandemic as everything is online and parents must know what their child does. This entire project would involve the development of the app using React Native, Nodejs and Firebase.

Key Words: Parents Reminder, Interface, Connection bridge

1. INTRODUCTION

Classroom is something where the student begins his study and ends it. Hardly students make extra time to study or solve assignments. School is a place where everything performed in well manner. But once it comes to college no one is affected on what's going on in the lecture or what all work should be completed. Parents are also unaware of what things are being performed. This inspires our project which is an Android and iOS based application which would provide great connectivity batten a parent a teacher and his/her child's academics.

1.1 AIM AND OBJECTIVE

The major objective of this app is to create awareness among parents about their child his/her activities been performed in their institutes.

The main of this application are as follows:-

1. To provide a platform for a better connectivity
2. Through this platform parents will easily connect to teachers and vice versa
3. Teachers and parents can interact with each other through a video meet or by chatting through the app.
4. This app updates the parents with their child's result
5. Parents will come to about the new assignments provided

1.2 PROBLEM STATEMENT

In the current Pandemic parents are unaware about what their child is doing online. However the lecture is taken through some or the other platform. Parents don't have much idea about what their child is doing.

Few years back the only way possible to interact parents and teachers and get update about Student's progress in the academic year was only possible through conducting an annual Parent's teacher meeting. But, of course, it is not sufficient to have a better understanding of the student's track. Nowadays, circumstances have changed and we have more ways to keep in touch with the teachers or the schooled authorities. Phone calls, e-mails etc. are some of the best means of communication between teachers and parents. But, they too lack consistency. At present, using software that connects teachers and parents in a short period of time, with accuracy can do wonders.

The graph shows the involvement of parents in their child's curriculum deteriorating year by year[4]

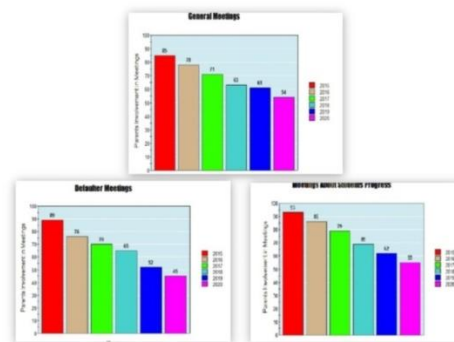


Fig 1 Interaction Statistics[1]

These situations affect the child as he/she start taking everything In a lightly manner rather than being serious to it and hence will bring an bad impact on their education

2. RELATED WORKS

Over the years children have become independent and due to this the parental involvement has decreased. Teachers have started using various platforms such as Microsoft Teams, Google Classroom Zoom Meets. But the drawback to this is that this remains between only the teacher and student. Assignments are assigned but if they are solving it or uploading it on time being punctual or not is not known to parents. The main aim is to make parents understand about the curriculum routine of their child on daily basis.

There is a huge increase in the usage of mobile phones since 2013. So to cover most of the population in India we chose to build a mobile application.

Table 1 Strengths and Weaknesses of Existing System

Name of Application	Strengths	Weaknesses
Google Classroom	<ul style="list-style-type: none"> • Great UI • A Great country wide network • Updates regularly 	<ul style="list-style-type: none"> • Only students can access • It has no parental control

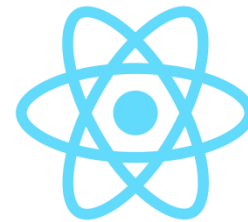


Fig 3 React Logo[3]

Why React Native?

- React Native allows developers to create mobile apps using website technology. So a developer who is handy in web development can easily develop a mobile app using React Native.
- React Native allows developers to build cross-platform apps that look and feel entirely Native since it uses JavaScript components that are both built on iOS and Android components. It saves a lot of time and money as developers don't have to create the same app for multiple platforms. Furthermore, it is easier to maintain an app built with React Native since there is only one codebase.
- Since React Native uses JSX, a developer isn't required to learn complex languages such as Objective-C and Java to develop an app.
- React Native uses fundamental Android and iOS building blocks to compile Native apps for both platforms in JavaScript. This makes handling the code base easier, and the addition of new features is simplified as well, even while the app is running.

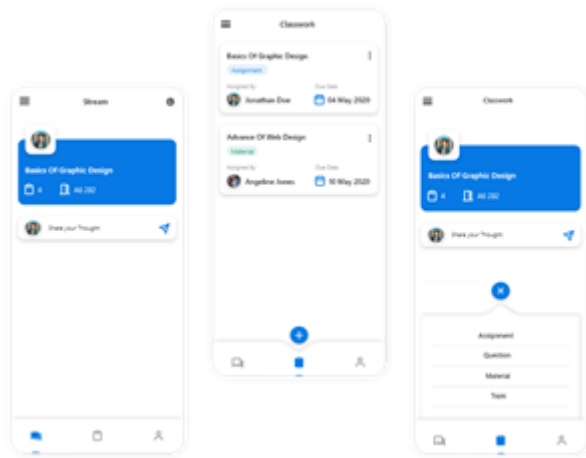


Fig 2 Google Classroom UI[2]

3. METHOD

This project is developed using React Native ., React Native is an open- source mobile application framework created by facebook. It is used to develop applications for Android, Android TV, iOS, macOS, tvOS, Web, Windows and UWP by enabling developers to use React's framework along with native platform capabilities. React Native combines the best parts of native development with React, a best-in-class JavaScript library for building user interfaces. It

4. EVALUATION

Testing's such as Unit testing, Integration testing, Load and Stress testing were performed on the prototype of our app[5]. Some improvements regarding data management in apps and faster response rate were suggested by the testing team. These updates will be done in the next version of the app, and after Acceptance testing this app will be published on Google Play store and iOS App Store.

5. Future Scope

After this app will be published our team will be working on some new features for the app. These features would be as follows:-

- An Attendance module where parents can get their child's monthly Attendance.
- Document Details of students all in one place.
- Introducing our application through open platform and make school colleges aware about it
- A Module for Mark sheet where parents can keep up with child's progress.

6. CONCLUSIONS

The prototype of our ParenTech was developed successfully. The major objectives covered by our application are as follows:-

- Helping parents with their child's curriculum
- Make easy for parents i.e. parents will not have to leave their workplace for college meetings
- Build up a friendly communication between the professor and the parents.

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