How to implement a web application in order to provide High School students, who are physical not able to attend classes, with a live access to the class lecture and implement a method for tracking their participation?

## 1 – Introduction

In this paper a prototype, of a Web Application, which can provide students in Schools, such as Helen Parkhurst High School whom have about 1700 students and follow classes at three levels (VMBO-T, HAVO, and VWO), with a chance to. Most of the students are following the regular classes and take regular exams, however for some students this is either impossible, due to illness, or impractical, due to their implication in sports at high levels. Consequently to those circumstances those students miss classes and important lessons, thus leading to a situation which no one wants but to which no one has yet a solution for this problem.

This part will explain the goal of this project referred in the introduction. The introduction shows the real need of developing an application which will allow students, who are physically unable to attend lessons, with the opportunity to virtually attend lectures. Therefore, the goal of the project is to provide Helen Parkhurst High School with an application which will allow students to take classes in situations where they are physically unable to attend, for example due to high-level sport activities or long-term illness. Our group will focus on creating, developing and implementing a web application with which students can virtually attend and take classes over the internet, in a way which gives the teacher control over the learning activities, and have the disturbance level as little of the class as possible.

## 2 – Context and research question

The main research question describes the fundamental of our project in a short sentence. The main question is then further divided into sub-questions to ensure a steady step by step development of the application.

Research Question

How to implement a web application in order to provide High School students, who are physical not able to attend classes, with a live access to the class lecture and implement a method for tracking their participation?

Research Sub-Questions

1. How to implement a user interface of the web application fit for purpose?

2. How to track student’s attendance?

3. What data should be stored and how?

4. How to implement an interface, attendance tracker and data storage in the web application?

## 3 – Research Strategy

The research strategy is carried out as following:

1. The design for our research will be having implemented an interview with the teachers and students, gathering both qualitative data, asking and receiving detailed answers, and quantitative data, through the survey.
2. The units of analysis are the teachers and students, and the constructors of this study are the physical ability of a student to attend classes as well as the tracking and monitoring of attendance. Due to the fact that we cannot ask all the students to participate in our survey and interview we will use a sample population.
3. Analyze the data, obtained through the interview, and plan out the steps that need to be done, in order to reach/meet the client’s demands.
4. Develop and test the prototype, as well as analyzing if the outcome, comparing it to the demands of the client.

## 4 – Research Design (implementation of the app)

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## 5 – Results

## 6 – Conclusions

## 7 – Recommendations

Have a status who saw the chat conversation

Implement a reward system (such as minutes/points) for every video watched

Have topic related pop-up questions during the playing of the recorded video

Record a live lecture

Have the recording available to students at any given time