**Collaborating with schools:**

1. Try to get different other pain points that the school is trying to solve with ai during your meeting with them and see how we could help solve it.

Things we have agreed on regarding the project:

1. We work on building the solution for primary schools.
2. We work on foreign data while we await data from some contacted schools to work with.
3. Are we to use one school data for a model or we aggregate data from all schools collected and use in building one model?
4. It will be provided to these schools for free in exchange for their data?
5. The features to collect from the schools when they are ready.
6. Our prediction will be per subject, i.e. if the pupil will fail a specific subject or not.
7. Find out the student retention rates of these institutions in Nigeria.
8. Find out the transfer rate in these institutions and the percentage of transfer student that graduate per year in Nigeria.
9. How does these institutions operate on preventing transfers out and dropouts and improving transfers in, i.e. the most common methods used by these institutions?
10. The project was done to identify students’ failure or success after 4 weeks into the new academic session. So, if we could build a model that could do same, we need to know when grading starts and how it is done in these Nigerian institutions.

**HOW ARE WE FILLING THE SURVEY? WHO ARE WE GIVING, THE STRATEGY TO GET AS MUCH AS NEEDED?**

**Get two different data from school management and students each.**

Attributes to look for in data collection: personal, extracurricular-related, academics,

1. Gender
2. Nationality (Nigerian or international)
3. Geopolitical zone (SW, SE, etc)
4. Age
5. Marital status
6. Children to cater for
7. Year of student (first, second, etc)
8. Year of enrolment
9. Parent cohabitation (do they stay together)
10. Stay with parent/guardian
11. Who paid the school fees (self, parent, guardian)?
12. Income earner or not
13. Range of income per month
14. Type of extracurricular activities (sports, entertainment, science, NGOs, others)
15. Level of participation in class
16. How many extracurricular activities
17. No. of attendance in class
18. Score of first grade
19. Which of this field is this course most related to? (maybe we could segment this into math-related, art, physical science, life science, social)
20. Ever faced school panel for a crime?
21. What is your topmost foreseeable goal? (could be in career, lifestyle, business, etc)
22. Hours of study per week
23. In a romantic relationship or not

**Solution to explore:**

* Using LMS to get data to build the model. Get the data for a semester or session from LMS platforms. This could be of economical benefit to us in selling our solutions to online learning platforms to detect which students are going to complete the program successfully and the ones that would drop out or fail the course together.
* We build our first model using a school’s data. This will help in ways like:

1. We could easily build our first model.
2. Easily get the data and make it more specific for a user.
3. It will bring economic benefit in that; we could then go out to build this solution specifically to every school that is ready to pay for it. Allowing for scalability for this solution.
4. This will be more effective for every specific with more data from that client alone, rather than a robust model for any type of school that won’t be as effective as a specific model solution for every client that asked for that solution.

**Attributes for predicting subject success in school children by Madeeha Kamal:**

1. Number of parents living with.
2. Parents divorced?
3. Level of parents’ involvement in child’s education/school system.
4. Parent income level (low, mid, or high)
5. Number of school attendance.
6. Number of completed homework.
7. Level of pupil attention in class (hyperactive, inattentive, or disruptive).
8. exhibited classwork phobia?
9. Exhibited examination phobia?
10. Exhibited psychological disorder (anxiety, anger, fear, learning disability)
11. Exhibited health disorder?

**Attributes for predicting secondary student performances by Dhivya Rajprasad:**

1. Student’s School
2. Student’s Sex
3. Student’s Age
4. Student’s Home Address Type
5. Family Size
6. Parent’s Cohabitation Status
7. Mother’s Education
8. Father’s Education
9. Mother’s Job
10. Father’s Job
11. Reason to Choose This School
12. Student’s Guardian
13. Home to School Travel Time
14. Weekly Study Time
15. Number of Past Class Failures
16. Extra Educational Support
17. Family Educational Support
18. Extra Paid Classes Within the Course Subject (Math or Portuguese)
19. Extra-Curricular Activities
20. Attended Nursery School
21. Wants to Take Higher Education
22. Internet Access at Home
23. With A Romantic Relationship
24. Quality of Family Relationships
25. Free Time After School
26. Going Out with Friends
27. Workday Alcohol Consumption
28. Weekend Alcohol Consumption
29. Current Health Status
30. Number of School Absences
31. First Period Grade
32. Second Period Grade
33. Final Grade

**Attributes for Mining Educational Data to Predict Student’s academic Performance using Ensemble Methods by Ibrahim Aljarah:**

1. Student nationality
2. The gender of the student (female or male)
3. Place of birth for the student
4. Parent responsible for student
5. Stage student belongs such as (primary, middle, and high school levels)
6. Grade student belongs as (G-01, G02, G-03, G-04, G-05, G-06, G-07, G-08, G-09, G-10, G-11, G-12)
7. Classroom student belongs as (A, B, C)
8. School year semester as (First or second)
9. Course topic as (Math, English, IT, Arabic, Science, Quran)
10. Student absence days (Above-7, Under-7)
11. Parent is answering the surveys that provided from school or not.
12. This feature obtains the Degree of parent satisfaction from school as follow (Good, Bad)
13. Discussion groups
14. Visited resources
15. Raised hand on class
16. Viewing announcements

**Plan on the type of data to be requested from schools that agree:**

1. We have a mixture of the type of features in Dhivya Rajprasad work, features in Cameron Gray’s work and Madeeha Kamal’s work.
2. Experiment on their combinations for the best results.