Appendix

Appendix A

Date: 04/06/2023

Medium: meeting

(After finish IGCSE Physics Revision Club.)

Me: Ms. It was very tough day to teach all students.

Ms. Sunny Indeed, we must teach 10 students. Even, they have all different level of understanding physics and because they are in all different year group. Therefore, we must teach different chapter with different method to teach them.

Me: Yes, Ms, it is understandable. But thanks to that, my teaching and marking skills improve.

Ms. Sunny: it is also good for your IB exam. Teaching is very good for revising your exam. Also, grading is good for understanding which answer the mark scheme want. But you know? Grading is very boring task for teachers. We do this work every single day. So, for this revision club, I want to give this marking work to you. But you must have to spend your time to revision exams.

Me: then, how about using Auto grading website? It can be helpful to reduce your marking workload.

Ms. Sunny: I'd consider using that, but it is costly and there is also critical point. To mark essay questions, I must review this and mark it. I will mark with my pan rather than using those websites with some scription fee.

Me: So, you must work on marking. Even, you use the websites. Umm. I have computer science internal assessment which is creating a program. I can try to make a program for this problem.

Ms. Sunny: Oh, if you make a program for this problem, I would very glad for you. Could you explain this more?

Me: well, I can make a program that can display exam questions and allow user to enter answer for it. And I can try to make Auto Grading system with Chat GPT. I guess. Haha

Ms. Sunny: it sounds great, is it possible to make some task manager and an exam recommend system?

Me: I guess it is possible technologically. Well, you can send me email to discuss about this. Could you send list of some functions you need?

Ms. Sunny: of course, I will send you email. By the way, you must go to your class now. Don't you?

Me: Oh, I don't want to be late. ok, I will reply to you later or I can talk with you after revision club. Bye.

Ms. Sunny: bye, have a nice day, Hyeon.

Appendix B

Date: 06/06/2023

Medium: email

Dear Hyeon,

I wrote list of functions I need. It is seemed like pretty a lot. But it is very necessary functions I need.

- a user-friendly, intuitive GUI
- task and student management systems.
- Set differentiated permissions by role.
- ability to check students' progress.
- Allow pupils to attempt a variety of previous physics questions.
- Automatic scoring using the ChatGPT Web API
- Automatic recommendation system for students

If there are some issues about it, send me email.

Kind regards,

Ms. Sunny

Reply: it is look fine for make these functions. I will try to make this program early as possible to let students use this program for their revision before the IGCSE exam.

Appendix C

Date: 08/06/2023

Medium: meeting

Me: Hello Ms, we can talk about the program for our revision club. I planned and designed some program pages and some functions. You can look at those and give me some feedback.

Ms. Sunny: OK, let's look at those. I can see some program design diagrams. It is look pretty good. But please keep in mind that the program must be familiar to students.

Me: would you like to make some change over the program design?

Ms. Sunny: umm, I guess Login Page and Sign-Up Page look ok. But I think these text fields are a little tight. And for the hub, I guess you must change layout. I would more prefer the two times two layout. And in the task box, I would like it to have a gauge bar to see students result. And for the Questionary app, you can place the bottom rather than side of app. And for the task manager, I want to get the gauge bar instead of just number in result column. And for the revision page, I don't like the tables. So, can you change it to some boxes?

Me: ok Ms, I will try to implicate this design for the program. Would you like to recommend some colour scheme for this program?

Ms. Sunny: My favourite colour is sky blue. It is also our school theme.

Me: ok. And I made a system diagram. You can check this also.

Ms. Sunny: haha, it is kind of complex for me. Could you explain to me?

Me: firstly, the Login Page will be show when user launch the program. Also, user can sign Up by 'sign up' button. This button will allow users to enter the sign-up page. When user login with their account, the login page will differentiate permission and Hub will be popped up. The Hub will allow users to use various services as which permission they have. Students will be allowed to start task, use the task manager and the revision service. Teacher will be allowed to set task for their students in class. Also, make examSets with some questions.

Ms. Sunny: oh ok, I will look at it later. So, are you working on it now?

Me: Umm…. I just made the plan for it. if you approve this plan, I will start to work on it.

Ms. Sunny: ok, the plan looks fine, you can work on it. If I have some change or questions, I will send a email to you.

Me: I see that, I will let you know when I finished. Bye.

Ms. Sunny: Have a nice day.

Appendix D

Date: 10/12/2023

Medium: email

Dear Hyeon,

Today we tested the program at the club. I think you too have discovered the problem with this program.

However, I also found many problems, so I would like to let you know.

First, perhaps because our school's Wi-Fi is not fast, when marking an essay using ChatGPT, there were times when essay questions were not marked, and it still stopped. If this is technically possible, I think it would be good to fix it. And students said they couldn't see the questions clearly in the questionary app. I think it would be nice to slightly adjust the colour.

I think it's probably just these. In other ways, I was surprised by the quality, which was higher than I expected.I can't wait to use it officially at the club after refining this program and.

Then work hard. Don't forget to go outside and take a walk.

Kind regards

Ms. Sunny

Appendix E

Date: 16/12/2023

Dear Hyeon

I am sending you an email because you asked me to write final feedback on the success criterion.

Overall, this program is good enough to use for the club. And I believe that this program fully meets my needs.

In terms of program design, they were nice and effective. But it would be nice if students could check problems more clearly. And I really like the revision page and Automatic recommendation system. This is because it was helpful for students to have students complete their homework one day at a time using the examSets recommended by the automatic recommendation system. I also liked that it asked me to solve the problem on the revision page. I was very impressed to auto grading function. This takes over my marking work and lowers my workload. I really satisfied; I thank for your work.

Kind regards,

Ms.Sunny.

Appendix E

Feedback from IGCSE physics club students:

- the exam set [that made by ~~class~~. student] can not be shared with someone who ~~can~~ n is not is not is same class

- They want some statistics for gain insight of ~~the~~ their real skill.

- It is too hard and time-consuming to make exam set.

- some items the grading system do not work

    - when there is some essay question (may chat GPT problem)

- some GUI is ugly.

- The predicted grade ~~ES B~~ is ~~grow~~ grow too slowly.

Appendix F

IGCSE students using the program: