**Interviews and Questionnaire Summary**

Through the interviews, we found that most of students accept online teaching and like to watch lectures through recording during the epidemic. They are quite satisfied with the existing products for watching online course recording, but there are still some details requirements that cannot be met, such as recording the last playback position, etc. A learning management platform that focuses on recording functions will have a large user group.

At the same time, we also collected 40 valid questionnaires. Most of the participants are between the ages of 23 and 25, accounting for about 60%, and only 10% of the population is over 30. 80% of the participants are students, and 90% of them are full-time, the rest are part-time. Regarding the online learning method, half of students like to watch Live-streaming lecture, and others prefer watching lecture recording. In addition，approximately 65% of people feel satisfied with current online learning, while 15% of people are very unsatisfied due to some limitations that will be mentioned below of online classes. It can be observed that about 51% of participants are willing to discussing something about the lecture in the comment section, rest of people do not like to participate in discussions to some extent. Consequently, the function of the comment area can be redesigned to increase learner engagement. Then We set up a question to see if participants were interested in posting a barrage while watching learning videos, and there are 60% of people insist that it is an interesting way to interact with other students in real time, therefore adding barrage set will be considered. Moreover，approximately 80% of students feel that their English skills are insufficient, and are struggling in class sometimes, so that they hope to be offered subtitles to help them better understand what the lecturer expresses. According to the survey, it is necessary to add a real-time notebook function in the learning management system because students who occupied about 70% are used to taking notes during learning. There are also useful conclusion from the multiple choice question that which ways will make searching for recordings more convenient that the top five with the highest selection rate are ‘Keyword’, ‘Label’, ‘Through the Topic’, ‘Through the uploader’ and ‘Through the abstract’, they accounted for 76.19%, 47.62%, 35.71%, 30.95% and 30.95% respectively. Furthermore, 69.05% of Respondents think that lecture recording arouses interest in learning, 83.33% of Respondents think that lecture recording Improves the efficiency. And also 83.33% of Respondents agree that lecture recording develop the skill of self-learning.The impact of lecture recording on students has shown a clear positive effect. For open questions, we found that most of students are satisfied with the current learning management system, but they put forward more detailed requirements, such as increasing real-time interactivity, improving the clarity and fluency of recording, reducing some useless functions , and control the learning progress. During interviewing,we found some effective techniques.When conducting an interview, use a notebook to record accurate information.This will facilitate the integration and analysis of information in the future.Avoid lengthy questions when designing questionnaires,because too long questions will make the respondent lose patience, or misinterpret the meaning of the question.Avoid causing problems,and Let the interviewer have more room for self-expression.Design interview with the Semi-structured,because this type of interview provides a good balance between richness and ability to replicate.Using a combination of questionnaires and face-to-face interviews.

By analyzing the survey results, we can better understand the real needs of users, and we found that user positioning and user core needs basically meet the description in PDS.Because of the results ,some parts may be modified in the PDS to highlight the real-time interactivity of the product. And we can update and iterate our scenarios.

Figure1 Figure2

Figure3 Figure4

Figure5

Figure 6

Figure 7

Figure 8

Figure 9

Figure 10