#### Based on the Kirkpatrick's Four-Level Training Evaluation Model

- **1. Reaction:** overall reaction/satisfaction of learners to the learning experience you have designed
  - a. What type of data do you plan to collect (e.g., survey, interview)? How will you collect this data?

In-app survey to check satisfaction. The survey will appear as a simple pop up asking the user to rate their experience as either good or bad with more options for them to expand on their answer. Data analytics to check dropout rates

b. Give examples of types of questions/prompts you plan to use:

After people complete 1-3 conversations, pop up a modal asking them how they like the app with a smiley face and a frowny face. After they pick one the modal will show some text like "Thanks for your feedback! If you want, you can also tell us why you feel that way:" and a text box below it.

c. How do you plan to utilize this data to improve your design:

This sort of data would be a general metric at least for extreme cases (loved it or something is broken and I'm upset). If they actually respond, we could use that data to inform deeper qualitative investigation into those features or experiences.

- **2. Learning:** What have your learners learned? You can measure learning in different ways depending on your objectives, and whether you are interested in changes to knowledge, skills, or attitude.
  - a. What assessments do you plan to implement (e.g., pre/post-test, performance within system quizzes, etc)?

Pre- and Post-tests. This could include questionnaires asking students about strategies to manage their time, what their GPA means, etc. Questions for parents could be similar asking how much they know about the topics, as well as how they feel about their ability to guide their student through these tasks. These will be in the form of quick short answer, multiple choice, or likert scale questions that pop up at the beginning of some, but not all tasks, and then again once users have completed a conversation. By

comparing pre-post data, it will allow for assessment of learning that occurs as a result of completing the conversation.

b. When/at what points do you plan to collect the data?

The pre- and post-tests can be administered during a pilot or beta period before the app is released. The pre test could be implemented when a user starts a conversation. The post test would be administered when all the activities for a conversation are completed.

c. How will data be collected and analyzed?

Data will be collected by the app, which can aggregate and store the users' survey responses for each conversation. It will be analyzed statistically by comparing pre- and post- responses to likert type questions. The mean responses will be analyzed for statistical significance, or even just general improvement in knowledge and people's perceived competence/confidence in the topics of each conversation.

d. How do you plan to utilize this data to improve your design?

The pre- post- data can be used to determine whether the information is being conveyed effectively by the software. If there is a decrease or no change in participants' responses, the presentation of the material can be changed. The video can be edited or the content can be delivered in another way, with more references to the book or other information to fill in any gaps that people are finding in the information. If the feedback is inconsistent, then a more in-depth qualitative survey or study could be done to determine which features need to be changed to increase learning of the concepts.

- **3. Behavior:** Have your participants changed their behavior as you envisioned? How far? Consider application of the new knowledge/skills.
  - a. What types of data do you plan to collect and how will you collect it (e.g., behavioral observations, evidence of transfer)? Give examples of types of questions, data sources, collection methods.

Some implicit metrics (number of tasks scheduled vs completed, to visualize the trend of improvement)

Look at the data that students have entered (such as GPA) over time and how they have revised what they have entered in their conversations. Look for changes in behavior or

evolution of goals, eg. percentage of completion, working time, quality of completion, error rates of completing task etc. Any revision at all shows that the users are engaging with software over time.

b. When/at what points do you plan to collect the data?

The data will be collected at three month intervals after the user has started using the app. Tasks such as GPA tracking, time management, and goal setting are meant to be completed multiple times. If students are updating their GPAs and goals, then the changes can be analyzed to see if there is a change in behavior, such as improvement in GPA or consistent use of time management scheduling.

c. How may you utilize this data?

The data will be analyzed to make comparisons among their GPA, goal setting, target college, etc at the end of each semester. If things are not changing, then more targeted interviews or surveys could be used to understand why nothing is changing or what extra support the user may need to make the intended changes.

- **4. Results**: The goal of any training not only to better the learner, but also impact their surrounding (e.g., job place).
  - a. Do you plan to evaluate such impact of your software/training onto the organization/community/family (learner's immediate surrounding)

The impact of more students getting into college and being more prepared could be analyzed by a survey done when the student completes high school about their success in applying to college and any impact the app may have had on them or others based on knowledge and skills they learned. One conversation is about giving back, so monitoring what students do to complete that conversation may also be an option to look at in the future.

b. What is the desired long-term result?

For students to learn study skills.

For more students to be better prepared for college at a younger age to prevent challenges that arise in high school.

For students to be able to apply, be accepted to, and know how to pay for college.

c. What potential unintended outcomes can you consider? How would you access information to determine if such outcomes occur?

Parents will recommend the app to their friends.

Teachers could change their curriculum or form better relationships with students if they use the book and conversations in their classroom.

We could conduct a long-term study with semesterly interviews or observations to collect this data. We could also do a semesterly or academic yearly feedback survey for app users.

d. What data may you collect (it may be data collected by other sources that you may ask access to)

Metrics to track the amount of students applying or getting into colleges.

If the students put in their graduation date from high school, then when they are going to graduate, a survey can be sent to them asking about the number of colleges they applied to, which colleges they applied to, and which colleges they were accepted to. Questions can also be asked about their behavior throughout high school as it relates to the conversations in the app, such as managing time, how many extracurricular activities they did, and how they managed their GPA.

We may contact parents and teachers (if applicable) to understand their opinion about the app. We can confirm (qualitatively) if the application had any positive (or negative) impact.