

Parent-EMBRACE Dashboard User Experience (UX) Design and Engineering

Parent-EMBRACE is an intelligent educational application for improving reading comprehension of dual-language learners by fostering dialogic reading. During parent-child dialogic reading, parents are encouraged to ask questions of three types (Abstract, Concrete, Relational) that would engender dialogues to engage and support children's understanding of texts. The application aims to trigger the parent readers to ask a variety of conversation-inducing questions. To augment this effort, this project aims to create a parent dashboard that displays information related to the reading behaviors of parents and their children for each book. This includes the number of questions the parent asked in total and for each of the three question types, the time spent reading, and the reader (Parent or Child) and the language (English or Spanish) for the first four readings that meet the minimum reading requirements—that is, reading each book four times, at least once by each language and by each family member. In addition, the interface should clearly convey whether or not users are fulfilling the requirements. This project poses a UX design problem of 1) organizing and presenting complex information in visually digestible form for novice users with non-technical backgrounds, and 2) providing a personal informatics tool that triggers self-reflection on user behaviors and habits. The outcome is a dashboard UX design that 1) displays all this information on one page with minimal navigations, allowing parents to compare information across all the books with minimal effort, and 2) graphically informs the parents' reading and question-asking behaviors.