

UI vs UX

The UX takes user opinion into account, its goal is provide satisfaction with the objective to maintain loyalty, so emotional response is of utmost importance. We can summarize it as the development of usability and the positive emotional response of the user with the goal of ensuring customer satisfaction. For UX, is very important to always keep the users in mind during development, since the experience is not exclusively about that the user sees but also about waiting times and how they feel when using our products. Our project's main user is children aged 6-7, it has been proven that at this age, many children have trouble concentrating on tasks during predetermined times (for example, watching movies, doing homework, etc.). The greatest influence on this is the child's interest in the task and their ability to concentrate. Similarly, the child's ability to follow instructions is another of the main challenges we identified in our users. It is very important to consider these and other aspects while designing a positive user experience, since it will especially impact the child's interest in continuing to play. Our intention is to provide the child with an appropriate experience that minimizes frustration and other negative emotional responses that may impact them. Therefore, we decided to define that the program's understanding must be appropriate for the child's cognitive level. It is also important to provide the child with a sense of control, so they must actively interact with the board elements to maintain the feeling of playing. We also considered the emotional response provided by sounds, alerts, lights, and other elements that provide positive feedback on the children's correct decisions. UX is not only about appearance, but also about generating a safe emotional connection that avoids frustration and fosters a positive opinion about the game and math. All these elements are what influence the development of a positive user experience and make them feel satisfied. This set of elements is what we call UX.

The UI is the physical and technical elements, it is the way the user interacts with our product, which is why it is the medium through which we portray the UX elements we design. In our project, if we define UX aspects as ease of understanding for the child, then the UI is responsible for visually communicating that characteristic. In this case, it uses self-descriptive buttons, striking colors for interaction areas, and contrasting colors for correct and incorrect options. We can avoid long texts and prioritize large, recognizable icons. We could define the UI as the mapping of the elements defined in the UX. Just like in UX, it is important to keep our user in mind, as the UI should be consistent, intuitive, clean, focused, and efficient, as it will be the means by which our users achieve their goals. In our case, a UI that remains clean and focused is required. The presence of a lot of visual content or text could affect our user's concentration. Similarly, a design pattern that children are more familiar with can be adopted.

UX and UI are closely related; both require the user to be in mind while designing. UI could be summarized as the elements that allow the user to interact efficiently and comfortably, while UX is the resulting effect of all these components. It is important to note that UX is not exclusive to interaction elements as it could also be involved in non-functional requirements such as response speed, security, etc. Finally, the benefit of being

able to differentiate both concepts lies primarily in the savings in error correction and the ability to provide the user with what they need in a way they prefer. A product that is capable of achieving the user's objectives is useless if the user does not want to use our product due to a bad experience. I learned this well in the project because our team confused UI with UX on several occasions and we believed that bright colors were enough to improve the experience. At one point, we forgot that we should consider children's cognitive capacity, and it ended up affecting the writing of instructions and feedback with long and complex texts for children. I learned this well on the project because our team confused UI with UX on several occasions, and we believed that bright colors were enough to improve the experience. We didn't consider children's frustration and how it could discourage them from playing and even cause them to give up trying. Ultimately, the impact that designers believe that a pretty UI is enough can have can significantly affect a user's decision to stay loyal to the product or choose another. A good UX ensures that the user stays with our product for a longer period.