**2.2.4. Design and its effects on the mobile educational apps**

There are many people living in our country. Most individuals in today's economic and technical progress own cellphones. In my nation, smartphone development has increased since around 2010. With the help of 3G and 4G networks, there are more than 900 million smartphone users worldwide, and the penetration rate of the Internet is close to 70%. About 99% of these 900 million netizens use their mobile phones to access the internet, which essentially means that every household in our nation owns a smartphone. As a result, there are always more smartphone applications available, with education apps serving as an example. The key issue at hand right now is how to satisfy entirely various sorts of netizens through interface design what we called in (UI/UX) [10].

Designing for UI and UX is closely tied to the academic field of Human-Computer Interaction (HCI). For HCI research, practice, and teaching, user interface design is essential. Don Norman I initially coined the phrase "user experience" (UX) [14], which aims to address the human experience from an emotional, affective, experiential, hedonic, and artistic perspective. The UX research and design processes respond, focusing on well-established work environments in the public and private spheres and elevating the user's element of emotion and experience. Based on this, the designers can cope with a complex, networked world of information and computer-mediated interactions and grasp the dynamics of socio-behavioral settings of HCI [13].

Interfaces (UI/UX) are the means through which consumers and digital products communicate. The layer of the UX that is visible is referred to as the UI. The user is encouraged to "share" her personal information with the service provider through the UI. The most important factors when discussing user interface and privacy are clearly telling users about the kind and volume of data that is gathered when they use the service [11].

The user requirements for educational APPs are more complex, and the APP interface must enable users to feel the exquisite product experience in terms of vision; otherwise, users won't have a favorable initial impression of the APP. The user's desire for engagement is quite strong in addition to their visual requirements. Users prefer to actively participate in learning and do not want to passively consume app content. User experience and emotional needs can only be met in this way [10].

Chart, line chart

Description automatically generatedDue to the relative range of educational aims and the dispersed nature of user wants, the education APP interface must be explicit about both its product goals and user needs. The effectiveness of educational APP products can only be ascertained when they are used by younger, older, mature, and adult populations. The user's demands are obviously to increase their professional level or learn material for fundamental education [10].

The design goals define which features are necessary for the interface interaction design of educational APPs. The interface interaction design components must incorporate video material if the APP is built around the teaching style of live and recorded viewpoint. [10] The APP, however, is primarily built around a question bank, therefore the interface interaction design components should concentrate on the exercises and aid users in improving their learning outcomes through interactive design features like the in-depth justifications of incorrect questions.

As seen by the graph, more study reveals a general positive correlation between "User experience" and "User Willingness."

user experience : significantly influences whether a user is likely to use a product again, and this influence is favorably connected with learning outcomes.

User willingness : is significantly impacted by user-friendliness and entertainment, the User experience is greatly influenced by the way that content is presented, the interaction manner, and the design of the interface.

learning Outcomes : these are strongly influenced by user experience and user willingness, and user experience enhancement can also lead to greater user willingness.

Learning interest is a result of all these previous factors.

Diagram

Description automatically generatedWe can easily understand how numerous aspects interact when we organize their connection into a map.

According to research, the user experience design of HCI craft education applications has a strong emphasis on appearance and interaction, in contrast to other types of apps. The aesthetics of color and graphics, which are frequently valued, are not that significant. The major strategies to stimulate user interest in using educational applications again include designs that are fun and helpful to the user. The desire of users to use craft education applications may also be increased by improving the user experience. [12] Enhancements in these areas can be employed in practical design to raise learning effectiveness and interest

Table

Description automatically generatedSo we now have to choose the tool that we will use in designing our app UI, there are two options for the tools Sketch and Figma and in this part, we will simply compare them to make sure that we make the right choice.

Finally, we choose the Figma tool to use in designing the UI of our app due to the tool's benefits.