

**PERANCANGAN UI/UX APLIKASI MEDIA TERAPI BERBASIS  
MOBILE BAGI TENAGA PENDIDIK ANAK PENYANDANG *AUTISM  
SPECTRUM DISORDER (ASD)* MENGGUNAKAN *FRAMEWORK USER  
CENTERED DESIGN (UCD)***

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**ABSTRAK**

*Autism Spectrum Disorder (ASD)* merupakan gangguan perkembangan *neurobiologis* yang ditandai dengan adanya kesulitan dalam berkomunikasi, kontrol emosi dan persepsi-sensorik. Salah satu gangguan yang paling umum dijumpai pada anak penyandang ASD adalah kesulitan dalam berkomunikasi. Dalam menanggulangi hal tersebut diperlukan tenaga pendidik dengan keterampilan dan strategi pendidikan yang tepat. Didukung juga dengan perkembangan teknologi mobile terkini, akan sangat relevan apabila dapat membangun aplikasi dalam membantu tenaga pendidik untuk membimbing terapi kepada anak penyandang ASD ini. Salah satu metode terapi yang dapat digunakan adalah *Augmentatif and Alternative Communication (AAC)* khususnya *Picture Exchange Communication System (PECS)*. Dalam pengembangan aplikasi mobile tak terkecuali *Tab/iPad interface*, perlu memperhatikan *User Interface* dan *User Experience (UI/UX)* yang baik guna menjembatani kesuksesan aplikasi yang dibangun. Penelitian ini menggunakan *framework User-Centered Design (UCD)* karena berfokus pada *task, needs* dan *information* yang berasal dari *user*. Penelitian ini menggunakan *Cognitive Walkthrough* dan *System Usability Scale* sebagai metode evaluasi usability testing dengan penilaian pada aspek *learnability, effectiveness* dan *efficiency*. Hasil penelitian ini menunjukkan bahwa rancangan desain dapat menutupi kekurangan dari aplikasi serupa dengan hasil evaluasi *usability testing* tergolong baik pada pengujian SUS. Pada aspek *learnability* menunjukkan *learning curve* yang menurun pada tiap percobaan, aspek *effectiveness* mendapatkan nilai sebesar 90% pada pengujian *success rate* dan aspek *efficiency* mendapatkan nilai *timebased efficiency* sebesar 0,013 goals/sec.

**Kata Kunci:** ASD, AAC, Tenaga Pendidik, UI/UX, UCD, Usability Testing.

**UI/UX DESIGN OF MOBILE-BASED MEDIA THERAPY APPLICATIONS  
FOR EDUCATORS OF CHILDREN WITH AUTISM SPECTRUM  
DISORDER (ASD): A USER CENTERED DESIGN (UCD) APPROACH**

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**ABSTRACT**

*Autism Spectrum Disorder (ASD) is a neurobiological developmental disorder characterized by difficulties in communication, emotional control, and sensory perception. One of the most common disorders in children with ASD is difficulty communicating. In tackling this, educators with the right educational skills and strategies are needed. Also supported by the latest developments in mobile technology, it would be very relevant if we could build an application to help educators guide the therapy for children with ASD. One therapy method that can be used is Augmentative and Alternative Communication (AAC), especially the Picture Exchange Communication System (PECS). In developing mobile applications, the Tab/iPad interface is no exception, it is necessary to pay attention to a good User Interface and User Experience (UI/UX) to bridge the success of the application being built. This study uses the User-Centered Design (UCD) framework because it focuses on tasks, needs, and information from the user. This study uses the Cognitive Walkthrough and the System Usability Scale as usability testing evaluation methods with assessments on the aspects of learnability, effectiveness, and efficiency. The results of this study indicate that the design can cover the deficiencies of similar applications with the results of the usability testing evaluation were also good both on the SUS test and Usability aspect. The learnability aspect shows a decreasing learning curve in each trial, the effectiveness aspect gets a value of 90% in the success rate test and the efficiency aspect gets a time-based efficiency value of 0.013 goals/sec.*

**Keywords:** ASD, AAC, Educators, UI/UX, UCD, Usability Testing.