

## ABSTRAK

Berdasarkan hasil wawancara dan observasi yang peneliti lakukan di Puskesmas Sumur Batu, diidentifikasi bahwa sistem pelayanan informasi dan pendaftaran yang masih menggunakan sistem manual menyebabkan pengunjung mengalami kesulitan dalam mendapatkan informasi mengenai Puskesmas Sumur Batu. Hal ini berpotensi menyebabkan antrean panjang pada layanan informasi dan pendaftaran. Oleh karena itu, peneliti membangun sebuah chatbot menggunakan metode *Extreme Programming* (XP) yang terdiri dari empat tahap, yaitu pengumpulan data, desain, coding, dan pengujian.

Data diperoleh melalui wawancara dengan pegawai Puskesmas dan observasi lapangan. Chatbot ini diintegrasikan dengan aplikasi Telegram dan Dialogflow serta sudah di uji menggunakan metode *Black Box*. Tingkat efisiensi chatbot diukur melalui pengisian kuisioner oleh pegawai dan pengunjung atau pasien Puskesmas Sumur Batu.

Hasil kuisioner menunjukkan bahwa chatbot berhasil meningkatkan efisiensi layanan, dengan rata-rata nilai reting pada sistem chatbot mencapai 88,5% dari 47 responden. Dengan demikian, dapat disimpulkan bahwa chatbot ini berpotensi memberikan kontribusi positif dalam memperbaiki proses pendaftaran dan interaksi pasien di Puskesmas Sumur Batu.

Kata Kunci: Chatbot, Dialogflow, *Extreme Programing*, Layanan Puskesmas, Telegram.

## **ABSTRACT**

Based on the results of interviews and observations conducted by the researcher at the Sumur Batu Community Health Center, it was identified that the information and registration service system, which still relies on manual processes, causes difficulties for visitors in obtaining information about the Sumur Batu Community Health Center. This has the potential to lead to long queues at the information and registration counters. Therefore, the researcher developed a chatbot using the Extreme Programming (XP) methodology, which consists of four phases: data collection, design, coding, and testing.

Data were obtained through interviews with Puskesmas staff and field observations. This chatbot was integrated with the Telegram and Dialogflow applications and was tested using the Black Box method. The efficiency of the chatbot was measured through the completion of questionnaires by both Puskesmas staff and visitors or patients at the Sumur Batu Community Health Center.

The questionnaire results indicated that the chatbot successfully improved service efficiency, with an average rating of the chatbot system reaching 88.5% from 47 respondents. Thus, it can be concluded that this chatbot has the potential to make a positive contribution to improving the registration process and patient interactions at the Sumur Batu Community Health Center.

**Keywords:** Chatbot, Dialogflow, Extream Programing, Community Health Center Services, Telegram.