

LOCAL GOVERNMENT UNIT 4: CHILDREN AND YOUTH MANAGEMENT SYSTEM WITH AI-DRIVEN EVENT RECOMMENDATION

ABSTRACT

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Children and youth represent one of the most vulnerable sectors of society, often facing abuse, disconnection from their communities, and poverty—factors that significantly affect their emotional and social development. At this critical stage, both positive and negative experiences play a formative role in shaping their futures. Many rely on community programs and social services for support. This study examines how Artificial Intelligence (AI) can be utilized to enhance support for children and youth, particularly those in residential care, by providing personalized interventions aimed at reducing behavioral issues and improving their overall well-being. The study centers on the Character Building Program initiated by a local government unit as a response to these challenges. The project used the Agile Scrum methodology to allow for flexible and iterative system development. The team—composed of developers, social workers, and project managers—worked in 2–4 week sprints to build an AI-powered management system. Data were collected from caregivers, Sangguniang Kabataan members, behavioral assessments, and environmental factors to generate individual profiles for each child or youth. Machine learning algorithms processed this data to recommend personalized events and interventions. Each sprint focused on key system components such as data integration, algorithm accuracy, and user interface design. Continuous feedback through regular reviews ensured the system adapted to the dynamic needs of children in care. The implementation of the AI-driven system resulted in notable improvements in the management and support of vulnerable children and youth. Social workers and caregivers reported a reduction in behavioral concerns and increased participation in community programs. Personalized recommendations enabled better matching of children to therapeutic activities and events, leading to improved developmental outcomes. Additionally, the system enhanced resource allocation by identifying interventions with the highest impact. Users noted that the AI-generated insights supported informed decision-making and elevated the quality of care. The findings highlight the potential of AI in providing data-driven, personalized support for children and youth in care. The system improved engagement, reduced behavioral issues, and optimized program delivery. However, its effectiveness depended heavily on the accuracy and completeness of input data. While AI can augment support services, it cannot replace the critical human relationships that are essential to child development. Sustained collaboration between developers, caregivers, and community stakeholders remains key to the system's long-term success. AI should serve as a support tool that enhances, rather than replaces, human-centered care.

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