

ABSTRAK

Daerah Istimewa Yogyakarta (DIY) merupakan wilayah dengan tingkat kerentanan tinggi terhadap bencana gempa bumi, letusan gunung api, banjir, dan tanah longsor, sehingga sektor pendidikan memerlukan sistem ketahanan yang adaptif dan berkelanjutan. Program Satuan Pendidikan Aman Bencana (SPAB) menjadi upaya strategis dalam memperkuat kesiapsiagaan sekolah melalui sinergi antaraktor berbasis kolaborasi pentahelix. Namun, peran antar aktor dalam implementasinya masih belum optimal. Penelitian ini bertujuan menganalisis kolaborasi pentahelix dalam Program SPAB, mengidentifikasi faktor-faktor yang mendukung, serta menganalisis Program SPAB di DIY terhadap pengetahuan warga sekolah tentang bencana. Penelitian ini menggunakan pendekatan *mixed methods* dengan desain *convergent parallel*. Data dikumpulkan melalui wawancara mendalam, observasi, studi dokumentasi, serta kuesioner skala Likert kepada guru, kepala sekolah, dan peserta didik. Analisis kualitatif dilakukan dengan pendekatan tematik dan analisis SWOT, sedangkan data kuantitatif dianalisis secara deskriptif menggunakan uji validitas dan reliabilitas instrumen dengan nilai *Cronbach's Alpha*. Hasil penelitian menunjukkan bahwa kolaborasi pentahelix telah berjalan cukup baik dengan dominasi peran pemerintah dan akademisi melalui dukungan kebijakan, pelatihan, serta pengembangan kurikulum kebencanaan. Sementara keterlibatan dunia usaha dan media masih belum optimal. Penelitian ini menunjukan bahwa Program SPAB terbukti meningkatkan literasi risiko dan pengetahuan kebencanaan warga sekolah, namun aspek keterampilan praktis masih perlu ditingkatkan melalui pelatihan dan simulasi berkelanjutan. Temuan ini menegaskan pentingnya pemerataan peran antar aktor dan penguatan kelembagaan dalam mewujudkan pendidikan tangguh bencana di Daerah Istimewa Yogyakarta.

Kata kunci: Kolaborasi pentahelix, Pendidikan bencana, SPAB, Daerah Istimewa Yogyakarta

ABSTRACT

The Special Region of Yogyakarta (DIY) is an area with a high level of vulnerability to earthquakes, volcanic eruptions, floods, and landslides, making the education sector require an adaptive and sustainable resilience system. The Safe School Programme (Satuan Pendidikan Aman Bencana – SPAB) serves as a strategic effort to strengthen school preparedness through multi-actor synergy based on the pentahelix collaboration model. However, the roles of the actors involved in its implementation remain suboptimal. This study aims to analyse pentahelix collaboration in the SPAB Programme, identify the supporting factors, and examine the effect of SPAB implementation in DIY on the disaster knowledge of school communities. The research employs a mixed-methods approach with a convergent parallel design. Data were collected through in-depth interviews, observations, document studies, and Likert-scale questionnaires administered to teachers, principals, and students. Qualitative data were analysed using a thematic and SWOT approach, while quantitative data were analysed descriptively, including validity and reliability testing of instruments using Cronbach's Alpha. The findings indicate that pentahelix collaboration has been moderately effective, with the government and academia playing dominant roles through policy support, training, and the development of disaster education curricula. In contrast, the involvement of the private sector and media remains limited. The study demonstrates that the SPAB Programme significantly improves disaster risk literacy and knowledge among school communities; however, practical skills require further enhancement through continuous training and simulation. These findings highlight the importance of balancing actor participation and strengthening institutional frameworks to realise disaster resilient education in the Special Region of Yogyakarta.

Keywords: *Collaboration, Disaster Education, Disaster Risk Reduction, Pentahelix, SPAB, Yogyakarta*