PENGEMBANGAN *WEBSITE* PENERJEMAH *AMERICAN SIGN LANGUAGE* UNTUK TERMINOLOGI IPA (TARI) KELAS IV SEKOLAH DASAR

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ABSTRAK

Pembelajaran Ilmu Pengetahuan Alam (IPA) bagi siswa tunarungu di sekolah dasar inklusif masih menghadapi tantangan serius, terutama dalam memahami terminologi ilmiah yang bersifat abstrak dan didominasi istilah serapan Bahasa Inggris. Keterbatasan padanan istilah IPA dalam Sistem Isyarat Bahasa Indonesia (SIBI) dan Bahasa Isyarat Indonesia (BISINDO) menyebabkan kesenjangan akses terhadap pengetahuan sains. Penelitian ini bertujuan mengembangkan *website* penerjemah *American Sign Language* (ASL) untuk terminologi IPA kelas IV Sekolah Dasar yang diberi nama *Terminology ASL Resource Initiative* (TARI). Penelitian menggunakan metode *Research and Development* dengan model ADDIE, yang dilaksanakan hingga tahap pengembangan. Subjek penelitian melibatkan ahli konten IPA, ahli sumber belajar digital, guru, dan siswa. Pengumpulan data dilakukan melalui *checklist* kesiapan pengguna berbasis *Technology Readiness Index* (TRI) 2.0, lembar validasi ahli, serta angket respon pengguna. Hasil penelitian menunjukkan bahwa kesiapan pengguna berada pada kategori sangat tinggi, validitas isi *website* tergolong sangat tinggi, dan kepraktisan penggunaan dinilai sangat baik oleh guru dan siswa. Temuan ini menunjukkan bahwa *website* TARI layak digunakan sebagai sumber belajar digital untuk meningkatkan aksesibilitas dan pemahaman terminologi IPA bagi siswa tunarungu di sekolah dasar inklusif.

Kata Kunci: *American Sign Language*, terminologi IPA, tunarungu, pembelajaran inklusif, sumber belajar digital

DEVELOPMENT OF AN AMERICAN SIGN LANGUAGE TRANSLATION WEBSITE FOR SCIENCE TERMINOLOGY (TARI) FOR FOURTH GRADE ELEMENTARY SCHOOL

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ABSTRACT

Science learning for deaf students in inclusive elementary schools continues to face significant challenges, particularly in understanding scientific terminology that is abstract and dominated by English loanwords. The limited availability of science terminology equivalents in Indonesian Sign Language systems restricts deaf students' access to scientific knowledge. This study aimed to develop and evaluate an American Sign Language (ASL) translation website for fourth-grade elementary school science terminology, entitled the Terminology ASL Resource Initiative (TARI). The research employed a Research and Development approach using the ADDIE model, implemented up to the development stage. Participants included science content experts, digital learning media experts, teachers, and students. Data were collected through user readiness checklists based on the Technology Readiness Index (TRI) 2.0, expert validation instruments, and user response questionnaires. The results indicate that user readiness was categorized as very high, content validity achieved a very high level, and the website demonstrated excellent practicality according to both teachers and students. These findings suggest that the TARI website is a valid and practical digital learning resource that supports inclusive science education by improving accessibility and facilitating the understanding of scientific terminology for deaf students at the elementary school level.

Keywords: *American Sign Language, science terminology, deaf, inclusive education, digital learning resources*