

## ABSTRAK

**Asep Yogas Kustijaman, NIM. 0908274. “Alat Sensor Bahaya Untuk Mendukung Kemampuan Keselamatan Diri Siswa Tunanetra”. Tesis, Magister Pendidikan, Program Studi Pendidikan Kebutuhan Khusus, Sekolah Pascasarjana, Universitas Pendidikan Indonesia, 2012.**

Penelitian ini bertujuan **pertama** untuk memperoleh gambaran tentang kondisi obyektif kemampuan keselamatan diri siswa tunanetra di sekolah, **kedua** untuk merumuskan desain alat sensor bahaya beserta panduan penggunaannya yang dapat mendukung kemampuan keselamatan diri siswa tunanetra.

Metode yang digunakan peneliti adalah metode deskriptif dengan pendekatan kualitatif. Teknik pengumpulan data menggunakan observasi, wawancara, studi dokumentasi. Subjek dalam penelitian ini adalah sebanyak tiga orang, terdiri dari dua orang siswa tunanetra dan satu orang guru yang mengajar siswa tunanetra. Teknik pengolahan data hasil penelitian dilakukan dengan tahapan: pencatatan data baik pencatatan awal maupun formal, kemudian melakukan analisis data melalui kegiatan reduksi data, penyajian data atau display data, penarikan kesimpulan (konklusi), melakukan verifikasi dan tahap pemeriksaan keabsahan data penelitian melalui triangulasi.

Hasil penelitian ini menunjukkan bahwa **pertama** kondisi obyektif kemampuan keselamatan diri siswa tunanetra saat ini masih kurang, baik pada aspek pemahaman siswa tentang konsep keselamatan diri maupun pada aspek kemampuan menyelamatkan dan menghindari diri siswa tunanetra. **Kedua** desain alat sensor bahaya beserta panduan penggunaannya yang telah disusun pada penelitian ini, dapat mendukung kemampuan keselamatan diri siswa tunanetra. Desain ini disusun melalui tahapan: (1) penyusunan desain awal, (2) penyusunan desain berdasarkan hasil *focus group discussion* (FGD), dan (3) penyusunan desain akhir berdasarkan hasil validasi melalui *expert judgement*.. Proses analisis dan pengkajian desain pada masing-masing tahapan dilakukan melalui 4 (empat) fase yaitu: (1) perencanaan dan penjelasan tugas, (2) perancangan konsep produk, (3) perancangan bentuk produk (*embodiment design*), dan (4) perancangan detail.

Kesimpulan dari penelitian ini menyatakan bahwa: **pertama**, kemampuan keselamatan diri siswa tunanetra saat ini masih kurang; **kedua**, desain alat sensor bahaya beserta panduan penggunaannya ternyata sangat dibutuhkan oleh siswa tunanetra untuk mendukung kemampuan keselamatan dirinya di sekolah. Peneliti merekomendasikan hasil penelitian ini agar dapat dijadikan pertimbangan pemikiran bagi pemerhati layanan pendidikan khusus terutama dalam rangka peningkatan akses pelayanan kebutuhan siswa tunanetra dalam mendukung kemampuan keselamatan diri siswa tunanetra di sekolah.

**Kata kunci: Alat Sensor Bahaya, Keselamatan diri, Desain, Aksesibilitas, Tunanetra.**

## ABSTRACT

**Asep Yogas Kustijaman, NIM. 0908274. "Danger Sensor Tool to Support Self Safety Capabilities of Student with Visual Impairment". Thesis, Master of Education, Special Needs Education Program, Graduate School, University of Education Indonesia, 2012.**

This research is carried out for the following objective: firstly to find out the objective condition self safety ability of students with visual impairment in their school, secondly to formulated the desain of the sensor danger tools completed with the manual guide to support self safety ability for students with visual impairment.

The metode used in this reasearch is the descriptive metode with qualitative approach. Data collection was carried out through observation, interviews and document study. The researcher toke three people as the reaserch subject, consisting of two students with visual impairment and one teacher who teach visual impairment students. Data processing was conducted in the following stages: both initial and formal registration, data analysing through data reducing, data displating, data concluding, and verifying the validity of the examination phase of research data through triangulation.

This result of the reseach find out the following facts: 1) The objective condition indicates that the self safety ability of students with visual impairment has not been safition, both aspects of the students understanding of the concept of personal safety and the aspect of the ability to save and avoid themself from danger. 2) The design of the danger sensor tools and manual guide formulated in this reseach, can support the self safety ability of students with visual impairment.

Design formulation has been conducted in several three stages as follow: 1) premenalery design formulation, 2) design formulation based on focus group discussion (FGD), 3) final design formulation validated by the expert judgment. It is stages of the data process analysing has been carried out in four phases: 1) planning and job description, 2) product concept designing, 3) embodiment designing, 4) detail designing.

This reseach find out the following conclusion: : 1) The objective condition indicates that the self safety ability of students with visual impairment has not been safition, both aspects of the students understanding of the concept of personal safety and the aspect of the ability to save and avoid themself from danger. 2) The design of the danger sensor tools and manual guide formulated in this reseach, can support the self safety ability of s tudents with visual impairment in the school.

Based on the research, the resercher recommends the observer of the Special Education Services to use this reseach as their considiration to improve the service needed by students with visual impairment, specially for improving their self safety ability in their school.

**Keywords: Danger Sensor Tool, Self Safety, Design, Accessibility, Visual Impairment.**