INTISARI

Angka kecelakaan kerja di Indonesia masih menunjukkan nilai yang terus meningkat setiap tahunnya. Salah satu langkah penanggulangannya adalah dengan penggunaan *safety signs* atau rambu keselamatan. Akan tetapi, beberapa studi menunjukkan bahwa pemahaman seseorang terhadap rambu keselamatan di banyak negara seperti Italia, China, dan Portugal masih sangat rendah. Berangkat dari hal tersebut, penelitian ini dilakukan untuk mengetahui bagaimana interpretasi siswa SMK dan mahasiswa teknik yang merupakan calon sumber daya manusia di industri Indonesia terhadap rambu keselamatan dari ISO 7010 kategori *Prohibition, Mandatory Action,* dan *Evacuation Route*.

Responden penelitian berjumlah 71 orang (36 responden SMK dan 35 responden mahasiswa) dengan kriteria usia minimal 18 tahun dan tidak buta warna. Sepuluh rambu keselamatan yang diujikan adalah P048 *No running*, M012 *Use handrail*, M018 *Wear safety harness*, M059 *Wear laboratory coat*, M003 *Wear ear protection*, M004 *Wear eye protection*, M014 *Wear head protection*, M016 *Wear a mask*, E011 *Eyewash station*, dan E012 *Safety shower* yang telah diseleksi melalui pembentukan konsensus dan survei kepada praktisi industri. Pengambilan data dilakukan dengan metode wawancara mengacu pada Standar ISO 9186-1:2014, di mana responden diminta untuk menjawab beberapa pertanyaan terkait 4 variabel yaitu interpretasi rambu (terdiri dari pemahaman terhadap simbol, rambu, dan niat kepatuhan) serta familiaritas. Jawaban responden selanjutnya dinilai secara terpisah oleh setiap anggota tim peneliti dan dilakukan pembentukan konsensus untuk menentukan penilaian akhir. Reliabilitas antar peneliti dilaporkan sebesar 91,83%. Skor yang didapatkan selanjutnya diolah menggunakan beberapa pengujian statistik, seperti uji i*ndependent t-test*, *Mann-Whitney*, *Spearman's correlations*, dan *Chi-square*. Nilai signifikansi yang digunakan adalah sebesar 5%.

Hasil menunjukkan bahwa skor rata-rata pemahaman simbol siswa SMK dan mahasiswa teknik belum mencapai kriteria 67% pemahaman ISO, sedangkan terkait pemahaman rambu dan niat kepatuhan sudah melampaui kriteria. Rambu M012, E011, dan E012 menjadi rambu yang cukup bermasalah karena belum melampaui kriteria 67% pemahaman. Diketahui bahwa rata-rata skor pemahaman rambu lebih tinggi dibandingkan rata-rata skor pemahaman simbol. Pada kelompok SMK terdapat korelasi positif yang kuat antar seluruh variabel yang diuji ($0,7 \leq r_s \leq 0,9$), kecuali antara familiaritas dengan pemahaman simbol yang berkorelasi sedang ($0,4 \leq r_s \leq 0,6$) sedangkan pada kelompok mahasiswa terdapat korelasi positif kuat ($0,7 \leq r_s \leq 0,9$) antar seluruh variabel yang diuji. Pengujian statistik juga menunjukkan bahwa faktor personal pendidikan terakhir, pengalaman PKL/KP, kepemilikan SIM, dan domisili memiliki hubungan dengan pemahaman beberapa simbol dan rambu keselamatan (*p-value*≤0,05).

Kata kunci: pemahaman, rambu, simbol, keselamatan, siswa SMK, mahasiswa teknik

ABSTRACT

The number of work accidents is still increasing every year. This can be mitigated by the usage of safety signs. However, several studies reported that the safety sign comprehensions in many countries like Italy, Chinese, and Portugal are still in the low scores. This study investigates the comprehension of vocational high school students and the engineering students in Indonesia as industry human resource candidates about the safety signs based on ISO 7010, especially for Prohibition, Mandatory Action, and Evacuation Route categories.

There are 71 respondents (which consist of 36 vocational high school students and 35 engineering students) with a minimum age of 18 and no color blindness participated in this study. Ten safety signs were tested, i.e. P048 No running, M012 Use handrail, M018 Wear safety harness, M059 Wear laboratory coat, M003 Wear ear protection, M004 Wear eye protection, M014 Wear head protection, M016 Wear a mask, E011 Eyewash station, and E012 Safety shower that have been selected through the consensus building and the survey to the industry practitioners. Data collection was performed by the interview refer to ISO 9186-1:2014. Respondents were asked to answer several questions about 4 variables i.e. signs interpretation (consisting of symbol comprehensions, sign comprehensions, and compliance intentions) and familiarity. The researchers scored the answer of the respondents individually and built the consensus to decide the final scores. Interrater reliability is about 91,83%. Final scores were tested using several statistic methods, i.e. independent t-test, Mann-Whitney test, Spearman's correlations test, and chi-square test. Significance value used in this study is 5%.

The result of this study indicates that the average score of symbol comprehensions of the vocational high school students and the engineering students hasn't reached the 67% ISO comprehension criteria. In contrast, the average score of sign comprehensions and compliance intentions have reached the criteria. The M012, E011, and E012 signs are reported to be problematic because they haven't reached the 67% ISO comprehension criteria for all the respondent groups. The average score of sign comprehension is higher than the average symbol comprehension score. There are positive strong correlations between all the variables tested in the vocational high school students group ($0,7 \leq r_s \leq 0,9$), except between the familiarity and the symbol comprehensions which have moderate correlations ($0,4 \leq r_s \leq 0,6$). There are also positive strong correlations among variables tested for engineering students group ($0,7 \leq r_s \leq 0,9$). The statistical tests also pointed out that the personal factors i.e. previous education, field practice experience, driving license, and domicile have correlations with the comprehension of several symbols and signs (p-value$\leq$0,05).

Keywords: comprehensions, signs, symbols, safety, vocational high school students, engineering students