

Complex health and safety paperwork and literacy skill gaps put employees at risk

1 August 2013

Overview

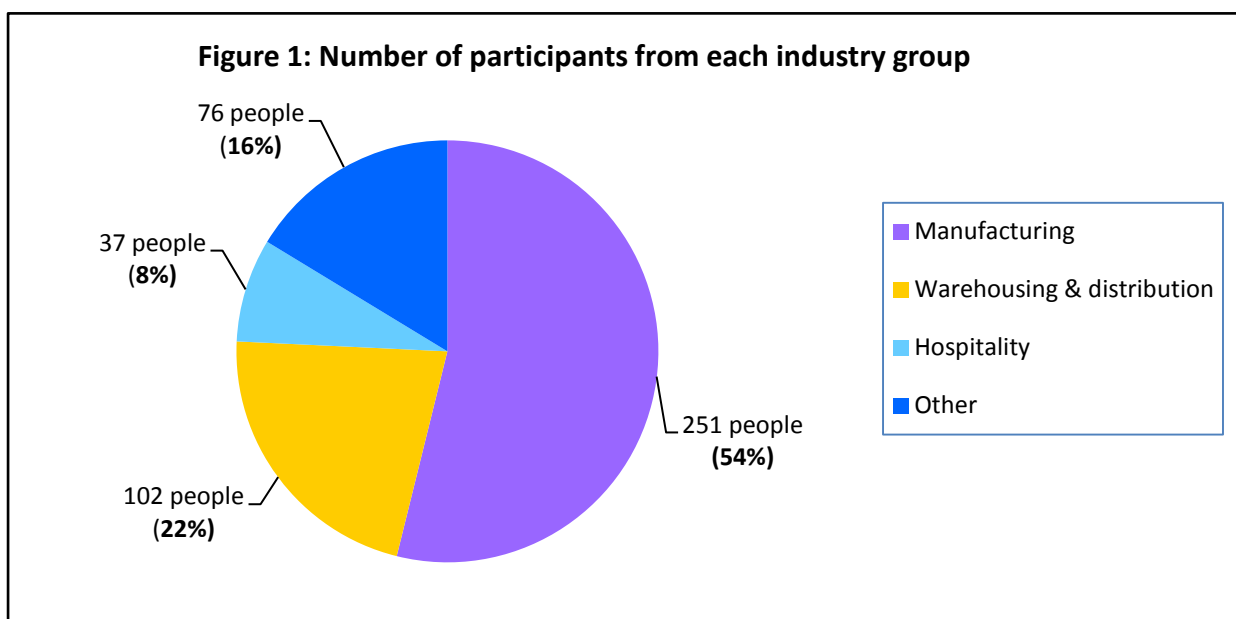
Every year more than 200,000 New Zealanders are seriously harmed and more than 100 are killed in workplace accidents. Regulators and employers are taking active steps to keep people safe and healthy at work but a new study has found significant gaps in employees' understanding of workplace health and safety information, documentation and paperwork.

Two-thirds of the employees in the study did not fully understand written information about their employer's health and safety policies and rules, hazard information, and safety procedures. Furthermore, 80% of employees were not able to accurately complete hazard report forms. The study also analysed the companies' health and safety documents and found that they were inevitably highly complex in nature and used vocabulary that was unfamiliar to many employees in the study.

Methodology

The study involved analysing data from 466 employees in 23 New Zealand manufacturing, warehousing, hospitality and other businesses (see *Figure 1*). Employees' health and safety knowledge was measured by showing them a sample of their company's core health and safety documents and assessing what they could understand of the content.

Most employees (82%) were in front line roles (process workers, packers and house-keepers) but 18% were leading hands, team leaders or supervisors.



Findings

Researchers analysed the companies' workplace health and safety documents and assessed employees' reading and understanding (comprehension) and hazard reporting (form filling) skills.

1. Workplace health and safety documents

All industries' workplace health and safety documents consistently used unfamiliar, specialist and formal vocabulary (e.g. spillage, adversely affected, orifices, designated place, eliminate). This vocabulary caused difficulties for all employees. See Appendix One for a more extensive list of words that caused difficulties.

Health and safety documents in many companies mirrored the concepts and vocabulary used in legislation, regulation, approved codes of practice and guidance documents provided by government agencies.

The documents often contained dense, indirect and complex sentence structures that required inferential reading (i.e. reading between the lines).

Unfamiliar words (e.g. horseplay) and overly formal language were common, which confused many employees. Such vocabulary was misinterpreted by employees who spoke English as a second language and by people with lower literacy skills.

2. Reading and comprehension

Most employees (63% in the total sample and 73% in manufacturing and distribution companies) had limited knowledge and understanding of their company's health and safety documents (see Figures 2 and 3 on next page).

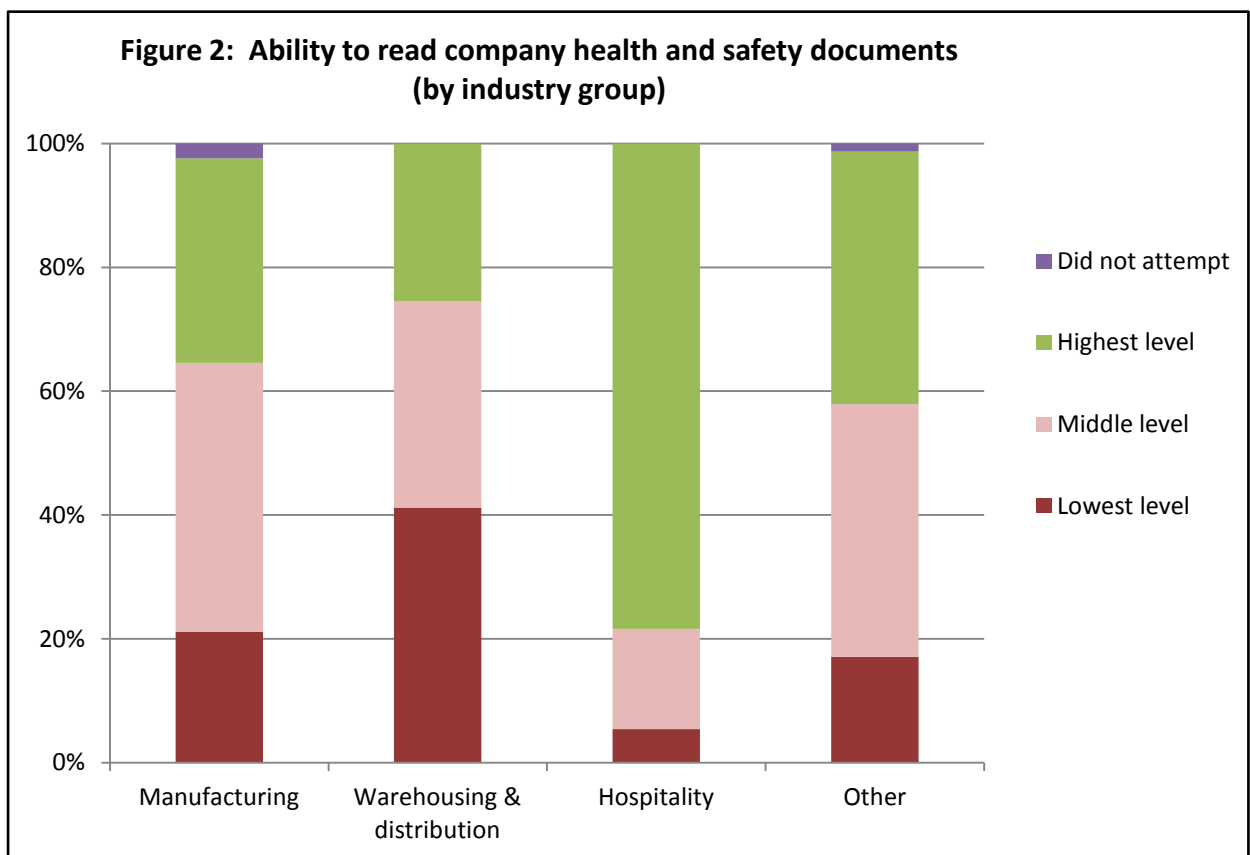
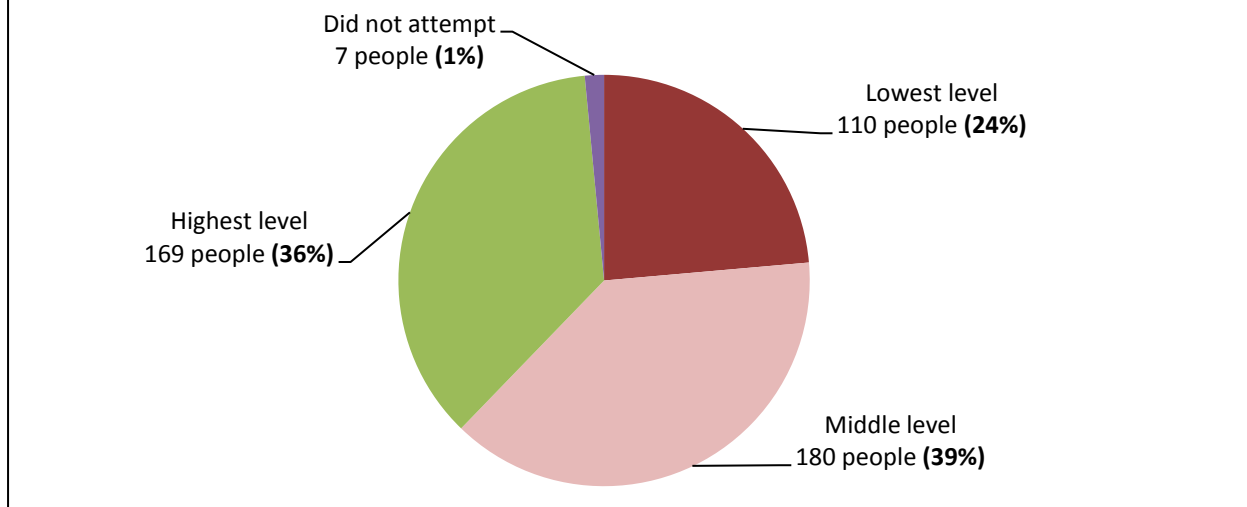


Figure 3: Ability to read company health and safety documents



Lowest level skills

The 24% of employees with the lowest literacy skill levels could read basic texts but they did not know formal words such as: *sustain; maintenance; visible; appropriate* and unfamiliar words such as *horseplay* and *rough handling*. As a result, employees in this group:

- did not understand the purpose of the health and safety documents
- could not identify the important points in long or complex documents
- could not accurately explain what the documents meant.

Most health and safety documents would be beyond these employees' understanding. Furthermore, members of this group would be unlikely to have the confidence or language skills to ask for an explanation when they did not understand something.

Middle level skills

The 39% of employees with better literacy skill levels could read straight forward familiar texts but a limited knowledge of specialist and formal health and safety vocabulary hindered their understanding of their workplace's health and safety documents. This middle group struggled to navigate longer, more complex documents and only partially understood information, thus relying heavily on their own background knowledge to make sense of what they read.

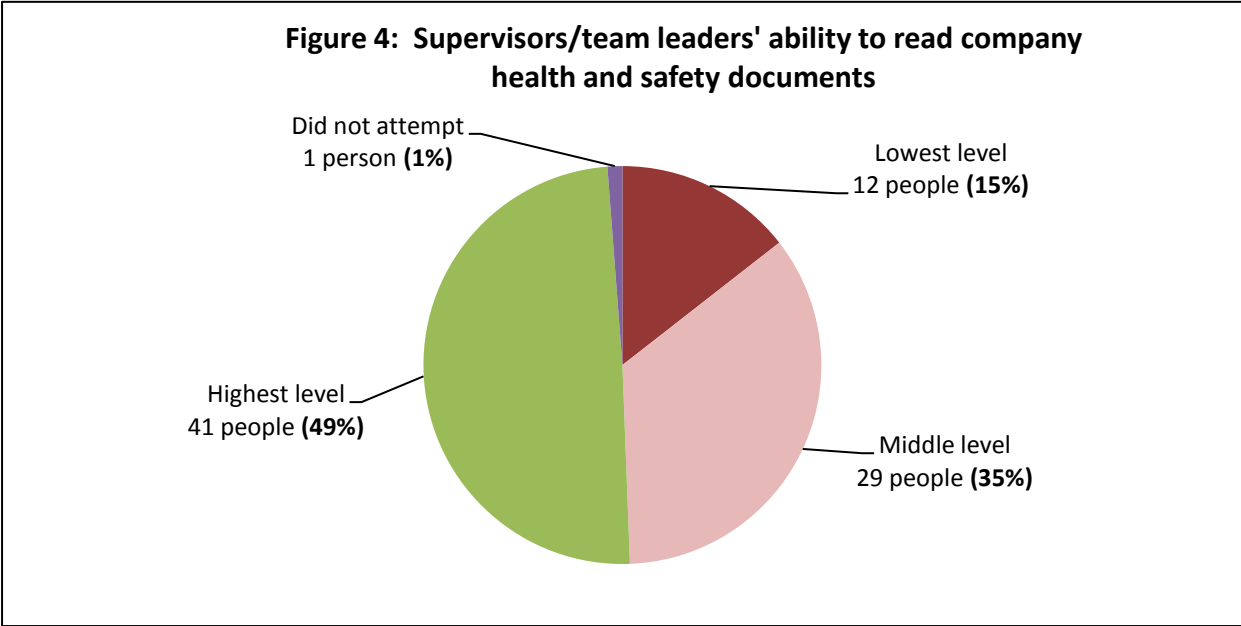
Highest level skills

The 36% of employees with the highest literacy skills could read and fully understand a range of workplace health and safety documents. They had a wide knowledge of specialised workplace and health and safety vocabulary, could understand longer and more complex sentences and could locate the relevant information in longer documents.

3. Supervisors and team leaders

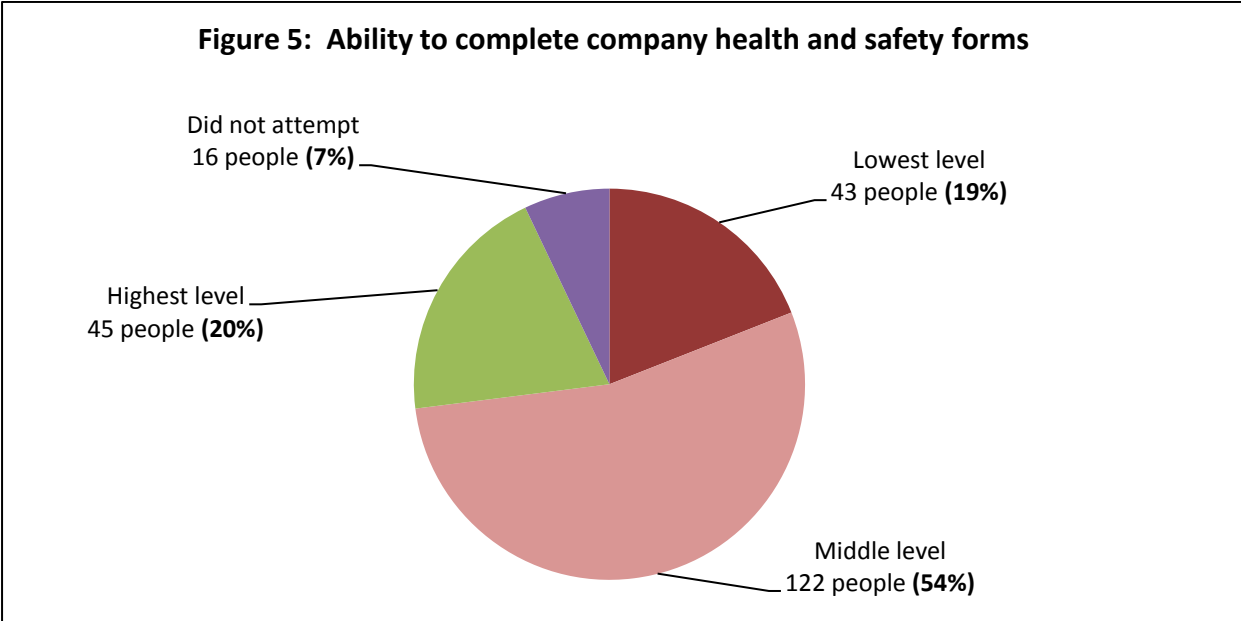
Supervisors and team leaders made up 18% of employees assessed for reading in the study. Nearly half (49%) of those supervisors and team leaders were in the highest group for reading, another third (35%) were in the middle group and the rest (14%) were in the lowest group (see *Figure 4 on next page*).

Supervisors with lower reading skills were mostly in manufacturing, and warehousing and distribution.



4. Hazard reporting (form filling)

Many companies expect their employees to document hazards, so the study analysed the results of 226 employees who were given a brief scenario and asked to complete their company's hazard report form (see Figure 5 below).

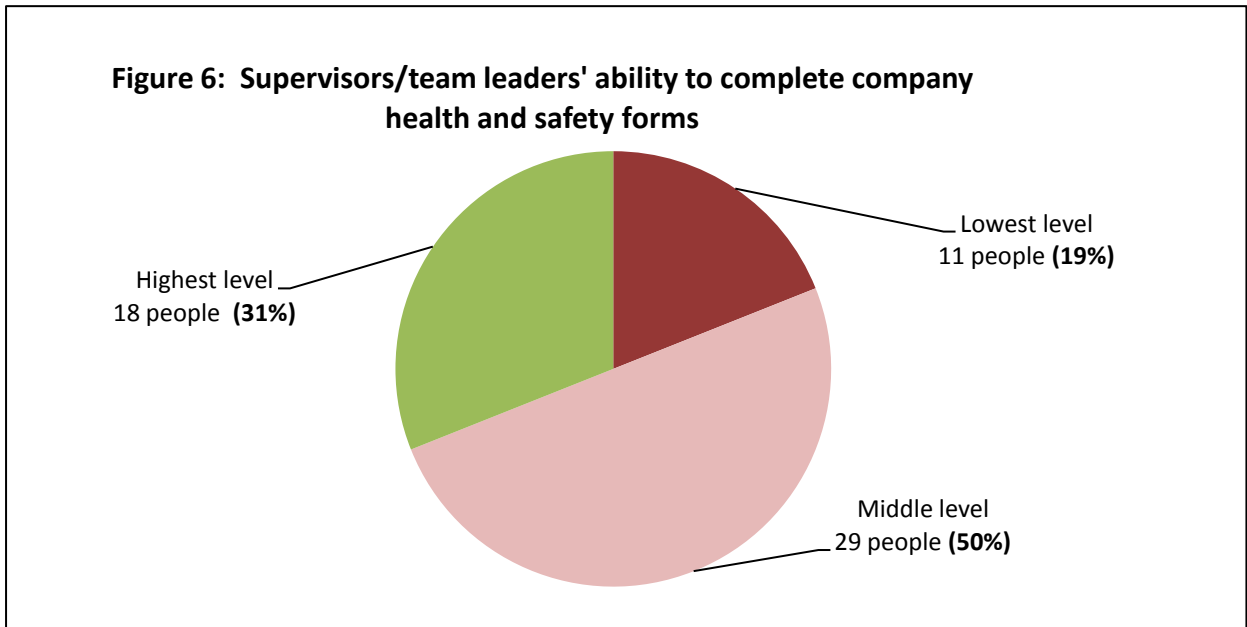


Researchers found that 19% of employees could neither complete a hazard report form nor include all of the vital information. Note that 7% of the total group chose not to attempt the task.

54% of employees were able to convey essential ideas with some limitations, such as missing information and lack of detail. Many members of this group did not understand the form's purpose and intended audience, nor did they understand why the required details were important. As a result the information could not be relied upon without further clarification.

Only 20% of employees were able to accurately complete the form. These employees wrote fluently and were able to communicate effectively about hazards. They understood the form's purpose and intended audience, and could adjust their writing style and structure to ensure appropriate and complete information was provided.

Supervisors or team leaders made up 25% of the employees assessed for completing a hazard form report. Only 30% of supervisors and team leaders were in the highest group, 50% were in the middle group and 19% were in the lowest group for completing a hazard form (see Figure 6 below).



Implications

The study's findings suggest that little will be achieved by providing employees with *more* health and safety information or guidance documents, or by *increasing* hazard and incident reporting requirements.

Significantly reducing New Zealand's workplace accident and death rates requires regulators, authorities and employers to place a higher priority on making health and safety documentation easier to understand. There are opportunities for government agencies to support businesses by modelling health and safety documents that are easier to read and advising on ways to address the underlying literacy skill gaps that affect the majority of adults in the workforce.

Appendix One

Commonly misinterpreted health and safety terminology:

Rough handling – often thought to mean finger prints
Litter – thought to mean letter
Forbidden – forgive
Spillages – don't spray
Personal protective equipment – you must protect yourself

Formal, specialist and unfamiliar health and safety vocabulary:

Accountabilities	Maintenance
Adversely	Mindset
Applicable	Minimise
Appropriate	Not adversely affect
Arising	Notification
Best practice	Obstructed
Caustic	Orifices
Comfortably	Participate
Competence	Particles
Compliance	Practicable
Complying	Prevented
Concepts	Prime consideration
Condemned	Prohibited
Consumption	Protection
Designated place	Recognise
Eliminate	Regulation
Fragment	Repetitive
Hinder	Significant hazard
Horseplay	Stationary objects
Inadequate	Sustain
Incident	Unauthorised
Legislation	Vandalised
Limbs	Visible