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Design principles for communication support board using pictorial symbols

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National foreword

This British Standard is the UK implementation of ISO 19027:2016.

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A list of organizations represented on this committee can be obtained on request to its secretary.

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INTERNATIONAL STANDARD

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Design principles for communication support board using pictorial symbols

Principes de conception pour le conseil de support de communication utilisant des symboles illustrés

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The committee responsible for this document is ISO/TC 173, *Assistive products for persons with disability*, Subcommittee SC 7, *Accessible design.*

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Introduction

This International Standard provides design principles for usable communication support boards that assist in transcending regional/cultural and linguistic barriers and is of substantial benefit for those persons who is to rely on a visual strategy to express their communicative intent.

A communication support board is a tool designed for the use of visual symbols (such as pictorial symbols) to facilitate communication and social interaction when expressive/receptive communication is limited due to physical or linguistic barriers.

Pictorial symbols, as visual expressions internationally, remove communication barriers in daily life when the characteristics of the pictorial symbols are easy to understand and able to be applied regardless of regional/cultural differences.

There are several user groups of pictorial symbols ranging from those who have poor or no communication abilities to those who require enhanced communication support.

It is important that the symbols used for the communication board correspond with the symbols visible in the environment to facilitate communication for the individual using the communication board in society.

In addition, the usage of communication support boards encourages inclusiveness in society for the user.

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INTERNATIONAL STANDARD ISO 19027:2016(E)

Design principles for communication support board using pictorial symbols

1 Scope

This International Standard specifies basic configurations for communication support boards, which are necessary to facilitate communication. A variety of communication support boards can be designed for specific communication purposes.

This International Standard specifies basic elements common to different types of formats/media, such as simple boards, book style or digital media. This International Standard does not regulate any specific design or any specific pictorial symbols for communication support boards.

As for design principles of pictorial symbols, this International Standard introduces examples of design principles applicable when designing and developing pictorial symbols.

NOTE Examples of basic pattern used to create pictorial symbols are shown in Annex A. Examples of communication support boards using pictorial symbols are shown in Annexes B and C.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
graphical symbol
visually perceptible figure with a particular meaning used to transmit information independently of language

[SOURCE: ISO 17724:2003]

2.2
pictorial symbol
visual figure which comprises representational and abstract symbols, sometimes used in multiple combinations

2.3
communication support board
tool to support persons who have difficulties communicating

Note 1 to entry: It can be used in various situations and places, such as for private, public and educational usage.

Note 2 to entry: This includes difficulties communicating orally or when language is a barrier to express communicative intent.

3 Basic configuration of a communication support board

3.1 Board

a) **Size**

Size should be suitable for the intended users and intended usage.

b) **Material**

A communication support board can be made of paper or plastic.

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In case of paper, surface lamination is recommended to facilitate writing necessary matters and erasing such when needed.

c) **Formats/media**

There are various types of formats/media that can be used:

1) a single page communication support board;

2) a book-style is more practical especially when several pages are required;

3) digital media.

When the communication support board is composed of several pages, it is recommended to be classified by category, such as transport facilities, food and drink, sequences of daily life, etc.

NOTE Examples of communication support boards are given in Annex C.

d) **Background colour**

It is advisable to use white background. However, a coloured background of a board, exclusive of the symbols, can be used for effect.

When multiple symbols are being displayed on a single board, then it is advisable to use white background for the board, to contrast with the background of individual symbols which are mostly in black.

NOTE Examples of coloured backgrounds are given in Figure C.6.

3.2 Indication item

a) **Title**

A title should be located at the upper part of a communication support board so that the intended use might be easily understood. It should be presented in the first screen in digital media. The title can consist of pictorial symbols and/or text.

b) **Typeface**

A typeface for use on a communication support board should be carefully chosen, based on the following guidelines:

1) sans serif typeface or typeface with very small serifs;

2) regular or bold weight.

NOTE Examples of typefaces are shown in Annex E.

c) **Language**

When text is needed, it should be written in the official language/languages of the country. In order to facilitate the usage of a communication support board, text could be translated in English. In case of using multi-languages, it should be limited to four languages on a single board.

In digital media, change of multiple languages should be realized by changing screen or configuration.

d) **Pictorial symbols**

1) The design of symbols on one board should be consistent.

2) Symbols should be in contrast to the background and responsive to safety colours.

3) Pictorial symbols should be clear, crisp and bold.

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When using pictures or photos in any case, they should be of high quality.

e) **Layout of pictorial symbols**

1) Framing pictorial symbols within the same category in one box should be distinguished from other information (e.g. text or symbols) and arranged sequentially.

2) In order to make each symbol clear and recognizable, the number of pictorial symbols should be appropriate according to size of formats/media.

NOTE Examples are shown in Figure C.4.

3) Pictorial symbols, regarding safety and emergency, which have high priority, should be arranged in the uppermost section of a communication support board.

4) Combination of pictorial symbols and graphical symbols can be used.

5) Combination of pictorial symbols, photos and illustrations can be used.

6) Animation features can be used in digital media.

7) Pictorial symbols to indicate common answers and phrases on individual boards, such as 'Yes', 'No' and 'No idea', should be placed to facilitate conversation.

NOTE Examples of combination of pictorial symbols, photos and illustrations are given in Annex B.

f) **Captions**

When using captions to explain the meaning of pictorial symbols, they should be located at upper or lower areas of pictorial symbols.

g) **Blank space**

Blank space to write supplemental issues can be provided at the front or the back of communication support board.

h) **Publisher**

Information about the publisher and where inquiries can be made should be placed at the lower part or at the back of a communication support board. In digital media, it should be presented on the last screen.

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