

The role of digital graphic design in providing social communication solutions for the deaf and dumb

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Research Summary:

Sign language is not an option. It is the language of the deaf and dumb community. Access to information in this language is not well defined; there are barriers that make it difficult to interact and communicate with the community. Therefore, they must be supported with drawings.

Humans use not only verbal information but also non-verbal cues such as facial expressions, graphics, pointing, or symbols. For example sign language graphics will promote the development of deaf-mute knowledge and interpersonal communication problems in every health system; or illustrations to indicate where the pain is and become even more important in a health emergency. The deaf and mute community, who does not use or use sign language to communicate with hospitals, call an ambulance or Tuareg, faces significant obstacles when trying to access health services.

The most common disability is the deaf-mute type, which prevents a person from listening and speaking. The number of deaf and dumb people in the world is constantly increasing and they are closed to themselves. Therefore, they do not have ordinary opportunities. They have a serious problem communicating with ordinary people in society. However, most of the applications available do not focus on sign language or recognition. Deaf and dumb people should be integrated within the community, helping them communicate with people.

Nowadays, the deaf-mute category represents a huge number of people in our society, sign language is the main way of communicating with deaf people, but most ordinary people have no ideas about this language. For this reason, there is a growing need to find alternative solutions to communicate with them. Helping the deaf and dumb lead a better and easier life.

Research problem: The basic problem enables research in:

- Are there graphic designs that have a role in helping the deaf and dumb communicate?
- What is the role of graphic design in expressing what the deaf and dumb mean?
- What are the related factors that directly affect the social interactions between deaf and dumb people and society?

Research aims:

The research aims to:

- Shed light on design development processes to integrate deaf and dumb people into society.
- Facilitating the knowledge of what the deaf and dumb want.

Research Methodology: The research follows the descriptive method.

Research limits: temporal limits: 2000-2021

Spatial limits: available from countries of the world

1- Developing the design of social networking sites to support the deaf and dumb:

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Deaf and dumb people and community communication:

Humans use not only verbal information but also non-verbal cues such as facial expressions, graphics, pointing, or symbols. For example sign language graphics will promote the development of deaf-mute knowledge and interpersonal communication problems in every health system; Or illustrations to indicate where the pain is and become even more important in a health emergency. The deaf and mute community, who does not use or use sign language to communicate with hospitals, call an ambulance or Tuareg, faces significant obstacles when trying to access health services.

The relationship between doctors and patients who are deaf and dumb, is sign language. Appropriate treatment, in both technical and human aspects, requires an analysis of how discursive formations are built, the connections that are formed, and the relationships that are formed within this dialogue.

Acknowledging the complexity of the relationship between physicians and deaf patients and the cultural factors that characterize the community of deaf and dumb people is the basis for understanding these factors and providing essential service quality for this group of community.

When deaf patients and physicians come together, they need to overcome communication barriers that may hinder the necessary bond in care health and care provided; this may also affect diagnosis and treatment. It is clear that public institutions should establish programs to train healthcare professionals in the appropriate care of deaf and mute patients.

Sign language: Non-verbal signals such as facial expressions, graphics, sign or symbols. Drawn language can be a means of overcoming communication difficulties with hard of hearing or deaf people communicating; However, it is suitable for people who have been deaf before acquiring an oral language, and who have learned sign language as their first language. Some people do not have sign language, so it is better to allocate drawings explaining the anatomy of the body and points in the areas of the body so that it is known to express the pain. It must include competence in establishing effective communication, respect for cultural differences in nonverbal communication, and the ability to perceive and decode messages sent by patients. education of deaf health-care workers; Added to this is the lack of ability for nonverbal communication and deaf patients' experience of accessing health care shows that the quality of health care improves when they have interpreters, or when clinicians know sign language or at least try to improve communication using images, graphics, and nonverbal expressions.

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According to a statistic issued by the United Nations, the number of deaf and dumb people in Egypt is about 7.5 million. According to the World Health Organization, 360 million people globally, or about 5% of the world's population, suffer from disabling hearing loss, 32 million of them are children, and 1.1 billion young people "aged between 12 and 35 years" are at risk of hearing loss.

Statistics also confirmed that a third of people over the age of 65 suffer from disabling hearing loss, especially in Africa, Asia and the Pacific.

The United Nations Convention, which was ratified by the Arab countries, focused on deaf people and sign language, through Articles 2, 9, 21 and 30. This convention affirmed the recognition of sign language, respect for the culture of deaf people, and the right to sign language interpretation.

23.8%

The blind and visually impaired category is one of the most common disabilities in the Kingdom of Morocco. Through an analytical reading of the second national research for the year 2014, we find that the percentage of visual impairment is about 23.8 percent of the percentage of other disabilities, as more than half a million Moroccans suffer from visual impairments related to the sense of sight.

<https://www.albayan.ae/one-world/arabs/2019-03-22-1.3517358>

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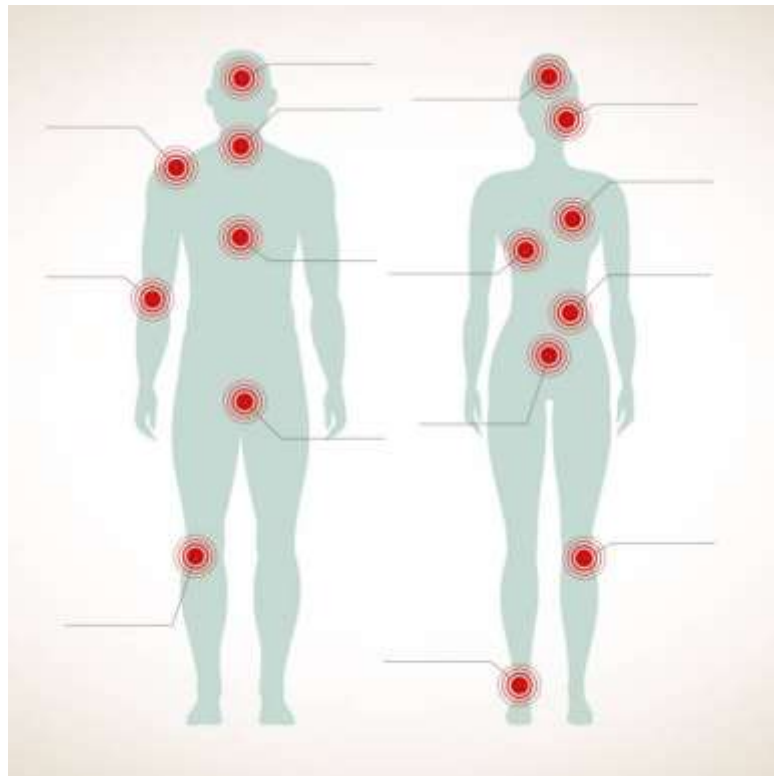


Figure (1) shows the reference to knowing the location of the pain in the patient



Figure (2) shows the reference to knowing the location of the pain in parts of the patient's body



Figure (3) An illustration to try to find out the cause of the pain

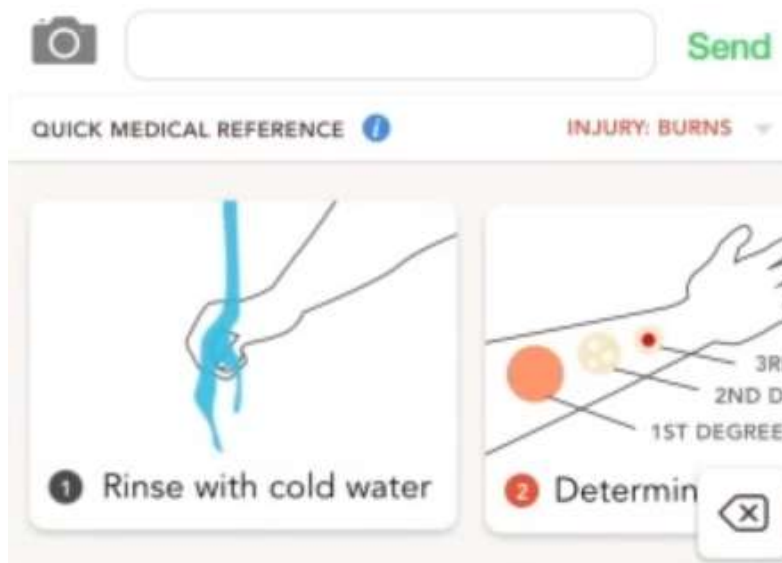


Figure (4) A picture of the application Live Key for the deaf and dumb in emergency

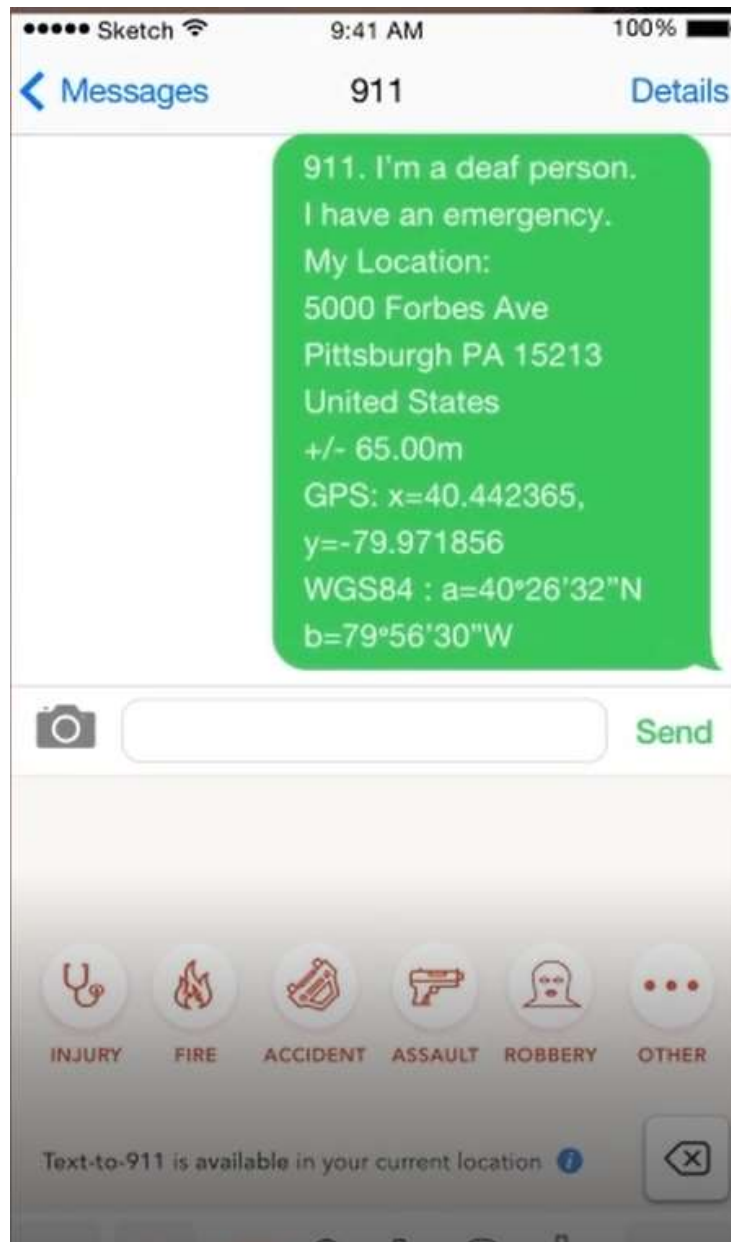


Figure (5) A picture of an application live in order to send a text message indicating that he is deaf and dumb and drawings to explain the cause of the accident.



Figure (6) Application Live Key for the deaf and dumb.

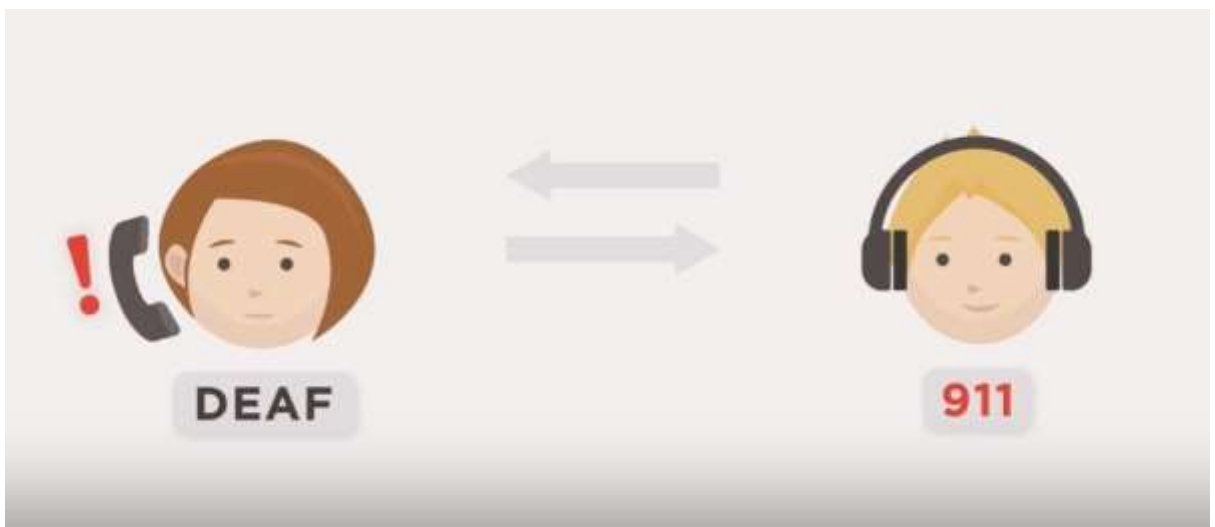


Figure (7) A picture of the Application Live K for the deaf and dumb, showing the patient's meaning of not communicating with customer service.



Figure (8) A picture of the Application Live K for the deaf and dumb suggesting solutions for the deaf and dumb to communicate through text writing, followed by graphics.

Science and technology have made human life an addiction to convenience but there is still a disadvantaged group of people who are fighting to find an innovative way that can make the process of communication easier for them.

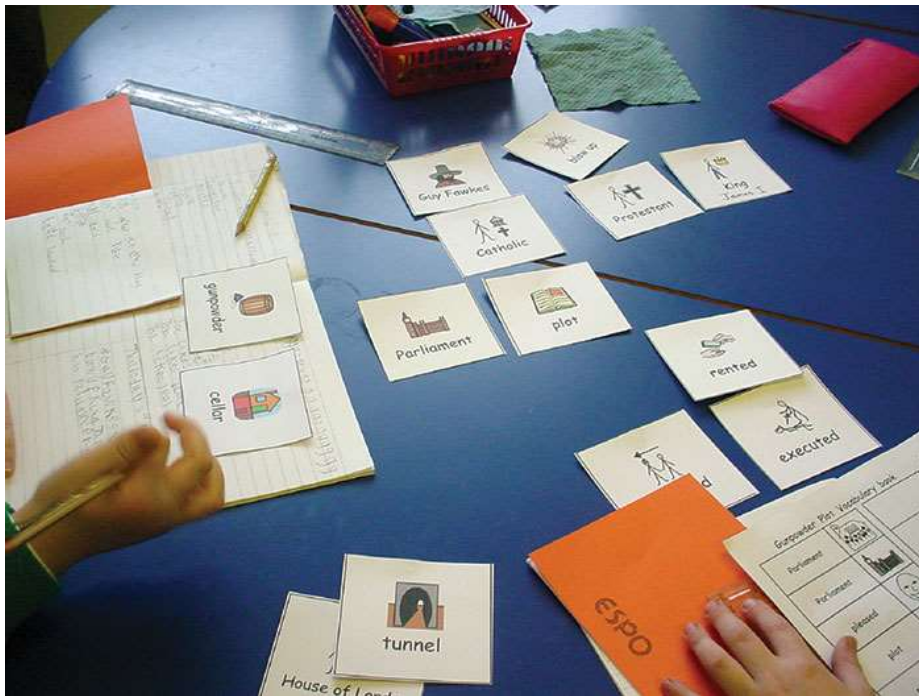


Figure (9) is a picture showing the symbol of educational resources

Educational resource icon

The activities and worksheets with symbols enable increased interaction and provide additional visual and learning stimulation. Conduct and discipline have been improved for many students as they can be more easily engaged in curricular topics through icon-backed instructions and worksheets.

Visual schedules and procedures

Icons can help explain what happens now and then

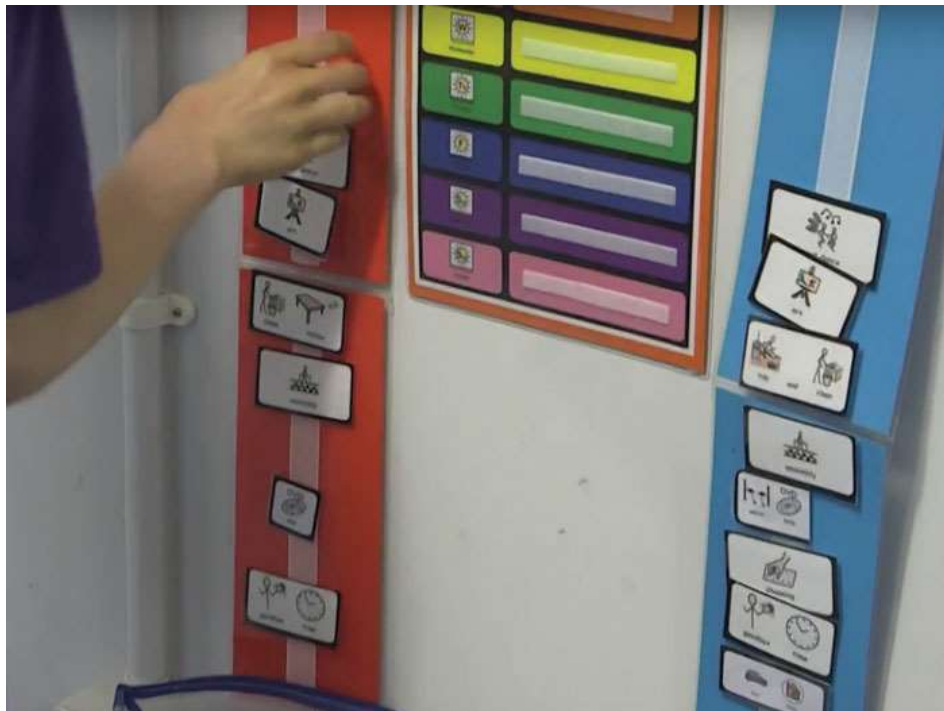


Figure (10) is a picture showing the time schedule by symbol

Visual timeline with icons

Visual schedules in schools help children understand routines throughout the school day, reducing anxiety and improving learning and behavior. Procedures in hospitals in the form of an icon can inform and reassure patients about what their hospital experience will be like.

Guidance signs

Icons can help people navigate the environment



Figure (11) is a picture showing the guiding signs.

Icon Banners

Codes are already frequently used to help people find their way around public places. Common examples include navigating foreign airports, and finding the nearest restroom or fire exit. Increased use of images in banners and use of a widely known group can help anyone find their way around easily.

Symbol info tag

Banners, posters and leaflets used in public places must be accessible to any member of the public. Including only the main symbols or highlighting a simple symbol will improve understanding without confusing the reader or crowding the material.



Figure (12) is a simplified drawing showing the need to press a button and then open the door

Surveys

Codes in surveys help achieve more accurate responses

Scan Code

If you are conducting a survey to find out what your employees or customers think, the use of emoticons will ensure that those who do not have access to the text are able to express their opinions and opinions as accurately as any other service user.

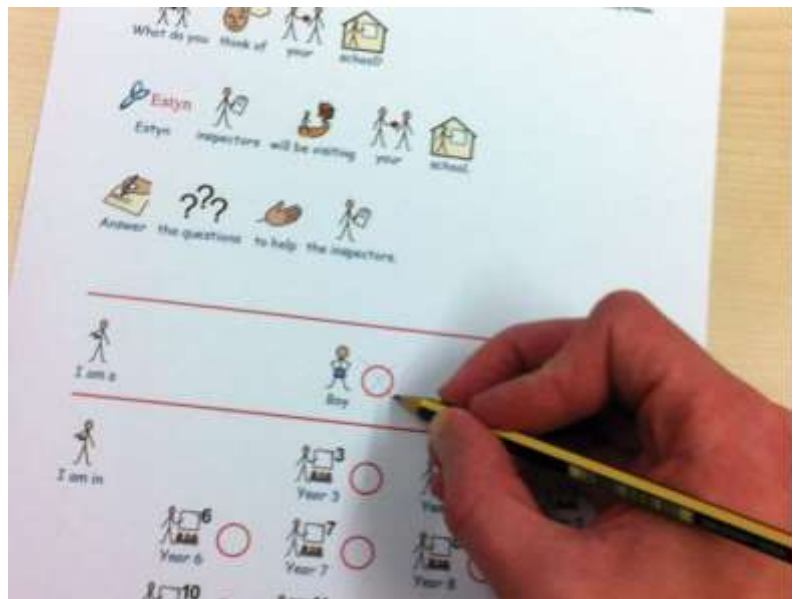


Figure (13) is a graphic illustrating a questionnaire with symbols

Means of communication

Symbols help people who are unable to speak to communicate their needs, desires, and ideas.

Communication help

High-tech devices can be accessed by using a finger, a key, or a head pointer to select a code that is then converted into speech output. Ideas can be communicated more quickly by using symbols rather than referring to individual letters.



Figure (14) is a picture of deaf and dumb communication tools

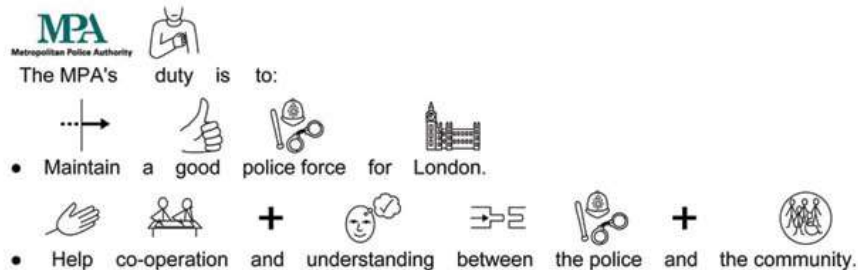
Official Documents

Tokens can help meet the legal requirements of official documents and agreements

legal document with symbols

Formal documents such as lease agreements, contracts, and application forms can be made more understandable through the use of tokens. The main points of each paragraph can be summarized in symbol form, or individual symbols can be used to indicate what each part of the document contains.

The Metropolitan Police Authority (MPA) exists to ensure that London's police are accountable for the service they provide to people in the capital.



The statutory duty of the MPA is to;

- Secure the maintenance of an efficient and effective police force for London. It is one part of what is called the tripartite system of policing. The other two elements comprise the Home Office and the police Service itself. The MPA should be seen as a link between the police service and the community. It represents the views of the public to the service and vice versa.

Figure (15) a copy of a legal document with symbols

Websites

Icons can help make a website more accessible to its audience

With the growth of the Internet, there is a growing need to make information on websites more accessible. The addition of visual support means that website visitors do not have to rely entirely on the written word. This can be useful for people who speak English as an additional language.

Add icons to your website

To aid in diagnosis, symbols help provide clear information and gather accurate facts that keep situations calm and reduce risks



Figure (16) web designs image with icons.

Health symbol cards

Brochures, laminated cards, or disposable resources can be used to help diagnose disease or identify pain. These are particularly useful when the person does not speak or understand the language of the country in which they contracted the disease.



Figure (17) shows the health symbol cards



Figure (18) shows the placement of graphics within social networking sites

To help read and understand the content written on your website. Visitors simply hover over a word to display icons that explain the meaning of the word.

Emoticons can help anyone who has trouble typing

Children and adults with a learning disability or difficulty communicating, eg autism, Down syndrome or dyslexia

Code user

Some people with severe learning disabilities will not be able to read and write; others will have some possibilities but find that decoding the text is very difficult. It is estimated that in the UK alone there are 1.5 million people with learning disabilities (1). 10% of the population has dyslexia, 4% of whom have severe problems (2). These numbers are increasing.

People for whom English is an additional language

More than 200 languages are currently spoken in UK homes (3) and in 2010, 16% of children in primary schools held did not speak English as a first language (4). Symbols allow non-native speakers to communicate and understand text in English.

Children who begin to read or who have difficulty with text

child writing

Symbols can help children access text as they begin to read by reinforcing the meaning of the written word. This can enable advances in many aspects of the curriculum and prevent children from hampering their ability to read. It also greatly improves behaviour, motivation and learning.

Children and adults with severe physical difficulties

Communication aids

When people's physical abilities are restricted or they cannot speak, symbols can be used to help them communicate their needs and wants, and to enable them to make choices. Symbols enable them to be able to share their thoughts and ideas in ways that others can more easily understand.

Emergency people

Emergency

If someone has an accident and is unable to speak, because of their injury or because they cannot speak the local language, symbols can be used as two-way communication to explain and understand the situation.

reading the old man

Many people exit the education system before they achieve functional literacy levels, which makes it difficult for them to understand text used in everyday life. It is estimated that 16% of the UK adult population have literacy levels below those expected from the age of 11 (5). Symbols can enhance the meaning of the text and increase their confidence.

Visitors to foreign countries

Foreign mark

Codes are used as a means of communication to help tourists and other visitors navigate around the country and its attractions.

People learn a foreign language

The students

Symbols can aid in learning a foreign language by providing additional support for understanding vocabulary and grammar.

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