Role of Pictograms in Library: A Study

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Abstract The paper succinctly describes the role of pictogram in library, description, area, importance, use, types, standards and opinion of users and librarian about pictogram. The survey of the role of pictogram and users was carried out of public, district, college, special, non government organization (NGO) and university library of Gadchiroli district in the state of Maharashtra. It was found that 92% disabled users stated the role of pictogram quite useful and important from entry to exist in library, 90% to find out modern services, 87 % OPAC, and 93 % facilities available in the library. The other user stated the role of pictogram 94 % Interior to Exterior work, 83 % way finding of library and other sections, 91 % rules of library, 91 % drinking water , 95 % toilets, 96 % to locate books and services and facilities. It was concluded that the pictogram are quick and clear communication without language or words, understood independently of writing, words, culture and language and indicator of path finding, interpreted quickly or clearly and gives knowledge and save the time of users, draw attention and therefore useful in library and for users.

Keywords: *pictograms, library, description, users of library, librarian*

1. Introduction

A pictogram or pictograph is a symbol representing a concept, object, activity, place or event by illustration. Pictography is a form of writing whereby ideas are transmitted through drawing. It is the basis of cuneiform and hieroglyphs. Early written symbols were based on pictograms (pictures which resemble what they signify) and ideograms (pictures which represent ideas). It is commonly believed that pictograms appeared before ideograms. They were used by various ancient cultures all over the world since around 9000 BC and began to develop into logographic writing systems around 5000 BC. Pictograms are still in use as the main medium of written communication in some non-literate cultures in the world.

In the strictest sense pictograms are a modern invention, but they constitute a particular branch of pictorial signs, the use of which has expanded continuously throughout the course of human history. It is thought that the first written symbols were pictorial representations of objects. The first pictorial signs appeared in c.30, 000 BC in the form of cave paintings, but they do not appear to represent a particular message and therefore cannot be classified as pictograms. In 12th century there emerged a new style of pictograms, invention of printing press in the 15th century and then in 19th century rapid global developments in transport and technology gave rise to new and specialized demands on communications and the first pictorial symbols in the form of traffic signs were agreed to internally in Paris 1909 and that are still in use today.

An early modern example of the extensive use of pictographs may be seen in the map in the London suburban time tables of the London and North Eastern Railway, 1936-1947, designed by George Dow, in which a variety of pictographs was used to indicate facilities available at or near each station. Pictographs remain in common use today, serving as pictorial, representational signs, instructions, or statistical diagrams. Because of their graphical nature and fairly realistic style, they are widely used to indicate public toilets, or places such as airports and train stations.

A pictogram is an image created by people for the purpose of quick and clear communication without language or word, in order to draw attention to something and are used anywhere and libraries are not exception to this.

2. Objectives of the Study

- To know the meaning and definition of pictogram
- To find out the description of pictogram
- To aware the area, importance, use and need of pictogram in library and services
- To search the advantages of pictogram in library
- To verify the role of pictogram in view of librarians and users of libraries
- To present the standards of pictogram

3. Scope of the Study

The scope of the study was very vast and concerned with the use of various types of pictogram, signage and icons by the public, district, college, special, university

library and NGO libraries of Gadchiroli district in the state of Maharashtra, librarians and users study towards the use of various types of pictogram, signage and icons in the library.

4. Methodology

The concerned data collected for study with the help of e-mail, mobile messages, websites, personal visit and discussion and analyzed the same.

5. Definition of Pictogram

Pictograph also known as pictogram is a symbol of the pictorial graphic system. It is a prehistoric drawing on ancient rocks and is essentially a picture of the objects they signify while an ideogram is a symbol that represents a concept or idea. A Pictograph conveys meaning through a diagrammatic representation of a physical object. Pictographs are generally used in graphic systems and writings which have characters that appear in a pictorial form. Pictography refers to a form of writing consisting of pictorial drawings and forms a base for cuneiform and even hieroglyphic writing which sometimes makes use of drawings to represent phonetic letters.

A pictogram or a pictograph is an ideogram that conveys it's meaning through its pictorial resemblance to a physical object. Today we use the term casually for a broad sweep of icons. Pictograms have been popularized in use on the web and in software, better known as "icons" displayed on a computer screen in order to help user navigate a computer system or mobile device.

Herbert W. Kapitzki (Professor of Visual Communications, University of Arts, Berlin) defines the pictogram by way of its formal quality and abstractness. A pictogram is an iconic sign that depicts the character of what is being represented and through abstraction takes on its quality as a sign.

Otl Aicher (Ulm College of design) suggests that the pictogram must have the character of a sign and should not be an illustration.

Rokade S.M. describes Library pictogram is a component of recognized by the people in library system and services for easy access and it is an iconic sign which represents complex facts, not through the words or sound but visual carriers of meaning.

5.1. Pictogram – A Language in Pictures

The Pictogram, a visual language developed for all people and also with no ability to speak, read and writes.
- can understand and make yourself understood
- can ask questions and get replies
- gain support for your thoughts and memory
- can formulate feelings and wishes
- can communicate!

6. Opinion of Librarian and Users Towards the Pictogram

The opinion of librarian and users was obtained through survey method towards the pictogram used in the various types of libraries like public, district, college, special ,university library, non government organization library (NGO) in Gadchiroli district of Maharashtra.
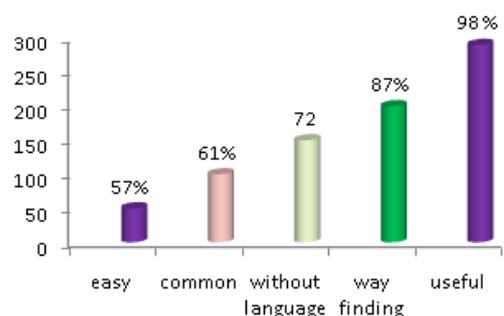
Table 6.1. Opinion of Librarian and Users

Sr No	Pictogram in view of Librarian and Users	
	(A) Librarian	**(B) Users**
1	Image for the purpose of quick and clear communication	Communication without language or words
2	In order to draw attention to something	A pictogram should be understood independently of writing, words , culture and language
3	Quickly and clearly recognized and understood	Clear and concrete fact about information, direction and prohibition.
4	Easily associated and common experience	Pictogram must be self explanatory with recommended and recognized color.
5	A pictogram always convey one fact and if there is more than one, it cannot be interpreted quickly or clearly enough.	Visual form must be simple, typical, and associate enough to permit quick and clear identification.
6	Pictograms are essential in library to reduce the burden of enquiry counter and to save the time and for smooth working.	On proper place and with radium or other color
7	The pictogram give knowledge	The pictograms are indicator of path finding.

Source: mail and message.

6.1. Observation

It was observed from the Table 6.1 that, in view of librarians the pictograms used for the purpose of quick and clear communication, to draw attention, interpreted quickly and gives knowledge and save the time of users and reduce the burden of library assistant. The users stated that the pictograms are communication without language or words, understood independently of writing, words and therefore useful in library.

Chart 7.1.

7. View of Users towards the Awareness of Pictogram in Library

The survey of the users towards the awareness of pictogram in libraries of public, district, college, special and university library of Gadchiroli district in the state of Maharashtra was carried out and given in the graph. It was found that 57 % pictograms are very easy to know, 61% common for understanding, 72% without language or words but easy to understood, 87% used commonly for way finding and 98% useful in libraries in view of users.

8. Area of Pictogram Used by the Library

The pictograms are used in various areas of library and considering the importance

Table 8.1. Area of pictogram used in library

Sr. No.	Area of pictogram used in library		Opinion of users		
	Major Area	Sector	Total score	Reaction	%
A	Services	Internet	120	068	56.66
		Reprography	190	146	76.84
		OPAC	200	192	96.00
B	Facilities	Drinking Water	180	179	99.44
		Lavatory-Male, Female	250	250	100
C	Special area	Location of Reading Room	180	167	92.77
		to locate books on the book stack	140	137	96.42
		restricted area of library	200	177	88.05
D	Other area	Way to Library	150	144	96.00
		Rules of Library	135	102	75.55
		property counter	165	142	86.06
		Remove shoes	090	072	80.00
		Keep silence	110	045	40.90
		No smoking	132	106	80.30
		Switch/Silence Mobile	145	122	84.13

Source: message, mail and personal contact.

8.1. Observation

It was observed from the Table 8.1 that the pictograms are used in the major area of services, facilities, special and other area of library. The 100 % pictograms are used as a indicator of Lavatory-Male/ Female, 99 % drinking water, 96% OPAC, to locate books on the book stack, and Way to Library, 92 % location of Reading Room, 88 % restricted area of library, and lowest use 40 % of Keep silence.

9. Importance Given by the Libraries to Pictogram

Table 9.1. Importance given by the various types of libraries to pictogram

Sr.No	Survey of the importance of Libraries	Types of Libraries					
1	Libraries	District	Public	College	Special	University	NGO
2	Total Libraries 92	11	13	16	25	22	05
3	Percentage %	12.96	14.13	17.39	27.17	23.91	05.43

Source: mail and personal contact.

9.1. Observation

It was found from the Table 9.1 that 27 % special libraries are giving major importance to the use of pictogram, 23 % university libraries, 17 % college, 14 % public, 12 % district and only 5 % NGO libraries are giving importance to the use of pictogram.

10. Role of Pictogram in libraries in view of Users

Table 10.1. Role of Pictogram in libraries in view of Users

Sr. No.	Types of Users	Role of Pictogram	Opinion of users		
		Sector	Total score	Reaction	%
A	Disabled users	Entry to Exit	42	39	92.85
		Modern services of library	31	28	90.32
		OPAC	33	29	87.87
		Facilities	30	28	93.33
B	Other users	Interior to Exterior work	200	188	94.00
		Way finding of library & sections	256	213	83.20
		Rules of Library	180	164	91.11
		Drinking Water	112	102	91.07
		Toilets	230	220	95.65
		to locate books	130	126	96.92
		to find out services	267	253	94.75
		To avail facilities	192	181	94.27

Source: e-mail and SMS.

10.1. Observation

It was found from the Table 10.1 that 92% disabled users stated that the pictograms are quite useful and there is important role from entry to exist in library, 90% to find out modern services, 87 % OPAC, and 93 % facilities available in the library. The other user stated the role of pictogram and discussed that 94 % Interior to Exterior work, 83 % way finding of library and other sections, 91 % rules of library, 91 % drinking water , 95 % toilets, 96 % to locate books and services and facilities.

11. Opinion of Librarian

Table 11.1. Opinion of Librarian about the Role of Pictogram

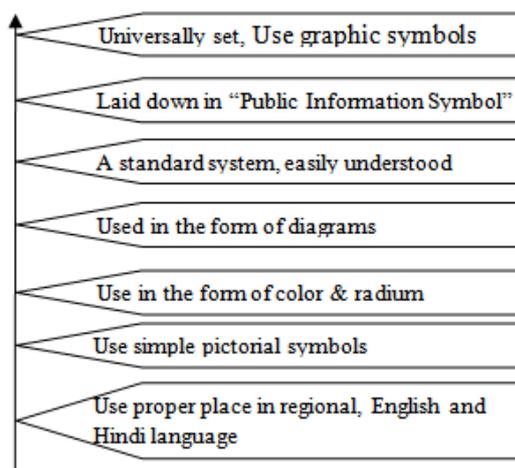| Sr. No.	Types of Librarian	Role of Pictogram	Opinion of Librarians		
		Sector	Total score	Reaction	%
A	Public, district, college, special, NGO and university librarian	Identification	087	84	96.55
		instructional and emergency signage	065	59	90.76
		Way finding of library & sections	071	68	95.77
		To know the exact place of services	143	123	86.00
		To find out place of facility	150	141	94.00
		To save the time of user & library	145	123	84.82
		To reduce the burden of reception counter	157	134	85.35
		Entry to Exit	142	140	98.59

Source: e-mail and SMS.

11.1. Observation

It was found from the Table 11.1 that 96% librarians have given importance to the identification, 90% instructional and emergency signage, 95 way finding, 86% to find out the place of services, 94% facility, 84 % save the time of users, 85% reduce the burden of library human resources, and 98 % useful in entry to exit. It was suggested as per considering the need and opinion of users, there is need to display the pictograms for the utility and beauty of library in the interest of users to save the time.

12. Standards of Pictograms

Pictographs may be used in graphic symbols and can thus communicate easily and effectively to speakers of different cultures and languages. For instance certain pictographic material and signs have a universal appeal and used globally as they can be easily understood by all. Pictographs to be used in the form of diagrams to explain and represent statistical data and changes are indicated by varying the size, color or number of the pictorial forms. Pictographs are used as simple pictorial symbols by many modern cultures

Pictographs are commonly used today as pictorial signs, statistical diagrams or instructions in various fields. Pictographs are graphic in nature and are also used to indicate places such as train stations, airports, hotels, libraries, public toilets and so on. Similarly a universal set of pictographs is used as laundry symbols on clothing labels. A standard system of pictographs was laid down in the "Public Information Symbols" which has been accredited as the "international standard ISO 7001".

13. Basic Types of Library Pictogram/Signage

The library pictograms were divided into the following types after the study;
- Way finding pictogram
- Identification pictogram
- Instructional pictogram
- Emergency pictogram/Signage
- Decision Nodes and Path Complexity
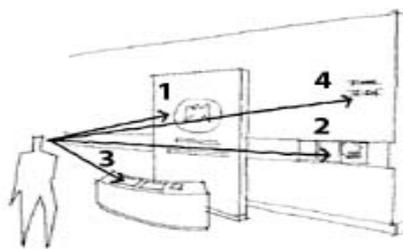
13.1. Way Finding

This helps people to navigate throughout the building by following a series of sign types that eventually lead the user to their destination. By strategically choosing and placing these sign types, information and direction are provided in the most useful and timely manner. There are primary, secondary, supporting, destination, and branding/photogram/logo signs. Signs categorized into;
- Identification: Identification/entry signage – Exterior
- Reinforcement: Reinforce arrival -Logos, flags
- Orientation: Orientation -Elevator floor range numbers/lobby services directional
- Destination :   elevators for an upper floor

Sign Hierarchy

There are two types of hierarchy:
1. among signs
2. within a sign

Ground floor and Entry Lobby

13.2. Identification Pictogram

Sign legibility is extremely important because users rely on identification to navigate the library. Includes signs that identify individual areas and rooms, as well as signs that identify the objects and applications found in these rooms.–Examples include restroom signs, signs designating a computer research area as well as those computers available for e-mail.

♣ **Within the Library include**
- Work desk signs
- Café, food & drink, and vending signs
- Room identification signs
- Shelf identification signs
- Computer workstation signs, availability of printers, e-mail, internet, etc.
- Area signs for other resources (photocopies)

♣ **Considerations**

Legibility, Color/Shape of sign, Finish, Contrast, Fonts, Braille, Pictogram Usage

♣ **Library Legibility**
- Security Desk: unidentified to users
- Unknown purpose
- Circulation Desk: new signage needed
- Identification sign blocked by users
- Low contrast, fading, peeling
- Small font size
- Options include creating boundary lines to stop blockage or to place additional signage in front of line.

♣ **Color and Shape**

Color: Blue or green for advisory or information
Shape: Square or rectangle for advisory or information

♣ **Pictogram Specifics**
- Solid shapes, not outlines
- Closed, simple, and unified boundaries
- Left/right symmetrical if possible
- Similar height and width
- Permit reversal (especially with directional)
- Placed in enclosures (preferred square or diamond)

Application of Pictograms

These wall signs are examples of effective signs because they use symbols, text, and Braille. Substitutions may have to be made for services that don't yet have international symbols (internet and e-mail)
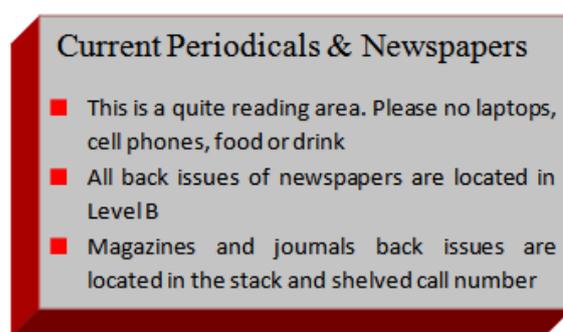

13.3. Instructional pictogram

Signage that describes behaviors, rules, or multistage tasks to the user. It informs students how to act in certain areas, what to expect, and where to go.

Within the Library
- Cell phone areas: Hours
- Talking/No talking areas: Restrictions
- Rules: Guidelines (where to find printers, etc)

Use international symbols/icons and try to avoid conflicting messages. If prohibition signage, keep it simple. Separate restriction and identification messages into two separate signs. Use universal symbols where possible and reduce the amount of overall text. Allows for separation of information, insert picture or text, can insert all restrictions into one feature, easy to change and replace with dynamic library needs.

Use one column to identify room and features while use other for instructional behavior and rules, allows change, easily accessible and identifiable.

Place signage outside rooms that have the room name/number as well as pictograms of available services and resources found inside (printers, computers, café, etc), in addition, have written and/or pictogram representations of the regulations of the room (hours, talking, cell phones, etc).

Pictograms for Dewey decimal classification System

These 88 pictograms were produced at the Oakland Public Library under a 2003-2004 Library Services and Technology Act grant of the California State Library and freely available on http://libraryliteracy.org/staff/differences/dewey. All copyright rights in the Dewey Decimal Classification System are owned by OCLC.

13.4. Emergency Pictograms/Signage

The sign should be eye catching, and clearly convey the intended message, signal word, message panel and/or symbol.

14. Conclusion

It was concluded that the pictograms are communication without language or words, understood independently of

writing, words, culture and language and indicator of path finding and therefore quite useful in the area of library to draw attention of the users. It was found that 87% pictogram used commonly for way finding, 100 % as a indicator of Lavatory-Male/ Female, 99 % drinking water, 96% OPAC, to locate books on the book stack, and Way to Library, 92 % location of Reading Room, 88 % restricted area of library, and lowest use 40 % of Keep silence in the area of library. The library pictogram categorized in five ways after study i.e. way finding pictogram, identification pictogram, instructional pictogram, emergency pictogram/Signage and decision nodes and path Complexity.

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