



**EFFECTIVENESS OF SELECTED PICTOGRAPHS AMONG  
MALAYSIANS.**

**KASTURI A/P PORMALU @ PERUMAL**

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**EFFECTIVENESS OF SELECTED  
PICTOGRAPHS AMONG MALAYSIANS.**

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## ABSTRACT

Pictographs are vital when there is a need to communicate in the absence of a common language or script. Generally these pictographs need to be effective in communicating message clearly. However the effectiveness of some pictographs is debatable. This study is designed to measure the effectiveness of selected pictographs through a sample study. The response from the sample is assumed to represent the general public. The pictographs for this study were selected from public places such as LRT station, Kuala Lumpur International Airport (KLIA) and shopping malls. Four (4) hypotheses were developed to measure the effectiveness of the pictographs.

Hypothesis one (1) aims to study the significant differences in the answers for each pictographs. The result from hypothesis one (1) shows that pictographs in the study can be grouped into three categories, namely 'Correctly identifiable', 'Incorrectly identifiable' and 'Partly identifiable'. Seven (7) out of twenty two pictographs (22) in this study falls under the category 'Correctly identifiable' and these pictographs shared common features such as clear picture illustration, common pictographs and found at various public places.

Hypothesis two (2) aims to study the association between male and female and their ability to identify the pictographs correctly. The result from this hypothesis shows that there is no significant difference in the ability to identify the pictographs correctly between male and female.



Hypothesis three (3) aims to study the association between race and the ability to identify the pictographs correctly. The result from this hypothesis shows that there is a significant difference in the ability to identify the pictographs correctly among the races. Further analysis for the hypothesis shows that the differences in the ability to identify pictographs among the races can be associated with the occupation category of the respondents.

Hypothesis four (4) aims to study the association between education level and the ability to identify the pictographs correctly. The result from this hypothesis shows that there is no association between the level of education and the ability to identify the pictographs correctly.

Finally, the study proposes that future refinement for the pictographs, could adapt the elements proposed by the International Standards Organization (ISO) standard, through the ISO 6309 Code.



## ABSTRAK

Piktograf memainkan peranan yang penting dalam sistem komunikasi apabila tiada bahasa atau skrip yang serasi. Secara am, piktograf perlulah efektif semasa menyampaikan maklumat dengan jelas. Walaubagaimanapun, keberkesanan sebilangan piktograf boleh dipertikaikan. Kajian ini dibentuk untuk mengkaji keberkesanan sebilangan piktograf melalui kajian bersampel. Sampel-sampel responden dianggap mewakili masyarakat umum. Piktograf-piktograf untuk kajian ini diambil dari tempat awam seperti stesen LRT, Lapangan Terbang Antarabangsa Kuala Lumpur (KLIA) dan kompleks membeli-belah. Empat hipotesis dibentuk untuk mengkaji keberkesanan piktograf-piktograf tersebut.

Hipotesis pertama (1) bertujuan untuk mengkaji perbezaan yang ketara untuk jawapan untuk setiap pictograf. Keputusan dari hipotesis satu (1) menunjukkan bahawa semua piktograf dalam kajian ini boleh dibahagikan kepada tiga (3) kategori, iaitu 'Pengesahan Betul', Pengesahan Tidak Betul' dan 'Pengesahan Separa'. Tujuh (7) daripada duapuluh dua (22) piktograf-piktograf dalam kajian ini, jatuh dalam kategori 'Pengesahan Betul' dan piktograf-piktograf tersebut mempunyai persamaan seperti gambaran yang jelas, piktograf yang umum dan terdapat dikebanyakan tempat awam.

Hipotesis kedua (2) bertujuan untuk mengkaji kaitan di antara lelaki and perempuan dan kebolehan mereka untuk mengenalpasti piktograf dengan betul. Keputusan dari hipotesis ini menunjukkan bahawa tiada perbezaan yang ketara dalam mengenalpasti piktograf secara betul di antara lelaki and perempuan.

Hipotesis ketiga (3) bertujuan untuk mengkaji kaitan di antara bangsa dan kebolehan untuk mengenalpasti piktograf dengan betul. Keputusan dari hipotesis ini menunjukkan bahawa terdapat perbezaan yang ketara dalam mengenalpasti piktograf dengan betul. Kajian selanjutnya menunjukkan kebolehan untuk mengenalpasti piktograf dengan betul di kalangan berbilang bangsa boleh dikaitkan dengan jenis pekerjaan responden.

Hipotesis ke-empat (4) bertujuan untuk mengkaji kaitan di antara taraf pendidikan dan kebolehan untuk mengenalpasti piktograf dengan betul. Keputusan dari hipotesis ini menunjukkan bahawa tiada perbezaan yang ketara dalam mengenalpasti piktograf dengan betul.

Akhir sekali, kajian ini mencadangkan untuk pengubahsuaian di masa hadapan, piktograf-piktograf ini boleh menggunakan elemen-elemen yang telah disyorkan oleh International Standards Organization (ISO) melalui kod ISO 6309.



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## APPROVAL SHEET

I certify that an Examination Committee has met on 15 June 2007 to conduct the final examination of Kasturi a/p Pormalu @ Perumal on her Master of Science thesis entitled “Effectiveness of Selected Pictographs Among Malaysians” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the degree of Master of Science.

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## **DECLARATION**

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

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## **LIST OF ABBREVIATIONS**

**ISO - International Organization for Standardization**

**AIGA – American Institute of Graphic Arts**

**ADCA – Australian Department of Civil Aviation**

**BS – British Standard**

**LRT – Light Rail Train**

**SPSS – Statistical Package for Social Science**

**KLIA – Kuala Lumpur International Airport**

**D.O.T. – Department of Transport**

**POVA – Portland Oregon Visitors Association**

**MUTCD – Manual on Uniform Traffic Control Devices**



## CHAPTER ONE

Human communication is a process in which numerous factors, such as language, attitudes, knowledge, social and cultural influences and communication skills of the individuals operate within several dimensions simultaneously. Communication consists not only of the written or verbal language but also in sets of codes or code systems. These include object representation, abstract representation and abstract non-representation.

The object representation or realistic symbol (also called sign vehicle) is iconic or pictorial in nature. This means that it closely resembles the real object or form. These representational symbols and models are created using visual elements techniques and media to represent objects, building, people, and environment. Abstract symbols such as pictographs have a general likeness to the original subject so that viewers can associate them with the real object, person, or environment.

Abstract non-representation symbols are images that have no physical likeness to real objects, people, or places. They may represent a concept or idea, summarize an action to be taken, or act as a symbolic code, e.g. the Morse Code (a code in which letters represented by combination of long and short light or sound signals).

Abstract Representation or Pictograph is a system that represents significant ideas and concepts other than nouns. It is a simplified drawing of objects or graphic, but not for communicating complex ideas, feelings, concepts, and actions. Pictographs are vital when there is a need to communicate in the absence of a common language



or script. Basically it can be defined by many different names, such as pictorial symbol, pictograph, pictogram, signs, symbol, icon and so on.

Over time, pictographs or pictorial symbols have been recognized as an “Information Graphic” and became a form of public communication. Generally, this non-verbal communication exists in every field including those in public service, concessions, processing activities as well as in regulations.

International Organization for Standardization (ISO) is a non-governmental organization where its members are not delegations of national governments. ISO provides a reference framework, or a common technological language, between suppliers and their customers. An ISO standard is voluntary and has no legal authority to enforce their implementation. A certain percentage of ISO standards - mainly those concerned with health, safety or the environment - has been adopted in some countries as part of their regulatory framework, or is referred to in legislation for which it serves as the technical basis. There are 15000 ISO standards and signage Standards such as ISO7001 (Transportation system) and ISO6309 (Safety and Hazard) are used in the literature review as reference.

The American International of Graphic Art (AIGA) in New York is a national, nonprofit organization founded in 1914, which conducts an interrelated program of competitions, exhibitions, publications, educational activities, and projects in the public interest. The purpose of AIGA is to advance excellence in graphic design as a discipline, profession, and cultural force.





United States Department of Transportation (U.S.D.O.T) advisory committee has major objectives to develop a comprehensive system of transportation-related symbols to serve U.S. domestic and international transport needs.

The United States D.O.T Office of Facilitation and the AIGA Committee has formed these four categories of pictorial symbols. Furthermore, these four (4) categories are also generally used in most European countries.

a) Public Service.

These pictographs contain messages that represent services which widely used in the transportation-related facilities.

**Figure 1: Public service signs**

