

## **PERSONALITY TRAITS OF SINHALA FONTS ON ROAD INFORMATIVE SIGN BOARDS: ON READERS' PREFERENCES TEST**

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### **Abstract**

Sri Lanka is a multi-lingual country and Sinhala, Tamil and English languages are used for communication purposes such as advertising, packaging and wayfinding etc. Among those communication tools, road signs help to keep road safety and efficiency. Road signs communicate important information about road safety, through type and symbols. Therefore message on road signs should be impressed to road user within very short time period. Hence high legible typefaces are used for road signs as well as type personality helps to recognise words easily. Therefore, this research focuses on the font personality of Sinhala typefaces in road informative signboards. Existing Sinhala typeface in road informative signboards is DL-Araliya and it was designed for print-based materials. Throughout the literature review based on type personality based on Latin script, personality traits were loaned from Latin road signboards: fast readable, unique, individual, short, heavy, fashionable, classic and solid. The stimuli were completed with adjective pairs of each personality trait. Also, a name of an unknown city in Sri Lanka included being a mark on a Likert scale. Six sample typefaces with similar anatomical features were selected for Tinker user preference test. The sample group consisted of individuals familiar with Sinhala typefaces on road informative signboards in Sri Lanka. The group was asked to mark their preference on the stimuli and the results were analysed with a mean value of each personality trait. In conclusion, the research proved that each Sinhala font had its own personality. FM-Ganganee was identified as the most appropriate font that has the required personality for road informative signboards.

**Keywords:** *Readers' preference test, Sinhala font, Informative signboards*

### **1. Introduction**

Sri Lankans are used to communicate Sinhala, Tamil and English languages. Also, three different scripts are used to communicate those languages. Sinhala language communicates through Sinhala script, English script communicates through Latin script and Tamil language communicates through Devanagari script. Those three scripts composed on packaging, advertising signs, road signs, etc. among those communication tools, road signs are important to keep road safety and efficiency on road. Therefore three scripts are important to convey messages on road signs. For this manner, type personality plays important role to identify distance and destination on road informative signboards within very short time period, while drivers operate vehicles.

Three different scripts communicate through three different typefaces on road signs in Sri Lanka. Sinhala typeface is DL Araliya, Tamil typeface is Kalaham and English typefaces are Highway English and Clear view font (Interview Sudath RDA, 2018). Scripts display on road signs should be high legible and also should have required type personality to recognise the destination within very short time period. Shaikh, 2006 cited type personality and legibility are important factors to communication purposes (Lewis and Walker, 1989; Shaikh, 2006).

Miles Tinker, legibility and typography researcher was introduced reader's preference test to recognize type personality (Sofie, 2012). According to background research and literature survey based on road informative signboards in Sri Lanka, it was identified Sinhala typeface display on those boards had not design base on reader's opinion or aesthetic characteristics of Sinhala typeface.

### **2. Background**

#### **2.1 FONT PERSONALITY**

"The persona of typeface and text" is the typeface personality and it gives the tone for a document (Brumberger, 2003). Also, the typeface persona builds through the unique features of typefaces.

“Typeface can convey mood, attitude and tone” (Brumberger, 2003). Also the typeface persona builds through unique features of typeface. Shaikh and Brumberger state that “Typeface can convey mood, attitude, and tone” (Brumberger, 2003; Shaikh *et al*, 2006). Type personality and its style give linguistically primary meaning and first impression of written word (Lewis and Walker, 1989; Shaikh, 2006). Hyndaman explains in 2016 that a word can easily be recognised based on reader’s preference and also Lacher explains in 2010; Type personality helps to identify words. Display typefaces on road signs should be clear, neutral and be highly readable from a certain distance. Clear view typeface, Frutiger and Helvetica are used for Airport signage, also display typeface on road signboards should be short, fat and simple (Smiley, 2006). Typefaces display in supermarkets need to be aesthetic, neat, clean and stylish. It helps to interaction with consumers’ buying behavioural experience inside the supermarket (Hyndman, 2016). Information on road sign boards, directly communicates vehicle drivers, therefore typeface on-road signboards should be created according to driver’s preference and requirements (Stevens, et al, 2002).

Literature survey based on type persona, it explains that typeface personality directly execute the meaning of the text. Typeface personality is based on letter features and style of typeface since it depends on the context of type display. Type personality depends on reader’s perspective, such as aesthetic sense, physical and psychological interactions. The research discusses the type personality of Sinhala typefaces and the user’s response.

Through the background research it was identified that the existing typeface on Road Informative Sign Boards is DL-Araliya and it was designed for print-based materials. Therefore research objective is to identify reader’s preference on the aesthetic characteristics of Sinhala typefaces used in road informative signboards.

## 2.2 ROAD INFORMATIVE SIGN BOARDS IN SRI LANKA

Traffic control devices keep road safety and road efficient in a suitable manner. According to the Road Development Authority, traffic control devices are categorised such as traffic signs, road markings and traffic signals; it shows figure 01.

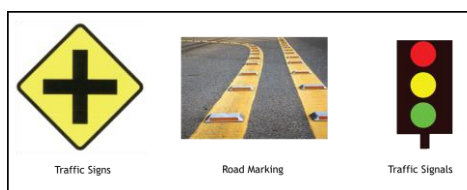


Figure 1, Categorisation of traffic control devices

Traffic control devices standardised according to its shape, size, and colour. Road signs, among traffic control devices, classified into three main categories, such as danger warning signs, regulatory signs, and informative signs it explains table 01 (Ministry of Highways and Road Development and Road Development Authority, 2017).

Road informative signboards composed with three scripts; Sinhala, Tamil, and English, arrowheads, numerals and icons. Also, it used in both highway and expressway in Sri Lanka. Direction communicates through numerals and three scripts; destination communicates through arrowheads on road informative signboards. White scripts on a blue background are used for RISB in expressways and green background is used for RISB in highways (explains in figure 02). RISBs layouts are composed on reflective sheeting material (Premium micro prismatic) (Interview Sudath RDA, 2018).

Table 1, Categorisation of road informative sign boards

Type of RISB	Content and composition of RISB	Image (example)
1. Advanced direction sign	<ul style="list-style-type: none"> <li>Destination name written in Sinhala, Tamil and English.</li> <li>Letter height - 75mm-150mm</li> <li>Map type- layout with pointed arrowhead towards destination</li> <li>Stack type- gives direction and destinations stacked one on top of the other</li> </ul>	
2. Direction signs	<ul style="list-style-type: none"> <li>Direction of the destination showed with pointed arrowhead</li> </ul>	
3. Overhead mounted direction signs	<ul style="list-style-type: none"> <li>Letter height – 200mm-300mm</li> </ul>	
4. Direction sign for expressways	<ul style="list-style-type: none"> <li>Blue background with white text</li> <li>Letter height -175mm</li> </ul>	
5. Direction symbols	<ul style="list-style-type: none"> <li>Indicates the direction with a symbol</li> </ul>	
6. Place identification signs	<ul style="list-style-type: none"> <li>Shows the boundary between two administrative districts</li> </ul>	
7. Confirmatory signs	<ul style="list-style-type: none"> <li>Gives Information on major towns with distance</li> </ul>	
8. Special regulation signs	<ul style="list-style-type: none"> <li>Gives information about traffic arrangement</li> </ul>	
9. Route number signs	<ul style="list-style-type: none"> <li>Indicates the road number/s</li> </ul>	
10. Service facilities signs	<ul style="list-style-type: none"> <li>Indicate special facilities on location</li> </ul>	



Figure 2, Road informative sign board on express way and highway

### 3. Method

1. Most of legibility and type personality research and tests had done for Latin scripts. Therefore Primary data is collected throughout literature survey based on Latin scripts. Also Latin, Devanagari and Sinhala scripts display together on RISB in Sri Lanka therefore three scripts should have same personality also road users want to recognise those scripts within very short time period. Then identified personality traits based on Latin script on international road signboards throughout literature survey (There are no researches base on Sinhala script and Devanagari script). This section is elaborated in section 3.1 and
2. Throughout the literature, it was identify type personality depends on visual properties of letters. Throughout the interview had with Deputy General Road Planning division in RDA it was identifies existing font used on RISB is DL-Araliya therefore selected six Sinhala typefaces based on visual properties of existing Sinhala font (DL-Araliya) on road informative signboards. Also features of six selected typefaces are different from each other. It is elaborated in section 3.3.
3. Conducted a survey to identify eight personality traits of selected six Sinhala typefaces based on readers' preferences. (Participants were marked their preference on stimuli with Likert scale). Selected eight personality traits were identified throughout the literature survey based on Latin scripts, those research were conducted by Hydman, Smiley and Lund.
4. Data was analysed based mean value of readers' preferences for selected six fonts and identified which font have specific personality traits for RISB also different personalities of each font.

#### 3.1 SCOPE AND LIMITATION

Type personality is directly impacted on visual properties of typeface. Therefore throughout this type personality test for RISB in Sri Lanka it can be identified what type of typeface required by road users also it can be used for identified visual properties of required typeface for RISB. This research paper only discuss about the required Sinhala typeface personality for RISB based on Tinker's readers' preferences test.

#### 3.2 RESEARCH BASED ON TYPE PERSONALITY

##### Tinker's typeface personality test

Tinker was conducted research to identify; how an aesthetic value or page arrangement does impact on ease and reading speed. To fill this gap he did a comprehensive study on reader preferences on different typographical arrangements. The typographical arrangements were lowercase and upper case letters, styles of typefaces, combinations of coloured print and colour papers, paper layout such as on leading, size of type, line width, paper surface and quality, lowercase verses italics, a simultaneous variation of line width and the line between column alignments.

In this experiment, participants were asked to arrange stimuli in order from most legible to least legible. Stimuli were prepared with five paragraphs printed in 10 pt. Scotch Roman letters. Throughout this research Tinker was found the effectiveness of value on aesthetic printing arrangements was greater than the efficiency of printing specifications (Tinker and Paterson, 1942).

##### Sofie Beier's typeface personality test

Throughout Tinker’s preference test, Sofie Beier has conducted research to “understand the reader’s experience in a given reading situation. She was explained when design a display typeface, it is important to know reader’s opinion and motivation.

She was conducted a research to test the above mentioned objective, therefore participants were asked to rank their own preferences on adjective aesthetic value of typefaces (figure 3) (Beier, 2012).

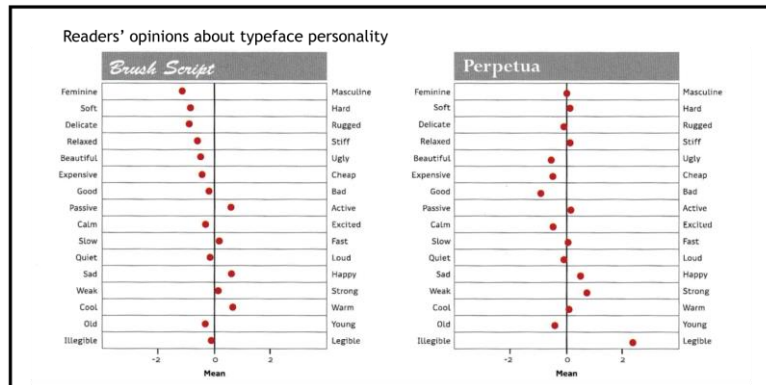


Figure 3, Readers’ opinions about typeface personality (Sofie Beier, 2012)

Hydman’s typeface personality test

Hydman was conducted an experiment to understand that “typefaces have uniquely different personality and questions if there is a significant arrangement within different personality types?” for this experiment, participants marked their preference rank on personality traits of 25 regularly used typefaces. It showed results as “typefaces do have uniquely different personalities and that they do significantly agree on the personality types” results explain table 2 (Hydman, 2016).

Table 2, Personality of selected typefaces (Hydman, 2016)

Typeface	Personality
Bodoni poster	Performer, Confident and dramatic
Comic Sans	Comedian, friendly and novelty
Times New Roman	Intellectual, confident and neutral
Helvetica	Everyman, conventional and neutral
Baskerville	Intellectual, traditional and neutral
Georgia	Intellectual, dependable and classic

Shaikh’s typeface personality test

Shaikh and team conducted an experiment to determine whether or not participants consistently attribute personality traits to a variety of fonts presented on-screen; they used 20 font samples for this test. It used 15 personality adjective pairs based on 4 point Likert scale as shows in figure 4. Also, result shows in table 3, it explains the relationship between font factor and personality (Shaikh *et al*, 2006)

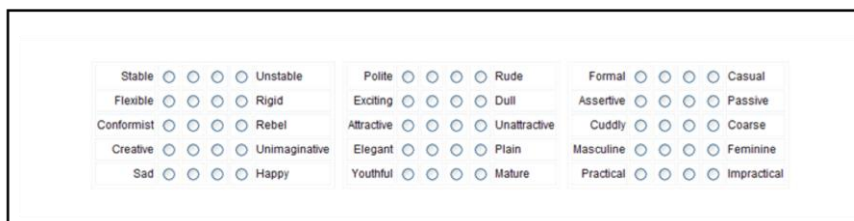


Figure 4, 15 personality adjective pairs based on a 4 point Likert scale (Shaikh, Chaparro and Fox, 2006)

Table 3, relationship between font factor and personality (Shaikh *et al* 2006)

Font factor	Personality
Script/ funny fonts	Youthful, happy, creative, rebellious, feminine, causal and cuddly
Serif fonts	More stable, practical, mature and formal
Modern display fonts	Masculine, assertive, rude, sad and coarse
Monospaces	Dull, plain, unimaginative and conforming
San serif fonts	Did not score extremely high or low on any personality traits

Throughout different personality tests based on Latin scripts, it was guided to conduct a personality test base on Sinhala fonts. Also, identify different fonts has different personality traits according to different purposes. Therefore it is important to identify personality traits for road signs.

Personality traits for the test

Hyndman explains personality traits of font on road signs should be traditional, professional, confident values, practical and the style to be classic (Hyndman, 2016). Also Smiley explains font on road signs need to be short, fat, simple and fast readable (Smiley, 2006). In the public debate on Jock Kinneir’s road sign alphabet, Andorson’s report on traffic signs for motorways explains font on road boards should have unique individual personalities. Herber Spencer, a designer to a government committee, explains personality traits for road sign alphabet to be of taste, tradition, relevance, fashionable and heavy (Lund, 2003).

Results base on those researches for Latin scripts it was identified specific personality traits for font on road signs, therefore those traits to be used in Sinhala font on road sign in Sri Lanka.

3.3 SELECTION ADJECTIVE PAIRS FOR PERSONALITY TRAITS TO TEST

Most readable (fast readable)-least readable(slow readable), most unique- least unique (common), most individual-least individual(group), most tall- least tall(short), most heavy- least heavy(light), most fashionable-least fashionable (unfashionable), most modern- least modern (classic) and most solid- least solid (void).

3.4 SELECTION OF SINHALA FONT TO TEST

Samarawickrama cited base on the anatomical features of Sinhala fonts it is categorised into two types such as monolinear and modulated (Samarawickrama , 2016). Existing font used for Sri Lankan road sign is DL-Araliya. Other fonts were selected according to the features of DL-Araliya font. Therefore selected six fonts have same features such as monolinear, contains solid flesh with a high grey value, non- contract font. Also, have vertical and horizontal terminals and omitted iris eyes with open and closed counters. It explains figure 5.

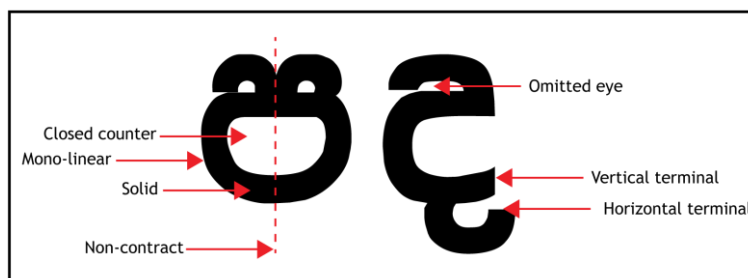


Figure 5, Visual features of DL-Araliya

Therefore selected five fonts are Anuradhapura, Amalee KH, FM-Malithi, FM-Ganganee, FM-Gemunu and DL-Araliya shows in figure 6.



Figure6, Selected font for the experiment

### Stimuli

Six stimuli cards were prepared for each selected six fonts. Each card composed with a same name of an unfamiliar city in Sri Lanka. It was printed in white on a black colour background. The personality traits were placed on either side to the Likert scale. Sample stimuli show figure 7 with the left side indicates least and the right side indicates most desired adjective pairs of personality test for Sinhala font on road signs.



Figure7, Sample stimuli

### 3.5 PARTICIPANTS

60 participants who familiar with Sinhala font display on road informative signboards in Sri Lanka were selected for the test. Each participant was given six different stimuli and marked on the Likert scale, according to their preference for 8 personality traits either side.

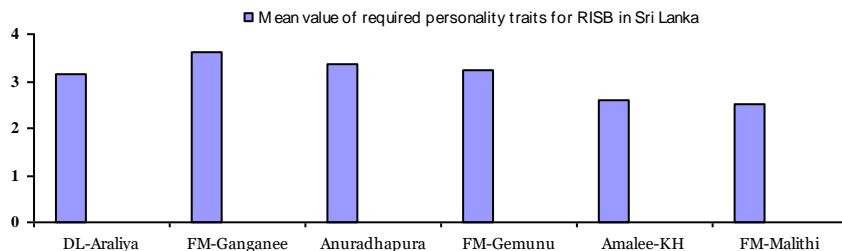
## 4. The result and analysis

Results were analysed based on participants' preferences marked on Likert scale. Each adjective pair got a number with a value of 1 to 5. Mean value of each personality trait on selected six font was calculated. If the mean value was greater than or equal to three ( $\geq 3$ ) that trait categorised as 'most'. If the mean value was less than three ( $< 3$ ) that trait categorised as 'least'. According to the calculation, specific personality traits were identified for each selected fonts, it explains in table 4.

Table 4, Personality traits for each selected fonts

Font Name	Identified Personality Traits for RISB
DL- Araliya	Most readable, Most common, Least individual, Least short, Most heavy, Least fashionable, Most classic, Most solid
FM-Ganganeer	Most readable, Most unique, Least individual, Most short, Most heavy, Most fashionable, Most classic, Most solid
Anuradhapura	Most readable, Most unique, Most individual, Most short, Most heavy, Most fashionable, Least classic, Most solid
FM-Gemunu	Least readable, Most unique, Least individual, Least short, Most heavy, Most fashionable, Least classic, Most solid
Amalee KH	Least readable, Most unique, Most individual, Least short, Least heavy, Most fashionable, Least classic, Least solid
FM-Malithi	Least readable, Most common, Least individual, Least short, Least heavy, Least fashionable, Most classic, Least solid

Among those personality traits on selected fonts, data analysed to identify which font was achieved required personality traits for road signs in Sri Lanka. Therefore the mean value of required personality traits on each font was calculated. Results show FM-Ganganee has the most significant personality traits for Sinhala display font on-road information signboards in Sri Lanka. Graph 01 shows it.



Graph01, Mean value of required personality traits on each font

## 5. Conclusion

The experiment proved different fonts have unique personality traits throughout reader's perspective. The research identified required personality traits for RISB were fast readable, unique, individual, short, heavy, fashionable, classic and solid.

FM-Ganganee, Anuradhapura and FM-Gemunu have significant characteristics for RISB in Sri Lanka. While the existing font used RISB is DL-Araliya ranked fourth. Also, research proved the micro context of a font personality is anatomical features of a font.

## 6. Recommendations

When creating a best Sinhala font for RISB in Sri Lanka, typeface designers should be highly concerned overall study of atomic features of Sinhala letters and anatomical features of FM-Ganganee, Anuradhapura, FM-Gemunu and DL-Araliya fonts.

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