Typography and Its Significant to Memorizing a Logo

Muhamad Abdul Aziz Ab. Gani, Mohamad Hariri Abdullah, Mohamad Noorman Masrek, and Ishak Ramli

Abstract—**Typography is proven able to give an impact to the mind and psychology. Even though there are many studies on typography conducted, there are not many studies conducted in the context of graphics design to see how the physical aspect of typography helps in memorizing a logo. Thus, this paper examines the physical aspect of typography and its relationship with how a person memorizes a logo. From the results, it shows there are significant positive relationships between physical aspects of typography and how a person memorizes a logo.**

Index Terms—**Logo, memorize, typography.**

I. INTRODUCTION

Whether we realize it or not, we depend heavily on typography in our daily lives. Typography is more than just printed or reading material because typography involves several design aspect with the purpose of conveying a particular message [1]. As such, it is more precise if typography is classified as design with the use of font and words [2].

When typography is defined as a design with a specific purpose, the legibility aspect of it is something that must be dealt with, as suggested by Drenttel [3] that what the purpose of typography design is if it cannot be read and understood. Typographer such as Herbert Bayer, Paul Renner, Eric Gill and Jan Tschichold also gave a strong emphasize of the legibility aspect of their typography design [4]. In addition, and something that is more important is how easy a typography design can be recognize and remembered.

Based on the literature review suggestion by Henderson & Cote [5], the aim of this paper is to see the ability and potential of typography in helping a person to remember a logo.

As such, the objectives of this paper are first, to identify the character category in the physical aspect of typography and second, are to know the strength of each category in helping a person to remember a logo.

II. LITERATURE REVIEW

There are many studies on typography especially from psychological and design aspect. Sheedy *et al* for example, found that the use of the wrong typography would give negative results such as confusion [6]. In addition, all typographers should focuses on the legibility aspect in their design [7].

Although the legibility aspect is important, Brumberger has his own opinion where he emphasizes on the message aspect of the typography design because even if the typography is legible but failed to convey the message, the design is considered useless [8]. Because of the potential of typography affecting the mind, Subburamu went on to prove that by using the appropriate typography design can give the maximum impact to the mind with the intended message [9].

Besides the ability to convey a message, Wehr & Wippich looked into a more specific aspect that is how a typography design is remembered and found that the physical aspect of typography has a positive impact to the mind [10]. Gabriele [11] and Zramdini & Ingold [12] studied the physical aspect of typography and found that it has an impact to the mind, which is also agreed by Rojas & Roast [13].

Even though there are many studies on the typography character's ability to help remembering a message, there are no studies in the context of typography in logo design. That is why Henderson & Cote suggested so that a study on this topic to be conducted [5].

Based on this reason, a hypothesis was made that typography is a significant factor for a person to remember a logo.

III. RESEARCH METHODOLOGY

There are many In order to achieve the first objective, researcher has identified and determines the character category in typography in three stages.

First is through literature review on the character category of typography. Some of the category was outline by Degani [14], Pektas [15], Kea [16], Samara [2], Chua & Illicic [17], Leeuwen [18], Thangaraj [19] and Brumburger [8].

In the second stage, the category from the first stage was analyzed and grouped into several logical groups. As the results, the character category was divided into six categories as show in Table I below.

The "case" character category, two aspects were assessed that are uppercase and lowercase, and the "weight" character category is the thickness of typography, which grouped into light, regular & bold. For the "contrast" character, this category is about the appearance of the typography itself, which involve two aspects that is extreme contrast and modulation, and also "width" character category is about the proportion of the typography which are condensed, medium and extended. "Posture" Character category have three aspect

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for assessment are roman, italic and reverse oblique, and "style" character category involved two types which are serif and san serif in general.

TABLE I: THE CHARACTER CATEGORY IN TYPOGRAPHY

No.	Character Category	Remarks
1	Case	uppercase and lowercase
2	Weight	light, regular & bold
3	Contrast	extreme contrast and modulation
4	Width	condensed, medium and extended
5	Posture	roman, italic and reverse oblique
6	Style	serif and san serif

Next, in the third stage, after the breakdown of each category was determined based on the literature review, three experts were referred to ensure the categories and its breakdown is suitable in logo design context. The experts endorsed all categories such as case, weight, contrast, width, posture and style.

The categories were then tested for the second objective by conducting a survey on 500 Arts and Design students from 3 local universities. The questionnaire contains 22 questions related to the 6 typography categories and 20 products and companies logos under the SME category in Malaysia identified earlier. The questionnaire uses the scale of 1 to 5, to see how typography is able to help a person in memorizing logo.

IV. FINDINGS AND DISCUSSION

There are From the 500 questionnaires distributed, 457 were collected. The table II below shows the descriptive analysis of the six physical categories of typography. All categories obtained a significant positive reading, which suggested that in general, the physical aspect of typography is a significant factor for a person to remember a logo.

A. Case

From Table II, it can be seen that SME companies use uppercase more frequently when designing their logos. Arditi & Cho state that it is more cost efficient to print in uppercase than it is with lowercase as the physical appearance of uppercase makes it more economical [20]. Cartens agrees that the use of uppercase adds more emphasis on a message [21]. Cartens also goes on to suggest that the use of uppercase could heighten the readers' attention and attract them to the message [21]. Furthermore, when organized in a stylish manner, uppercase can give the impression of sophistication to a message [22]. As Table II depicted, based on Goldman's suggestion, the use of uppercase is more favored than lowercase as it projects a positive impact that it is often the right choice when used properly [22]. Goldman [22], Cartens [21] and Arditi & Cho [20] view that uppercase is deemed to have more significance than lowercase when it comes to helping a person to recall a logo.

Having said that, the significance of lowercase can't be entirely overlooked. Hartley [23], Philip [24] and Poulton [25] have proved that lowercase is easier to read. Moreover, lowercase possesses more distinct characters than uppercase

from its design perspective [14]. Other studies concurred with Philips that when combined with uppercase, lowercase can have a more effective impression [24]. Degani also agrees on this statement [14]. Hence, the theory of using the combination of lower and uppercase put forth by Degani [14] and Philips [24] is being indirectly applied in logo designing by many SME companies. Still, many companies choose to use uppercase in their logo designs, perhaps to make full use of the impact uppercase has as stated above.

B. Weight

Table II below shows that using bold and regular typography is most favored by SME companies when designing their logos. From the table, it shows that bold typeface carries the most weight in helping a person to remember a logo. This is followed by regular typeface. The two results (the frequency and its impression on the memory) found from the typography weight provided a positive response to the study previously conducted by Deeb, Ooms & De Meyer, that found out bold typeface is used more than light one [26]. The use of regular typeface is found to balance out the bold typeface. This is quite expected, as regular typeface is more average and appropriate to be used in numerous occasions. Norgaard states that regular weight typeface is the common choice due to its modest characteristics that are not too intense [27].

There are many SME companies that do not make light typography their choice when designing their logos. Nonetheless, Parker states that it has its own qualities [28]. Other than appearing soft and smooth, that light typeface provides a positive impression on the mind. Referring to Norgaard [27] and Leeuwen [18], bold typeface will be more pronounced when used with light typeface.

The conclusion that can be drawn under weight is that it is important to know how effective is the weight feature in typography in helping a person remembers a logo. The result found clearly supports the finding from the study previously conducted by Deeb, Ooms & De Meyer that stated the weight typography carries a significant positive impression to the mind when helping a person remembers a logo [26].

C. Contrast

The finding for this category is depicted in Table II below. However, after discussing with experts on this topic, the categories were brought down to only two. The contrast category was removed from the questionnaire in order to avoid confusion among the respondents. The categories 'Extreme Contrast' and 'Contrast' in Table II were combined into one, under the term 'Extreme Contrast'. Therefore, the evaluation on the significance of contrast in typography involved only two aspects – extreme contrast and modulation.

According to Samara, contrast refers to craftsmanship of a typography design whether it is prominent or otherwise [2]. The two categories stated are interrelated as a prominent typography (extreme contrast) can only be identified if there is a typography that is not (modulation). From what is shown in Table II, it can be seen that Malaysian SME companies prefer the use of extreme contrast to modulation in their logo designs.

According to Kea, the application of uncontrolled or unstable contrast could leave a negative impression in a logo [16]. Contrast is used in typography to provide emphasis on the typeface so it can be recognized and remembered, while in the context of logo design, it would assist a person to remember a logo as a whole.

D. Width

The majority of the SME companies employ medium width in their logo design, as Table II shows. Medium width typography is deemed safer and the often the ideal choice as it does not require much space and can stand out just the same.

Extended typography, on the other hand, possesses a wider proportion than normal. Its use will require extra space and therefore have been considered in many cases as unsuitable for logo design. Leeuwen states that in this context, the main purpose of width is to show space [18]. Furthermore, when used correctly, width can give a maximum impression. A wide extended typography proved to be more striking and effective when combined with medium and condensed typography.

Additionally, medium typography is deemed to have the most significance in terms of typography width when helping a person to remember a logo. As for logo designs by Malaysian SME companies, medium width typography is often applied with other widths to obtain the maximum impression [18].

From the result in Table II, medium width typography proved to be important. This finding shows that Malaysian SME companies have used width in a positive way in designing their products and logos that in turn, will help to increase the chances of people remembering their logos.

E. Posture

Under posture category in Table II, many Malaysian SME companies are not using reverse oblique while only 3 out of 944 logos employed typography in their designs. Reverse oblique is the opposite of italic. Though Damico believes that posture in typography possesses a strong character, due to the physical style of reversed oblique typography is seldom found, its uses becomes even rarer, especially more so in logo design [29].

The case is very different when roman posture is concerned. Roman is the most frequently used typography posture compared to other postures. This has got to do with the perception of the posture itself. Italic and reversed oblique are seldom used, as the posture is associated with limited usage. According to Hamilton, italic and reversed posture is used when putting emphasis on important things [30]. Also, from another perspective, the purpose of italic and reversed oblique posture is to help in text and writing, and this is what Hamilton means [30].

From design perspective, however, posture serves a different purpose. Because italic and reversed oblique uses are very seldom, it helps greatly in making a logo easily remembered. This is still effective even though the original purpose of posture is to emphasize. Having said that, a solid reason is duly required when choosing to use a rare posture such as italic or reverse oblique in logo design.

Pektas states that since each posture category provides distinction and gives certain meaning to a typography design, the use of italic and reversed oblique should be combined with roman posture [15]. The function of italic and reversed oblique is to emphasize certain parts or elements of a message; therefore it is vital to ensure that its use befits its purpose.

F. Style

Seen from Table II below, the style category indicated that many of the SME companies' logos contain stylized form of typography. The adaptation includes the incorporation of several types of typography into one design. In this study, the most important element is to study how typography can help a person to remember a logo.

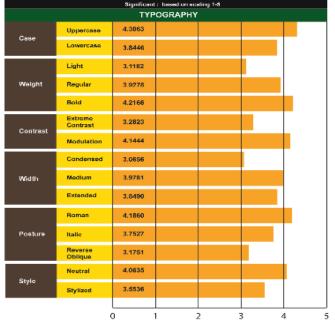TABLE II: RESULT DESCRIPTIVE ANALYSIS FOR TYPOGRAPHY CATEGORY

Table II shows that not many SME companies use typography without making any adjustments to it even though a neutral typography is believed to be more efficient in helping a person to remember a logo. According to Kea, in this case, the use of style in typography is to ensure that a design can become better known [16].

Based on this statement, we are able to see that in order to make certain typography design better recognized and in turn easily remembered; any aspect that can create confusion needs to be avoided. Changing the look of a typography style can result in it being harder to remember. While it's true that a neutral design is more easily remembered, many SME companies choose stylized typography so they have a design that is different from other companies.

TABLE III: SUMMARY OF REGRESSION ANALYSIS BETWEEN TYPOGRAPHY AND MEMORIZE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.560[a]	0.313	0.312	0.47533

a. Predictors: (Constant), Avg_Typo_All

The following table III, which shows the regression analysis conducted between typography and logo memorization supports the result in Table II. From the table III below, we can see that the Pearson correlation value is 0.560, which shows that typography has a substantial positive association with memorizing factor, and at the same time prove the hypothesis of this study. In addition, this result also enforces the findings from the previous studies, and in addition, shows that in the graphics design context, typography has a strong impact on a person to memorize a logo.

V. CONCLUSION

Case, weight, contrast, width, posture and style are the physical categories and aspects of typography and from these, uppercase (case), bold (weight), modulation (contrast), medium (width), roman (posture) and neutral (style) are the viewed as more significant in helping a person to remember a logo compared to the other elements in the categories. Condensed (under weight category) was deemed as on par or of less significance. Leeuwen views width as the proportion of a typography used when putting emphasis [16]. Since the purpose of width is to make typography more prominent, condensed does not satisfy that criteria as its proportion is too narrow. If condensed is not being applied with typography of other width category such as extended, it will prove the typography design to be less dynamic.

The theory of this study is based on the large potential factor of typography. Typography and logo design goes hand in hand and are inseparable. Henderson & Cote confirms the significance and the ability typography carries in helping a person to remember a logo [5]. However, due to unknown reasons that weren't mentioned, their study did not include the aspect of typography. Other than that, a psychological study conducted by Wrede concludes that typography has a very important role in conveying the right message because if used inappropriately, typography can have a negative impression on its readers [7].

The theory in typography is not only significant from its psychological perspective, but other fields such as medicine, logistics and engineering have also come to realize the importance of typography. Based on this reason and using the suggestion by Henderson & Cote, the theory that 'typography is an important predictor of a person when remembering a logo' was constructed [5]. This theory is used in studying the relationship between typography and logo design. This hypothesis on typography proved to have obtained encouraging findings of Pearson Correlation value for each design character that is studied.

VI. RECOMMENDATION

From the study, typography is deemed as the most significant design character in helping a person to remember a logo. In designing typography, there are two elements that need to be considered, which the physical are and style aspects. The physical elements of typography are divided into case, weight, contrast, width, posture and style (in this context, style means both the original physical design as well as the modified version), while the style element are divided into old style, transitional, modern, san serif, slab serif, graphic/custom and combination.

For case category, the importance of upper and lowercase is undeniable. However, as Goldman suggests, the use of uppercase should take precedence if there is only one word that is used [22]. Uppercase is believed to have more significance in influencing our memory compared to the use of lowercase. From another point of view, using lowercase would be more practical if it involves long sentences as lowercase is much easier to read. Therefore, taking into consideration the strong points of both upper and lowercase, it is recommended by Degani that a combination of upper and lowercase should be employed with the uppercase used in the first character of each word [14].

Next, when it comes to choosing the right weight for typography, bold is given priority, as it is the easiest to remember. Typography doesn't necessarily need to be extreme to be prominent but simply modest in the aspect of contrast. As for width, typography will be more pronounced when medium and extended are used. The posture aspect of typography needs a little more attention because different type of posture carries its own meaning and significance. While in general, italic and reversed oblique has its own purpose, in order to produce a logo that is easily remembered, it is recommended that roman posture be used. As the physical typography style analysis proved, an unaltered style is more effective in making a logo easier to remember. Therefore, it is recommended that a typography style shouldn't be altered.

For typography style, there are four general styles that are serif, san serif, graphic/custom and combination. It is recommended that the style of typography shouldn't be changed. That is to say, if serif was chosen as the style to be used and therefore only serif should be used exclusively. Both serif and san serif are proved to be the style of typography that is easily remembered.

However, the results from this paper are very limited in terms of the scope where the physical aspect of typography was tested only on art and design students from three Malaysian universities. Thus, since this research is at its early stage, it is important that a research on this topic to be further expanded in the future by looking into other aspect of typography and a bigger scope.

REFERENCES

[1] I. Noble and R. Bestley, *Visual Research: An Introduction to Research Methodologies in Graphic Design*, AVA Publishing SA, pp. 99, 2005.
[2] T. Samara, *Design Elements: A Graphic Style Manual. Rockport Publisher*, Inc., vol. 48, pp. 30-164, 2005.
[3] W. Drenttel, "The written word: The designer as executor, agent, and provocateur," *Communication Art*, March/April, 1993.

[4] S. J. Eskilson, *Graphic Design: A New History,* Laurence King Publishing, pp. 10, 2007.

[5] P. W. Henderson and J. A. Cote, "Guidelines for selecting or modifying logos," *Journal of Marketing*, vol. 62, pp. 14-30, 1998.

[6] J. Sheedy, Y. C. Tai, M. Subbaram, S. Gowrisankaran, and J. Hayes, *Clear Type Sub-Pixel Text Rendering: Preference Legibility and Reading Performance,* article in press, pp. 14, 2007.

[7] C. Wrede, *The Effect of Character-and Line-Level Typography and User Preferences on the Readability of Computer Screen Text: A Technical Communication Review of Recent Research*, East Carolina University, 2008.

[8] E. R. Brumberger, "The rhetoric of typography: The awareness and impact of typeface appropriateness. Technical Communication," *Humanities Module*, pp. 224, 2003.

[9] S. Subburamu. (2010). Does ugliness affect judgement. The effect of typography on movie choice. Intel Science Talent Search. [Online]. Available: http://psych.nyu.edu/pelli/highschool.html#2010.

[10] T. Wehr and W. Wippich, "Typography and color: Effects of salience and fluency on conscious collective experience," *Psychology Research*, 69. pp. 138-146, 2004.

[11] S. Gabriele, "The role of typography in differentiating look-alike/sound-alike drug names," *Healthcare Quarterly*, vol. 9, special issue, pp. 88-95, 2006.

[12] A. Zramdini and R. Ingold, "Optical font recognition using typographical features," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 20, no. 8, pp. 877-882, 1998.

[13] N. S. Rojas and S. Roast, "Corporate visual identity, the communicational role of the brand name and the logo," Bachelor Thesis, Industrial marketing, Department of Business Administration and Social Sciences, Division of Industrial marketing and e-commerce, Lulea University of Technology, pp. 11, 2006.

[14] A. Degani, "On the typography of flight-deck documentation," *Nasa Contractor Report # 177605*, San Jose State, University Foundation San Jose, Carlifornia. pp. 12-13, 2012.

[15] H. Pektas, "A typography analysis of Turkish newspapers' websites," *Journal Academic Marketing Mysticism Online (JAMMO)*, vol. 5, Part 18. pp. 271-280, 2012.

[16] B. Kea, *The Utilisation of Typography and Its Role in Brand Identity*, The University of Waikato, pp. 21, 2008.

[17] P. Chua and D. Ilicic, *Logo Savvy: Top Brand-Design Firms Share Their Naming and Identity Strategies*, United States: Rockport Publisher, Inc. pp. 11, 2007.

[18] T. V. Leeuwen, "Toward a semiotic of typography," *Information Design and Document Design*, vol. 14, no. 2, pp. 139-155.

[19] J. Thangaraj. (2004). Fascinating fonts: Is the power of typography a marketing myth. [Online]. Available: http://praxis.massey.ac.nz.

[20] A. Arditi and J. Cho, "Letter case and text legibility," Supplement to Perception, Perception 29 ECVP Abstract Supplement, 2000.

[21] A. Carstens, "Speech act theory in support of idealized warning models," *Southern African Linguistics and Applied Language Studies*, vol. 20, issue 4, pp. 191-200, 2000.

[22] D. Goldman, "Wine tasting through typography," *Graphic Communication*, College of Liberal Arts, Carlifornia Polytechnic State University, pp. 15, 16, 2012.

[23] J. Hartley, "Eighty ways of improving instructional text," *IEEE Transactions on Professional Communication,* PC-24(1), pp. 17-27, 1981.

[24] R. J. Philips, "Why is lower-case better?" *Applied Ergonomics*, vol. 10, no. 4, pp. 211-214, 1971.

[25] E. C. Poulton, "Searching for newspaper headlines printed in capitals of lower-case letter," *Journal of Applied Psychology,* vol. 51, no. 5, pp. 417-425, 1967.

[26] R. Deeb, K. Ooms, and D. P. Meyer, "Typography in the Eyes of Bertin, Gender and Expertise Variation," *Cartographic Journal*, vol. 49, no. 2, pp.176-185, 2011.

[27] N. Norgaard, "The semiotics of typography in literary texts a multimodal approach," *Orbis Litterarum*, vol. 64, vol. 2, pp. 141-160, 2009.

[28] R. C. Parker, "Looking good in print," *Research Triangle Park*, NC: Ventana Communications Group, Inc., 1997.

[29] D. Damico. (2008). Language as typography. *MFA Thesis project*. [Online]. Available: http://www.ddamico.net/Graduate/Graduate/Home_files/Thesis%20Final-Damico.pdf

[30] F. W. Hamilton, *The Uses of Italic*, Published by United Typothetae of America, pp. 5, 2010.

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