

Human Computer Interaction Project- 2

Designing a new font



KiddoScript

Submitted by-

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Introduction:

The objective of this project was to design a font specifically tailored for children between the ages of 5 and 7. Children in this age group are developing their reading skills, so the font design needed to be simple, legible, and engaging. For this project, I used the **Metaflop** tool, which provides flexibility in adjusting various font parameters like width, contrast, and curves. This font is designed to encourage reading and learning in a playful, easy-to-understand way.

Tool Used: Metaflop

For this project, I used Metaflop, a web-based tool for designing custom fonts. Metaflop provides an intuitive interface that allows users to create, modify, and export their own typefaces without the need for advanced software or technical expertise. The tool uses a parametrized approach, where users can adjust sliders for various design parameters such as stroke width, contrast, x-height, and more.

One of the advantages of using Metaflop is its flexibility and ease of use. It allows you to visualize the changes in real-time, making it simple to experiment with different designs. The tool also allows you to export your custom fonts in formats like OpenType (.otf), which can then be installed and used across various platforms.

For this project, Metaflop was particularly useful because it allowed me to fine-tune specific design aspects such as letter spacing, curve roundness, and x-height, all essential for creating a font suited for early readers. Its web-based nature also made it accessible without requiring any local installations or complex setups, making it ideal for students working individually on projects like this.

Design Decisions:

1. **Rounded Corners:** Children tend to respond better to friendly, non-threatening shapes. I chose to soften the edges of the letters by using rounded corners to make the font appear less sharp and more approachable.
2. **Increased Letter Spacing:** To aid children in distinguishing individual characters more easily, I added extra space between letters. This decision helps avoid confusion when letters appear too close together for young readers.
3. **Larger X-height:** The x-height (height of lowercase letters) is larger in this font to ensure that lowercase letters are more prominent and easier to recognize for children, who often struggle with smaller text.
4. **Contrast:** A contrast between thick and thin parts of the letters ensures that the font maintains consistent legibility. This makes it easier for young children to perceive the shapes of the letters without confusion.
5. **Slanting:** As the children in years 5-7, mostly write a bit tilted.
6. **Open Shapes:** Letters such as "a," "e," and "g" have open, simple designs, making them more distinguishable for children.

Design Parameters:

dimension	
unit width	1.09
pen width	0.99
proportion	
cap height	1
bar height	0.5
asc. height	1.04
desc. height	0.3
x-height	0.65
shape	
horiz. increase	0.75
vert. increase	0
contrast	1.18
superness	0.77
slanting	0.2
optical corrections	
aperture	0.75
corner	0.32
overshoot	0.71
taper	1

Justification:

The design choices focus on simplicity and readability, critical for early readers. Rounded corners and open shapes create a playful and non-intimidating appearance, while increased letter spacing and larger x-height support ease of reading and letter recognition. These features are essential for children in the early stages of literacy development.

Font Samples:

1. Uppercase characters

ABCDEFGHIJKLMNOPQRSTUVWXYZ

2. Lowercase characters

abcdefghijklmnopqrstuvwxyz

3. Numeric characters

0123456789

4. Other characters

*.,:;«»-+/(|!/?&@#%^**

Sample text in different sizes:

1. 16px

The cat sat on the mat. Look at the red hat!

2. 24px

The cat sat on the mat. Look at the red hat!

3. 32px

The cat sat on the mat. Look at the red hat!

4. 48px

The cat sat on the mat. Look at the red hat!

Sample Paragraph in the proposed font:

Tom has a big red ball. He likes to play with his friends in the park. The sun shines bright, and the birds sing in the trees. Tom runs fast and kicks the ball high. He laughs and jumps with joy. His friends cheer, and they all play together. After some time, they sit under a big tree to rest. They drink water and share snacks. Tom tells a funny story, and everyone giggles. The wind blows gently, making the leaves dance. Soon, they get up and start playing again, running around with happy smiles on their faces. The day is full of fun and laughter.

Comparison Between Custom Font and Rosemary Font for Children Aged 5-7

1. Legibility:

- Custom Font: Designed with rounded corners, open shapes, and increased x-height, which makes it very legible for young children. The additional letter spacing helps early readers recognize each character more clearly.
- Rosemary Font: Rosemary is a hand-drawn, script-like font that has a more artistic and handwritten feel. While it is aesthetically pleasing, its inconsistent stroke width and

handwritten nature may pose challenges for children who are just learning to read, making it harder for them to recognize letters.

2. Character Shapes:

- Custom Font: Focuses on open, simple, and recognizable shapes. For example, letters like "a," "g," and "e" are designed with a clear distinction to aid early readers.
- Rosemary Font: The free-flowing and cursive-like letterforms in Rosemary might confuse children, as they are still learning the basics of letter shapes. The font is more suited for decorative purposes rather than educational reading for children.

3. Consistency:

- Custom Font: The low-contrast design ensures consistency in stroke width, making it easier for children to follow the shapes of the letters without distraction.
- Rosemary Font: The varying stroke width in Rosemary can make it more difficult for children to follow each letter's form, especially when letters are connected or have different thicknesses within the same word.

4. Approachability:

- Custom Font: Rounded and soft edges give the font a friendly and approachable appearance, ideal for young children. It's specifically designed to be non-threatening and easy to look at, encouraging reading.
- Rosemary Font: While Rosemary's handwritten style gives it a playful and casual feel, it may not appear as friendly or structured for children just beginning to read. The organic,

uneven shapes might be less approachable for a learning environment.

5. Suitability for Educational Use:

- Custom Font: Tailored specifically for educational use, helping children develop early reading skills by focusing on clarity, simplicity, and legibility.
- Rosemary Font: More suited for creative and artistic applications like card designs, headers, or decorative text, rather than as a primary learning tool for young readers.

Example Comparison Text:

Custom Font (Children's Font):

Tom has a big red ball. He likes to play with his friends in the park

Rosemary Font:

"Tom has a big red ball. He likes to play with his friends in the park."

In conclusion, while Rosemary is beautiful for artistic purposes, the custom font is far more appropriate for young children learning to read, providing clarity and readability that is crucial for early literacy development.