Digitalize Aksara Lampung as Culture Preservation in Digital Era



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Why?

- Lampung is one of Indonesia heritage. Lampung have it's own languange and character to communicate and interact inside Lampung society.
- Lampung characters face challenge in modern age because less and less people use it to communicate especially because there were no default support for Lampung character in computer system.
- Development of aksara Lampung in digital font (Meizano & Martinus, 2015) were meant to rejuvenate people interest in using aksara Lampung as a way to communicate using computer based media.
- The font were tested in against expert, and received favorable review.
- To support convenience and user friendly for public; use by computer based system such as desktop pc, smartphone and tablet from the get go.
- One way to provide this by proposing the font to Unicode standard. If included in Unicode standard, the font can be used directly, without installing a separate font file.
- To make sure the font proposed to Unicode is the highest standard in quality and usability, it is important to measure user experience (UX) in Lampung characters usability.

The Unicode Standard

- The Unicode Standard is the universal character encoding standard for written characters and text.
- Required in new Internet protocols and implemented in all modern operating systems and computer languages such as Java and C#, Unicode is the basis of software that must function all around the world.
- With Unicode, the information technology industry has replaced proliferating character sets with data stability, global interoperability and data interchange, simplified software, and reduced development costs.

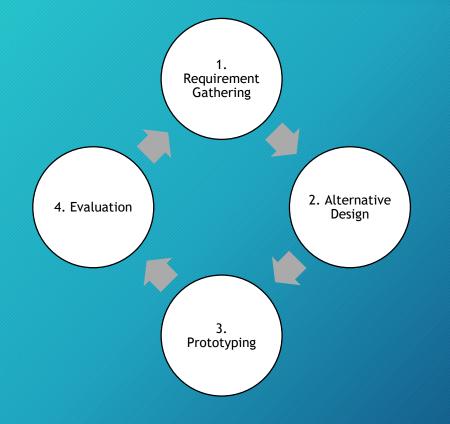
Lampung Characters and Transliteration

| ٨ | ka | Ņ | ga | Ņ | nga | √ | ра | J | ba |
|---|----|---|-----|----------|-----|----------|----|----|-----|
| ע | ma | h | ta | \ | da | m | na | เท | са |
| ĸ | ja | M | nya | w | ya | ٨ | a | Ν | la |
| N | ra | И | sa | ß | wa | И | ha | ý | gha |

Lampung Characters and Transliteration (2)

| U ••• | i | n ••• | é | I ••• | e | - | ang |
|----------|----|----------|----|----------|----|-------|---------------|
| 4 ••• | ar | = | an | • ; • | Ο | • = • | u |
| •••• | au | •••1 | ai | И | ah | / | non- vocal |

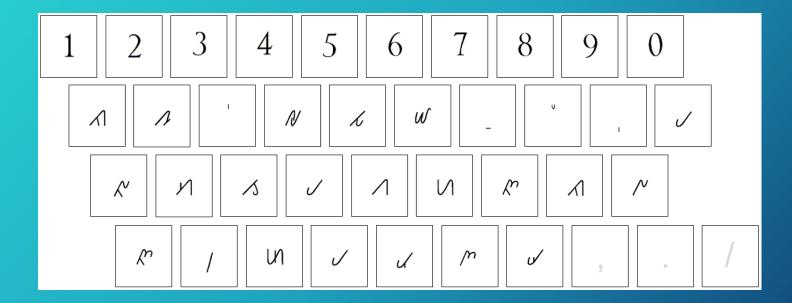
UX Methodology



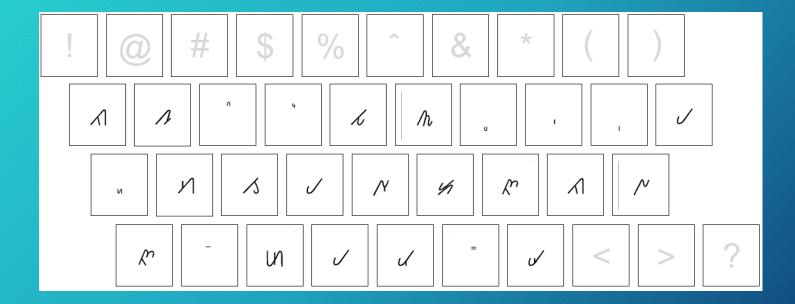
Requirement

- There are two main parameters that need to be measure:
 - Readability
 - Accessability

Keyboard Layout



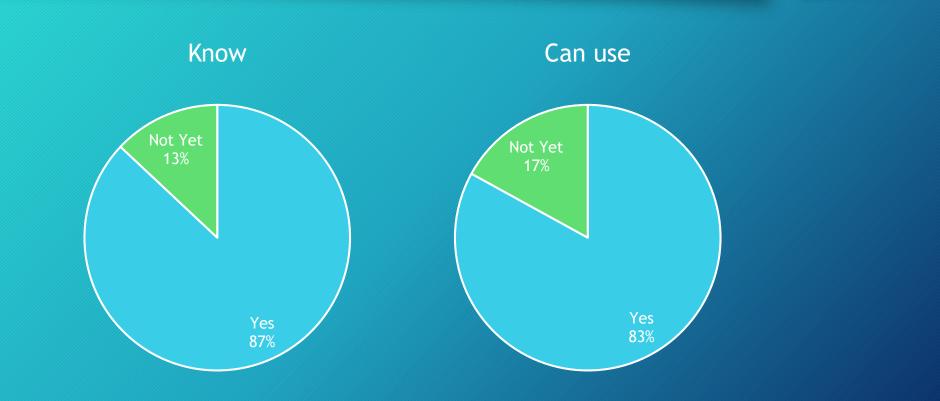
Keyboard Layout with SHIFT



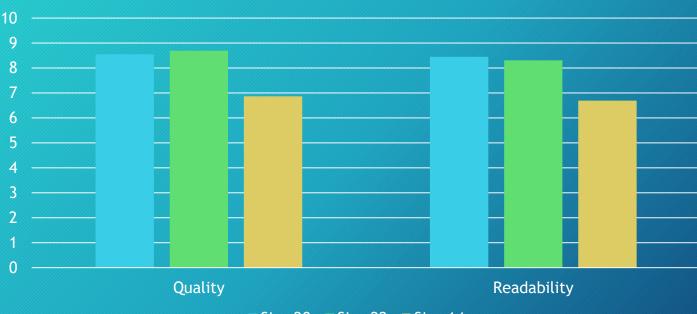
Evaluation

- 30 participants
- Young people
- Knowledge of Lampung character
- Usability testing:
 - Reading
 - Typing
- Lampung characters usage recommendations

Knowledge of Lampung Characters



Reading (Font Size)

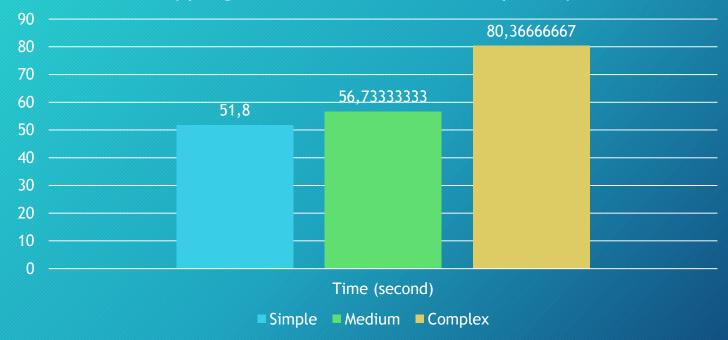


Readability base on Font Size

Size 28 Size 22 Size 14

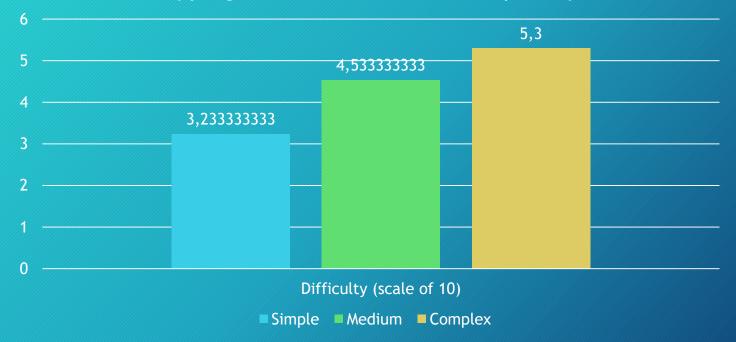
Typing Time

Typing based on sentence complexity



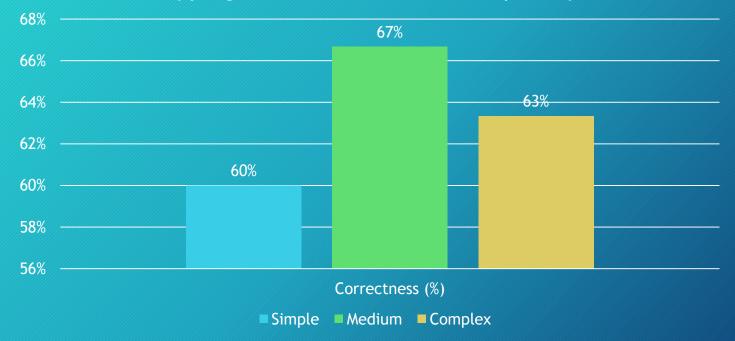
Typing Difficulty

Typing based on sentence complexity

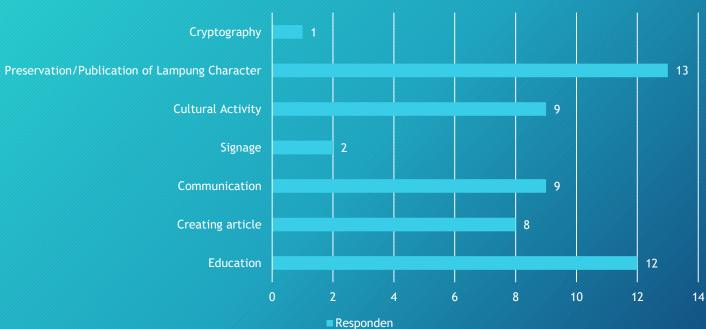


Typing Correctness

Typing based on sentence complexity



Usage Recommendation



Lampung Character Recommendation

Conclusion

- Based on data, there are some refinement need to be done to achieve a better digital font. A larger default character and some refinement on typography.
- The font itself manage to achieve a favorable review on usable and useful aspect of UX.
- According responses users, digital aksara Lampung have to be spread out more, in order to support the local value and uniqueness of Lampung.

Thank You



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