Grapho-phonemic systematicity in Korean hangeul

Does it assist learning?
Hangeul, the Korean writing system

- Artificially made in 1446
- King Sejong the Great & his scholars
- Consistent letter-sound relation
- Consonants = Visualized articulation

- /g/  guy
- /n/  /d/  /b/  /dg/
- /k/  key
- /t/  /p/  /ch/
- /k*/  sky
- /t*/  /p*/  /tch/
Hangeul, the Korean writing system

- Vowels based on a cultural reference point
Research Questions

“Even fools can learn in a week and the clever will learn for a half day.”

Q. Do naïve participants notice the intended systematicity?
Q. Can they utilize it for faster and better learning?
Experiment

Veridical letter-sound association
Expected to be Faster & Easier

Fake letter-sound association
**Training**

Number of repetitions = easier learning

- X 4

**Mini-Test**

**Final-Test**

Reaction time = faster learning

- 70%

Number of correct clicks = success of learning
1. Did the ‘veridical group’ learn better & faster?

Correct Answers

\[ U = 356, \ p = .16 \]

Reaction Time

\[ U = 405, \ p = .40 \]

Fig 2.3.1. The percentage of correct answers (left) and reaction time (right). SD=16.20 (correct consonants); SD=16.44 (random consonants); SD=12.96 (correct vowels); SD=17.12 (random vowels)
2. Did the ‘veridical group’ learn more easily?

![Graphs showing percentage of participants over repeated mini tests for consonants and vowels.](image)

\[U = 7, p = .44\]

Fig 2.3.2. The number of the tests the participants repeated for consonants (left) and vowels (right): Many participants passed the first test when learning consonants but had to repeat multiple times for vowels.
3. Unexpected Findings

1. Learning consonants is easier than vowels \((U = 2, p = .04)\)
2. Nasals are the easiest to learn.
3. Vowels without jaw-opening are difficult to learn.

Fig 2.3.5. The distribution of the first languages of the performers who scored below average (left); and the scores within Chinese participants (right).
Any tips for further directions?