**Training procedure**

Week 1

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| Day | Task | Description | Duration estimate |
| Day 1  (in the lab) | 1. Phoneme learning | learn the phoneme mappings for each AOE grapheme:   * graphemes are visually presented in random order, participants press a button an unlimited number of times to hear the corresponding sound (and a word? Like /i/ as in ‘beat’) * 5 runs | 20 mins |
| 2. Grapheme-phoneme test | * see a graph in a random order 🡪 pronounce the phoneme associated with it, for vowels = both * 3 runs   (have to pronounce it within 3 attempts, or will be excluded from the study) | 10 mins |
| 3. Word reading | * See a word, read it out loud, receive feedback: hear the correct word | 15 mins |
| Days 2-5  (at home) | Reading practice | * See a word, read it out loud, receive feedback: hear the correct word | 15 mins |
| Day 6 (at home) | Reading generalizability | * See novel words which they haven’t seen before, read them out loud, no feedback | 10 mins |

**Testing procedure**

Week 2

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| Day | Task | Description | Duration estimate |
| Day 1  (in the scanner) | Decoding protocol | * 15 runs * each run consists of 24 stimuli (TARGETS) + 12 randomly interspersed sensorimotor control foils 🡪 360 exp trials + 180 control * see AOE word 🡪 press button to respond 🡪 crosshair 🡪 new trial at variable jitter |  |
| Day 7  (in the lab and in the scanner) | 1. Orthographic choice | * The target word from the decoding protocol is displayed along with the three unseen items (i.e., foils) in its quartet, subjects choose the target * 24 trials x 4 sets |  |
| 2. Spelling task | * the experimenter will say aloud a target word, and the participant will select from amongst a set of cards the graph sequence that spells the word |  |
| 3. Pronunciation task | * read aloud the quartet items five times each, in random order * 96 x 5 = 480 |  |
| 4. Orthographic perception protocol (in the scanner) | * 10 runs * each run consists of 48 12-s blocks * in each block one of the 24 target items, or a homophone foil differing by two consonant graphs (n=24), will be presented 6 times (exposure duration of 500 ms, interstimulus interval of 1.5 s), so that each target and a foil will occur in one block in each run. * To maintain attention, subjects will be instructed to monitor for infrequent color changes in the crosshair |  |

Previously…

