Objectives and Hypothesis of the Study

Experiment 1

Objectives

1. To understand the role of phonology and morphology during lexical access.
2. To investigate the effect of homophony in Urdu for children and adults.
3. To observe the differences in skill in reading Urdu among children and adults.
4. To compare the role of phonology and morphology between children and adults

Hypothesis

• H1. There will be significant difference in the proportion of fixations among three conditions (i) target word (spelled correctly), (ii) target word and homophonous equivalent, and (iii) target word and morphological equivalent.

• H2. There will be significant difference in eye movement patterns between younger and older readers.

Experiment 2

Objectives

1. To understand different processing strategies across word-class.
Hypothesis

- There will be significant differences in response time for base word and derivatives would be faster than for inflectional word forms.

Experiment 3

Objectives

1. To observe parafoveal preview benefit during word recognition in the fovea.

Hypothesis

- There will be significant differences in response time for base words, extensions and derivatives.

Experiment 4

Objectives

1. To observe role of morphology in parafoveal presentation of root during word recognition in the fovea.

Hypothesis

- There will be significant differences in response time for base words, morphologically related and orthographic control words for preview and no preview conditions.

- There will be significant differences in the morphologically related condition as compared to orthographic control if morphology plays a role in parafoveal processing during word recognition.
Experiment 5

Objectives

1. To understand the differences in processing strategies of triconsonantal root versus no specific root words.

2. To understand the different processing strategies across different word-types.

Hypothesis

- There will be significant differences in first fixation duration and dwell time / gaze duration between words with triconsonantal root and words with no specific root.

- There will be significant differences in first fixation duration and dwell time / gaze duration between prefixed and compound words.

Outline of the Study

The present thesis is a collated work of five experiments with Urdu as a language of investigation. We have used tools like e-prime software and eye tracker to understand the cognitive processing strategies during lexical access. There are a series of experiments to know the role of morphology during lexical access across word-class and word type. The studies used isolated words across experiments. We used different paradigms like the visual world paradigm, word recognition task, parafoveal preview benefit and simple reading tasks in the studies. In
only one experiment we had children to see developmental trends if any as compared to adults. The rest of the experiments were conducted with adults as participants. All the experiments reported morphology to play a dominant role and surprisingly sometimes inhibitory. We also observed differential processing strategies being utilized across word-class and word-type.