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**Title:** Reading Arabic: legibility studies for the Arabic script  
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What is the cost of visual complexity? This dissertation sets out to determine the effect of the complexity of word formation on the legibility of Arabic and the role that vocalization plays in reading. This is carried out via a holistic approach to legibility research that combines the visual culture with eye movement in reading and legibility studies.

To do this it looks at the transition of Arabic manuscript letterforms into typographic ones, the anatomy of the Arabic script, and the predominant typographic styles in use today. It presents the design process of the specially designed Afandem typeface family, a review of eye movement findings, and a new definition of legibility that is rooted in the models of eye movement. The experiment used eye tracking to test 72 subjects in Beirut to determine the effect of the complexity and vocalization on reading measures. These results are discussed within the scope of the Arab world today, its cultural and educational setup, and avenues for further research are explored.

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