

Master Formula & Framework Sheet: Reading Comprehension

Advanced Analytical Strategies for Complex Texts

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1. Readability Indices

metrics to measure text complexity.

Flesch-Kincaid Grade Level

$$FKGL = 0.39 \left(\frac{\text{Total Words}}{\text{Total Sentences}} \right) + 11.8 \left(\frac{\text{Total Syllables}}{\text{Total Words}} \right) - 15.59$$

Gunning Fog Index

$$\text{Fog} = 0.4 \left[\left(\frac{\text{Words}}{\text{Sentences}} \right) + 100 \left(\frac{\text{Complex Words}}{\text{Words}} \right) \right]$$

(Complex words = ≥ 3 syllables)

2. Information Density Models

$$\mathcal{I}(x) = -\log_2 P(x)$$

text coherence depends on the minimization of entropy across transitional nodes.

3. Passage Structure Schemas

- **Thesis-Antithesis-Synthesis:** $H_0 \rightarrow \neg H_0 \rightarrow H_1$
- **Comparative Analysis:** Vector space mapping of entities E_1, E_2 across attributes $A_1 \dots A_n$.
- **Causal Chain:** $C_1 \implies C_2 \implies \dots \implies \text{Effect}$

4. Question Typology Matrix

Type	Primary Strategy
/Main Idea	Scope & Tone Mapping Logical Deduction ($\Rightarrow$)
/Attitude	Lexical Sentiment Analysis Direct Localization

5. Strategic Execution Pipeline

1. **Macro-Read:** Skim structural markers (however, consequently, moreover). 2. **Deconstruction:** Isolate premise from rhetorical flourish. 3. **Pre-phrasing:** Formulate answer before reviewing options. 4. **Elimination:** Apply strict falsification criteria.