1. Statistical Analysis Module:
   * Word Count
   * Long Word Count
   * Sentence Count
   * Paragraph Count
   * Average Paragraph Length
2. Semantic Analysis Module
   * Using LSA and cosine similarity
3. Syntactic Analysis Module:

- *Captures syntactic variety*

* Syntactic Analyzer
  + POS Tagging
  + Features: Noun Count, Verb Count, Adjective Count, Pronoun Count, Punctuation Count
  + Find mistakes – “I is given permission” – past tense (given) used with verb in present.
  + “their”
  + Extract concepts like “Computers”🡪 “great”
  + Find syntactic errors, incomplete sentences, etc.
* Syntactic Chunker
  + Abney, 1996 – Find Phrases
  + Assembles the phrases into trees based on subcategorization information for verbs (Grishman, et al, 1994).
* Clause Analyzer
  + Main Clause. Fragments?
  + Subordinate Clauses, Relative Clauses
  + Essential Relative Clauses – Commas
  + Noun Clauses
  + Infinitive & Compliment

1. Discourse Analysis Module:

*- Captures the organization of ideas, and flow (with /against)*

* Identify the tone and the “side” or “flow” on a scale of -3 to 3 for the whole essay.
* For each paragraph, identify the flow value separately. This marks the flow of ideas within the essay.
* Support Identification: For “facts”, “ideas”/propositions, does the following discussion provide support?
* Flips: Identify if the author has “flipped tone” within the essay at any point by partitioning essay into separate arguments.

1. Topical Analysis Module:
   * Cosine Similarity between test and a set of “correct” and “complete” essays
   * Captures richness in vocabulary.
   * Captures “trins” by finding the most closely related ideas to any essay in the training set.