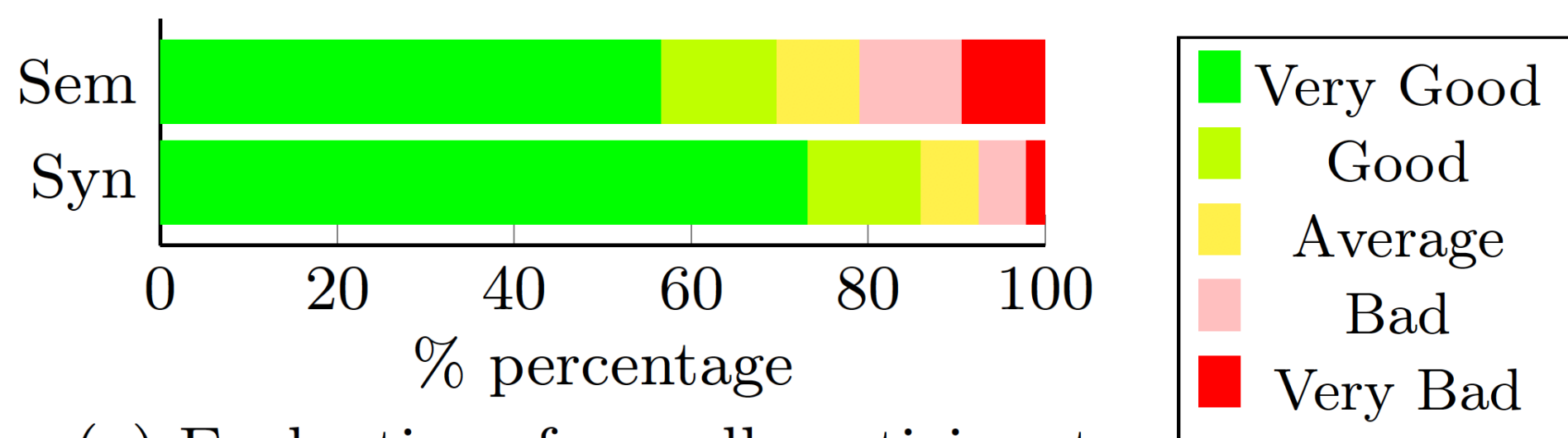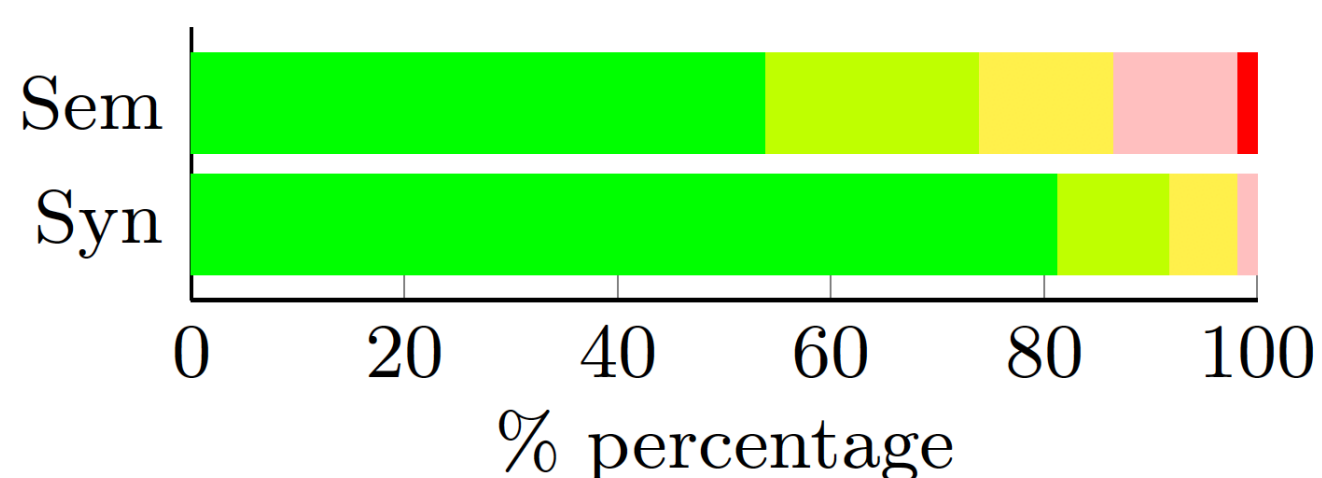# Generating Answerable Questions from Ontologies

- **Aim:** This research is to **generalise** the process of the generation of questions from the TBox of ontologies

- **Description and results:**
  - Generating **educational** questions
  - **10 types of questions** with their axiom prerequisites (72 templates)
  - **3 ontologies:** AWO, Stuff and BioTop
  - **Results** from 7 evaluators (1330 points) based on the median:
    - Syntax: **80%** very good
    - Semantics: **73%** very good or good

(a) Evaluations from all participants

(b) Quality of the generated questions
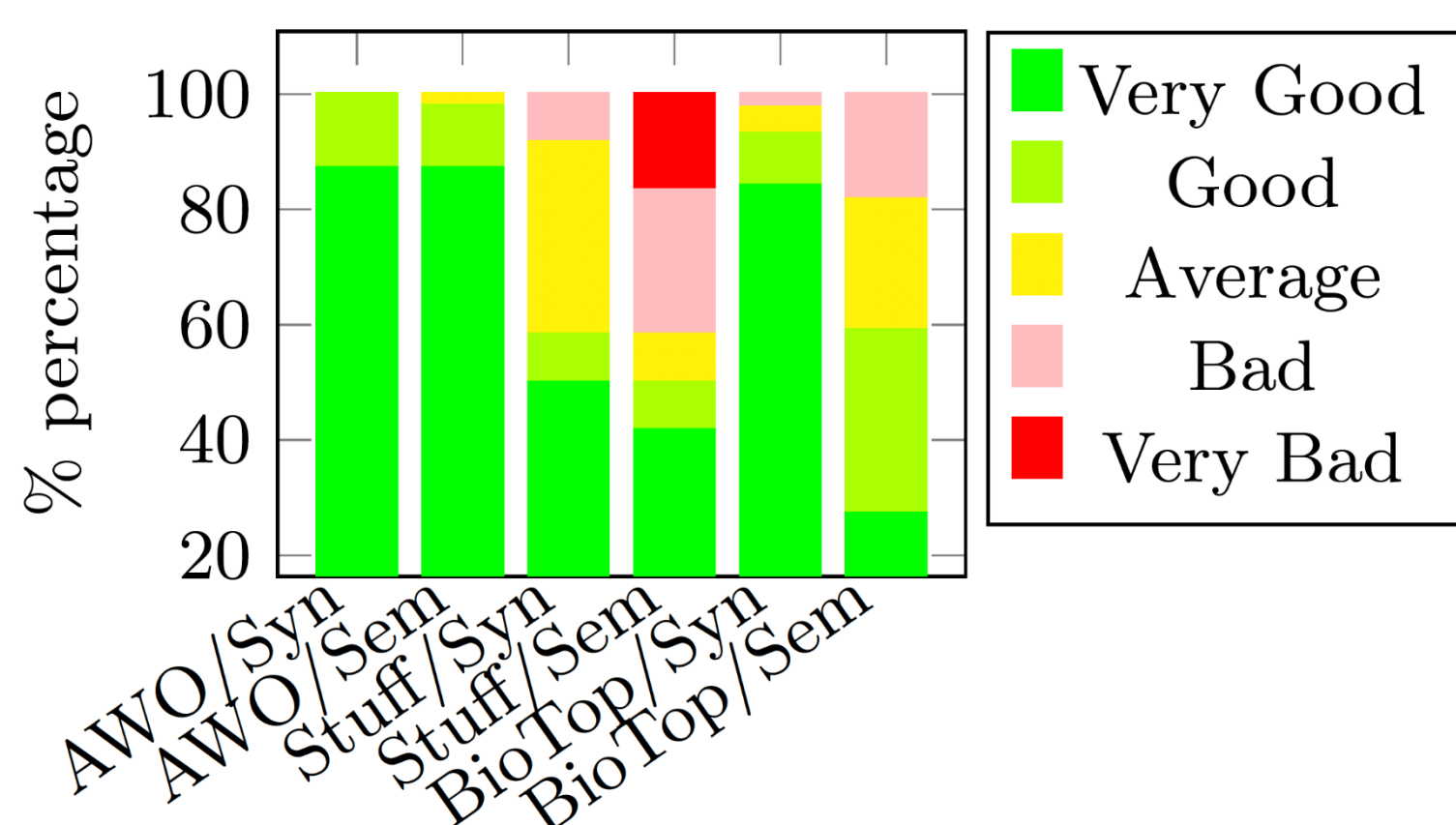
Fig. 1: Aggregate results
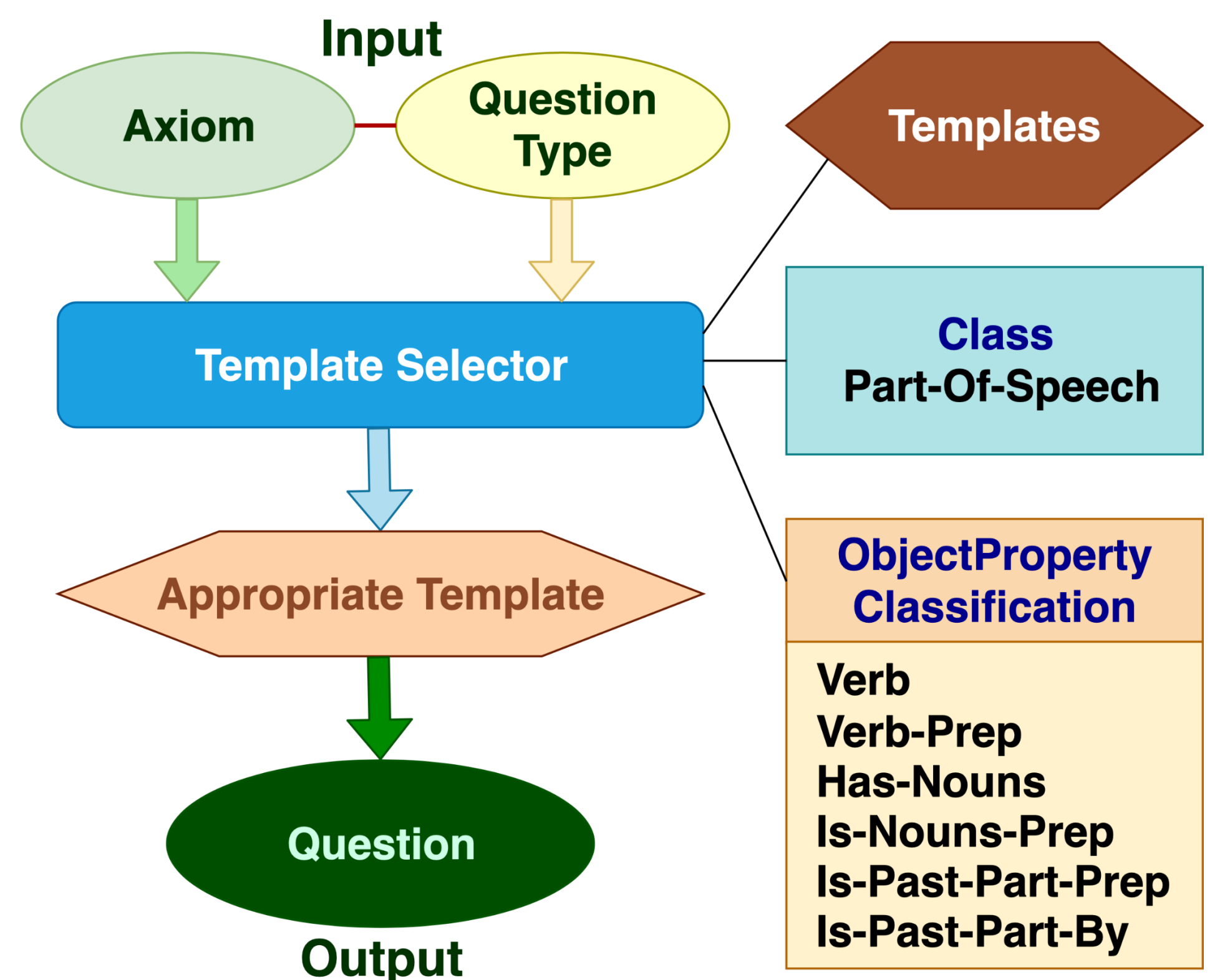

Fig. 2: Quality for each ontology

Fig. 3: General approach

- **Examples of generated questions**
  - Which insect participates in flying?
  - Is phloem a proper part of some stem?
  - A material object is a part of some universe. True or False?

- **Limits of the approach**
  - **3 Ontologies = Generalisation?**
  - The different ways to formalise knowledge (Representation styles, Foundational ontologies, Ontology Design Pattern, …) have not been studied
  - Types of questions investigated manually

- **Future work**
  - More efficient algorithm
  - Generating more advanced questions
  - Enlarging the scope of the research for other purposes (e.g. ontology validation) by automating the process for other types of questions

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