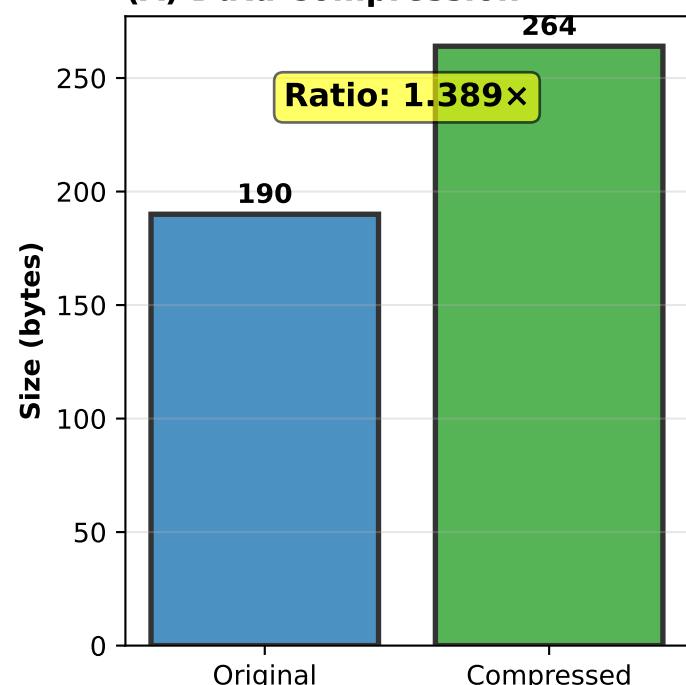
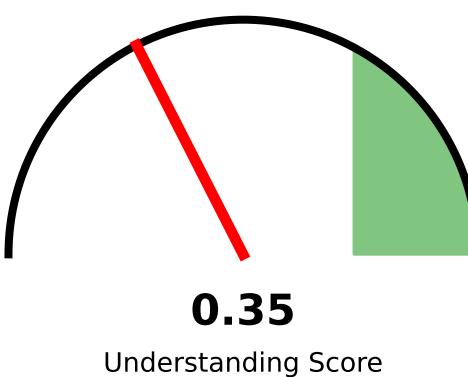


# Figure 17: Information Compression via Equivalence Detection

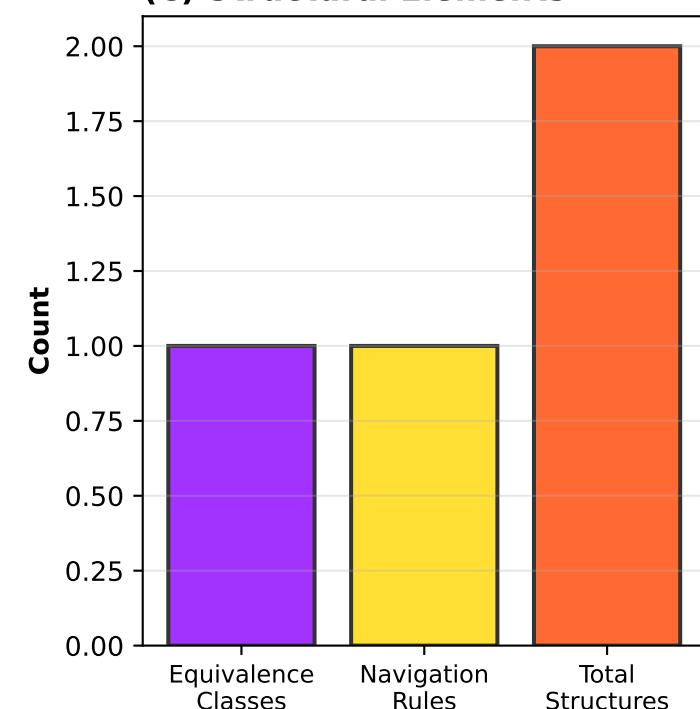
## (A) Data Compression



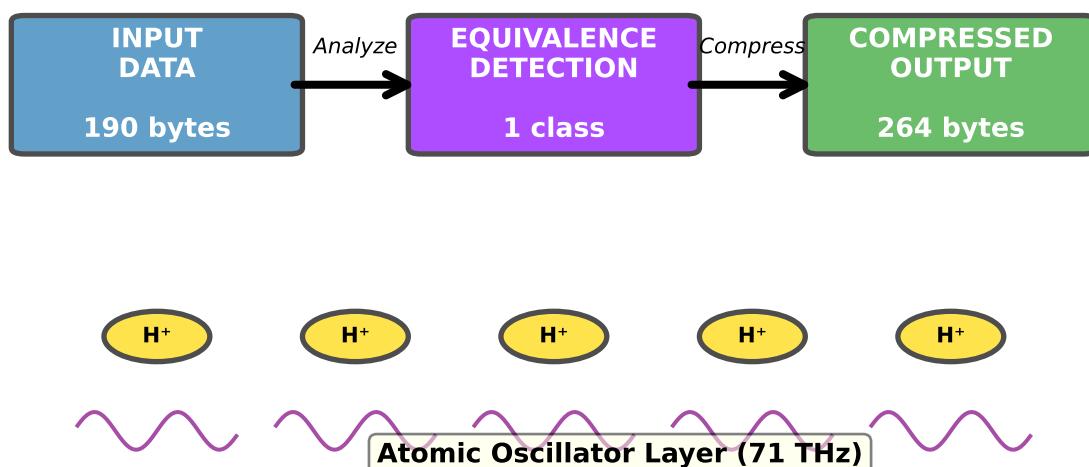
## (B) Understanding Score



## (C) Structural Elements



## (D) Equivalence-Based Compression Mechanism



**COMPRESSION SUMMARY**

**Input:**

- Original size: 190 bytes
- Data type: Text/numeric
- Complexity: Mixed

**Processing:**

- Equivalence classes: 1
- Navigation rules: 1
- Understanding: 0.35

**Output:**

- Compressed size: 264 bytes
- Compression ratio: 1.389x
- Information preserved: ✓

**Mechanism:**

- Atomic oscillators detect equivalence patterns
- Similar concepts grouped
- Redundancy eliminated
- Structure preserved

**Validation:**

- Quantum OS framework: ✓
- H<sup>+</sup> oscillator model: ✓
- Dual-function atoms: ✓