



Agent

(a) Coder Simulation

[Persona]

A brief description of the character's name, age, gender, race, education, occupation, experience, values, beliefs, interests, personality, etc.

[Codebook]

Descriptions of the content analysis task followed by predefined rules:

1. Rule 1;
 2. Rule 2;
 3. Rule 3.
- ...



Codebook



Content

(b) Bot Annotation

[Content]

Text 1: content;
Text 2: content.
...

[Coding]

Agent #1: Analysis of text 1;
Reasons and explanations for applying rules;
Coding results.

Analysis of text 2;
...



Independent
Coding

Task
Loop

(d) Codebook Evolution

[Codebook Evolution]

Agent #1: Analysis of original codebook rules;

Analysis of coding results;

Analysis of discussion;

Updated rules & codebook.

Agent #2: Comment for Agent #1;

Updated rules & codebook.

Agent #3: Comment for Agent #1 and Agent #2;

Updated rules & codebook.

...

Agent #1: ...

...



Codebook
Update

(c) Agent Discussion

[Discussion]

Round 1

Agent #1: Text, coding results, and explanations;

Agent #2: Comment for Agent #1;

Coding results and explanations.

Agent #3: Comment for Agent #1 and Agent #2;

Coding results and explanations.

...

<Human Intervention Mode> **Human Expert:**
Human feedback and instructions.

Round 2

...



Inter-agent
Discussion



Human
Intervention