

## Responsible NLP Checklist

Paper title: *Beyond High-Entropy Exploration: Correctness-Aware Low-Entropy Segment-Based Advantage Shaping for Reasoning LLMs*

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How to read the checklist symbols:

- the authors responded 'yes'
- the authors responded 'no'
- N/A the authors indicated that the question does not apply to their work
- the authors did not respond to the checkbox question

For background on the checklist and guidance provided to the authors, see the [Responsible NLP Checklist](#) page at ACL Rolling Review.

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### A. Questions mandatory for all submissions.

- A1. Did you describe the limitations of your work?

*This paper has a Limitations section.*

- N/A A2. Did you discuss any potential risks of your work?

*This work does not involve any potential risks such as ethical issues, safety hazards, bias, or misuse. It is a basic research study with no harmful applications.*

### B. Did you use or create scientific artifacts? (e.g. code, datasets, models)

- B4. Did you discuss the steps taken to check whether the data that was collected/used contains any information that names or uniquely identifies individual people or offensive content, and the steps taken to protect/anonymize it?

*The data used in this work is public and does not contain any personally identifying information or offensive content. Therefore, N/A is selected.*

- B6. Did you report relevant statistics like the number of examples, details of train/test/dev splits, etc. for the data that you used/created?

*Section 4.1*

### C. Did you run computational experiments?

- C2. Did you discuss the experimental setup, including hyperparameter search and best-found hyperparameter values?

*Section 4.1 and Appendix A3*

- C3. Did you report descriptive statistics about your results (e.g., error bars around results, summary statistics from sets of experiments), and is it transparent whether you are reporting the max, mean, etc. or just a single run?

*Section 4.2*

### D. Did you use human annotators (e.g., crowdworkers) or research with human subjects?

- N/A D1. Did you report the full text of instructions given to participants, including e.g., screenshots, disclaimers of any risks to participants or annotators, etc.?

*This work does not involve human participants, annotators, or user studies, so N/A is selected.*

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*The Responsible NLP Checklist used at ACL Rolling Review is adopted from NAACL 2022, with the addition of ACL 2023 question on AI writing assistance and further refinements based on ARR practice. ACL 2026 used a subset of ARR checklist form.*

D2. Did you report information about how you recruited (e.g., crowdsourcing platform, students) and paid participants, and discuss if such payment is adequate given the participants' demographic (e.g., country of residence)?

*This work does not involve human participants, recruitment, or payment for annotation/experiments, so N/A is selected.*

D3. Did you discuss whether and how consent was obtained from people whose data you're using/curating (e.g., did your instructions explain how the data would be used)?

*This work uses only public datasets and does not involve personal data that requires consent from individuals, so N/A is selected.*

D4. Was the data collection protocol approved (or determined exempt) by an ethics review board?

*This work only uses existing public datasets and does not involve new human subjects research or sensitive data collection. Therefore, ethics review board approval is not applicable.*

**E. Did you use AI assistants (e.g., ChatGPT, Copilot) in your research, coding, or writing?**

E1. If you used AI assistants, did you include information about their use?

*LLMs assisted in improving the clarity, fluency, and readability of the written text by suggesting alternative phrasings and polishing grammar and style, while we guarantee that the substantive content and intellectual contributions remain the responsibility of the authors.*