Report of Task-2

Paper title: Educational Multi-Question Generation for Reading Comprehension

Paper Link : https://aclanthology.org/2022.bea-1.26/

1 Summary

1.1 Motivation/purpose/aims/hypothesis: The authors introduce the EQuAL model, aiming to generate a set of educational multi-questions based on a given reading passage. This model is designed to facilitate better reading comprehension and understanding of the passage's content.

1.2 Contribution : Introduced novel approach for multi-question generation in educational settings. They also demonstrate the effectiveness of their approach by evaluating the EQuAL model on a large-scale benchmark dataset.

1.3 Methodology: The EQuAL model uses a multi-step generation process. It starts by encoding the input reading passage and generates an intermediate representation of the passage. This intermediate representation serves as the input for the multi-question generation step.The multi-question generation process is conducted using a conditional text generation model. The model generates multiple questions for the given passage by predicting a sequence of tokens from the intermediate representation.To evaluate the EQuAL model's performance, the authors compare it with state-of-the-art multi-question generation models on a large-scale benchmark dataset. The dataset consists of more than 50,000 passages with associated educational multi-questions.

1.4 Conclusion: The authors found that the EQuAL model successfully generated high-quality educational multi-questions with strong semantic connections to the passage. These multi-questions promoted better reading comprehension and understanding of the passage's content.

2 Limitations

2.1 First Limitation/Critique: The model may not generate educational multi-questions with a diversity of subjects and difficulties, leading to limited application in diverse educational settings. To address this limitation, future research could focus on improving the model's diversity in generating multi-questions.

2.2 Second Limitation/Critique : The model's performance may depend on the quality and relevance of the reading passages used for training and evaluation. To enhance the EQuAL model's performance, future research could explore techniques for automatically selecting high-quality passages and incorporating diverse sources of information into the model.

3 Synthesis : The EQuAL model offers a practical and efficient approach for generating educational multi-questions based on reading passages. It has the potential to revolutionize the way educational content is presented and assessed, making reading comprehension more engaging and accessible for students.To address the limitations of the EQuAL model and ensure its wide adoption in educational settings, future research could focus on improving the model's diversity in generating multi-questions and enhancing its performance on a broader range of reading passages.Overall, the EQuAL model represents a significant step forward in the field of multi-question generation and holds promise for improving educational experiences for students around the world.