

4 Analysis

LLMs-based MRC models

Original
Testing sets

Predictions

2 Adversarial Attack Methods

Original
Testing Set

SQuAD
NewsQA
TriviaQA
NaturalQues
NarrativeQA

+

Adversarial Attack Methods

- Charwap
- SERAs
- Pwws
- AddSent
- ...

Adversarial Attack Testing sets

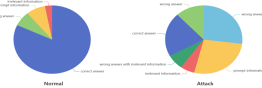
PLMs-based MRC models & Predictions

LLMs-based MRC models & Predictions

Visualization



LLM predicts the distribution of the result



Case Studies

Context: Undergraduate **admission** **admission** to Harvard is characterized by the Carnegie Foundation as "more selective, lower transfer-in". Harvard College accepted 5.3% of applicants for the **class** **class** of 2019, a record low and the second lowest **acceptance** **acceptance** rate among all national **universities** **universities**. In 2007, Harvard College ended its **early** **early** and **admission** **admission** **program** **program** in 2007 as the **program** **program** was believed to disadvantage low-income and under-represented minority applicants to selective universities, yet for the class of 2018 an **early** **early** action **program** **program** was **introduced** **introduced**.

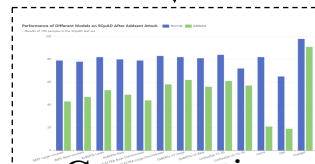
Question: In what year was an early admission program reintroduced?

BERT-Large-uncaused Prediction: 2016

BERT-Base-uncaused Prediction: 2016

Answer: 2018

Context: Research shows that student motivation and attitudes towards school are closely linked to student-teacher relationships. **What is the research question?** **What is the research design?** **What is the research setting?** **What is the research population?** **What is the research instrument?** **What is the research procedure?** **What is the research outcome?** **What is the research conclusion?** **What is the research implication?** **What is the research limitation?** **What is the research strength?** **What is the research weakness?** **What is the research gap?** **What is the research contribution?** **What is the research impact?** **What is the research relevance?** **What is the research significance?** **What is the research importance?** **What is the research value?** **What is the research benefit?** **What is the research advantage?** **What is the research disadvantage?** **What is the research risk?** **What is the research opportunity?** **What is the research challenge?** **What is the research solution?** **What is the research answer?** **What is the research result?** **What is the research finding?** **What is the research discovery?** **What is the research invention?** **What is the research creation?** **What is the research innovation?** **What is the research development?** **What is the research progress?** **What is the research achievement?** **What is the research success?** **What is the research accomplishment?** **What is the research attainment?** **What is the research realization?** **What is the research fulfillment?** **What is the research completion?** **What is the research conclusion?** **What is the research implication?** **What is the research limitation?** **What is the research strength?** **What is the research weakness?** **What is the research gap?** **What is the research contribution?** **What is the research impact?** **What is the research relevance?** **What is the research significance?** **What is the research importance?** **What is the research value?** **What is the research benefit?** **What is the research advantage?** **What is the research disadvantage?** **What is the research risk?** **What is the research opportunity?** **What is the research challenge?** **What is the research solution?** **What is the research answer?** **What is the research result?** **What is the research finding?** **What is the research discovery?** **What is the research invention?** **What is the research creation?** **What is the research innovation?** **What is the research development?** **What is the research progress?** **What is the research achievement?** **What is the research success?** **What is the research accomplishment?** **What is the research attainment?** **What is the research realization?** **What is the research fulfillment?** **What is the research completion?**



Comparison

[illegible]

MixAttack