

**Manuscript No.: IJAR-57039**

**Title: Intelligent Classification of Educational Questions Using XLNet-CNN and Deep Contextual Embeddings.**

**Recommendation:**

- Accept as it is .....
- Accept after minor revision.....**
- Accept after major revision .....
- Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance	✓			

**Reviewer Name: Dr. Mithilesh kumar shukla**

**Reviewer's Comment for Publication:**

The study compares the proposed XLNet+CNN model with a state-of-the-art RoBERTa+CNN model, showing competitive performance and particular strengths at higher cognitive levels..The model is evaluated using accuracy, precision, recall, and F1-score, offering a well-rounded assessment of its classification performance. In today's fast-growing world, there is a requirement for high-quality educational assessments. Designing such assessments that align with Bloom's taxonomy presents significant challenges. Because it requires educators to carefully make the question paper that assesses various levels of student understanding according to the action verbs. Therefore, manually mapping the question papers to Bloom's taxonomy is difficult. Classification systems refer to structured methods or models used to categorize items, data, or information into predefined groups or classes based on specific criteria or features. In the context of natural language processing (NLP) and educational technology, classification systems automatically assign texts—such as examination questions, documents, or sentences—to categories that reflect their content, purpose, or level of complexity.

**Recommendation:** Accept after minor revision, In which METHODOLOGY use in research ,clear mention .

***Detailed Reviewer's Report***

**STRENGTHS:**

- 1- This study aims to evaluate a hybrid optimal pre-trained contextual word embedding technique,
- 2- The paper proposes a novel hybrid deep learning model combining XLNet (a powerful pre-trained contextual embedding) with CNN,
- 3- XL Net, combined with a Convolution Neural Network (CNN) model tailored for BT-based question classification.
- 4- The study targets the important educational task of classifying exam questions according to Bloom's Taxonomy cognitive levels.
- 5- The dataset collected contained 1,200 questions, all of 102 which were labeled by educators.
- 6- The results indicated that both models achieved comparable performance. Integrating automated question-generation systems with educational paradigms

**WEAKNESSES:**

- 1- Limited Consideration of Contextual Metadata.

# International Journal of Advanced Research

**Publisher's Name: Jana Publication and Research LLP**

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- 2- It may still be limited for training deep learning models,
- 3- It's difficult to trace which features or inputs most influenced the outcome.
- 4- This opacity can reduce trust, especially in critical applications like education, healthcare, or finance.