

Peer Review

Review of: "Dynamism and Total Integration in Engineering Curriculum Planning to Meet Industry Needs and Implementation based on Theory into Practice (TIP)"

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- How was the action research methodology applied in the study, and what were the key findings from its implementation?
- Can you provide specific examples of successful industry collaborations that have influenced curriculum improvements?
- How does the proposed curriculum address the evolving demands of transnational companies and technological advancements?
- What evaluation metrics are used in the tracer study to measure the effectiveness of graduates in the industry?
- How does the paper's curriculum model compare with existing frameworks like OBE (Outcome-Based Education) or CDIO (Conceive-Design-Implement-Operate)?
- Would incorporating tables, flowcharts, or structured subheadings improve the readability and clarity of the paper?

Strengths:

Relevant Topic: The paper addresses a critical issue in engineering education—curriculum dynamism to meet industry needs—which is highly relevant in today's evolving technological landscape.

Holistic Approach: It effectively outlines a comprehensive curriculum design model, incorporating formative evaluation, industry-specific projects, on-the-job training, and stakeholder involvement.

Action-Oriented Methodology: The emphasis on **action research methodology** and the use of **SWOT analysis** adds a practical dimension to the study.

Focus on VUCA: The discussion on **VUCA (Volatility, Uncertainty, Complexity, and Ambiguity)** aligns well with current industry trends and workforce expectations.

Areas for Improvement:

Clarity in Research Methodology: While the paper mentions **action research**, it lacks a clear explanation of data collection techniques, sample selection, and validation processes. Providing **specific details on implementation and assessment** would enhance credibility.

Industry Collaboration Details: The paper emphasizes the role of industry linkages but does not provide examples or case studies of successful collaborations. Including real-world **case studies or best practices** would strengthen the argument.

Evaluation of Curriculum Effectiveness: The mention of a **tracer study** is valuable, but the paper does not elaborate on the methodology for tracking graduates' success in the industry. A more **structured approach to measuring outcomes** (e.g., employment rates, industry feedback) is recommended.

Comparative Analysis: The paper could benefit from a **comparative study of existing models** to highlight how the proposed model is more effective than traditional curriculum planning frameworks.

Language & Readability: Some sentences are **lengthy and complex**, making them difficult to follow. Simplifying technical jargon and structuring paragraphs with clear subheadings can enhance readability.

Declarations

Potential competing interests: No potential competing interests to declare.