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| Book Name: | **3D MODELING IN ELEMENTARY SCHOOLS AND ITS USE IN TESTING CREATIVITY** |
| Manuscript Number: | **Ms\_BPR\_4222** |
| Title of the Manuscript: | **3D MODELING IN ELEMENTARY SCHOOLS AND ITS USE IN TESTING CREATIVITY** |
| Type of the Article | **Complete Book** |

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| PART 1: Comments | | |
|  | Reviewer’s comment | Author’s Feedback*(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimumof 3-4 sentences may be required for this part.** |  |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** |  |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. |  |  |
| **Is the manuscript scientifically, correct? Please write here.** |  |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** |  |  |
| Is the language/English quality of the article suitable for scholarly communications? |  |  |
| Optional/Generalcomments | **Overview and Contribution**  This publication addresses the growing need to incorporate modern technologies in educational curricula, particularly emphasizing the development of creative competencies. It presents a methodological framework for teaching 3D modeling, supported by pilot studies and empirical data. By integrating theoretical perspectives from psychology and pedagogy, it offers a multidimensional approach to enhancing creativity, curiosity, and spatial reasoning among elementary students.  **Structure and Key Content**   1. **Introduction and Theoretical Background**:    * The document outlines creativity's evolving conceptualization, shifting from traditional divergent thinking models to integrated frameworks including convergent thinking and cognitive styles.    * It emphasizes perception and imagination as fundamental to creative processes, exploring their roles in educational contexts. 2. **Methodological Framework**:    * The methodology adapts 3D modeling for elementary students, proposing a stepwise approach to tasks ranging from basic shapes to complex independent creations.    * Practical applications of tools like SketchUp and 3D printing are described, with adjustments for age-appropriate engagement and cognitive development. 3. **Pilot Testing and Research**:    * Pilot studies explore the impact of 3D modeling lessons on students’ spatial imagination and creativity.    * Empirical data, including pre-and post-test results from the I-S-T 2000 R intelligence test, demonstrate significant gains in spatial reasoning, particularly in tasks involving mental rotation. 4. **Implementation Challenges and Suggestions**:    * Challenges include logistical limitations, such as class sizes, equipment availability, and technical skill disparities among students.    * The document proposes using 3D printers as motivational tools, with selective printing of top student designs and integration into group-based projects. 5. **Broader Applications**:    * Beyond enhancing spatial imagination, the methodology demonstrates potential applications in cross-disciplinary contexts, including mathematics, engineering, and design.   **Strengths**   * **Comprehensive Framework**: The methodology is well-articulated, offering detailed lesson plans and practical examples for educators. * **Empirical Support**: Data from pilot studies lend credibility to the proposed teaching strategies. * **Innovative Focus**: The integration of 3D modeling and printing into elementary education represents a forward-thinking approach to curriculum development.   **Limitations**   * **Context-Specific Findings**: The results are drawn from a limited sample, and the methodology may require adaptation for broader educational contexts. * **Resource Dependence**: Successful implementation depends heavily on access to technology and teacher training, which may not be universally available.   **Conclusion**  This work significantly contributes to the dialogue on modernizing education through technology, offering actionable insights for educators and policymakers. It aligns with contemporary educational goals of fostering creativity and problem-solving skills, making it a valuable resource for advancing STEM education at the elementary level. |  |

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| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s comment***(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |

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| **Reviewer Details:** | |
| Name: | **Darko Kennedy** |
| Department, University & Country | **University of Cape Coast, Ghana** |