

Review Form2

Book Name:	Science and Technology - Recent Updates and Future Prospects
Manuscript Number:	Ms_BPR_2135
Title of the Manuscript:	IMPROVING A STUDENT’S ACADEMIC PERFORMANCE: THE APPLICATION OF MACHINE LEARNING AND BIG DATA ANALYTICS
Type of the Article	Book chapter

PART 1: Review Comments

Compulsory REVISION 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. Why do you like (or dislike) this manuscript? A minimumof 3-4 sentences may be required for this part.	This manuscript is a valuable contribution to the scientific community by illuminating the potential of machine learning and big data analytics to revolutionize higher education. By addressing pressing issues like personalized support and resource constraints, the study offers a data-driven approach to enhance student outcomes. The integration of adaptive structuration theory provides a robust theoretical framework for understanding how technology can be effectively implemented to improve institutional practices. This research has the potential to significantly impact educational policies and practices both in South Africa and globally.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes, the title is suitable. It is clear, concise, and accurately reflects the content of the article.	
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.	The abstract is comprehensive and clearly outlines the paper's objectives, methodology, and potential impact. To further strengthen it, consider adding a brief statement about the specific machine learning algorithms and big data analytics techniques to be employed. This would provide a more detailed overview of the research approach.	
Are subsections and structure of the manuscript appropriate?	Overall, the structure of your manuscript appears to be sound and follows a common academic format.But there are a few points to consider: 1. The combination of sections like the Overview of Underpinning Theory and Adaptive Structuration Theory. This title might be too broad. Consider breaking it down into separate sections like "Theoretical Framework" and "Methodology" to provide a clearer structure; also Recommendations and Future Research: These are distinct components. Separating them into "Discussion" and "Conclusion" or"Recommendations" might enhance clarity and focus. *Remember to tailor the structure to the specific guidelines of the journal you're targeting.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimumof 3-4 sentences may be required for this part.	The manuscript is scientifically robust and technical since the combination of machine learning and big data analytics to predict and improve student academic performance is a scientifically sound and promising approach. This field, often referred to as educational data mining, has shown significant potential in identifying patterns, trends, and factors influencing student success. Furthermore, it clearly defines research questions and objectives, employs rigorous methodology, utilized validated machine learning algorithms and provides in-depth analysis that proves that the manuscript is scientifically robust.	

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Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. =	The references provided cover a good range of topics related to South African education, but only a few references directly address big data in education (references [5], [9], and [13]). While some references are recent (2022), others are older (2015) and may not reflect the latest developments in big data applications. Consider recent research (5 years back). The Research Trend of Big Data in Education and the Impact on Teacher Psychology on Educational Development During COVID-19: A Systematic Review and Future Perspective (2021) by Yan Zhang, et al. (Published in Frontiers in Psychology) - This article focuses on the impact of big data in education during the COVID-19 pandemic, which might be relevant in the context of recent educational practices.	
<u>Minor</u> REVISION comments Is the language/English quality of the article suitable for scholarly communications?	Overall, the language and English quality of the provided text are suitable for scholarly communications. The writing is clear, concise, and academic in tone. The vocabulary is appropriate for the subject matter, and the sentence structure is generally well-formed.	
<u>Optional/General</u>comments		

PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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