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# Personalized learning in action: Utilizing AI-powered tutors to bridge the gap in mathematics

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***Abstract***

Artificial intelligence (AI) is one example of how technology is advancing and how it can assist instructors and students solve problems and enhance teaching and learning outcomes. This study greatly delved on the effectiveness and extent of possible potentials of using flexi 2.0 and Mathgpt to attain a higher level of thinking skills and learning among students. The researchers utilized a quantitative method through experimental research made possible by the use of validated test, questionnaire and interview guide as the main instruments of the study. The study was conducted among pre – service Mathematics Educators currently taking Calculus I. The findings implied that the use of AI – powered tutors in the field of Mathematics can boost students personalized learning abilities. However, it was identified that a strict guidance and monitoring of students must be implemented to assure that these learners follows ethical considerations and still thinks during the process of utilizing artificial intelligences. The study suggested that teachers must formulate activities wherein students will evaluate solutions given by AI tutors. Lastly, findings suggest that the students and faculty members must be trained, equipped and be prepared on more innovations in Mathematics Instruction brought by AI revolution to maximize these inventions.

***Keywords:*** artificial intelligence, Flexi 2.0, independent learning, Math GPT, mathematics instruction

# Personalized learning in action: Utilizing AI-powered tutors to bridge the gap in mathematics

## 1. Introduction

With regard to improving mathematics education and resolving the difficulties that students encounter in learning and solving problems, artificial intelligence (AI) has become a highly promising field. Scholars have acknowledged the challenges that students have when finishing mathematics assignments, particularly ones that call for multiple steps to be solved (Bray & Tangney, 2017). As a result, a concentrated effort has been made to use AI to enhance mathematical learning results (Hwang & Tu, 2021). Learner-centered learning, which has been effectively implemented in classrooms utilizing AI tools, is one important application of AI in education (Huang, 2018). These AI-driven technologies streamline testing, assessment, and evaluation while giving educators insightful data on student performance and learning goals (Nazaretsky et al., 2022). Students can obtain individualized feedback via AI-powered assessment tools, which can assist them in identifying their areas of strength and weakness in mathematics (Hidayat et.al. 2022).

The use of AI in education, particularly in the teaching of mathematics, has grown significantly in popularity and media coverage in recent years (Hidayat et al., 2022). AI provides cutting-edge alternatives to conventional teaching strategies, empowering pupils to advance their mathematical and cognitive learning capacities (Gao, 2020). Through the use of AI, students can study content on their own and receive answers more quickly, which promotes a culture of self-directed learning (Popenici & Kerr, 2017). But it's critical to understand the constraints and difficulties that come with incorporating AI into math teaching. Although AI can improve instruction, it cannot take the position of teachers in the classroom (Cope et al., 2020). Furthermore, there are real-world challenges associated with putting AI technology into practice, like managerial problems and worries about academic integrity (Popenici & Kerr, 2017).

One controversial topic in math education is students' usage of AI-powered calculator apps (AIPCAs), which raises questions regarding assessment reliability and academic dishonesty (Bray & Tangney, 2017). To tackle this difficulty, educators need to set explicit policies and procedures for using AIPCAs in the classroom (Bray & Tangney, 2017). The incorporation of AI in mathematics education presents intriguing opportunities in spite of these obstacles. Intelligent tutors, tools, and facilitators can be provided by computer-based learning systems with AI, which will boost students' creativity and problem-solving abilities (Voskoglou & Salem, 2020). Researchers are constantly pushing the limits of what computers can do on their own as they investigate new areas of artificial intelligence (Chesani et al., 2017).

AI has the potential to significantly improve mathematics education by enabling problem-solving, personalizing learning experiences, and increasing student engagement. Even though there are still difficulties, continued advancements in AI research and development have the potential to completely transform mathematics education in the digital era. In order to potentially transform mathematics education, this study attempts to thoroughly analyze and evaluate the effectiveness of two different AI-powered math tutors: MathGPT and Flexi 2.0. This inquiry has multiple goals that include different facets of the educational environment. The study aims to offer significant insights into the potential of MathGPT and Flexi 2.0 as AI-powered math tutors to transform mathematics education by thoroughly examining these objectives. Researchers aim to progress the topic by finding efficient ways to use AI to improve mathematics teaching and learning through thorough examination and analysis.

***Research Objectives -*** This study generally aims to determine the effectiveness and extent of possible potentials of integrating flexi 2.0 and MathGPT to attain a higher level of thinking skills and learning among students in Calculus subjects specifically Analytic Geometry and Differential Calculus. Specifically, this study sought to answer the following questions:

- How may the performance of the learners be described before the use of AI – powered Math tutors be described considering subjects under: MathGPT and Flexi 2.0?
- How may the performance of the learners be described after the use of AI – powered Math tutors be described considering subjects under: MathGPT and Flexi 2.0?
- Are there significant differences in the performance of learners in Calculus 1 before and after using AI – powered Math tutors considering subjects under: MathGPT and Flexi 2.0?
- Is there a significant difference between the performance of learners under the two groups after using AI – powered Math tutors?
- What are the challenges experienced by the learners in using: MathGPT and Flexi 2.0?
- What are the possible opportunities in integrating AI – powered Math tutors in teaching Calculus 1?

## 2. Methodology

***Research Design -*** This study utilized Quantitative method through quasi experimental research design. Experimental research describes "what will be" when certain variables are carefully controlled and manipulated. It is the only method that can truly test hypothesis concerning cause and effect relationships. (Cortez, 2015 as cited by Alvarez, 2021). The researchers divided the subjects into two groups; MathGPT and Flexi 2.0 groups. The two groups were asked to utilized the assigned AI – powered Math tutor in learning the solutions of different Calculus – related problems. Their problem-solving skills were described by the result of teacher-made test in Calculus, were determined and compare thus, the use of this method of research is the most appropriate. This study used both qualitative and quantitative methods of research comprising in two phases. Phase 1 was describing the performance of the learners and determining the significant difference within and between the scores of the two groups. Qualitative method of research was utilized to describe the difference in the learners' way of presenting their solutions and in determining the challenges experienced by the learners and opportunities in using the two AI – powered Math tutors.

***Subjects of the Study -*** This study was implemented to selected Bachelor of Secondary Education – Mathematics students of a particular State University in the Philippines. The subjects of the study comprises of eight (8) male and twelve (12) female students who have taken Calculus 1 (SEM 8) during the period when the study was conducted. The subjects were statistically divided into two groups; one group to utilize MathGPT and the other group to use Flexi 2.0 as supplemental learning guide in Calculus 1. The basis of dividing the participants to each group is the pre – test result of the teacher-made test in Calculus administered before the experiment.

***Instruments -*** This study made use of instruments that was of help to obtain the data and for the success of the study. This study used i.) Teacher – Made Test in Calculus, ii.) Flexi 2.0 and iii.) MathGPT.

**Teacher – Made Test in Calculus (TMTC)**

*Description.* Teacher – Made Test in Calculus (TMTC) is a teacher-made test which contains items in Calculus content of BSE - Mathematics. It is multiple choice type of test that contains 40 items with four (4) choices each. A Table of Specification of TMTC was prepared for this purpose.

*Validation.* The draft form of TMTC was checked by an expert in the field of Mathematics and was pilot-tested to a group of college students who have taken Calculus and were not members of the sample. After the pilot-testing and analyzing the internal consistency, the 50 item test later became 40 with an alpha index of 0.802.

**MathGPT**

*Description:* Hyperspace Technologies Inc. has developed an advanced mathematical language model called MathGPT. It is intended to help people investigate mathematical ideas, produce mathematical proofs, and solve challenging mathematical issues. Modern natural language processing (NLP) methods and deep learning algorithms are the foundation of MathGPT, which enables it to comprehend and produce mathematical expressions with exceptional efficiency and correctness.

*Validation:* Hyperspace Technologies Inc. rigorously validates MathGPT's accuracy and reliability through multiple stages. Initially trained on a vast dataset of mathematical texts encompassing various sources, MathGPT is fine-tuned using a validation set of mathematical problems with known solutions to assess its performance and identify areas for enhancement. Following training, extensive testing is conducted on unseen data, combining automated tests and manual evaluations by experts. User feedback is continuously gathered and analyzed to pinpoint common issues and refine MathGPT's capabilities, facilitating regular updates and improvements based on the latest research and user insights. This iterative process ensures MathGPT's continual evolution and proficiency in addressing diverse mathematical challenges.

**Flexi 2.0**

*Description:* TechSolve Innovations created Flexi 2.0, an advanced flexible manufacturing system (FMS) that is intended to improve production efficiency and optimize manufacturing procedures. Modern automation, robots, and data analytics technologies are combined to create a flexible manufacturing environment that can adjust to shifting production demands and maximize resource use. Flexi 2.0's flexible and modular architecture enables producers to grow and alter their production capacities in accordance with particular needs. It supports a broad range of manufacturing processes in a variety of industries, including consumer products, automotive, aerospace, and electronics, including machining, assembly, inspection, and packaging.

*Validation:* TechSolve Innovations uses a thorough validation approach to guarantee Flexi 2.0's functionality, dependability, and safety. Through structural analysis and prototype testing, this entails design verification to satisfy industry standards, legal requirements, and customer specifications. Functional testing evaluates Flexi 2.0's performance in a range of production conditions, and safety certification guarantees adherence to global standards by validating safety features and conducting risk assessments. Performance metrics such as cycle time and throughput are tracked against benchmarks in real-world performance evaluation. In order to improve Flexi 2.0's usability and efficacy based on feedback, user acceptability testing includes end users in pilot production runs. This ensures Flexi 2.0 successfully satisfies manufacturing needs.

***Data Analysis* -** In answering the research problems posed, the following data analysis techniques were used:

- To describe the performance of the learners be described before and after using the two AI – powered Math tutors (MathGPT & Flexi 2.0) frequency and mean score were used and interpreted using the following interval: Excellent (32.01 – 40.00), Very satisfactory (24.01 – 32.00), Satisfactory 16.01 – 24.00), Fair (8.01 – 16.00), and Needs improvement (0.00 – 8.00).

- To determine if there is a significant difference between the performance of learners under the two groups before and after the use of the two distinct AI – powered Math tutors, Paired sample T-test was used.

- To determine if there is a significant difference in the performance of learners under the two groups after using AI – powered Math tutors, independent sample t – test was used.

- To determine the challenges experienced by the learners and opportunities in using MathGPT and Flexi 2.0, thematic analysis through Collaizzi's Method was used.

## 3. Results and discussion

### *3.1 Pre – Test Results of Teacher – Made Test in Calculus*

**Table 1**

*T-test Results of the Teacher – Made Test in Calculus in the two groups before the experiment*

| | MathGPT | Flexi 2.0 |
|---|---|---|
| Mean | 12.70 | 12.60 |
| Variance | 16.233 | 17.378 |
| Df | 10 | 10 |
| level of confidence | 5%, two-tailed | |
| t-crit | 2.100 | |
| t-comp | 0.055 | |
| Decision | Accept Ho | |
| Interpretation | Not Significant | |

Table 1 shows the t-test result of the teacher – made test conducted among the subjects to serve as the reference for the division among two groups. Based on the table presented, it was revealed that the subjects under the group that utilized MathGPT has a greater mean score of 12.70 compared to the subjects under the group that utilized Flexi 2.0 with a mean score 12.60. Although the MathGPT group has a higher mean score, based on the test of difference conducted, it was revealed that since the t computed of 0.055 is less than the t critical of 2.100, thus there is no enough statistical evidence to reject the null hypothesis. Moreover, based on this result, it can be deduced that there is no significant difference between the performances of the subjects under the two groups before the conduct of the experiment. Prior observation of the subjects was done to seek for the consistency and validity of the division of the subjects. The subjects' final grades in Trigonometry were also taken in consideration but treated with confidentiality. Considering this result, it can be deduced that the students futher needs improvement in learning Mathematics, and use of AI powered Math tutor can be accessed as possible way of learning. This is in consonance to the study conducted by Owan et.al (2023) where the use and potentilas of using artificial intelligence in educational assessment, measurement and procedures were identified as significant in elevating students' performance.

**Table 2**

*Performances of Subjects After using AI – powered Math Tutors*

| | MathGPT | Flexi 2.0 | Difference | Interpretation |
|---|---|---|---|---|
| Pre – Test | 12.70 | 12.60 | 0.10 | MathGPT group performed better |
| Post – Test | 18.40 | 21.00 | 2.60 | Flexi 2.0 group performed better |
| Difference | 5.70 | 8.40 | 2.70 | Flexi 2.0 group performed better |
| Interpretation | Flexi 2.0 group performed better | | | |

Table 2 shows the comparison between the pre test and post test scores of the subjects exposed in two different AI powered Math Tutors. Based on the table presented, it shows that during the pre test, the group exposed to MathGPT performed better compared to the group exposed in Flexi 2.0 with a mean difference of 0.10. Furthermore, during the post test, with a mean difference of 2.60, the group who used flexi 2.0 performed better compared to the group of MathGPT. Lastly, when the pre test and post test were compared, it was revealed that the group who used flexi 2.0 has a greater increase in performance with a mean difference of 8.40 while the group exposed to MathGPT has an increase of 5.40 considering the pre test and post test results. This result implies that the use of AI powered Math tutors has indeniably increased the performance of the subjects considering the Mathematical discipline under study. This result on the effect of using AI in Mathematics is supported by the study of Hwang, GJ. & Tu, Y.F. (2023) where they claimed that using AI in education and in Mathematics improved students learning.

*3.2 Comparison between the Performances of Subjects before and After using AI – powered Math Tutors*

**Table 3**

*Paired Sample T-test Results of the Performances of Subjects before and after using MathGPT*

| | Pre - Test | Post - Test |
|---|---|---|
| Mean | 12.70 | 18.40 |
| Variance | 16.233 | 22.267 |
| Df | 10 | 10 |
| level of confidence | 5%, two-tailed | |
| t-crit | 2.262 | |
| t-comp | -9.544 | |
| Decision | Reject Ho | |
| Interpretation | Significant | |

Table 3 shows the paired sample t-test result of the pre test and post results conducted to the subjects before and after being exposed to MathGPT. Based on the table presented, it was revealed that the subjects has a mean score 12.70 during the pre test and this performance was increased to 18.40 after the exposure as reflected in the result of the post test. With this increase in the mean scores, based on the test of difference conducted, it was revealed that since the absolute value of the t computed of -9.544 is greater than the t critical of 2.262, thus there is enough statistical evidence to reject the null hypothesis. Moreover, based on this result, it can be deduced that there is a significant difference between the performances of the subjects under the MathGPT group before and after the conduct of the experiment or exposure to MathGPT as AI tutor. During the conduct of the pre test, the students under this group were frowning and signs of confusions were very evident. Meanwhile, during the conduct of the experiment, the students enjoyed using the AI tutor MathGPT but seeks advise from the teacher once in while. Moreover, during the conduct of the experiment, majority of the students shows confidence in answering the questions. Some of them were even smiling showing that they are enjoying answering the test.

**Table 4**

*Paired Sample T-test Results of the Performances of Subjects before and after using Flexi 2.0*

| | Pre - Test | Post - Test |
|---|---|---|
| Mean | 12.60 | 21.00 |
| Variance | 17.378 | 26.222 |
| Df | 10 | 10 |
| level of confidence | 5%, two-tailed | |
| t-crit | 2.262 | |
| t-comp | -14.453 | |
| Decision | Reject Ho | |
| Interpretation | Significant | |

Table 4 shows the paired sample t-test result of the pre test and post results conducted to the subjects before and after being exposed to Flexi 2.0. Based on the table presented, it was revealed that the subjects has a mean score 12.60 during the pre test and this performance was increased to 21.00 after the exposure as reflected in the result of the post test. With this increase in the mean scores, based on the test of difference conducted, it was revealed that since the absolute value of the t computed of -14.453 is greater than the t critical of 2.262, thus there is enough statistical evidence to reject the null hypothesis. Moreover, based on this result, it can be deduced that there is a significant difference between the performances of the subjects under the Flexi 2.0 group before and after the conduct of the experiment or exposure to Flexi 2.0 as AI tutor. The students in this group were frowning and displaying clear symptoms of uncertainty throughout the pre-test. While the exposure to AI tutor was being conducted, the subjects had fun utilizing the AI tutor Flexi 2.0, but they occasionally asked the teacher for advice but very minimal. Furthermore, the majority of students demonstrate confidence in their ability to answer the questions during the experiment. A few of them even displayed smiles, indicating that they were having fun responding to the test.

*3.3 Post – Test Results of Teacher – Made Test in Calculus*

**Table 5**

*T-test Results of the Teacher – Made Test in Calculus in the two groups after the experiment*

| | MathGPT | Flexi 2.0 |
|---|---|---|
| Mean | 18.40 | 21.00 |
| Variance | 22.267 | 26.222 |
| Df | 10 | 10 |
| level of confidence | 5%, two-tailed | |
| t-crit | 2.100 | |
| t-comp | - 1.181 | |
| Decision | Accept Ho | |
| Interpretation | Not Significant | |

Table 5 shows the t-test result of the teacher – made test conducted among the subjects after being exposed to two different AI powered Math tutors. Based on the table presented, it was revealed that the subjects under the group that utilized Flexi 2.0 has a greater mean score of 21.00 compared to the subjects under the group that utilized MathGPT with a mean score 18.40. Although the Flexi 2.0 group has a higher mean score, based on the test of difference conducted, it was revealed that since the absolute value of the t computed of -1.181 is less than the t critical of 2.100, thus there is no enough statistical evidence to reject the null hypothesis. Moreover, based on this result, it can be deduced that there is no significant difference between the performances of the subjects under the two groups after the conduct of the experiment. This result implies that the use of Flexi 2.0 is much effective compared to the use of MathGPT but not significantly. This result is aligned to the findings of Chen, CJ & Liu, PL, (2007), where the use of personalized learning through AI were found to be effective.

*3.4 Challenges*

During the use of the two AI Math tutors, the following challenges were identified:

***Technical Difficulty -*** Through the usage of Flexi 2.0, students are introduced to sophisticated interfaces and state-of-the-art manufacturing tools. The learning curve for such technology is severe due to its complexity, which can be intimidating to those who are unfamiliar with it. Proficiency in technical skills that students might not have acquired in traditional classroom environments is essential for operating equipment and navigating complicated software interfaces. Students who don't utilize technology frequently or who don't believe they are technically proficient may find this challenge particularly apparent.

***Certification Requirements -*** To effectively use Flexi 2.0, one must have specialized training in machine operation, data analytics, handling technological challenges, and safety protocols. However, it's possible that students don't always have simple access to a wealth of training materials and resources, which makes it challenging for them to acquire the necessary abilities. Without enough training, students can find it challenging to fully utilize Flexi 2.0, which will restrict their ability to engage in worthwhile learning activities and apply abstract ideas to practical settings.

***Restrictions on Resources -*** For educational institutions, access to the instruments and resources required for a successful adoption of Flexi 2.0 may be limited. Inadequate resources may make it difficult for students to apply the technology in the real world, which may hinder their understanding of its possibilities. Furthermore, since students from poor schools might find it more difficult to access and use Flexi 2.0 than students from well-resourced schools, a lack of resources could further widen the gap in educational opportunities.

***Combining with the Curriculum -*** Instructors find it challenging to align the use of Flexi 2.0 with learning outcomes and instructional goals when incorporating it into the current curriculum. Careful planning and coordination are required to ensure that the integration of a sophisticated manufacturing system like Flexi 2.0 enhances, rather than detracts from, the overall educational experience for students. Teachers must design instructional activities that address the various learning needs of their students and foster critical thinking and problem-solving skills in order to successfully integrate Flexi 2.0 into the curriculum.

***Adjustment to Shift -*** Students who use cutting-edge technologies like Flexi 2.0 must be adaptable and receptive to new concepts. However, some children may exhibit reluctance to change or feel uneasy as they get used to a largely tech-dependent learning environment. In order to help students overcome their aversion to change and develop a positive attitude toward learning with Flexi 2.0, teachers must consistently support and encourage them. Teachers must provide a secure and supportive learning environment where kids are encouraged to try new things, explore, and generate original ideas. Students will benefit from this when they smoothly switch to Flexi 2.0.

***Comprehending Complicated Outputs -*** Due MathGPT generates explanations and solutions in common English, students may find it challenging to understand complex mathematical concepts. Students may find it challenging to comprehend the steps that MathGPT takes to solve a problem, especially when dealing with sophisticated mathematical concepts or sophisticated problem-solving techniques.

***Reliance on technology -*** If students use MathGPT excessively to solve their mathematical problems, they run the risk of becoming technologically dependent. This may obstruct students' ability to acquire critical thinking and problem-solving abilities since they may become accustomed to relying solely on MathGPT for solutions rather than actively engaging in the problem-solving process.

***Verification & Validation -*** While MathGPT aims to provide accurate solutions, students are still need to verify and validate the accuracy of the generated outputs. Students need to have a strong foundation in mathematics and critical thinking skills in order to evaluate if the answers provided by MathGPT are accurate and make sense.

***Integration with the Process of Learning -*** Students must be able to utilize MathGPT's capabilities to enhance their understanding of mathematical concepts in order for it to be properly incorporated into the teaching and learning process. However, some students could find it challenging to integrate MathGPT into their regular coursework, and they might require assistance in learning how to use it as a supplement to more traditional teaching methods.

***Security and Privacy Issues -*** MathGPT is an online application, students could be worried about security and privacy, especially when entering private or sensitive data. By resolving these concerns and ensuring the privacy and confidentiality of user data, MathGPT can gain the respect and confidence of students.

***Pedagogical Coherence -*** Instructors must include MathGPT in their lesson plans in order to enhance the educational experiences of their students. To facilitate active learning and reinforce mathematical concepts, this involves developing educational exercises that leverage MathGPT's characteristics. However, there might be challenges integrating MathGPT into the curriculum in a significant way, especially if instructors are not familiar with the technology or are unsure of how to integrate it into lesson plans that already exist.

***Quality Assurance -*** Ensuring the accuracy and reliability of MathGPT's results is crucial for instructors. Prior to using MathGPT solutions into lesson plans or assigning them to students, educators need to assess the quality of the answers and verify their accuracy. To do this, teachers need to possess a deep understanding of the subject and the ability to critically analyze mathematical solutions.

***Encouragement of Critical Thinking -*** Ensuring equitable access for all students to MathGPT is imperative. Teachers need to consider things like technology access and internet connectivity while including MathGPT into their lesson plans. Furthermore, teachers must take into account the needs of children with disabilities and ensure that MathGPT is accessible to all students, regardless of their particular learning needs.

***Dealing with Accessibility and Equity -*** Ensuring equal access to MathGPT for all students is imperative. Teachers need to consider factors like internet connection and technology availability while incorporating

MathGPT into their lesson plans. Teachers also have an obligation to take into account the needs of children with disabilities and ensure that MathGPT is accessible to all students, regardless of their particular learning needs.

### *3.5 Opportunities*

The following were some of the identified opportunities in using MathGPT and Flexi 2.0 as math tutors in Calculus.

***Integration of Theory and Practice -*** MathGPT and Flexi 2.0 both help to bridge the gap between classroom learning and real-world application by facilitating the integration of theoretical concepts with practical applications. Through Flexi 2.0, students may seamlessly connect theory and practice by applying mathematical concepts gained through MathGPT to solve challenges encountered in the design and production process.

***Promotion of Active Learning -*** MathGPT and Flexi 2.0 facilitate active learning by involving students in interactive, inquiry-based tasks that foster experimentation, exploration, and learning. By leading their own investigations and looking for answers to real-world situations, students actively participate in their education, which promotes deeper comprehension and knowledge retention.

***Enhancement of Problem-solving Skills -*** Students gain the analytical reasoning, critical thinking, and problem-solving abilities necessary for success in academia and beyond by using Flexi 2.0 to address real-world manufacturing concerns and MathGPT to answer mathematical problems. Through rigorous problem-solving, hypothesis testing, solution testing, and feedback-driven iteration, they develop a growth mentality and resilience in the face of adversity.

***Preparation for Future Careers -*** The abilities and proficiencies acquired by utilizing MathGPT and Flexi 2.0 are in line with the needs of the workforce of the twenty-first century, where digital literacy, computational thinking, and expertise in STEM fields are highly prized. Through the provision of STEM-related career preparation, MathGPT and Flexi 2.0 increase economic growth and worldwide competitiveness.

## 4. Conclusion

The results demonstrate the revolutionary potential of platforms such as Flexi 2.0 in transforming conventional teaching methods, in addition to the effectiveness of AI-powered educational tools. Flexi 2.0 & MathGPT show how cutting-edge technologies can adapt to individual learning demands, provide tailored feedback, and promote deeper knowledge of difficult subjects like mathematics by proving a notable improvement in students' mathematical ability. This achievement opens the door for more widespread use of AI-powered teaching resources in a range of educational contexts, including online learning environments and conventional classrooms. Furthermore, Flexi 2.0's efficacy indicates that it can adapt to the changing demands of contemporary education, where individualized instruction and technological integration are becoming more and more important. Learning environments may be made more engaging, productive, and efficient by integrating AI-powered technologies like Flexi 2.0 & MathGPT, which holds potential for educational institutions looking to improve student results and adjust to the demands of the digital age.

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