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Effect of Artificial Intelligence Integration on Academic Performance in Fundamentals of Accountancy, Business And Management 1 in Senior High School

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Abstract

The present study examined the effect of artificial intelligence integration on academic performance in Fundamentals of Accountancy, Business and Management 1 in senior high school students. The research included public and private secondary schools under Schools Division Office of Batangas City with 14 senior high school teachers teaching specialized subjects of Accountancy, Business and Management (ABM) strand and 236 ABM students, while 10 participants were selected for the qualitative part. The study utilized a researcher-made questionnaire and an open-ended interview. The data gathered was statistically treated using percentage, weighted mean, ANOVA, t-Test and Pearson-R correlation. The findings showed that the demographics of both teachers and students have an important influence on how AI is integrated into teaching and learning. AI integration enhances learning activities, pedagogical strategies, and assessments, making them more engaging, effective, and convenient. Continuous usage of AI technologies enhanced academic performance, especially among students in the ABM strand. Teachers had similar patterns in how they used AI to improve their teaching strategies, however students' impressions of AI feedback differed due to variances in perspective and gender. Overall, artificial intelligence remains to be an important asset in improved teaching and learning process and must be continuously integrated as well as promoted in the field of education. It was recommended to implement the developed policy framework and action plan to promote both innovation and integrity in the use of AI in FABM1.

Keywords: *ABM strand, academic performance, artificial intelligence, Fundamentals of Accountancy, Business and Management 1, senior high school*

INTRODUCTION

All over the world, the international educational landscape had been known to be already oriented on the concept of the integration of various forms of modern technology, such as specifically the AI or artificial intelligence in the processes and systems in education. In fact, in

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relation to this, it was revealed that as of the early parts of 2022, the global AI education market had already reached a worth of $2.5 billion and is expected to increase to up to $6 billion in 2025. Part of the expected increase in the global reach of AI usage and integration particularly in the field of education was due to the emerging trends of AI usage and applications and with a recorded 44% of students all over the world are known to be actively engaging and using generative AI and with more than 50% of the students were found to have been using this particular type of AI in doing or completing their school works and assignments. As such, not only that there is an increase usage of AI among the students, but such were also observed among the teachers as well, wherein it was found that about 60% of teachers worldwide claims that they are actively using or integrating AI in their teaching practices applied in their daily classes and the most common type of AI being utilized by almost 51% of the school teachers were AI-powered educational games, virtual learning platforms like Google Classroom; and also other AI-powered tools in order to create or develop different teaching and learning materials that they can use in class (AIPRM, 2025). In addition, such findings can also be considered to coincided with the article of Policar (2023) who noted how 84% of U.S. teachers nowadays were found to be active users of AI-powered tools and platforms in their classrooms and how they handle and facilitate the teaching and learning process and how the continuous use of AI provides them with more options in order to become more creative in their teaching and at the same time, allow them to also maximize modern technology in order to make the teaching and learning process more interesting or engaging to their students or learners.

In the Philippine setting, there is also an increasing attention on the integration of AI or artificial intelligence for the teaching strategies of teachers or instructors. In relation to this, there is the implementation of the DepEd Order No. 24 series of 2022 or also known as the “Adoption of the Basic Education Development Plan 2030” which particularly involved the use of AI as part of the future of educational sector in the Philippines. It provided that it will particularly explore the possibilities of Artificial Intelligence (AI) in terms of evaluating student preparedness, academic performance, literacy proficiency, career trajectory, and job preparation. The utilization of analytics in education will provide methods and resources for gathering, analyzing, and conveying data to support decision making based on empirical evidence.

AI technology can also free up teachers from administrative duties so they can concentrate more on instructing and interacting with pupils. The ability of artificial intelligence to personalize learning for every student is its primary benefit in the field of education. Artificial intelligence (AI) tools use complex machine learning models to evaluate student data and modify the curriculum in real time to suit each student's individual learning style. Some of the known examples of AI being used or applied in the teaching and learning process includes Canva, Curipod, ChatGPT, Quizizz, and Grammarly which can aid both teachers and learners for improved presentation and understanding of lessons and activities (Poth, 2023). With the use of AI, individualized learning is now more feasible than ever, enabling each student to learn independently and at their own speed. The field of educational technology has undergone a significant transformation with the advent of AI technologies. Artificial Intelligence has come a long way, providing rich and engaging learning environments. From simple computer algorithms at first, it has developed to include sophisticated machine learning and adaptive learning systems (Rafalski, 2024).

Given the many advantages that is being posed by the use and integration of AI or artificial intelligence in the Philippine educational setting, the country is still in the process of determining the underlying and expected implications of such technological integration and how it can affect the future of education in the country. For instance, according to Arasa (2025) the Philippines

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seemed to be taking a 'slow' and 'deliberate' and careful consideration of how AI can be used and maximized, by first prioritizing the need to improve or enhance the skills proficiency of users in utilizing AI chatbots in order to ensure responsible usage and success. In relation to this, such hesitance in the usage of AI was also deemed to be related on how AI tools are being taken advantage of and most educators are worried that AI can be used in cheating, declining creativity among students, can negatively affect critical thinking and committing academic dishonesty and leads to the enhancement and emphasis that should be provided on developing and implementing regulatory policies and ethical guidelines that can be able to govern the responsible and appropriate usage and integration of AI in the educational or learning setting (Giray et al. 2024). Further, according also to Funa & Gabay (2025) the development of different policy guidelines that will outline the effective and responsible use of AI is considered important in order for the Philippine educational setting to now fully embrace the benefits and advantages of integrating AI usage in the teaching and learning process.

As such, as taken from these various literatures and studies regarding the application or use of AI or artificial intelligence in the field of education, there is still lacking or insufficient information provided with regards to how AI is being integrated particularly for improved pedagogical approaches for specialized subjects specifically in Fundamentals of Accountancy, Business and Management 1 and its effect on the academic performance of ABM or Accountancy, Business and Management students. Most of the different literatures and studies were focused on the effect and benefits of AI on education and also discussing its challenges and future disadvantages but not much had been able to focus on ABM strand in senior high school level and also in the academic performance and the effect of AI on teaching specialized subjects for academic tracks included in the senior high school level. Thus, this particular gap in research necessitates a comprehensive examination of the effect of integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand in terms of learning activities, pedagogical strategies and assessment to ensure that the intended academic performance is being achieved.

Review of Related Literature

This part of the study presented the discussion of the literatures derived from different resources such as books, other published materials, thesis, and the internet. This provided a clear understanding and reliable source of information for the reader.

Effect of AI Integration – Learning Activities

The providing and creation of different learning activities for the students are essential in order for teachers to assess the understanding of their learners of the lesson and at the same time, can allow them to also provide opportunity for their students to show how their application of learned concepts. For instance, in an article by Leonard (2023) it was provided that AI tools have been discovered by many teachers as a time- and labor-saving way to organize lesson preparations. Instructors are already using AI in the classroom in creative, interesting, and intellectually stimulating ways.

Moreover, according to the works of Shamlina (2024) and Melo (2023) artificial intelligence (AI) has the capacity to completely disrupt the field of education by shifting its focus from rote memorization to individualized learning, enabling students to unlock their maximum

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potential and acquire essential skills. With the advancement of AI technology, educators now have greater access to implement AI tools in their classrooms, enabling them to offer individualized learning experiences. AI-powered platforms have the capability to gather and evaluate student data regarding their engagement with educational materials, time used to complete exercises, exam outcomes, and overall academic achievement and this enables a comprehensive understanding of individual students' attitudes and requirements.

Effect of AI Integration – Pedagogical Strategies

The increasing popularity and significance of AI or artificial intelligence in the field of education had also now encompassed its application in the continuous improvement of pedagogical strategies employed or being used by teachers. Based from an article by McNulty (2024) artificial intelligence is on the verge of transforming the world of education by providing innovative teaching methods and improving the overall learning experiences. As educators and educational institutions delve into the incorporation of AI in education, there is an increasing necessity to comprehend how this technology may be utilized to bolster and enhance educational methods. AI has the capacity to tackle the most urgent difficulties faced by educators today by offering personalized learning, instant feedback, and automating administrative work.

Moreover, the research of Ding et al. (2024) provided that the teachers' intentional and reflective integration of AI technologies to improve pedagogical efficacy and student learning outcomes in certain curriculum areas is referred to as their "AI integration practice," in line with the research on technology integration. Rather than adding and integrating AI literacy subjects into content area curriculums, the goal of AI integration in this case is to empower teaching and learning of content knowledge and skills. However, the AI integration techniques would still improve some aspects of students' AI literacy by raising teachers' AI literacy and increasing their modelling of appropriate AI tool usage. Education has been one of the areas most affected by the growing integration of artificial intelligence or AI into numerous spheres of society in recent years, a topic of great interest and growth. Teachers may be able to provide adaptable materials and activities for individualized learning experiences as well as timely and tailored feedback for every student with the use of AI educational technologies like intelligent tutoring systems, automatic scoring and feedback systems, and so on. Additionally, AI-enabled teaching assistants can help instructors with a range of teaching responsibilities, including answering questions, assigning homework, and communicating with students. While teaching AI knowledge and concepts to students is the subject of many studies, teachers' meaningful integration of AI into content area instruction refers to how they use the diverse capabilities of AI to enhance learning and teaching in pedagogically and ethically sound ways.

Effect of AI Integration – Assessment

The role of assessment in education is essential in order to continuously assess and track the progress or development of the students and for the teachers to also closely monitor how well they are delivering their lessons to their students or not. Based from an article by Huseyn (2022) it was discussed that an essential use is adaptive assessments powered by AI. While adaptive assessment, which adjusts the difficulty of questions based on a test-taker's responses, has been used for a while, the introduction of AI technology has greatly improved its possibilities. AI-powered adaptive assessment goes beyond simply modifying question difficulty. It can analyze a student's problem-solving approach, detect any hesitations, and comprehend the specific types of

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errors made. The capacity to acquire knowledge from every encounter allows AI to provide a more customized and sophisticated comprehension of a student's learning preferences. Adaptive assessment has been widely used, but AI has now advanced and improved its ability to better meet the specific learning demands of individuals.

Finally, in the research of Hussain et al. (2022) it was noted that over time, advancements in computer and information transmission technologies have resulted in the creation of artificial intelligence. When the term artificial intelligence is used, a supercomputer comes to mind and these machines have enormous processing power and can exhibit adaptive behavior by adding sensors and other features that give them cognitive and functional abilities similar to those of humans; and in fact, these features even help supercomputers interact better with people. The utilization of AI in various aspects of our daily lives appears to be growing steadily, as indicated by numerous researches. AI has made significant contributions to the realm of education by serving as a tool to enhance and facilitate the teaching and learning process.

Statement of the Problem

The present study aimed to explore the effect of artificial intelligence integration on academic performance in Fundamentals of Accountancy, Business and Management 1 of Accountancy, Business, and Management students.

Specifically, the study sought to answer the following questions:

1. What is the demographic profile of the respondents in terms of:

Teachers:

1.1 age;
1.2 sex;
1.3 highest educational attainment; and
1.4 length of service?

Students:

1.5. age; and
1.6. sex;

2. What is the effect of artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM students in terms of:

2.1 learning activities;
2.2 pedagogical strategies; and
2.3 assessment?

3. What is the academic performance of the student-respondents in Fundamentals of Accountancy, Business and Management 1 during the School Year 2023-2024 2nd semester?
4. Is there a significant difference in the assessment of the two groups of respondents on the effect of artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1?
5. Is there a significant difference in the assessment of the two groups of respondents on the effect of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 when grouped according to profile?
6. Is there a significant relationship between the artificial intelligence integration and academic performance of ABM students in Fundamentals of Accountancy, Business and Management 1?

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7. Does the artificial intelligence integration significantly affect the academic performance of the ABM students?
8. Based on the results of the study, what output may be proposed?

Hypotheses

The present study will be based on the following null hypotheses:

Ho1 – There is no significant difference in the assessment of the two groups of respondents on the effect of artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1.

Ho2 – There is no significant difference in the assessment of the two groups of respondents on the effect of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 when grouped according to profile.

Ho3 – There is no significant relationship between the artificial intelligence integration and academic performance of ABM students in Fundamentals of Accountancy, Business and Management 1.

Ho4 – The artificial intelligence integration does not significantly affect the academic performance of the ABM students.

MATERIALS AND METHODS

Research Design

The study utilized the Embedded Mixed-Method Design and according to Creswell (2019) this research design includes the use of both quantitative and qualitative methodologies with one form of data supportive to the other. As such, the use of this design is that it allows one method to lead the analysis with the secondary method that also provides additional information.

In this study, the effect of artificial intelligence integration on the academic performance of accountancy, business, and management students in Fundamentals of Accountancy, Business and Management 1 was explored using both quantitative and qualitative technique, specifically through Likert-type survey items and open-ended questions.

Respondents/Participants of the Study

The respondents of the study are the selected senior high school teachers and Grade 11 ABM students in the Division of Batangas City during the School Year 2023-2024, 2nd semester and are also taking up the specialized subject of Fundamentals of Accountancy, Business and Management 1.

For the quantitative part, 14 senior high school teachers teaching Fundamentals of Accountancy, Business and Management 1 of ABM strand in Schools Division Office of Batangas City was selected among total population of senior high school teachers under ABM department and from different schools in Batangas City. The sample size was determined through total population sampling because of the small size of population.

Furthermore, 236 students were selected as respondents from a total of 604 students. Using a 5% level of significance and a 95% confidence level, the sample size was calculated using the Raosoft © Sample Size Calculator. Simple Random Sampling was utilized to select specific students from each identified stratum. The sample frame will be each concerned class's class list.

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Using critical case sampling, 10 participants were purposively selected for the qualitative part. Ten (10) representatives in total—five for each level of participants—were chosen from among the student and teacher groups. The researcher considered certain ethical concerns to guarantee that the procedure of collecting data does not inflict any harm on the participants of the study. The researcher undertaken the research with a commitment to treating the study participants with reverence, ensuring full transparency of information, and obtaining informed consent prior to disseminating the study's findings. Therefore, the researcher implemented all essential measures to ensure the well-being and security of her participants.

Research Instrument

For the quantitative part, the study utilized an expert-validated researcher-made questionnaire formulated guided by the theoretical framework. Part I elicits the respondents' demographic profile, part II contains fifteen items in a 4-point Likert-type scale which assesses the effect of integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand. The gathered data were interpreted in terms of criteria based on a scale of 1-4 with 1 as the lowest assessment and 4 as highest. Corresponding verbal interpretations were provided. The scale continuous used was as follows:

Very Low Extent	Low Extent	High Extent	Very High Extent
1.00-1.49	1.50-2.49	2.50-3.49	3.50-4.00

Part III evaluates the academic performance of students.

On the other hand, for the qualitative part, an open-ended questionnaire was utilized to probe the integration of artificial intelligence in teaching Fundamentals of Accountancy, Business and Management 1 on the academic performance of accountancy, business, and management students.

Validation of the Survey Questionnaire

As for the quantitative part, the initial draft of the instrument was shown to the adviser for her corrections, comments, and suggestions. The items were revised based on the adviser's suggestions. With the approval of the adviser, the instrument was validated by three experts in the field of Education and Research who are all Doctorate Degree holders. The prescribed instrument validation tool of the Graduate School was used.

After the experts' validation, the instrument was pretested to 15 sample of respondents. As such, according to Machin et al. (2018) a flat rule of thumb for a questionnaire pretest is 15. Cronbach alpha reliability test was performed to assess the internal consistency of the instrument. Results on reliability using Cronbach's Alpha showed a 77.0% reliability coefficient which meant the questionnaire was valid and reliable. After the validation conducted by the validators, their comments and suggestions were incorporated by the proponent in the revised survey questionnaire.

Data Gathering Procedure

The researcher accomplished the procedures inside the public or private secondary school under Schools Division Office of Batangas City. Thus, the following steps were undertaken to

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gather the necessary quantitative and qualitative data for the study. First, the researcher requested an approval from the Schools Division Superintendent of Batangas City to execute the study in accordance with the approved guidelines and procedures; after this, a permission was asked from the Principals from the Superintendent. Next is the development or creation of a consent form to be presented for the students in order to obtain their consent and agreement to participate in the data gathering procedure of the study. Before the administration of the data gathering procedure, the proponent was also able to sought the assistance and support of the research adviser particularly on how the data gathering procedure will commence.

Once permission was granted, the researcher asked the respondents to read and sign the informed consent form. The respondents were informed of the confidentiality and protection of the gathered data according to the Data Privacy Act. In order to protect the privacy of the respondents, each of them shall remain anonymous. As for the quantitative part, the questionnaire was administered through Google Forms while for the qualitative part, an open-ended questionnaire —also administered through Google Forms—was administered to gather qualitative data that supported the quantitative findings. Finally, the data collected were analyzed while maintaining participant confidentiality.

Analysis of Quantitative and Qualitative Data

Quantitative

The data gathered in this study were statistically treated using Descriptive Statistics. These included the use of percentage, weighted mean, ANOVA, t-Test and Pearson R. The following statistical tools were used in the treatment and analysis of the data.

1. Percentage. The percentage was used for the demographic profile of the respondents – the teachers and students.

2. Frequency Count. The frequency count was used for the demographic profile of the respondents – the teachers and students.

3. Weighted Mean. In this study, the weighted mean was applied to determine extent of integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand students.

4. Analysis of Variance or ANOVA, and t-Test. These statistical tools were applied for determining if there is a significant difference in the assessment of the two groups of respondents on the effect of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 and as well as if there is a significant difference in the assessment of the two groups of respondents on the effect of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 when grouped according to profile.

5. Pearson R-Correlation. This tool was used to determine if there is a significant relationship or effect in the integration of artificial intelligence and how it affect the academic performance of the ABM students and also in determining if there is a significant relationship between the integration of artificial intelligence and academic performance of ABM students in Fundamentals of Accountancy, Business and Management 1.

Qualitative

The study also employed the simple descriptive qualitative method that will be primarily focused on obtaining and presenting a detailed account or narrative of the characteristics of a particular situation and explanations and in order to provide words, observations and images that

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is considered to be helpful as well in exploring different areas of ideas and in order to gain a more in-depth understanding of a certain situation or phenomenon (Ayton et al. 2023).

Ethical Considerations of the Study

The research has recognized significant ethical factors throughout its development. The researcher is committed to making every effort necessary to ensure the well-being of the participants involved in this study, as well as to guarantee that they feel relaxed and comfortable, particularly during the data collection phase. In addition to this, the researcher implemented all required safety measures for the participants. The researcher designed and carried out all assessments and interventions in a way that reduced potential harm to the participants. As a result, the risks to the participants are justifiable when weighed against the expected benefits to them and the valuable insights likely to emerge from this study.

RESULTS AND DISCUSSION

This part of the study presented the gathered and analyzed findings of the study and its analysis and for the answering of the presented questions in the research.

Demographic Profile of Respondents

Table 1 summarized and presented the demographic profile of teacher and student-respondents included in the present study.

Table 1
Demographic Profile of the Respondents

Respondents	Profile		Frequency	Percentage (%)
Teacher	Age	26-30	4	28.57
		31-35	7	50.00
		36-40	3	21.43
		Total	**14**	**100.00**
	Sex	Male	3	21.43
		Female	11	78.57
		Total	**14**	**100.00**
	Highest Educational Attainment	College Graduate	5	35.71
		Earned Masteral Units	2	14.29
		Masteral Graduate	6	42.86
		Earned Doctoral Units	1	7.14
		Total	**14**	**100.00**
	Length of Service (Years)	Below 6	5	35.71
		6-10	7	50.00
		11-15	2	14.29
		Total	**14**	**100.00**

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Student	Age	Below 17	230	97.46
		17-18	5	2.12
		Above 18	1	0.42
		Total	**236**	**100.00**
	Sex	Male	48	20.34
		Female	188	79.66
		Total	**236**	**100.00**

It was shown that half of the sample of fourteen (14) teacher-respondents, or seven (7) teacher-respondents, belong to the second age group with ages between thirty-one (31) years old and thirty-five (35) years old, and they represent 50% of the sample of fourteen (14) teacher-respondents. This is followed by four (4) teacher-respondents with ages between twenty-six (26) years and thirty (30) years, and they represent 28.57% of the sample of fourteen (14) teacher-respondents. There are three (3) teacher-respondents, representing 21.43% of the sample of fourteen (14) teacher-respondents, whose ages are between thirty-six (36) years and forty (40) years.

Majority of teacher-respondents are female. In particular, there are eleven (11) teacher-respondents, representing 78.57% of the sample of fourteen (14) teacher-respondents, who are female. There are three (3) male teacher-respondents, and they represent 21.43% of the sample of fourteen (14) teacher-respondents.

Most of the teacher-respondents have master's degree. Particularly, there are six (6) teacher-respondents, representing 42.85% of the sample of fourteen (14) teacher-respondents, with master's degree. This is followed by five (5) teacher-respondents, representing 35.71% of the sample of fourteen (14) teacher-respondents, who are college graduate. There are two (2) teacher-respondents, representing 14.29% of the sample of fourteen (14) teacher-respondents, who have earned masteral units. Moreover, one (1) teacher-respondent has earned doctoral units, and this particular teacher-respondent represents 7.14 of the sample of fourteen (14) teacher-respondents.

Half of the sample of fourteen (14) teacher-respondents, or seven (7) teacher-respondents, have been in service between six (6) years and ten (10) years, and they represent 50% of the sample of fourteen (14) teacher-respondents. This is followed by five (5) teacher-respondents who have been in for less than six (6) years, and they represent 35.71% of the sample of fourteen (14) teacher-respondents. There are two (2) teacher-respondents, representing 14.29% of the sample of fourteen (14) teacher-respondents, who have been in service between eleven (11) years and fifteen (15) years.

This interprets that as for the age of the teacher-respondents, it can be noted that most of them can be considered to be experienced enough to be teachers handling diverse types of learners. As such, most of them are female and can be associated with the increasing number of female individuals who are becoming part of the teaching profession. Their high educational attainment can also be regarded as making them become more capable of their teaching obligations and postgraduate studies had enabled them to become more well-equipped and as well as competent and this was also further strengthened by their significant number of years spent in teaching. In

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the study of Shah & Udgaonkar (2019) it was discussed and noted that the advanced or more matured age of the teachers was considered to play a significant influence on enabling the teachers to have more knowledge and understanding of the potentials and needs of the students and can also reflect the level of enthusiasm and capability of teachers and which can significantly deteriorate as they age. Moreover, as for the gender of teachers, the way in which there is an increasing trend of female individuals becoming teachers was due to the belief that many students are still preferring females as their teacher due to their motherly nature, their tendency to care and also their efforts exhibited in preparing lessons and activities for their students. The high educational attainment of teachers had also provided significant results for making the students more cognitive-capable and also improves understanding of their lessons in class (Liu, 2021).

On the other hand, as for the student-respondents, majority of them are below seventeen (17) years old. Specifically, there are 230 student-respondents who below seventeen (17) years old, and they represent 97.46% of the sample of 236 student-respondents. This is followed five (5) student-respondents, representing 2.12% of the sample of 236 student-respondents., whose ages are between seventeen (17) years and eighteen (18) years. There is one (1) student-respondent who is more than eighteen (18) years old, and this particular student-respondent represents 0.42% of the sample of 236 student-respondents. As such, majority of student-respondents are female. In particular, there are 188 female student-respondents, and they represent 79.66% of the sample of 236 student-respondents. There are forty-eight (48) male student-respondents, representing 20.34% of the sample of 236 student-respondents.

This interprets that the age and ABM senior high school students can be still be considered to be significantly young and thus can make them still vulnerable to various changes in their field of learning. As such, for the gender of the senior high school students who are currently taking up ABM or Accountancy, Business and Management strand reflects how there is an increasing trend of female students who wanted to take up business-related courses or strands that can help them to become successful entrepreneurs in the future and also apply their learning in their other chosen profession or interests. A study that was conducted by Conde (2020) provided that some of the reasons on why there is an observed increasing number of female individuals or students who are showing interest in taking up ABM or business-related courses is the way in which this also reflects their intention of reaching their aspirations and life goals and also with regards to the prospect of acquiring and learning new skills and capabilities in such courses. Further, the curriculum, teaching techniques, and prospective outcomes or results of learning ABM appear to be the primary factors that motivate most female students to select this educational path and choose a career or profession that will be related to it.

Effect of AI Integration in the Teaching of Fundamentals of Accountancy, Business and Management 1 in ABM Strand

Table 2 summarized and presented the assessments of two (2) groups of respondents, the teachers and students, of the effect of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand in terms of “Learning Activities.”

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Table 2

Effect of AI Integration in the Teaching of Fundamentals of Accountancy, Business and Management 1 in ABM Strand in Terms of Learning Activities

Effect	Respondent					
	Teacher		Student		Combined	
	Mean	I	Mean	I	Mean	I
1. Learning activities are more aligned with the lessons.	3.93	VH	3.74	VH	3.84	VH
2. Learning activities are highly interactive.	3.57	VH	3.57	VH	3.57	VH
3. Learning activities address the learning needs of students.	3.71	VH	3.60	VH	3.66	VH
4. Learning activities uses technology more effectively.	3.50	VH	3.57	VH	3.53	VH
5. Learning activities are more interesting and enjoyable for students.	3.43	H	3.55	VH	3.49	H
Overall Mean	**3.63**	**V H**	**3.61**	**V H**	**3.62**	**V H**

With highest mean of 3.93, teacher-respondents assessed that "Learning activities are more aligned with the lessons" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." On the other hand, the lowest mean of 3.43, on the other hand, nevertheless indicates that teacher-respondents assessed that "Learning activities are more interesting and enjoyable for students" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "High Extent". Generally, the overall mean of 3.63 indicates that in terms of "Learning Activities" artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by teacher-respondents.

B ased on assessment of student-respondents, the highest mean of 3.74 indicates that "Learning activities are more aligned with the lessons" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." The lowest mean of 3.55, on the other hand, nevertheless indicated that student-respondents assessed that "Learning activities are more interesting and enjoyable for students" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "High Extent."

In general, the overall mean of 3.61 indicates that in terms of "Learning Activities" artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by student-respondents.

Combining the assessments of the two (2) groups of respondents, the highest mean of 3.84 indicates that "Learning activities are more aligned with the lessons" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." On the other hand, the lowest mean of 3.49, on the other hand, nevertheless indicates that respondents assessed that "Learning activities are more interesting and enjoyable for students" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "High Extent." Generally, the overall mean of 3.62 indicates that in terms of "Learning Activities" artificial

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intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by respondents.

For the teachers, they shared some important insights with regards to how they are integrating AI in the preparation of their learning activities specifically for the ABM subject of Fundamentals of Accountancy, Business and Management 1.

"I integrate AI in teaching Fundamentals of Accountancy, Business, and Management 1 by using platforms like ChatGPT for personalized tutoring, adaptive learning software for tailored practice exercises, and AI-driven simulations to enhance real-world business scenario understanding. I also use Quizizz in preparing a game-based activities that make learning more enjoyable for my students." – **Participant 2** (SHS ABM Teacher)

"Using AI like Googlebard/Gemini is helpful in teaching accounting concepts and sample problems as it gives clear definition of concept. On the other hand, it gives sample problems with solutions too." – **Participant 4** (SHS ABM Teacher)

"For example, the lesson in accounting, in order for the students to understand easily, I will ask AI like Botkeeper to formulate a simple example of accounting problems and simple solution that can easily understood by my students." – **Participant 5** (SHS ABM Teacher)

As such, based from the responses of the teacher-participants, it can be understood that they are maximizing and taking in consideration the great value of integrating AI or artificial intelligence in the way they are preparing and offering their learning activities to their students. Their responses and insights showed that teachers are now more well-aware of the different and specific types of AI that they can utilize or apply to make their learning activities become more strategic as well as effective and interesting for their students. The consistency and convenience that is being offered to them by AI can be considered to be among the many factors that influence their increased integration of AI for the preparation of their learning activities and also in the way that they can become more creative as well as include more innovative and novel examples for their lessons and accompanying activities that can help for the improved understanding and learning of their students of their discussed lessons in class.

The student-participants, on the other hand, had also provided their own insights regarding to this aspect and the way they are seeing the AI integration to be helpful or applicable for their learning activities being conducted in their classes.

"The AI application that my teacher usually use in teaching FABM1 subject is Canva for her PowerPoint presentation. I think, sometimes she also uses ChatGPT to give us more information about the topic" – **Participant 4** (ABM SHS Student)

"My teacher in FABM1 allows us to use Botkeeper. It is an AI application that provide us more knowledge about Bookkeeping and Accounting." – **Participant 5** (ABM SHS Student)

From these provided perspectives and insights of the students who are currently taking up ABM strand, it can be indicated that they are also noticing the way in which AI is becoming an important and big part of their learning process, particularly on the way in which they are observing that their teachers are considering its features and benefits to make their lessons and learning

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activities not just become more accessible but also equally interesting and effective for the learners. The students' insights also showed how their teachers are also integrating AI to make their learning activities become more applicable and knowledgeable for their learning process.

Facilitating and designing diverse learning activities for students is crucial for teachers to evaluate their learners' comprehension of the lesson and simultaneously enable them to demonstrate the practical application of acquired concepts. For instance, in a study by Leonard (2023), it was shown that AI tools have been identified by numerous educators as a time- and labor-efficient method for assembling lesson plans. Educational professionals are already incorporating artificial intelligence (AI) into their classrooms in innovative, captivating, and intellectually engaging manners. For instance, educators can designate students to verify the accuracy of ChatGPT's responses or use AI graphics as interactive prompts for discussions in history classrooms or as writing prompts, for example in English classes. In contemporary times, many educators employ images as writing prompts to assist students in refining their creative writing skills. Utilising any of the abundance of free, high-quality image generators now accessible, such as Craiyon, Microsoft Bing's image builder, Stable Diffusion, or Canva's most recent AI image-generating tool, will assist you in finding the perfect photograph. Due to their self-consciousness about making errors, students who are acquiring a new language may postpone their practice sessions far more than necessary. Nevertheless, considering that chatbots do not evaluate students and allow them to discuss topics that pique their interest, many language learners are increasingly relying on AI chatbots for support. Moreover, several studies suggest that these chatbots can be beneficial for enhancing vocabulary, grammar, and other language skills, particularly when they provide corrective feedback or assessment of their learners (Puntillo, 2024).

Further, in terms of the pedagogical strategies, the assessments of two groups of respondents of the effect of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand, are summarized and presented in Table 3.

Table 3

Effect of AI Integration in the Teaching of Fundamentals of Accountancy, Business and Management 1 in ABM Strand in Terms of Pedagogical Strategies

Effect	Respondent					
	Teacher		Student		Combined	
	Mean	I	Mean	I	Mean	I
1. Opportunities are provided to explore new topics for students.	3.43	H	3.48	H	3.46	H
2. Teachers are able to utilize new resources in teaching.	3.86	VH	3.73	VH	3.80	VH
3. Opportunities are created for using interactive simulations, videos and printed media in teaching.	3.64	VH	3.61	VH	3.62	VH
4. Instructional methods for teaching the subject improves.	3.79	VH	3.62	VH	3.70	VH
5. Challenges encountered by teachers when teaching the subject are addressed.	3.50	VH	3.59	VH	3.55	H
Overall Mean	**3.64**	**V H**	**3.61**	**V H**	**3.63**	**V H**

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With highest mean of 3.86, teacher-respondents assessed that "Teachers are able to utilize new resources in teaching" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." The lowest mean of 3.43, nevertheless indicated that teacher-respondents assessed that "Opportunities are provided to explore new topics for students" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "High Extent." Generally, the overall mean of 3.64 indicated that in terms of "Pedagogical Strategies" artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by teacher-respondents.

On the other hand, based on assessment of student-respondents, the highest mean of 3.73 indicated that "Teachers are able to utilize new resources in teaching" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." The lowest mean of 3.48, on the other hand, nevertheless indicated that student-respondents assessed that "Opportunities are provided to explore new topics for students" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "High Extent." In general, the overall mean of 3.61 indicated that in terms of "Pedagogical Strategies" artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by student-respondents.

Combining the assessments of the two (2) groups of respondents, the highest mean of 3.80 indicated that "Teachers are able to utilize new resources in teaching" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." The lowest mean of 3.46, on the other hand, nevertheless indicated that respondents assessed that "Opportunities are provided to explore new topics for students" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "High Extent." Generally, the overall mean of 3.63 indicated that in terms of "Pedagogical Strategies" artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by respondents.

For the teachers, they shared some important insights with regards to how they are integrating AI in the enhancement and providing of their pedagogical strategies specifically for the ABM subject of Fundamentals of Accountancy, Business and Management 1.

"I select AI-based tools and methods by evaluating their alignment with learning objectives, ease of integration into existing pedagogical strategies, and their ability to provide actionable insights for assessments and personalized learning experiences." – **Participant 2** (SHS Teacher)

"Developing or selecting AI-based tools for learning activities, pedagogical strategies, and assessments involves a thoughtful process to ensure they effectively enhance the learning experience. I start by clearly defining the learning objectives for your course. Then I choose AI tools that align with these objectives. For example, if the goal is to improve critical thinking in business decision-making, a simulation tool like BizCafe could be ideal." – **Participant 3** (SHS Teacher)

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"Since we don't have learning resources specifically aligned with the most essential learning competencies, so I used to select LMs from different relevant sites and LMS. But in accounting the best way to teach the students are lecture method with demonstration and problem-solving strategies. As such I use the AI to generate problems which is more convenient and easier." – **Participant 4** (SHS Teacher)

Based from these provided insights by the teacher-participants on the way in which they are integrating or utilizing AI for their pedagogical strategies, and they considered as significant as pedagogical strategies that was significantly enhanced with the use of AI was deemed by the teachers as essential in ensuring that their lessons and activities prepared or offered for their students are indeed aligned with their respective learning needs and that can contribute in the overall improved learning experience. As such, the relevance of using AI integration for pedagogical strategies was also seen by the teachers as something that can help them resolve difficulties that they can face in the use or application of these pedagogical strategies for their students or learners.

As such, the student-participants, had also provided their own insights or experiences regarding to this aspect and the way they are seeing the AI integration to be helpful or applicable for the pedagogical strategies that they see or observed as being applied by their teachers in their handled subjects or class.

"My FABM1 teacher implement AI-based application like ELMS to give us activities, quizzes and as guide book for us students. While AI detector is for those students who is trying to cheat." – **Participant 2** (ABM SHS Student)

"My teacher in FABM1 allows us to use our gadgets to use the AI App. It helps us students understand real-world accounting practices by offering hands-on experience with financial transactions and reporting." – **Participant 5** (ABM SHS Student)

In this particular aspect, it can be understood that based from the shared insights of the student-participants who are currently taking up the ABM strand, they are recognizing the impact of the integration of AI for the pedagogical strategies being applied by their teachers in their ABM learning and for the students, this was mostly seen on the way in which AI-based learning is being continuously promoted, and making their teacher become more aware of the changes in the teaching and learning setting. The students also shared that this was mostly also being manifested or reflected on the provided personalized lessons and creative quizzes and other assessment activities. The presentations of lessons and activities by their teachers was also noted by the students to have significantly been improved with the integration of AI and quizzes and other relevant tests were also easily provided and contributes greatly for them to gain an improved overall learning experience that allows them to not just better understand their lessons but also ensure improved application of learning especially in making financial presentations and other requirements in the course/strand.

Palanisamy (2023) defined AI in education, as "EdTech," and as a growing field that brings together artificial intelligence and technology to enhance the process of teaching and learning.

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Artificial intelligence can analyze the learning patterns of students and adapt educational material to suit their distinctive learning preferences and speeds, enabling tailored learning paths that address the unique strengths and weaknesses of each student. Furthermore, Toksha et al. (2022) noted that AI is currently being acknowledged more and more for its role in continuously enhancing pedagogical teaching methods to improve the teaching and learning process. Moreover, as stated by Tucker (2023), artificial intelligence (AI) has the capacity to optimize different elements of this activity, so alleviating teachers from the onerous responsibility of dedicating significant time to developing courses, providing feedback, and, in the foreseeable future, precise assessment of student performance. While artificial intelligence has the potential to significantly improve a purposeful educator's ability to provide effective and equitable instruction, it is important for us to maintain psychological engagement in the process. Using AI to provide feedback is an excellent approach to further support students in their academic development. Nevertheless, it is crucial to engage actively with them and their work to fully understand their learning preferences.

Further, Table 4 presented the assessments of two (2) groups of respondents, the teachers and students, of the effect of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand in terms of "Assessment."

Table 4

Effect of AI Integration in the Teaching of Fundamentals of Accountancy, Business and Management 1 in ABM Strand in Terms of Assessment

Effect	Respondent					
	Teacher		Student		Combined	
	Mean	I	Mean	I	Mean	I
1. Use of different educational tools for assessing students' progress improves.	3.79	VH	3.63	VH	3.71	VH
2. There is more frequent use of authentic assessment which can automate the grading process for both objective and subjective assessments.	3.71	VH	3.61	VH	3.66	VH
3. Coaching students by their teachers is more effective.	3.43	H	3.56	VH	3.50	VH
4. There is real-time feedback and suggestions to improve the performance of both students and teachers.	3.93	VH	3.77	VH	3.85	VH
5. Scaffolding techniques to improve the performance of students is effective.	3.57	VH	3.59	VH	3.58	VH
Overall Mean	**3.69**	**V H**	**3.63**	**V H**	**3.66**	**V H**

With highest mean of 3.93, teacher-respondents assessed that "There is real-time feedback and suggestions to improve the performance of both students and teachers" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM

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strand was integrated to "Very High Extent." The lowest mean of 3.43, on the other hand, nevertheless indicated that teacher-respondents assessed that "Coaching students by their teachers is more effective" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "High Extent." Generally, the overall mean of 3.69 indicated that in terms of "Assessment" artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by teacher-respondents.

Based on assessment of student-respondents, the highest mean of 3.77 indicates that "There is real-time feedback and suggestions to improve the performance of both students and teachers" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." The lowest mean of 3.56, on the other hand, nevertheless indicates that student-respondents assessed that "Coaching students by their teachers is more effective" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." In general, the overall mean of 3.63 indicates that in terms of "Assessment" artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by student-respondents.

Combining the assessments of the two (2) groups of respondents, the highest mean of 3.85 indicates that "There is real-time feedback and suggestions to improve the performance of both students and teachers" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." The lowest mean of 3.50, on the other hand, nevertheless indicates that respondents assessed that "Coaching students by their teachers is more effective" because artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent." Generally, the overall mean of 3.66 indicates that in terms of "Assessment" artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand was integrated to "Very High Extent" as assessed by respondents.
For the teachers, they shared some important insights with regards to how they are integrating AI in the enhancement and providing of their assessment specifically for the ABM subject of Fundamentals of Accountancy, Business and Management 1.

"I get test item idea in Quizlet, Knewton or DreamBox." – **Participant 1** (SHS Teacher)

"I use AI in assessing my students like E-Learning Management System (ELMS). Wherein it provides automated grading systems, analytics for tracking student progress, and natural language processing tools to provide instant, personalized feedback on written assignments." – **Participant 2** (SHS Teacher)

"Assessment procedures may be made more efficient by integrating AI, which can also give more individualized feedback and enhance the overall effectiveness of assessments. In teaching FABM1 I usually prepare quiz or learning activities using Quizizz. I also use Turnitin and Gradescope to streamline the grading process, especially for assignments that require subjective evaluation." – **Participant 3** (SHS Teacher)

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In relation to these provided insights by the teachers, it can be understood that they are widely recognizing the integration and the benefits of AI for their assessment of the learning of their ABM students. For instance, the convenience that is being provided to them by these AI tools can be considered to have significantly improved the way they are providing assessment and feedback of their students. For the teachers, their time is of great value and when they are using AI to make assessment of their learners, this allows them to have a better picture of the progress or development of their students and at the same time, ensure that they can still have time to also finish other tasks and further, AI integration in assessment also allows the teachers to have many options that can help them to effectively and fully assess the learning and understanding of their students in their class or subject.

On the other hand, the student-participants also provided their own insights or experiences regarding to this aspect and the way they are seeing the AI integration to be helpful or applicable for the assessment of their learning in the ABM strand.

"My teacher provides different activities and questions to evaluate our performance." – **Participant 1** (ABM SHS Student)

"Our FABM 1 teacher gives us quizzes and learning task through ELMS which provide immediate feedback, score as well as comments." – **Participant 2** (ABM SHS Student)

"By integrating AI-based tools like Quizzis, our teacher can streamline the assessment process, offer personalized feedback, and gain valuable insights into student learning and performance." – **Participant 3** (ABM SHS Student)

Further, from these experiences and insights, it can be noted that the students are also openly recognizing the way in which their teachers are actively using or integrating artificial intelligence or AI tools not just for the teaching and learning process but also most particularly, for assessing their progress or performance in class. For the students, it can be understood that the integration of AI remains to be a relative and important aspect that can help their teachers to track their progress and for the students as well to have a better understanding or idea of how they are showing or achieving their academic performance and academic goals in class. The continuous and convenient evaluation and assessment being provided by the integration of AI can also be understood as being viewed by the students as helpful or contributing for them to have improved learning experience and a more personalized learning as well.

Swiecki et al. (2022) argued that evaluation or assessment is a singular element of a teacher's strategies or methodologies within classroom environments. Furthermore, they devise and supervise instructional activities, provide valuable feedback, and, in a more comprehensive sense, manage the entirety of the classroom environment. Manually generating assessments and deriving conclusions from them can be laborious and prone to mistakes, contingent upon variables such as the student population, the burden of additional responsibilities on the teacher, and the extent of support accessible. Furthermore, the European School Education Platform (2023) of the European Commission has established that teachers can apply artificial intelligence (AI) systems to tailor formative assessment, providing prompt personalized feedback that addresses the specific learning needs of individual students. Artificial intelligence (AI) can reduce the inherent bias in

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human grading and shorten the time needed for grading tasks and it also possesses the capability to augment educational evaluation.

Further, based on the summary of the assessments of two (2) groups of respondents, the teachers and students, of the effect of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand in terms of "Learning Activities," "Pedagogical Strategies, "and "Assessment," is presented in Table 5.

Table 5

Summary of the Assessments of the Effect of AI Integration in Teaching of Fundamentals of Accountancy, Business and Management 1 in ABM Strand

Indicator	Respondent					
	Teacher		Student		Combined	
	Mean	I	Mean	I	Mean	I
Learning Activities	3.63	V H	3.61	V H	3.62	V H
Pedagogical Strategies	3.64	V H	3.61	V H	3.63	V H
Assessment	3.69	V H	3.63	V H	3.66	V H
Overall Mean	**3.65**	**V H**	**3.62**	**V H**	**3.64**	**V H**

With highest overall mean of 3.69, teacher-respondents assessed that in terms of "Assessment," artificial intelligence was integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent." The lowest overall mean of 3.63, on the other hand, nevertheless indicates that teacher-respondents assessed that in terms of "Learning Activities," artificial intelligence was integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent." More generally, the overall mean of 3.65 indicates that teacher-respondents assessed that artificial intelligence was integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent."

Based on assessment of student-respondents, the higher overall mean of 3.63, student-respondents assessed that in terms of "Assessment," artificial intelligence was integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent." The lower overall mean of 3.61, on the other hand, nevertheless indicates that student-respondents assessed that in terms of "Learning Activities" and "Pedagogical Strategies," artificial intelligence was integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent." More generally, the overall mean of 3.62 indicates that student-respondents assessed that artificial intelligence was integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent."

Combining the assessments of the two (2) groups of respondents, the highest overall mean of 3.66, respondents assessed that in terms of "Assessment," artificial intelligence was integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent." The lowest overall mean of 3.62, on the other hand, nevertheless indicates that respondents assessed that in terms of "Learning Activities," artificial intelligence was

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integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent." More generally, the overall mean of 3.64 indicates that respondents assessed that artificial intelligence was integrated in the teaching of Fundamentals of Accountancy, Business and Management 1 in ABM strand to "Very High Extent."

Academic Performance of Student-Respondents in Fundamentals of Accountancy, Business and Management 1 during the 2nd Semester of School Year 2023-2024

Table 6 summarized and presented the academic performance of student-respondents in Fundamentals of Accountancy, Business and Management 1 during the 2nd semester of school year 2023-2024.

Table 6

Academic Performance of Student-Respondents in Fundamentals of Accountancy, Business and Management 1 during the 2nd Semester of S.Y. 2023-2024

Academic Performance		Frequency (f)	Percentage (%)
Grade (%)	Description		
80 – 84	Satisfactory	38	16.10
85 – 89	Very Satisfactory	125	52.97
90 – 100	Outstanding	73	30.93
Total		**236**	**100.00**

The academic performance of majority of student-respondents in Fundamentals of Accountancy, Business and Management 1 during the 2nd semester of school year 2023-2024 is "Very Satisfactory" with grades between 80% and 84%. In particular, 125 student-respondents have "Very Satisfactory" performance in Fundamentals of Accountancy, Business and Management 1 during the 2nd semester of school year 2023-2024, and they represent 52.97% of the sample of 236 student-respondents. There are thirty-eight (38) student-respondents with "Satisfactory" performance and grades between 80% and 84% in Fundamentals of Accountancy, Business and Management 1 during the 2nd semester of school year 2023-2024, and they represent 16.10% of the sample of 236 student-respondents.

In fact, the teacher-participants had also shared their insights and key observations on the academic performance of ABM students in the said subject and how AI integration is influencing it as well.

"Students are more engaged and eager to learn the topic. Using AI-based tools, it enhances the traditional way of delivering the lesson particularly in Fundamentals of Accountancy, Business and Management 1 subject and assessing student learning." – **Participant 1** (SHS Teacher)

"I've observed that integrating AI into learning activities, pedagogical strategies, and assessments has improved personalized learning outcomes of my students, and it provides more efficient feedback thus ultimately enhanced their overall performance." – **Participant 2** (SHS Teacher)

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Based from these particular insights or perspectives that was shared by the teachers, it can be seen that they are recognizing and becoming aware of how AI integration is positively affecting the academic performance of their students in the ABM strand. For instance, according to some of the teachers, they observed that aside from their students having good grades in their subjects in the ABM strand, they had also observed considerable positive changes, for instance, in the engagement of the students and the way the students are also learning and effectively understanding their lessons. As such, positive learning outcomes and a more personalized learning had also become evident and since assessments and evaluations are being provided on real-time setting, improvements or changes had also been observed quickly among the learners. Overall, the AI integration then provides important factors that contributes for the improved academic performance of the learners in the ABM strand.

Further, the included student-participants had also shared their insights on how AI integration is affecting their academic performance in class.

"It helps me become more active in participating in our class, for AI has helped me find more information that is not included in my teacher's lesson. It makes it easier for me to learn and study, resulting in me exceeding in class." – **Participant 3** (ABM SHS Student)

"Using AI has helped me as a student to improve my understanding about the lesson in FABM subject, provided quicker feedback, and made my learning more engaging, boosting my academic performance." – **Participant 5** (ABM SHS Student)

It can be noted and understood based from these shared insights and views of the student-participants that AI integration in their learning process had contributed to make the students become more efficient in their learning. As such, the way in which AI integration help to provide them with AI tools, this makes the learning experience for the students become more enjoyable as well as bearable amidst the many workloads and assignments that are being assigned to them by their teachers. Another important contribution of AI integration for the improved academic performance of the students is the way in which it helped the students to become more resourceful as well as help them gain a more personalized learning and use their acquired feedbacks to manage improvements in their learning and academic performance.

In their study, Seo et al. (2021) examined the efficacy of artificial intelligence (AI) technologies in facilitating remote learning and teaching and these types of technologies have the capability to customize the knowledge acquisition process for students, streamline repetitive tasks for teachers, and provide flexible assessments. Notwithstanding the numerous advantages of artificial intelligence (AI), the impact of AI systems on student-teacher interactions, norms, and culture remains uncertain. The learner-instructor connection, encompassing communication, presence, support, and interaction, has a substantial impact on the enjoyment and learning outcomes of students engaged in online learning. Upon collecting and analyzing their data, the participants of the study expressed the belief that the integration of AI systems in online learning can enhance extensive and individualized interaction between learners and instructors. However, there is a possibility that this implementation may transcend social barriers. Concerns have arisen over the roles of responsibility, agency, and surveillance in relation to AI systems, despite their acknowledged benefits in enhancing communication volume and quality, offering timely and

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tailored assistance in large-scale environments, and fostering a sense of connection. Artificial intelligence systems must include these findings into their design to ensure thorough, human-in-the-loop, and precise data collection and presentation. The study made several significant contributions, including the development of practical storyboards for AI systems that improve interaction between learners and instructors, the utilization of speed dating to gather concerns from instructors and students regarding AI systems, and the proposal of effective strategies to maximize the positive impact of AI systems while minimizing their negative effects.

Difference in Assessment of the Two Groups of Respondents on the Effect of the Artificial Intelligence Integration in the Teaching of Fundamentals of Accountancy, Business and Management 1

Table 7
Difference in Assessment of the Two Groups of Respondents on the Effect of the Artificial Intelligence Integration in the Teaching of Fundamentals of Accountancy, Business and Management 1

Indicator	Respondent	t-value	p-value	Decision	Interpretation
Learning Activities	Teacher Student	0.32	0.75	Accept H_o	Not Significant
Pedagogical Strategies	Teacher Student	0.48	0.63	Accept H_o	Not Significant
Assessment	Teacher Student	0.60	0.55	Accept H_o	Not Significant

The p-values of 0.75, 0.63, and 0.55 that correspond to t-values of 0.32, 0.48, and 0.60, respectively, are all greater than the level of significance of 0.05. Hence, the null hypothesis is accepted. It is, thus, concluded that there is no significant difference between the assessment of teacher-respondents on the effect of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 in terms of "Learning Activities," "Pedagogical Strategies," and "Assessment," and the assessment of student-respondents on the effect of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 in terms of "Learning Activities," "Pedagogical Strategies," and "Assessment."

For the teachers, they shared some important insights with regards to the assessment of effect of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1.

"In my first year of teaching in public school, I focused more in explaining the subject matter than exploring other available AI-based tools. Now that I'm in my second year of handling FABM 1 in DepEd, I am trying to incorporate AI more." – **Participant 1** (SHS Teacher)

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"I've encountered challenges like ensuring data privacy, addressing potential biases in AI tools, and maintaining student engagement, which I address by carefully selecting AI platforms, implementing ethical guidelines, and blending AI with interactive, human-centered teaching methods." – **Participant 2** (SHS Teacher)

From all of these results or findings and also with the provided insights and views of the teachers, it can be noted that teachers, regardless of their expertise in the field of teaching, can still exhibit similar ways that they are integrating AI or artificial intelligence for enhancing or continuously improving their pedagogical strategies being applied in their class. The shared traits show that educators are eager to adopt new ideas and keep refining their teaching methods. It also shows that AI is becoming a useful and accessible tool for many teachers, enabling them to adjust to the demands of contemporary education and more effectively and dynamically fulfill the varied requirements of their students.

Furthermore, the study conducted by Ding et al. (2024) revealed that the deliberate and analytical incorporation of AI technologies by teachers to enhance teaching effectiveness and student learning results in specific subject areas is known as their "AI integration practice," which aligns with the existing research on technology integration. Instead of incorporating AI literacy subjects into content area curriculums, the objective of AI integration in this scenario is to enhance the effectiveness of teaching and acquiring content knowledge and skills. Nevertheless, the implementation of AI integration strategies would enhance certain elements of students' AI literacy by augmenting teachers' AI literacy and eliciting their demonstration of suitable AI tool utilization.

Difference in the Assessment of the Two Groups of Respondents on the Effect of the Artificial Intelligence Integration in the Teaching of Fundamentals of Accountancy, Business and Management 1 when grouped according to Profile

The results of one-way analysis of variance (ANOVA), or F-tests, at 5% level of significance, used to determine whether there is significant difference in the assessment of the two (2) groups of respondents on the effect of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 when grouped according to profile, are summarized and presented in Table 8.

Table 8
Difference in the Assessment of the Two Groups of Respondents on the Effect of the Artificial Intelligence Integration in the Teaching of Fundamentals of Accountancy, Business and Management 1 when grouped according to Profile

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Respondent	Profile	Effect	F-value	p-value	Decision	Conclusion
Teacher	Age	Learning Activities	1.53	0.26	Accept H_o	Not Significant
		Pedagogical Strategies	3.81	0.06	Accept H_o	Not Significant
		Assessment	2.29	0.15	Accept H_o	Not Significant
	Sex	Learning Activities	1.97	0.19	Accept H_o	Not Significant
		Pedagogical Strategies	0.04	0.85	Accept H_o	Not Significant
		Assessment	0.26	0.62	Accept H_o	Not Significant
	Highest Educational Attainment	Learning Activities	1.94	0.19	Accept H_o	Not Significant
		Pedagogical Strategies	3.75	0.05	Reject H_o	Significant
		Assessment	0.43	0.74	Accept H_o	Not Significant
	Length of Service	Learning Activities	2.26	0.15	Accept H_o	Not Significant
		Pedagogical Strategies	4.37	0.04	Reject H_o	Significant
		Assessment	1.15	0.35	Accept H_o	Not Significant
Student	Age	Learning Activities	0.54	0.58	Accept H_o	Not Significant
		Pedagogical Strategies	1.44	0.24	Accept H_o	Not Significant
		Assessment	1.14	0.32	Accept H_o	Not Significant
	Sex	Learning Activities	0.86	0.36	Accept H_o	Not Significant
		Pedagogical Strategies	0.25	0.62	Accept H_o	Not Significant
		Assessment	15.30	0.00	Reject H_o	Significant

The F-values of 1.53, 3.81, and 2.29 have corresponding p-values of 0.26, 0.06, and 0.15, respectively, and are all greater than the level of significance of 0.05. This warrants the acceptance of null hypothesis. Hence, it is concluded that when teacher-respondents are grouped according to their age there is no significant difference in their assessment of the effect in terms of "Learning Activities," "Pedagogical Strategies," and "Assessment" of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1.

The p-values of 0.19, 0.85, and 0.62 that correspond to F-values of 1.97, 0.04, and 0.26, respectively, are all more than the level of significance of 0.05. This warrants the acceptance of null hypothesis. Thus, it is concluded that when teacher-respondents are grouped according to their sex there is no significant difference between the assessment of male teacher-respondents of the effect in terms of "Learning Activities," "Pedagogical Strategies," and "Assessment" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 and the assessment of female teacher-respondents of the effect in terms of "Learning Activities," "Pedagogical Strategies," and "Assessment" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1.

The F-values of 1.94 and 0.43 have corresponding p-values of 0.19 and 0.74, respectively, and are both greater than the level of significance of 0.05. This warrants the acceptance of null hypothesis. Hence, it is concluded that when teacher-respondents are grouped according to their highest educational attainment there is no significant difference in their assessment of the effect in terms of "Learning Activities" and "Assessment" of the artificial intelligence integration in the

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teaching of Fundamentals of Accountancy, Business and Management 1. However, the F-value of 3.75 has corresponding p-value of 0.05 which is exactly equal to the level of significance of 0.05. This warrants the rejection of null hypothesis. It is, therefore, concluded that when teacher-respondents are grouped according to their highest educational attainment there is significant difference in their assessment of the effect in terms of "Pedagogical Strategies" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1.

The p-values of 0.15 and 0.35 that correspond to F-values of 2.26 and 1.15, respectively, are both more than the level of significance of 0.05. This warrants the acceptance of null hypothesis. Thus, it is concluded that when teacher-respondents are grouped according to their length of service there is no significant difference in their assessment of the effect in terms of "Learning Activities" and "Assessment" of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1. On the other hand, the p-value of 4.37 has corresponding to F-value of 0.04. which is less than the level of significance of 0.05. This warrants the rejection of null hypothesis. Thus, it is concluded that when teacher-respondents are grouped according to their length of service there is significant difference in their assessment of the effect in terms of "Pedagogical Strategies" of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1.

In addition, it implies that more experienced or highly educated teachers might have a better in-depth understanding or a critical stance towards how AI could affect classroom teaching strategies as opposed to those entry-level teachers or those with less formal education. According to Ng, Leung, and Chu (2021), teachers who possess advanced degrees are significantly likely to have better levels of AI literacy and pedagogical adaptation and thus are also more confident and sophisticated in the integrating of AI technologies in teaching. Similarly, Kaya and Adiguzel (2021) emphasized that teaching experience and participation in professional development programs have a significant impact on teachers' readiness to use AI-enhanced tools, as experienced teachers are more likely to consider the pedagogical implications of these technologies. The fact that age and gender had no significant effect on teacher assessments, suggesting that teachers share a fairly common standpoint with regard to the use of AI in learning activities and assessment, which could be attributable to shared standard practices or training programs.

Meanwhile, as to the assessment of student-respondents, the F-values of 0.54, 1.44, and 1.14 have corresponding p-values of 0.58, 0.24, and 0.32, respectively, and are all greater than the level of significance of 0.05. This warrants the acceptance of null hypothesis. Hence, it is concluded that when student-respondents are grouped according to their age there is no significant difference in their assessment of the effect in terms of "Learning Activities," "Pedagogical Strategies," and "Assessment" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1.

The p-values of 0.36 and 0.62 that correspond to F-values of 0.86 and 0.25, respectively, are both more than the level of significance of 0.05. This warrants the acceptance of null hypothesis. Thus, it is concluded that when student-respondents are grouped according to their sex there is no significant difference between the assessment of male student-respondents of the effect in terms of "Learning Activities" and "Pedagogical Strategies" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1, and the assessment of female student-respondents of the effect in terms of "Learning Activities" and "Pedagogical

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Strategies" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1.

The study conducted by Asmar (2022) highlighted the extensive utilization of artificial intelligence (AI) in the field of education, namely in streamlining and customizing the learning environment. The advent of smart devices and systems has provided universal access to educational resources, therefore revolutionizing the study process. With computers and internet connectivity, students are no longer need to physically attend classrooms for studying purposes. AI is aiding schools in the digitization of administrative tasks to enhance teacher-student connection. Advanced Artificial Intelligence has developed novel instructional approaches that are now being assessed in various educational settings. Education authorities foresee the impact of artificial intelligence on the education sector in order to make well-informed and relevant future recommendations.

In connection to the significant difference in the assessment of students on the effect of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 when grouped according to profile, the F-value of 15.30 has corresponding p-value of 0.00 which is less than the level of significance of 0.05. This warrants the rejection of null hypothesis. It is, therefore, concluded that when student-respondents are grouped according to their sex there is significant difference between the assessment of male student-respondents of the effect in terms of "Assessment" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1, and the assessment of female student-respondents of the effect in terms of "Assessment" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1. In relation to this, such observed difference can be associated on the way that different challenges also seemed to arise among the students in AI integration in their learning process.

"The challenges I have encountered in applying Artificial Intelligence to my learning practices are that it may be inaccurate at times, resulting in students getting the wrong information and answer. We may address these issues by limiting the use of AI in our lives and not depending on it. I firmly believe that incorporating AI should have a limit/barrier so that students actually grow and learn when they apply their existing knowledge in the future." – **Participant 4** (ABM SHS Student)

In this particular aspect, this thus interprets that the difference between male and female with regards to the integration of AI for their assessment of learning, can be associated on the way that male and female students tend to show differences on the way that they are making use of assessments or feedbacks that they receive from their teachers and coupled with the various challenges in AI integration in their learning, this can also have a negative or adverse impact on their performance in class and how their progress is being seen and evaluated by their teachers. The research undertaken by Ouyang et al. (2023) has shown that certain artificial intelligence prediction models, such as tutoring and learner models, recommender systems, and early warning systems, have significantly improved online higher education. The provision of feedback to teachers and students has become increasingly significant as a vital element of AI prediction models in recent times. Nevertheless, present research fails to consider the dynamic influence of students' learning progress on their performance, nor does it provide instructors and students prompt feedback on the success of procedural learning. Prior research has examined the impact in

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connection to both broad and domain-specific characteristics. The present study employed artificial intelligence prediction models to assess the extent of students' comprehension in relation to the challenges presented in the educational resources. On one side, subject-specific characteristics mainly assess students' advancement in comprehending certain subject learning materials.

Relationship between the AI Integration and Academic Performance of ABM Students in Fundamentals of Accountancy, Business and Management 1

The results of tests for significance of Pearson r correlation coefficients, at 5% level of significance, used to determine if there is significance relationship between the integration of artificial intelligence and academic performance of ABM students in Fundamentals of Accountancy, Business and Management 1, are summarized in the table below.

Table 9

Relationship between Artificial Intelligence Integration and Academic Performance of ABM Students in Fundamentals of Accountancy, Business and Management 1

Variables		Pearson r	p-value	Decision	Conclusion
AI	Performance				
Learning Activities	Academic Performance	0.06	0.36	Accept H_o	Not Significant
Pedagogical Strategies	Academic Performance	0.003	`0.96	Accept H_o	Not Significant
Assessment	Academic Performance	0.17	0.01	Reject H_o	Significant

The p-value of 0.36 that corresponds to Pearson r correlation coefficient of 0.06 indicates that the relationship between the artificial intelligence (AI) integration in terms of “Learning Activities” and the academic performance of students is not significant. Also, the p-value of 0.96 that corresponds to Pearson r correlation coefficient of 0.003 indicates that the relationship between the integration of artificial intelligence (AI) in terms of “Pedagogical Strategies” and the academic performance of students is not significant.

However, p-value of 0.01 that corresponds to Pearson r correlation coefficient of 0.17 indicates that the relationship between the integration of artificial intelligence (AI) in terms of “Assessment” and the academic performance of students is significant.

Significant Effect of the Artificial Intelligence Integration on Academic Performance of ABM Students

The results of multiple regression, at 5% level of significance, used to determine whether the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 in terms of “Learning Activities,” “Pedagogical Strategies,” and “Assessment” has significant effect on the academic performance of ABM students, are summarized and presented in Table 10.

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Table 10

Significant Effect of the Artificial Intelligence Integration on Academic Performance of ABM Students

Artificial Intelligence	Performance	Absolute Beta Coefficient	t-value	p-value	Decision	Conclusion
Learning Activities	Academic Performance	0.04	−0.62	0.54	Accept H_0	Not Significant
Pedagogical Strategies		0.03	0.51	0.61	Accept H_0	Not Significant
Assessment		0.17	−2.64	0.01	Reject H_0	Significant

The effect in terms of "Learning Activities" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 has beta coefficient of 0.04 which indicates that the effect in terms of "Learning Activities" of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 affect the academic performance of ABM students. However, the beta coefficient of 0.04 has corresponding p-value of 0.54 which is more than the level of significance of 0.05. This warrants the acceptance of null hypothesis. Hence, the effect in terms of "Learning Activities" of the integration of artificial intelligence in the teaching of Fundamentals of Accountancy, Business and Management 1 does not significantly affect the academic performance of ABM students.

The effect in terms of "Pedagogical Strategies" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 has beta coefficient of 0.03 which indicates that the effect in terms of "Pedagogical Strategies" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 affect the academic performance of ABM students. However, the beta coefficient of 0.03 has corresponding p-value of 0.61 which is more than the level of significance of 0.05. This warrants the acceptance of null hypothesis. Thus, the effect in terms of "Pedagogical Strategies" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 does not significantly affect the academic performance of ABM students.

The effect in terms of "Assessment" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 has beta coefficient of 0.17 which indicated that the effect in terms of "Pedagogical Strategies" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 affect the academic performance of ABM students. Moreover, the beta coefficient of 0.17 has corresponding p-value of 0.01 which is less than the level of significance of 0.05. This warrants the rejection of null hypothesis. It is, therefore, concluded that the effect in terms of "Assessment" of the artificial intelligence integration in the teaching of Fundamentals of Accountancy, Business and Management 1 significantly affect the academic performance of ABM students.

As such, it can be indicated that AI integration can be regarded as only an essential part or element that helps or contributes to make the academic performance of the ABM students to continuously progress and AI integration plays a significant role in such aspect. Furthermore, AI technology can liberate teachers from administrative tasks, allowing them to focus more on

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teaching and engaging with students. An essential advantage of artificial intelligence in the realm of education is its capacity to individualize learning for each student. AI systems employ sophisticated machine learning algorithms to assess student data and adapt the academic program in real-time to accommodate the unique learning preferences of each student. Through the application of AI, personalized learning has become increasingly achievable, allowing any learner to acquire knowledge autonomously and at their preferred pace. The domain of educational technology has experienced a substantial metamorphosis with the emergence of artificial intelligence technologies (Poth, 2023).

Developed and Proposed Output

The following table presented the developed and proposed output based on the results of the study:

Figure 1. Proposed Policy Framework on the Integration of Artificial Intelligence

The proposed output of this study, presented through the infographic "Policies on the Integration of Artificial Intelligence," provides a structured framework for responsible and effective integration of AI into the teaching and learning of Fundamentals of Accountancy, Business and Management 1 (FABM1). It was developed as a direct response to the findings, which revealed that AI positively contributes to learning activities, pedagogical strategies, and assessment while also posing risks related to academic honesty, equity, and overreliance on technology. The infographic consolidates these insights into practical policies that can serve as a reference for teachers, students, and administrators.

In relation to learning activities, the proposed output emphasizes how AI can make tasks more interactive, engaging, and aligned with FABM1 competencies. It highlights the promotion of digital literacy by encouraging students to critically analyze AI outputs, and it stresses inclusivity

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by ensuring that those with limited access to digital tools are not left behind. The policy also calls for honesty and responsibility from students, particularly in declaring AI-assisted work, to protect academic integrity.

The section on pedagogical strategies positions AI as a support system for teachers, not a replacement. Teachers are encouraged to use AI platforms to enhance instructional delivery, explore new resources, and innovate classroom methods, while maintaining their central role as facilitators of learning. The infographic also underscores the importance of teacher training and professional development to ensure effective use of AI. Importantly, it anchors AI integration to the Most Essential Learning Competencies (MELCs), thereby safeguarding curriculum relevance and alignment.

Lastly, in assessment practices, the output outlines how AI can provide real-time feedback, generate review materials, and streamline grading processes. However, it affirms that teachers retain the final authority in evaluating student performance to ensure fairness, accuracy, and accountability. Ethical considerations are also highlighted, particularly respect for human agency, bias awareness, and compliance with the Data Privacy Act of 2012. Monitoring, feedback mechanisms, and annual reviews are included to keep the policies adaptive and sustainable. Overall, the proposed output translates the study's findings into actionable policies that promote both innovation and integrity in the use of AI in FABM1.To emphasize the usage of this proposed policy framework, the following action plan was also developed.

Table 11

Developed and Proposed Action Plan

AREAS OF CONCERN	OBJECTIVES	STRATEGIES	PERSON/S INVOLVED	OUTPUT
Learning activities	To help the teachers and students to maximize the use of AI to create learning activities that uses technology	Classroom Simulation Activities Trainings, Seminars and Webinars Orientation sessions for students on responsible AI use. Alternative offline activities for students with limited access. AI Tool Usage Review	School Teacher ICT Coordinator ABM Students or Learners	Increased number of different activities using AI tools and technology Creative and interesting learning activities
Pedagogical strategies	To help the teachers and students to maximize the use of AI to provide or suggest new topics	Classroom Simulation Activities Training workshops, seminars and webinars for teachers on AI platforms and	School Head, Teachers, DepEd Resource Speakers, ICT Coordinator	Wide array of topics to be discussed in class and activities Improved navigation of AI tools for searching for new and

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		ethical integration Develop lesson exemplars showcasing AI-assisted strategies Collaboration with other SHS strands to share best practices. AI Tool Usage Review	ABM Students or Learners	interesting topics and resources to be used in class
Assessment	To help the teachers to maximize the use of AI to effective coaching to their students	Classroom Observations and Evaluation Trainings, Seminars and Webinars Adopt AI-supported formative tools (e.g., automatic quizzes, plagiarism checkers, grammar feedback) Establish a monitoring team (SHS Head, ICT Coordinator,	School Head, Teachers, DepEd Resource Speakers, ICT Coordinator	Improved assessment and progress tracking of the students Enhanced convenient and real-time assessment and feedback provided Enhanced academic performance of the ABM students or learners

Conclusions

Based on the findings of the study, the following conclusions were drawn:

It can be concluded that based on the demographical characteristics of the teachers and the students, these are important to be taken in consideration since such aspects can have an influence or impact, whether positive or negative to the way in which teachers and students are integrating AI as part of the modern teaching and learning process.

The effect of AI integration can be seen to have a significant influence on the way in which learning activities can make to become more interesting for the learners; how pedagogical strategies can help to be effective and aligned to the learning needs and preferences of the students as well as to the capabilities of teachers; and in addition, also to the way in which it provides convenience and useful information as part of enhanced assessment of learners.

It can also be concluded that effective and continuous integration of artificial intelligence or AI tools as part of the teaching and learning process had indeed produced acceptable results and such was clearly manifested or reflected on the improved academic performance of the students in the ABM strand.

The teachers can be concluded to have similarities on the way that they are integrating AI or artificial intelligence in the way that they are improving and providing their pedagogical strategies as part of the improved or enhanced teaching and learning process setting.

It can be concluded that teachers with more experience and higher education often possess a profound comprehension and enhanced confidence in incorporating AI into their instruction, possibly attributable to their graduate degrees, professional growth, and greater pedagogical awareness. While, the students, mainly because of the differences in their mindsets and understanding and due to their gender, can have differing views on the way that they are receiving and applying the feedback and assessment of their teachers using AI integration for their learning.

It can also be concluded that AI integration, although, not all times, can be expected to have an impact on the academic performance, remains to be an important asset in improved teaching and learning process and must be continuously integrated as well as promoted in the field of education.

Finally, it was also concluded that a strengthened policy framework on the usage or application of AI in the educational sector is considered to be an effective way in order to promote its responsible usage and also to ensure that AI will be maximized in achieving improvements in the teaching and learning process and for the enhanced learning experience of the students.

Recommendations

This present study required the commitment and involvement of the concerned personnel to sustain its effectiveness and reliability; thus, the following recommendations were made:

1. First, it is recommended for ABM senior high school teachers to take in consideration the importance of joining different developmental and training programs that can help them to become more knowledgeable as well as skillful in terms of integrating AI or artificial intelligence in their teaching processes and strategies. It is also recommended for ABM SHS teachers to also seek the insights and feedbacks of other different stakeholders such as the parents of their students in order for them to closely and properly assess the effect of AI integration for the learning and performance of ABM students.
2. As such, it is also recommended for ABM students to also take an active participation in different activities and programs that can provide them with the opportunity to use and integrate AI and help improve their learning and study habits and their overall learning experience and performance in their classes.
3. Further, it is also recommended for school heads or administrators to also actively conduct and provide different training programs, as well as seminars and webinars that can help their teachers to improve their knowledge and skills in AI integration in the teaching and learning process.
4. Finally, it is also recommended for future researchers and students to conduct further analysis of the present topic and to also explore other areas of AI integration in education.

REFERENCES

Adiguzel, T. and Kaya, H. (2021). *Technology integration through evidence-based multimodal reflective professional training. Contemporary Educational Technology. Retrieved from* https://www.researchgate.net/publication/353911978_Technology_Integration_Through_Evidence-Based_Multimodal_Reflective_Professional_Training

AIPRM. (2025). AI in education statistics. AIPRM. Retrieved from https://www.aiprm.com/ai-in-education-statistics/

Arasa, Dale. (2025). The state of AI in Philippine education and its future. Inquirer.net. Retrieved from https://technology.inquirer.net/141114/the-state-of-ai-in-philippine-education-and-its-future

Ding, Ai-Chu Elisha; Shi, Lehong; Yang, Haotian and Choi, Ikseon. (2024). Enhancing teacher AI literacy and integration through different types of cases in teacher professional development. Computers and Education Open Vol. 6 Retrieved from https://www.sciencedirect.com/science/article/pii/S2666557324000193

European School Education Platform. (2023). How can artificial intelligence assist teachers with formative and summative assessment? European Commission. Retrieved from https://school-education.ec.europa.eu/en/insights/news/how-can-artificial-intelligence-assist-assessment

Funa, Aaron A. and Gabay, Renz Alvin E. (2025). Policy guidelines and recommendations on AI use in teaching and learning: a meta-synthesis study. Social Sciences & Humanities Open Vol. 11. Retrieved from https://www.sciencedirect.com/science/article/pii/S2590291124004182

Giray, Louie; De Silos, Paolo Yves; Adornado, Adonis; Buelo, Robbie Jan Vincent; Galas, Elbert; Reyes-Chua, Ethel; Santiago, Cereneo and Ulanday, Ma. Leah. (2024). Use and impact of artificial intelligence in Philippine higher education: reflections from instructors and administrators. Internet Reference Services Quarterly Vol. 28 Issue 3, pp. 315-338. Retrieved from https://www.tandfonline.com/doi/full/10.1080/10875301.2024.2352746

Huseyn, Vali. (2022). AI in educational assessments: balancing innovation with responsibility. The E-Assessment Association. Retrieved from https://www.e-assessment.com/news/ai-in-educational-assessments-balancing-innovation-with-responsibility/#:~:text=Rather%20than%20merely%20adjusting%20the,the%20types%20of%20errors%20made.

Hussain, Mohammad Irshad; Shamim, Mohd; Sankar, Ravi; Kumar, Munendra; Samanta, Kaushik and Sakhare, D.T. (2022). The effect of the artificial intelligence on learning quality & practices in higher education. Journal of Positive School Psychology Vol. 6 No. 6. Retrieved from https://journalppw.com/index.php/jpsp/article/view/7190

Leonard, Daniel. (2023). 9 tips for using AI for learning (and fun!) Edutopia. Retrieved from https://www.edutopia.org/article/using-ai-for-learning-fun/

Maala, Gwen Lei Irish P., Montoya, Laika Melanie D., Pampan, Feliz Nicole L., Cahapin, Erwin L., Anciro, Eleandro C. and Malabag, Beverly A. (2025). Exploring the impact of AI tools on student learning through text mining. Journal of Interdisciplinary Perspectives Vol. 3 No. 1. Retrieved from https://ejournals.ph/article.php?id=25129

McNulty, Niall. (2024). AI and pedagogy. Medium. Retrieved from https://medium.com/@niall.mcnulty/ai-and-pedagogy-9647387515bd

Melo, Nouridin. (2023). Incorporating artificial intelligence into the classroom: an examination of benefits, challenges and best practices. E-Learning Industry. Retrieved from https://elearningindustry.com/incorporating-artificial-intelligence-into-classroom-examination-benefits-challenges-and-best-practices

Mollick, Ethan and Mollick, Lilach. (2023). Using AI to implement effective teaching strategies in classrooms: five strategies, including prompts. Wharton School of the University of Pennsylvania & Wharton Interactive. Retrieved from https://guides.lib.campbell.edu/ld.php?content_id=71681236

Policar, Grant. (2023). 84% of U.S. educators actively use AI in the classroom. Study.com. Retrieved from https://teachinglicense.study.com/featured-insights/teachers-change-minds-about-AI.html

Poth, Rachelle Dene. (2023). 7 AI tools that help teachers work more efficiently. Edutopia. Retrieved from https://www.edutopia.org/article/7-ai-tools-that-help-teachers-work-more-efficiently/

Rafalski, Kacper. (2024). The impact of AI in education on teaching and student success. Net Guru. Retrieved from https://www.netguru.com/blog/ai-in-education#:~:text=AI%2Ddriven%20solutions%20are%20liberating,cannot%20be%20replicated%20by%20machines

Rodrigo, Maria Mercedes T. and Talandron-Felipe, May Marie P. (2024). Using artificial intelligence to support basic education teachers in under-resourced contexts. University of the Philippines – Center for Integrative and Development Studies. Retrieved from https://cids.up.edu.ph/wp-content/uploads/2024/12/Rodrigo_UPCIDS_Using-Artificial-Intelligence-to-Support-Basic-Education-Teachers-in-Under-resourced-Contexts.pdf

Shah, Shilpa Rajesh and Udgaonkar, Usha Subodh. (2018). Influence of gender and age of teachers on teaching: students' perspective. International Journal of Current Microbiology and Applied Sciences Vol. 7 No. 1, pp. 2436-2441. Retrieved from https://www.ijcmas.com/7-1-2018/Shilpa%20Rajesh%20Shah%20and%20Usha%20Subodh%20Udgaonkar.pdf

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Stanford University. (2024). Technology integration framework. Stanford University. Retrieved from https://teachingcommons.stanford.edu/teaching-guides/foundations-course-design/theory-practice/technology-integration-framework

Tucker, Catlin. (2023). Using AI in service of strong pedagogical practice. Catlin Tucker. Retrieved from https://catlintucker.com/2023/11/ai-strong-pedagogy/ https://www.deped.gov.ph/wp-content/uploads/2022/05/DO_s2022_024.pdf