

HARMONIZING TEACHING METHODS AND LEARNING PREFERENCES: A SPRINGBOARD FOR UPGRADING LEARNERS' ACADEMIC PERFORMANCES

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ABSTRACT

This study explores the relationship between teaching methods and learning preferences among Radiologic Technology students at Perpetual Help College of Manila. Recognizing the diverse learning styles—visual, auditory, reading/writing, and kinesthetic—the research examines how current pedagogical strategies align with students' needs and how it impacts their academic performance. Using a mixed-methods approach, data was collected through surveys and one-on-one interviews. Findings indicate that while lecture-based instruction is the most commonly employed method, students benefit more from interactive and demonstrative teaching approaches. Visual and kinesthetic learners showed higher engagement and retention when instructors incorporated multimedia and hands-on activities, whereas auditory learners performed better with discussion-based methods. The study proposed an enhancement program that integrates various instructional strategies to create a more adaptive and student-centered learning environment. Aligning teaching methods with learning preferences can lead to improved academic success and student motivation.

Keywords: Learning Preferences, Teaching Methods, Radiologic Technology Education, Student Engagement, Academic Performance.

1. INTRODUCTION

In the diverse educational environment of today, creating a great learning environment depends upon the interaction between the teaching methods employed inside the classroom and the various learning preferences of students. Students exhibit a variety of learning styles, which can have a significant impact on their engagement and academic success.

Learning style is defined as an individual's preferred way of absorbing, processing, understanding, and preserving information (Ishak et al., 2022). However, despite the recognition of the importance of learning preferences, traditional education, as the most prominent educational method utilized, frequently takes a one-size-fits-all stance, ignoring the various ways that different students absorb, process, and retain knowledge (Lindner and Schwab, 2020). This issue may significantly lead to a problem; therefore, this study sought to address the different challenges experienced by the students with regards to their learning preferences.

Throughout the years, the Department of Education or DepEd has emphasized the importance of student-centered learning, in which this approach encourages active class participation, collaboration, and personalized learning experiences. As a result of this, educators are tasked with employing various teaching methods to cater to the different learning preferences of the students. However, the teaching methods to be used should also consider the subject, nature of the course, as well as the learners themselves (Eli, 2021).

The study explored the effectiveness of the teaching practices in addressing the diverse learning needs of the students, significantly highlighting the different areas in which the educators may need to adjust their methods to better accommodate the diverse learning preferences of their students. Moreover, the research tackled how the students themselves must be able to properly identify their own learning process and actively seek strategies to further assist themselves in enhancing their learning experiences. Finally, at the end of the study, the researchers sought to propose and develop an enhancement program that harmonizes the educators' instructional strategies and students' preferred methods of learning, allowing for a more inclusive and flexible learning environment that helps the learners improve their overall academic performance and succeed in their respective academic endeavors.

2. METHODOLOGY

This study utilized the mixed-methods approach or the combination of the qualitative and quantitative research methods in investigating the prominent and prevalent learning styles of the learners and the perceived teaching methods employed by their educators. For the quantitative data, a structured survey questionnaire was adapted, designed, and distributed to gather measurable data on students' predominant learning preferences and their perceptions of the different teaching methods used by their professors in their classes. The questionnaire was crafted based on the established learning style models and the identified primary teaching methods employed and underwent validation through expert reviews to ensure its relevance and clarity. For the quantitative data, to better understand the effectiveness of each perceived teaching method with regards to the learners' learning preferences, open-ended questions were added on the survey questionnaire and one on one interviews were conducted to properly assess and describe each of the students' experiences.

Additionally, the quantitative data, gathered through surveys, was processed using descriptive statistics, including mean, frequency, and percentages, to identify patterns and trends in students' learning preferences and perceptions of teaching methods. Meanwhile, the qualitative data obtained from interviews and observations underwent thematic analysis to extract recurring themes and insights regarding the effectiveness of instructional strategies.

Furthermore, PHCM's radiologic technology department has a total of 130 students enrolled for the second semester of A.Y. 2024-2025. Among the 130 students, the population and sample chosen for the present study were the 1st and 2nd year radiologic technology students currently enrolled for A.Y. 2024-2025, having a total of 75 students with 54 females and 21 males. Subsequently, the answers and responses gathered from the respondents in conducting this study were treated in accordance with RA No. 10173, or the Data Privacy Act of 2012. The data collected and the information of the students who participated in the study were treated with utmost confidentiality and were used solely for the purpose of this study.

Table 1. Distribution of Respondents According to Demographic Profile

	No. Items	f	Percentage (%)
G	Male	21	28
	Female	54	72
E			
N			
D			
	No. Items		
Year Level	1st Year	33	44
	2nd Year	42	56

Table 1 presents the frequency distribution of respondents according to demographic profile. According to the data, 21 of the 75 respondents are male, and make up 28% of the total population, while 54 out of the 75 respondents are female which makes up 72% of the total population. The population is divided into two groups: 33 first year level students out of 75 respondents or 44% of the total population, and 42 second year level students out of 75 respondents or 56% of the total population.

3. RESULTS AND DISCUSSION

Table 2. Common Learning Preferences of Students in terms of: Visual

Items	SD	Mean	Rank	VI
1. I prefer learning by using diagrams, charts, or graphics than by looking at texts.	10.70	3.84	4	Agree (Effective)
2. Flashcards with images are most effective when I study.	12.77	4.05	1	Agree (Effective)
3. The lessons taught are clearer to me when I watch videos.	11.79	3.96	2	Agree (Effective)
4. Infographics or posters are very helpful tools to me when studying.	12.49	3.88	3	Agree (Effective)
5. Frequent usage of symbols or icons help me understand new information better.	11.25	3.73	5	Agree (Effective)
Average Mean	3.89			Agree

Standard Deviation (SD) 11.80 (Effective)

Table 2 shows the frequency distribution of the common learning preferences of the students in terms of Visual, indicating that item number 2, *Flashcards with images are most effective when I study*, got the highest computed mean of 4.05, ranked 1st, and was verbally interpreted as *Agree (Effective)*. Item number 5, *Frequent usage of symbols or icons helps me understand new information better*, got the lowest weighted mean of 3.73, which was verbally interpreted as *Agree (Effective)*, and was ranked fifth. This significantly highlights the importance of incorporating different visual elements which enhance students' attention and retention of information during lecture discussions.

Table 3. Common Learning Preferences of Students in terms of: Auditory

Items	SD	Mean	Rank	VI
1. Learning is more effective when I listen to the professor than reading notes.	12.29	3.97	2	Agree (Effective)
2. I do better in academic subjects that rely mainly on listening to lectures and tapes.	9.46	3.57	4	Agree (Effective)
3. Grasping lesson concepts is better achieved when I am in group discussions.	12	3.56	5	Agree (Effective)
4. Understanding information is easier when someone explains it to me verbally.	13.45	4.1	1	Agree (Effective)
5. Mnemonic words or rhyming words often help me retain information better.	12.02	3.84	3	Agree (Effective)
Average Mean	3.81			Agree (Effective)
Standard Deviation (SD)	11.64			

Table 3 shows the frequency distribution of the common learning preferences of the students in terms of Auditory, which indicates that item number 4, *Understanding information is easier when someone explains it to me verbally*, got the highest computed mean of 4.1 and was verbally interpreted as *Agree (Effective)*. Item number 3, *Grasping lesson concepts is better achieved when I am in group discussions*, obtained a computed weighted mean of 3.56, which was verbally interpreted as *Agree (Effective)*, and was placed in the 5th rank. The results emphasize the significance of integrating audio materials or group discussion activities that would stimulate the learners to enhance their hearing skills and essentially engage the students who might struggle with traditional reading or visual learning methods during lecture discussions.

Table 4. Common Learning Preferences of Students in terms of: Reading and Writing

Items	SD	Mean	Rank	VI
1. Following written instructions is easier for me than the oral ones.	11.02	3.89	2	Agree (Effective)
2. Lessons are better understood and learned when I create a written outline or summary.	11.83	3.97	1	Agree (Effective)
3. In gaining new knowledge, I prefer reading journals, articles, and newspapers.	9.43	3.79	3	Agree (Effective)
4. I frequently use manuals as my guide to complete my tasks.	9.87	3.73	5	Agree (Effective)
5. Writing reflection is enjoyable for me and helps me in my learning process.	9.38	3.75	4	Agree (Effective)
Average Mean	3.83			Agree (Effective)
Standard Deviation (SD)	10.31			

Table 4 shows the frequency distribution of the common learning preferences of the students in terms of Reading and Writing, highlighting that item number 2, *Lessons are better understood and learned when I create a written outline or summary*, obtained a mean of 3.97, ranked first overall for the Reading and Writing preference, and was verbally interpreted as *Agree (Effective)*. Item number 4, *I frequently use manuals as my guide to complete my tasks*, had obtained a computed mean of 3.73, ranking 5th, and verbally interpreted as *Agree (Effective)*. The results show that many find outlining or summarizing lessons effective and follow written instructions more easily than oral ones. Additionally, this result supports the notion that reading and writing significantly improves the students' thinking and understanding skills, making it a crucial step in properly facilitating their learning processes (Benitez-Correa et al., 2022).

Table 5. Common Learning Preferences of Students in terms of: Kinesthetics

Items	SD	Mean	Rank	VI
1. Interacting with the material hands-on allows me to absorb the skills more effectively and boosts my confidence in applying them.	11.02	3.8	2	Agree (Effective)
2. Information is easier for me to remember when I am engaged in physical activities related to the topic.	12.79	3.89	1	Agree (Effective)

3. The use of physical objects or models is helpful for me in my own learning process.	10.65	3.77	3	Agree (Effective)
4. Engaging in role-playing activities helps me learn the concepts taught to me better.	10.17	3.69	4	Agree (Effective)
5. Building or crafting something is the best way I can fully grasp a concept properly.	10	3.63	5	Agree (Effective)
Average Mean	3.76			Agree (Effective)
Standard Deviation (SD)	10.93			

Table 5 shows the frequency distribution of the common learning preferences of the students in terms of Kinesthetics, which indicates that item number 2, *Information is easier for me to remember when I am engaged in physical activities related to the topic*, obtained the highest mean of 3.89, ranking 1st overall, and had a verbal interpretation of *Agree (Effective)*. Item number 5, *Building or crafting something is the best way I can fully grasp a concept properly*, got a computed mean of 3.63, ranked as the lowest, and interpreted verbally as *Agree (Effective)*. The results show that some students learn better when they are physically engaged in activities that are related to the lesson. In addition, hands-on learning and movement-based activities help them remember and apply knowledge better.

Table 6. Primary Teaching Methods: Lecture-based Teaching Style

Items	SD	Mean	Rank	VI
1. Lectures allow students to learn directly from skilled teachers.	13.30	4.09	2	Agree (Effective)
2. Instructors can clearly and thoroughly explain complex subjects and answer questions to improve understanding and provide clarity for students.	13.27	4.05	3	Agree (Effective)
3. Lectures can efficiently cover a significant amount of content within a brief period.	13.27	3.89	5	Agree (Effective)
4. The organized framework of lectures helps students in understanding complex topics and flow of information.	14.78	4.2	1	Agree (Effective)
5. Clear and concise explanations are provided by the professor during lecture-based discussions.	11.18	3.93	4	Agree (Effective)
Average Mean	4.03			Agree

Standard Deviation (SD)

13.16

(Effective)

Table 6 now presents the frequency distribution of the lecture-based teaching style which demonstrates that item number 4, *The organized framework of lectures helps students understand complex topics and the flow of information*, got the highest computed mean value of 4.2 with the verbal interpretation of Agree (Effective) and was placed in 1st rank. Item number 3, *Lectures can efficiently cover a significant amount of content within a brief period*, got the computed mean value of 3.89 with the verbal interpretation of Agree (Effective) and were placed in the 5th rank. The results imply that a well-structured lecture format, clear and concise explanations of difficult subjects, and answering questions can essentially help both the students and educators in particular situations. Moreover, this supports the notion that structured lectures, which break down complex material into manageable sections, help students focus on key concepts and enhance comprehension and retention (Duncan & Kurtz, 2022).

Table 7. Primary Teaching Methods: Demonstrator Teaching Style

Items	SD	Mean	Rank	VI
1. Visual aids such as graphics, videos, and presentations help students better understand complex concepts or processes.	15.92	4.28	2	Strongly Agree (Highly Effective)
2. Activities that students may physically experience are encouraged to enhance their learning process.	15.84	4.29	1	Strongly Agree (Highly Effective)
3. Active participation cultivates questions and interactions, creating a more engaging classroom environment.	15.68	4.28	3	Strongly Agree (Highly Effective)
4. The utilization of illustrations and demonstrations by the professor capture students' attention more effectively than traditional lectures.	14.40	4.18	4	Agree (Effective)
5. Students can observe the application of abstract ideas.	8.03	3.57	5	Agree (Effective)
Average Mean	4.12			Agree (Effective)
Standard Deviation (SD)	13.98			

Table 7 shows the frequency distribution table of the demonstrator teaching style, which demonstrates that item number 2, *Activities that students may physically experience are encouraged to enhance their learning processes*, got the highest computed mean of 4.29 which is verbally interpreted as Strongly Agree (Highly Effective) and was placed 1st rank. Item number 5, *Students can observe the application of abstract ideas*, obtained a weighted mean of 3.57, placed

in 5th rank, and interpreted as Agree (*Effective*). The positive response in this result suggests that the demonstrator teaching style is the most preferred method and most effective in tertiary education, playing a crucial role in enhancing students' understanding and engagement, especially in their major subjects. Its clarity and interactivity make lessons more accessible, emphasizing the need for educators to adapt to diverse learning preferences for a more inclusive learning process (Snoke, 2025).

Table 8. Primary Teaching Methods: Delegator Teaching Style

Items	SD	Mean	Rank	VI
1. Students feel empowered as they take greater control over their learning process.	12.61	3.86	5	Agree (Effective)
2. Students have the opportunity to develop critical thinking and problem-solving skills.	11.22	3.93	4	Agree (Effective)
3. Collaboration among students nurtures an environment of teamwork.	15.68	4.22	1	Strongly Agree (Highly Effective)
4. Group discussions and presentations motivate students to express their thoughts and ideas clearly.	14.35	4.13	3	Agree (Effective)
5. Students put theoretical knowledge into practice in real-world situations.	13.93	4.14	2	Agree (Effective)
Average Mean	4.06			Agree (Effective)
Standard Deviation (SD)	13.56			

Table 8 shows the frequency distribution table of the delegator teaching style, which demonstrates that item number 3, *Collaboration among students nurtures an environment of teamwork*, got the highest rated mean of 4.22, placed 1st rank and is verbally interpreted as Strongly Agree (*Highly Effective*). Item number 1, *Students feel empowered as they take greater control over their learning process*, receiving a mean of 3.86, placing it in 5th rank and verbally interpreted as Agree (*Effective*). This result suggests that this teaching style encourages collaboration, empowerment, and critical thinking, significantly highlighting that it has the potential to improve the students' learning experiences, which positively affects their academic performance and development (Jimola, 2024).

Table 9. What are the common learning preferences of the students in terms of:

Respondents' Codes	Responses
A. Visual	
SRT2, SRT3, SRT5, SRT8, SRT10, SRT15, SRT19, SRT20, SRT24, SRT27, SRT35, SRT38, SRT40, SRT43, SRT44, SRT45, SRT48, SRT50, SRT51, SRT52, SRT54, SRT56, SRT63, SRT64, SRT66, SRT67, SRT72, SRT74	Visual aids, such as videos, images, diagrams, flashcards, symbols, and illustrations, make learning easier. They help us improve our understanding, enhance our information retention, and effectively help us in our learning process.
B. Auditory	
SRT4, SRT6, SRT12, SRT13, SRT14, SRT21, SRT22, SRT23, SRT25, SRT26, SRT29, SRT51, SRT68, SRT73	Listening to our professor, especially with a clear and loud voice, helps us understand lessons better. Listening to audio and video materials, engaging with others through group discussions, and the use of mnemonics improve our understanding and familiarity with the lessons and materials.
C. Reading and Writing	
SRT1, SRT7, SRT9, SRT11, SRT16, SRT17, SRT18, SRT28, SRT30, SRT32, SRT33, SRT34, SRT36, SRT37, SRT39, SRT41, SRT42, SRT47, SRT49, SRT50, SRT52, SRT53, SRT55, SRT57, SRT58, SRT59, SRT62, SRT63, SRT65, SRT71	Repeated reading helps us memorize and familiarize ourselves with information, while writing notes or reflections and creating a simple summary and outlines of our lessons help improve our understanding and information retention. Manuals also assist in comprehension and lesson organization.
D. Kinesthetics	
SRT11, SRT15, SRT20, SRT23, SRT31, SRT44, SRT46, SRT53, SRT60, SRT61, SRT69, SRT70, SRT74, SRT75	We learn best through demonstrations, hands-on experiences and activities. Seeing lessons in action and engaging with materials, and interactive tasks helps us process information, visualize concepts, and grasp them easily. Demonstrations make learning more effective and engaging for us.

Table 9 significantly discusses the common learning preferences by the respondents in terms of Visual, Auditory, Reading and Writing, and Kinesthetics. 20 out of 75 students or 26.6% of the respondents stated that they are pure visual learners, and they benefit the most from visual aids such as videos, images, diagrams, flashcards, symbols, and illustrations. Meanwhile, 12 out

of 75 students or 16% of the respondents stated that they are pure auditory learners, and they benefit the most when they are listening to the discussion of their professors, in group discussions, and in audio and video materials. Moreover, 25 out of 75 students or 33% of the respondents stated that their learning preference is reading and writing. They emphasized the importance of repeated reading in enhancing their memorization skills while writing aids them in retaining information. 7 out of 75 students or 9.3% of the respondents stated that they have kinesthetic as their learning preference. They thrive through hands-on and physical activities. Finally, 11 out of 75 students or 14.6% of the respondents stated that they benefit from two different learning preferences such as Visual and Kinesthetics, Visual and Auditory, Visual and Reading and Writing, Auditory and Kinesthetics, and Reading and Writing and Kinesthetics.

Table 10. Based on your observation, what are the other teaching methods currently employed in the classroom by your professors?

Respondents' Codes	Responses
SRT1, SRT7, SRT9, SRT13, SRT15, SRT18, SRT23, SRT26, SRT30, SRT35, SRT36, SRT37, SRT38, SRT39, SRT40, SRT41, SRT42, SRT43, SRT45, SRT46, SRT48, SRT49, SRT51, SRT52, SRT54, SRT56, SRT57, SRT72, SRT73, SRT75	Most of our professors usually utilize a combined teaching method of lecture-based teaching style and demonstrator teaching style. They often incorporate different visual aids, such as video presentations, images, and animations, to properly show us the concepts and help us get a better understanding. They would also use real-life-examples, case-studies, and share their personal experiences to make our lesson more relatable.
SRT5, SRT6, SRT11, SRT12, SRT14, SRT22, SRT24, SRT25, SRT27, SRT28, SRT31, SRT33, SRT34, SRT50, SRT55, SRT58, SRT59, SRT60, SRT65, SRT66	Our professors use a mix of both lecture-based and delegator teaching styles. They do this by incorporating group activities, assigning hands-on tasks, having interactive games during discussions, and even giving presentations like group reporting to encourage us to collaborate with others and stay engaged.
SRT3, SRT4, SRT8, SRT16, SRT20, SRT21, SRT29, SRT44	Our professors utilize all three of the teaching methods mentioned, but they do not implement all of them most of the time due to time constraints.
SRT10	Some of my professors sometimes use a mix of demonstrator and delegator teaching styles.
SRT17	Some of my professors utilize the delegator method only.

SRT2, SRT19, SRT32, SRT47, SRT50, SRT53, SRT62, SRT67, SRT68, SRT69, SRT74	Some of our professors utilize the lecture-based style only in which they deliver the contents directly to us through lectures. They would also make use of topic recall before discussion or give us a brief summary of the whole lesson after discussion. In addition, they would also give us quizzes after lectures.
SRT61, SRT63, SRT64, SRT70, SRT71	Some of our professors still utilize a blended teaching method wherein they teach face-to-face, and if they could not attend the class, they would give us the presentations or recorded lectures of their lessons.

Table 10 presents the other teaching methods currently employed inside the classroom as observed by the respondents. Based on the results, 30 out of 75 students or 40% of the respondents have observed that their professors often utilize a combined teaching method of lecture-based and demonstrator teaching styles. 19 out of 75 students or 25.3% of the respondents have observed their professors incorporate lecture-based and delegator teaching styles. 8 out of 75 students or 10.6% of the respondents have observed that some of their professors utilize lecture-based, demonstrator, and delegator styles but they do not implement most of the time due to time constraints. Finally, 18 out of 75 students or 24% of the respondents stated that some of their professors utilize different methods such as lecture-based only, delegator method only, a mix of demonstrator and delegator, and blended teaching (face-to-face and online).

Table 11. How do respondents perceive the effectiveness of different teaching methods in relation to their predominant learning preferences?

A. Lecture-based Teaching Style

Respondents' Codes	Responses
SRT1, SRT2, SRT14, SRT15, SRT24, SRT31, SRT35, SRT39, SRT45, SRT47, SRT52, SRT60	The lecture-based teaching style is most effective for us when clear explanations are given. Visual aids, diagrams, enhance our understanding, and make learning easier.
SRT3, SRT8, SRT37, SRT44, SRT56, SRT58, SRT68, SRT70, SRT73	This style is effective for covering large amounts of information in a short time. It helps us and our professors manage lengthy lessons and is useful for delivering content to a large group, though sometimes it can feel passive.
SRT4, SRT5, SRT6, SRT20, SRT27, SRT32, SRT71	It is not effective for us because we struggle with this approach, and only certain groups of learners mostly benefit from this style, such as the auditory learners.

SRT7, SRT9, SRT17, SRT23, SRT40, SRT41, SRT43, SRT49, SRT61, SRT67, SRT69	Lecture-based teaching style can be ineffective for us due to the limited interaction and engagement between the students and the professor. Its less flexible and impassive nature makes it harder to stay focused and motivated during long hours of discussion.
SRT10, SRT11, SRT16, SRT19, SRT21, SRT22, SRT38, SRT46, SRT50, SRT51, SRT54, SRT55, SRT64, SRT66, SRT74	This style is effective for us when it presents clear and organized information. It also helps us focus on key points of the lessons and understand difficult topics. A well-arranged format of the lessons also ensures that all of us receive the same content efficiently.
SRT12, SRT13, SRT29, SRT36, SRT42, SRT59	It can be overwhelming due to the large amount of information being presented. It is harder to retain information without any visual aids or with poor audio. Time restraints also make it challenging for us to fully absorb the lessons.
SRT18, SRT26, SRT63, SRT65, SRT72	Lecture-based teaching is effective for us because it allows us to ask questions and also get immediate feedback, which helps us clarify hard topics.
SRT25	I think that the effectiveness of this teaching style will depend on the professor's ability to teach beyond just reading the presentation.
SRT28, SRT30, SRT34, SRT53, SRT57, SRT63, SRT75	Lecture-based teaching style helps us in improving our reading skills and taking notes. Real-life examples given also sometimes make topics easier to understand.
SRT33, SRT48	Lecture-based teaching style has remained effective/highly effective.

Table 11 illustrates the perceived effectiveness of the lecture-based teaching style. According to the findings, 51 out of 75 students or 68% of the respondents stated how effective lecture-based style is for them. They stated that it is effective when supplemented with visual aids and clear explanations, efficient in content delivery and information clarity, and in giving them opportunity for immediate feedback. Meanwhile, 24 out of 75 students or 32% of the respondents stated that they have experienced difficulties regarding the Lecture-based teaching style. These difficulties are categorized as: Only effective to certain learners (auditory learners), limited student-teacher interaction, and difficult to maintain focus due to the overwhelming amount of information presented. Overall, the results imply that the lecture-based teaching style still remains as an important cornerstone in higher education, as most of the students still find it beneficial in terms of its structured, efficient content delivery.

Table 12. How do respondents perceive the effectiveness of different teaching methods in relation to their predominant learning preferences?

B. Demonstrator Teaching Style	
Respondents' Codes	Responses
SRT1, SRT4, SRT9, SRT12, SRT29, SRT55, SRT69	This style is highly effective for us because it helps us visualize the lessons taught to us and see the concepts properly in action. Supplementary visual aids also improve our understanding.
SRT2, SRT17, SRT20, SRT23, SRT31, SRT32, SRT37, SRT38, SRT42, SRT53, SRT67	It keeps us highly motivated and inspired to be engaged and participate in class discussions. In addition, its active learning environment makes lessons even more interactive.
SRT3, SRT11, SRT33, SRT35, SRT39, SRT43, SRT46, SRT49, SRT51, SRT54, SRT59, SRT75	The demonstrator teaching style helps us develop practical and observational skills while also enhancing our critical thinking and assisting us in maintaining focus.
SRT5, SRT6, SRT7, SRT8, SRT10, SRT14, SRT15, SRT21, SRT22, SRT24, SRT27, SRT36, SRT45, SRT48, SRT50, SRT52, SRT56, SRT57, SRT61, SRT66, SRT68, SRT74	The demonstrator teaching style helps us understand the lessons better when real-life examples are utilized. It makes learning more enjoyable, memorable, and relatable, especially for major subjects. Practical activities and real-world applications also improve our comprehension of the lessons.
SRT13, SRT19, SRT34, SRT63, SRT64, SRT65, SRT70, SRT71, SRT72, SRT73	The demonstrator's teaching style can be time-consuming and sometimes too fast-paced for us. In addition, lack of resources or improper preparation of the professor can make learning difficult.
SRT16, SRT18, SRT25, SRT26, SRT28, SRT30, SRT40, SRT41, SRT44, SRT47, SRT60	It is a teaching style that significantly helps us retain information better. It also improves our ability to recall lessons, making it easier to keep up and remember what we have learned.
SRT58, SRT62	The demonstrator teaching style is a very helpful and effective style and it is highly effective for our major subjects.

Table 12 demonstrates the effectiveness of the demonstrator teaching style. The results stated that 65 out of 75 students or 86.6% of the respondents stated that the demonstrator teaching method is most effective for them. Their responses on its effectiveness are categorized as: Efficient

visualization of concepts through visual aids, encourages active engagement and student participation, enhances and develops skills, allows for real-life application and practical understanding, and enriches information retention. Meanwhile, 10 out of 75 students or 13.3% of the respondents stated that they find the demonstrator teaching style to be time-consuming, too fast-paced, and the lack of resources and improper preparation of the professor, hindering its effectiveness. Overall, most of the participants find the demonstrator teaching style or approach to be the most beneficial among all methods, as the utilization of interactive techniques and visual aids during lecture discussions aids them in improving their engagement.

Table 13. How do respondents perceive the effectiveness of different teaching methods in relation to their predominant learning preferences?

C. Delegator Teaching Style	
Respondents' Codes	Responses
SRT1, SRT4, SRT7, SRT8, SRT9, SRT16, SRT19, SRT20, SRT21, SRT25, SRT29, SRT36, SRT40, SRT59, SRT62, SRT66, SRT70, SRT73	The delegator's teaching style can be challenging for us without any proper guidance and if we're not given clear instructions. Self-learning can be difficult, and the time limitations or lack of resources also make it harder to stay motivated.
SRT2	This style of teaching method is somewhat effective for me.
SRT3, SRT12, SRT14, SRT18, SRT31, SRT43, SRT63, SRT64, SRT65, SRT69, SRT75	This style is effective for us because we always prefer self-studying and learning at our own pace. It helps us to become more independent and in control of our own learning process.
SRT5, SRT13, SRT17, SRT23, SRT24, SRT26, SRT30, SRT37, SRT44, SRT48, SRT57, SRT68	It is effective for us because it highly encourages group collaboration and discussions. Working with our classmates helps us stay engaged during lessons and improve our leadership skills.
SRT6, SRT39, SRT49, SRT50, SRT51, SRT58, SRT72	The delegator teaching style helps us to be flexible, allowing us to adapt to different learning environments. It also allows us to explore various learning styles and become more invested in our own learning process.
SRT10, SRT11, SRT15, SRT22, SRT33, SRT34, SRT35, SRT38, SRT41, SRT42, SRT45, SRT47, SRT54	It is a teaching style that is highly effective for us because it enhances our learning by improving our problem-solving, creativity, and even communication skills. In addition, it also encourages us to develop long-term learning habits, which help us enjoy our studies and understand assigned tasks given to us.

SRT27, SRT46, SRT52, SRT55, SRT67	This teaching is effective for us as it helps us to become attentive during lessons, encouraging us to participate actively, which keeps us more engaged and responsive to discussions.
SRT28	The delegator teaching style is effective for me because it significantly improves my knowledge and information retention which greatly helps in my learning process.
SRT32, SRT71	Our professor's timely supervision and guidance allow us to enhance our motivation to study and learn.
SRT53	This style of teaching method for me is effective in major subjects.
SRT56, SRT60, SRT61, SRT71	In this style, we immediately receive timely feedback from our professors, which helps us to stay motivated and improve our learning process further.

Table 13 shows the effectiveness of the delegator teaching style. It is found out that 57 out of 75 students or 76% of the respondents stated that the delegator teaching method is also effective for them. Their responses on its effectiveness are categorized as: Promotes independence in learning, encourages collaborative learning and peer interaction, flexible student-centered learning, enhancing long-term habits, enhancing interactive environment, and feedback-driven learning improvement. Furthermore, 18 out of 75 students or 24% of the respondents stated that they find the delegator teaching style to be challenging, especially without any proper guidance and when they are not given clear instructions. In addition, some also find self-learning to be difficult.

Table 14. What do you think are the specific strategies your educators/professors implement to align their teaching methods to your learning preferences?

Respondents' Codes	Responses
SRT1, SRT2, SRT15, SRT21, SRT27, SRT30, SRT33, SRT34, SRT36, SRT43, SRT48, SRT53, SRT56, SRT58, SRT61, SRT62, SRT65	A strategy that our professor implements is the usage of visual aids such as PowerPoint presentations, video presentations, images, diagrams, and charts to make the discussions more engaging and easier to understand.
SRT3, SRT5, SRT9, SRT13, SRT14, SRT17, SRT18, SRT26, SRT28, SRT29, SRT31, SRT45, SRT52, SRT54	Our professors usually encourage active participation in class by allowing us to express our insights, ask questions, and engage in recitation. They would also share their own experiences and stories to make our lessons more interactive.

SRT4, SRT12, SRT19, SRT23, SRT32, SRT36, SRT40, SRT41, SRT42, SRT46, SRT47, SRT50, SRT75	Our professors often help us by giving activities that develop critical thinking skills and assigning groups, allowing us sometimes to choose activities that will suit our learning preferences and even incorporate practical and performance-based tasks.
SRT7, SRT10, SRT11, SRT35, SRT37, SRT38, SRT39, SRT60, SRT63, SRT64, SRT69, SRT72	Our professors usually encourage active note-taking during lecture discussions, assign writing tasks, and even require written notes as part of our project to help us improve our learning process.
SRT8, SRT16, SRT51, SRT56, SRT68	Our professors sometimes include interactive games and activities during our class discussions to make learning more engaging.
SRT6, SRT20, SRT22, SRT24, SRT25, SRT55, SRT70, SRT71	Our professors patiently teach the lessons in a clear, detailed, and concise manner, and they will also summarize, which we would also easily understand to help us improve our learning process.
SRT49, SRT57, SRT59, SRT66, SRT67, SRT73, SRT74	Another helpful strategy that our professors employ is by teaching us mnemonics, which significantly helps us in retaining important information and helps us familiarize ourselves with complex concepts, especially in our major subjects.

Table 14 demonstrates the perceived specific strategies implemented by the professors to align their teaching methods to the common learning preferences of the respondents. The findings suggest that 15 out of 75 students or 20% of the respondents have observed that their professors often implement visual aids during discussions. Moreover, 14 out of 75 students or 18.6% of the respondents have observed their professors encourage active participation by allowing the students to express their insights. 46 out of 75 students or 61.3% of the respondents have observed various strategies being implemented. These strategies are categorized as: Active learning through practical and group activities, detailed and clear lesson delivery, incorporating game-based learning, structured note-taking, and using mnemonics for memorization and retention. Each student has observed a variety of approaches, including the utilization of visual aids to further enhance understanding, encourage active participation through discussions and questions, giving different group activities that may promote critical thinking and collaboration, assign written tasks and give different memorization techniques for better information retention, and sometimes, the incorporation of interactive games.

4. CONCLUSION

Mismatch between the methods employed by the educators and the learning preferences of the learners creates an impact on the overall academic performance of students. By integrating online simulation labs, creating well-structured lesson plans, promoting collaborations between

students, and attending workshops to develop their skills on employing different teaching strategies, educators can enhance their students' engagement, motivation, and overall academic performance. In addition, with the proposed enhancement program, educators should be able to adapt various teaching strategies which can harmonize instructional methods and the students' needs, ultimately improving academic success.

5. RECOMMENDATIONS

Based on the findings of this study, the researchers suggest a few recommendations to enhance the alignment between teaching methods and learners' preferences, ultimately improving academic performance:

1. Radiologic technology students can enhance their learning by utilizing textbooks, online simulations, and virtual labs. Effective time management and participation in study groups also contribute to a strong educational foundation, essentially preparing them for success in the field.
2. Professional development equips educators to meet diverse student learning needs. Training in differentiated instruction helps teachers adapt strategies to various learning styles. Emphasizing innovative teaching techniques and modern educational tools, such as interactive platforms, ensures effective instruction. Ongoing workshops keep educators informed about best practices, enabling them to create inclusive and dynamic learning environments.
3. To enhance teaching effectiveness and cater to diverse student learning preferences, school administrators should help educators in gaining access and integrating various educational technologies. Utilizing diverse digital resources such as online platforms, interactive simulations, and multimedia presentations ensures all students can access and engage with the material effectively.
4. School institutions should regularly assess how students learn to assist the educators in adapting lesson plans for greater student engagement. In addition, schools should encourage incorporating diverse techniques like group discussions, multimedia, and hands-on activities to enhance the students' comprehension and overall academic performance.
5. Future researchers should explore educational technologies on student performance, engagement, and retention. Studies should also explore challenges on the part of educators such as accessibility and the effectiveness of integrating blended learning for diverse learners. Comparative research across educational levels can identify best practices for technology integration, helping to refine teaching strategies and enhance its impact on education.

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