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The Efficacy of Physical Education Teachers Amid and Beyond the Pandemic: Basis for an Enrichment Program

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ABSTRACT

This study determined the efficacy of Physical Education teachers and explored how the shift from face-to-face to online learning influenced their teaching practices. The researcher employed a mixed-methods design, utilizing quantitative and qualitative data collection methods.The study showed that the respondents consisted of a diverse age range with a majority of younger teacher's ages 20-29 years old. This suggests the potential for quicker adoption of new technologies and fitness methodologies in PE curricula. Additionally, the high level of educational attainment majority with Master's degrees indicates a strong foundation in PE theory and best practices. The study revealed that PE teachers possess a strong foundation in various areas but identified some weaknesses. They expressed confidence in content knowledge, instruction, assessment, technology, and extended assistance/accommodation but acknowledged a need for improvement in specific parameters whose scores fell below the overall mean, particularly in teaching racquet games, recreation activities, exercise science concepts application in PE, technology integration in PE, using email and internet for innovative PE, delivering the PE lesson with technology, making rubrics, and authentic assessment for PE and effective approaches to support skill development for PE. The study also emphasized the teachers' resilience and adaptability in creating innovative approaches to deliver PE online. The researcher concluded with the development of the M.E.D.I.E enrichment program. This program aims to enhance the teaching efficacy of teachers in a certain area. This study contributed to a deeper understanding of PE teachers' experiences amid and beyond the pandemic and provided valuable insights for developing programs to enhance their teaching efficacy in a post-pandemic educational landscape.

KEYWORDS

Physical education; teacher efficacy; mixed method; program development

INTRODUCTION

The COVID-19 pandemic has altered the landscape of Physical Education (PE) worldwide. During the pandemic, PE teachers' greatest challenges were delivering lessons that focused more on fitness and movement and were commonly held outdoors via online platforms. The two years of fully online learning have stretched educators' efficacies around the world. Now that the face-to-face modality is back, the need to re-evaluate these efficacies is indeed necessary.

Teacher efficacy was based on the studies conducted Bandura (1997) defined as an individual's belief using their own skills, which creates an environment for learning that promotes engagement and learning of students. It is a key motivational belief that influences a teacher's professional behaviors and student learning (Hussain & Khan, 2022).

The various learning modes have an impact on the teacher's efficacy, ranging from traditional face-to-face to entirely online, hybrid, blended, and back to face-to-face. Before the pandemic, teachers were equipped with a variety of teaching and learning strategies. However, during the pandemic, the transition to entirely online education has brought higher levels of psychological difficulties, such as stress, anxiety, burnout, and depression, which have impacted their self-efficacy. At present, where hybrid or face-to-face learning was being implemented in public and private schools, it was necessary to evaluate its efficacy in the academe.

Teachers' effectiveness shifted during the COVID-19 pandemic. These factors include mental health problems and job burnout (Bleck & Lipowsky, 2022). To validate such factors, this study would serve as a tool for re-assessing the efficacy of the educators of Physical Education in order to improve the following areas: Faculty Development Plan, PE curriculum, Performance Assessment, and other survey tools for teachers and students (Bhati, et al., 2022).

Teacher efficacy was highly relevant to the teaching context and essential to achieving learning outcomes. The shift from fully online to face-to-face needs a re-evaluation of the different sources of efficacy, such as Content, Pedagogy, and Technology (Humphries, et al., 2012).

With this in mind, examined the efficacy of physical education teachers during and after the pandemic, helped to identify effective strategies and approaches for delivering quality physical Education. Moreover, ensured the students received quality instruction and guidance, supported their overall health, and gained valuable insights on adapting, innovating, and engaging in physical activity. To measure efficacy the scale was constructed and validated. This measurement provided a comprehensive assessment of teachers' beliefs and abilities.

Hence, this study utilized the mixed method to provide in-depth research to understand the factors influencing PE Teachers (Nasser & Yousef, 2020) and aimed to determine the efficacy of Physical Education teachers, developed an enrichment program tailored to Physical Education, and provide standards for schools to consider in developing such programs.

RESEARCH METHODS

The research study followed an explanatory sequential mixed methods design, where both quantitative and qualitative methods of research were employed. The mixed-methods approach allowed a better understanding of the research problem through the collection and analysis of numeric and narrative data (George, 2021). It involved the use of various datasets, which themselves identified areas of convergence or discordance and gave a more holistic view and understanding of the data (Othman et al., 2020).

The study employed the sequential explanatory design, with quantitative data being the first data collected, followed by qualitative data, which cross-validated and enhanced the data already gathered. This strategy led to an understanding of the research topic acceptably through qualitative inferences that supported and built on the already existing data. The fact that two sets of data were gathered at different times enabled the quantitative and qualitative data to actually work together to provide a much stronger, more detailed understanding of the efficacy of physical education teachers.

Both numeric and narrative data were used, so this problem gained a deep analysis. In the quantitative data collected from the survey were compiled, and statistical analysis techniques were used such as Frequency and Percentage, the two statistical tools that summarized and analyzed data, mostly, were categorical data, weighted mean, the average formed with the weights of all individuals that were equal to each other, and lastly, the Non-Parametric Tests, it was employed due to the small size of the population, the Kruskal-Wallis H-Test was employed to evaluate the significant difference in teacher efficacy according to age group and years of service since each category had more than two groups and the Mann-Whitney U Test was used to assess educational attainment, with only two groups eligible for analysis: bachelor's and master's degree holders. These statistical treatments were applied in the quantitative phase of the study to generate meaningful insights. In qualitative phase, the narrative and coding the data analysis were applied in the procedure in which researcher organized data into a narrative and then analyzed it to gain new knowledge.

Data Gathering Procedure

This study prioritized ethical research conduct throughout its process. To ensure the well-being and privacy of respondents, the research instruments were validated by experts, and formal ethical approval was obtained from the Ethics Review Board Committee. Permission was also secured from the University and its Data Privacy Office. Participants, physical education teachers, were approached respectfully, provided with a detailed explanation of the study's aims regarding teacher efficiency and enrichment program development, and given written consent forms emphasizing their voluntary participation and right to withdraw without consequence. Data collection involved paper-pen questionnaires and individual semi-structured interviews, with open-ended questions and gathered in-depth experiences, and audio recordings taken with permission were transcribed verbatim. To minimize bias, appropriate data analysis techniques were employed, with quantitative data presented in tables and qualitative data analyzed through transcription and narrative and coding. All collected data, including personal information and audio recordings, were anonymized, treated with strict confidentiality, stored securely in compliance with the Data Privacy Act of 2012, used solely for research purposes. Furthermore, respondents were informed of all data gathering protocols, pseudonyms were used to ensure anonymity in reports, and transcribed interview data was counterchecked with participants for accuracy.

RESULTS AND DISCUSSION

The demographic data gathered from the respondents, including age group, educational attainment, and years of service, provide insight into the composition of the Physical Education teachers surveyed. Based on existing literature, these profiles may impact PE teachers' efficacy amid and beyond the pandemic.

Most of the teachers who responded (53%) are between 20 and 29 years old. This shows that the group has many young teachers who bring fresh ideas and enthusiasm to teaching. Teachers between 40 and 49 make up 27% of those who answered. These experienced teachers provide knowledge and help keep things steady. Teachers aged 30 to 39 account for 20% of the group. They're in the middle of their careers mixing new ideas with mastery. This spread across different ages shows that the teachers who took part come from various age groups. It points to a mix of teachers with lots of experience and those just starting out.

Regarding educational achievement, most of the respondents (73%) have completed a master’s degree, demonstrating a high level of strong commitment to advanced education in the field. A smaller percentage (20%) have obtained a bachelor's degree representing teachers who have met the standard educational requirements, while an even smaller group

(7%) hold a doctorate. This underscores the significant focus on advanced education within this cohort of PE teachers.

The survey data reveals an even distribution of teachers based on years of service. Approximately 33% of the respondents have 1 to 5 years of service, new teachers brought fresh ideas and enthusiasm, and an equal percentage have 6 to 10 years of service, educators who hitting their stride, balancing innovation with growing expertise. Teachers with 11 to 15 years of service account for 20% of the respondents, while those with 16 or more years of service make up 13%, educators who offer invaluable long-term perspectives. This indicates a well-rounded representation of new and experienced teachers in the data.

Level of Efficacy of the Respondents in Terms of Content and Subject Matter, Instruction, Assessment, Technology, and Extended Assistance/Accommodation

Level of Efficacy in Terms of Contents and Subject Matter

The respondents' efficacy in content and subject matter is high, with an overall mean score of 3.70 and a standard deviation score of 0.32. The highest endorsed statement was explaining the basic design of personal fitness workouts, followed by knowledge of fundamental motor skills and general fitness knowledge. The department head explained that they are naturally knowledgeable about movement skills due to their expertise. Additionally, based on the respondents, they acquired new skills that allowed them to create engaging content and integrate technology into their teaching leading to increased student participation.

Other statements were strongly agreed upon but below the overall mean score, indicating a need for improvement. The least rated statement was having a good grasp of exercise science concepts, with a mean score of 3.47. The data showed that PE teachers have a limited understanding in exercise science concepts. The department head acknowledged that not all faculty members are good at everything and also, based on the respondents, they faced difficulties in teaching online such as a lack of equipment and facilities and maintaining students' interest.

In this, the department head acknowledged the importance of providing training and reskilling opportunities to address the identified weaknesses in content knowledge. And the teachers took those challenges as an opportunity to acquire new skills and practices by utilizing technology, implementing innovative approaches, and adapting assessment techniques to the online setting.

Level of Efficacy in Terms of Instruction

The study found that almost all respondents strongly agree that PE teachers possess high efficacy in terms of instruction with an overall mean of 3.98. They excel in organizing active classes safely, demonstrating skills, using clear teaching cues, and using questions or activities to encourage critical thinking. The majority of the teachers have a master's degree in education and were trained in instructional methods, which likely contributed to their overall efficacy. While overall efficacy was high, there were parameters score fell below the overall mean such as promoting respect and cooperation among students from poverty backgrounds and ensuring a successful PE experience. The department head stated that there are no specific projects addressing poverty in Physical Education, but assured that the program is inclusive and free from discrimination. The department head also assured that Physical Education classes are for all, regardless of one's social status. Furthermore, according to the PE teachers, their instructional practices were affected due to the sudden shift to online learning and assessing student understanding due to limited resources, student

diversity, and lack of hands-on experiences. But despite the challenges, the teachers adopted different innovative strategies, acquired new skills, and created a conducive online learning environment to support student learning.

Level of Efficacy in Terms of Assessment

The assessment efficacy of teachers was high, with a mean score of 3.96. They rated themselves highest in giving grades, using assessment in grading, and changing lessons based on assessment results. The department head explained that faculty members are experts in assessment tools, they collaborate or consult with more knowledgeable teachers for quality assurance. However, despite of the high efficacy of the teachers, some areas needed improvement, such as learning validity, reliability, authentic assessment, and creating rubrics for student learning. According to the teachers, there were circumstances in the pandemic impacted their assessment practices such as assessing practical skills through videos and online submissions, lack of clarity on specific measurable learning outcomes that aligned with the assessments, and the diverse student but they adapted different assessment strategies to accommodate diverse student needs. They created and modified rubrics for online learning and used Formative assessment tools, like quizzes, were used to monitor student progress. The teachers also provided timely feedback and encouraged students to reflect on their performance through portfolios. Also, the department head encouraged faculty to continuously modify and innovate their materials and assessments to deliver necessary learning outcomes.

Level of Efficacy in Terms of Technology

The respondents rated their proficiency in technology, with a rating of 3.96 overall mean. They were confident in using computer programs and audiovisual equipment in PE, integrating video and sound systems, and using the Internet for lesson planning. The department head stated that teachers were equipped for innovation in the digital era. The university's syllabus incorporates technology integration into learning outcomes, ensuring faculty innovation. Also, technology education was included in yearly faculty development. However, the scores in using Google Meet, Zoom, and LMS like Moodle and Google Classroom and the use of email and the internet to find and share PE ideas fell below the overall mean. These parameters were one of the things that needed improvement because according to the teachers, they also faced challenges related to accessibility and connectivity that hindered online learning opportunities.

Level of Efficacy in Terms of Extended Assistance/Accommodation

The efficacy of extended assistance/accommodation in PE classes was high, with a 3.99 mean score and 0.05 standard deviation. PE teachers were confident in their ability to assessed student performance, plan skill sequences, change tasks to make them more challenging, and show ways to improve if students struggle. The department head emphasized that most PE teachers were trained in high school teaching, having ideas on organizing safe classes, demonstrating skills, and using clear cues. Furthermore, most of the faculty are licensed professional teachers with master's degrees, making them well-equipped to handle classes and facilitate classes. However, their ability to show students what to do if they struggle with a skill was less endorsed. Teachers found it hard to give extra help and make adjustments when classes moved online because they couldn't interact face-to-face. Even so, PE teachers showed they could be adapted by coming up with new strategies and thinking about different ways to teach. They also stressed how important it was to create a class where everyone works together and respects each other. This means setting rules

getting students to talk to each other, and encouraging teamwork. Lastly, PE teachers feel sure they can give good help and make the right adjustments in their classes.

Significant Difference in Teaching Efficacy based on the Profile of the Respondents

The study analyzed the endorsement of content and subject matter, instruction skills, assessment scores, and technology skills among teachers. The eldest age group showed the highest endorsement, followed by those aged 30 to 39 years old. The youngest age group had the least rating, with a mean score of 3.59. No statistically significant difference was found in these scores between the different age groups.

In terms of assessment scores, there was no significant difference between the different age groups, suggesting that the enrichment program should focus on uniformly enhancing assessment skills. However, the youngest group was the most confident in terms of technology, with a perfect mean score of 4.00. The study also found no statistically significant difference in technology scores between the different age groups.

Bachelor's degree holders had higher self-perception in terms of Instruction and Assessment, while master's degree holders had higher endorsement in terms of Assessment and Technology efficacy. However, the Mann-Whitney U test did not show any significant differences between groups for Content and Technology.

Teachers with 11 to 15 years of service had the highest mean score, indicating slightly better self-reported proficiency in content and subject matter. The study also found no statistically significant differences in instruction scores between the different age groups. Teachers with 1 to 5 years of service had the highest mean score, indicating uniformly high self-reported proficiency in instruction.

The Kruskal-Wallis H statistic was 3.47 with 3 degrees of freedom, and the p-value was 0.32, leading to the acceptance of the null hypothesis that the technology scores are equal across different years of service groups. This means there were no statistically significant differences in technology scores between the groups.

To summarize, the study highlights the importance of enhancing assessment skills and instructional proficiency across all age groups for effective teaching practices.

Experiences of the Respondents Concerning their Teaching Efficacy During and After the Pandemic in terms of:

Content and Subject Matter

Success in using new techniques and strategies in teaching online enhanced the confidence of the PE teachers. Integration of technology helps to increase student participation. This empowered the teachers to integrate their creativity within curriculum guidelines since they acquired new skills. They now know how to create engaging content, adapt in changing environments, break down complex skills, and use student-centered approaches. Challenges to the PE teachers are the following: lack of equipment and facilities, keeping the students interested in individual physical activities, diversities in student abilities, and changing weather conditions in outdoor facilities. In overcoming these challenges, the teachers were developing new skills and practices by utilizing technology to show videos and screen sharing in demonstrating skills. They implement innovative instructional approaches to pedagogy, segmental analysis, and student-centered learning to overcome the challenges of instructing skills. The modifications made by teachers in assessment techniques adjusted to the online setting and maintained its validity and reliability.

Instructions

The instructional practices of PE teachers were affected due to the sudden shift to online learning. In assessing student understanding, teachers struggled due to limited resources, student diversity, and lack of hands-on experiences. They were challenged to motivate students to learn and maintain honesty online. The teachers acquired new skills and developed innovative teaching strategies for giving instructions in online learning. They developed alternative approaches and technology was mainly used to support learning through providing some additional activities or resources. The PE teachers re-planned their curriculum to focus on activities that could be modified to be relevant in performance at home. Besides, the PE teachers created a conducive learning environment online that contributed to supportive learning with responsible behavior in online classes.

Assessment

The various challenges that physical education teachers faced in assessing student learning during and after the pandemic relate to assessment through videos and online submissions of practical skills, clarity on specific measurable learning outcomes that do agree with assessments, reliability of results of assessment, and diverse student circumstances. To resolve the challenges regarding such matters, teachers adapted different assessment strategies to accommodate diverse student needs, creating and modifying rubrics for online learning. They also used formative assessment tools, like quizzes, which helped monitor the progress of each student. The teachers, in a timely manner, provided constructive feedback and encourage students to reflect on their performance through portfolios.

Technology

The teachers integrated technology into their practices to enhance the processes of learning, engaging, and motivating learners of physical education. They used relevant tools, such as ClipChamp and Canva to develop some instructional resources, interactive activities, and video content. It also saves teachers' time by automating tasks like grading, communication, and lesson planning. Further, this is used to create or develop instructional materials for sharing. While technology offered new possibilities, the PE teacher also encountered difficulties in accessibility and availability of the devices and stable internet connectivity caused problems for the online learning process.

Extended Assistance/Accommodation

Indeed, the shift to online learning gave challenges to teachers in terms of extended help and accommodations. The absence of face-to-face interaction brought difficulty in bringing out the individual needs of students. Amidst these challenges, it was noted that PE teachers showed flexibility and adaptability in teaching methods. New strategies for instruction delivery were designed; alternative teaching methods were considered equally activity modification to suit the different student needs. They also mentioned the class environment should be cooperative and respectful. They established the rules, encouraged two-way communication, and developed teamwork and cooperation.

An Enrichment Program Proposed based on the Findings of the Study

This study aimed to determine the efficacy of Physical education teachers during and after the pandemic and develop an enrichment program. The researcher gathered data on PE teachers' demographic profiles to understand the participant characteristics, teaching experiences during and after the pandemic to provide insights into the impact of the event

and perceived efficacy levels in different area of content and subject matter, instruction, assessment, technology, and extended assistance/accommodation. Based on the results, the data shown specific parameters whose scores fell below the overall mean that needed enhancement, support and development particularly in teaching racquet games, recreation activities, exercise science concepts application in PE, technology integration in PE, using email and internet for innovative PE, delivering the PE lesson with technology, making rubrics, and authentic assessment for PE and effective approaches to support skill development for PE.

The M.E.D.I.E enrichment program *(Mastering Physical Education, Empowering All Students, Developing and Implementing Well-made Assessment tools, Integrating Technology and Enhancing Learning in PE)* aimed to enhance the teaching efficacy of teachers in a certain area. It was focused on a wide range of skills and individual student needs and interests, the use of assessment and rubrics to monitor student progress, technology integration to enhance learning experiences, and differentiation and personalization to cater to diverse student needs by offering varied learning options and opportunities.

CONCLUSION

The following were the conclusions derived from the study

The demographic profile of respondents provided essential context for understanding and interpreting the data collected in the research. It allows for the identification of specific patterns and trends within each group. The researcher analyzed and divided the sample into different groups based on age, educational attainment, and years of service.

The variety of ages suggests that there are many different ways of teaching and approaching education. Younger teachers might use more technology and current fitness trends in their classes. Older teachers contribute proven methods and skills for managing classrooms. Since most teachers are under 30, there's a good chance to set up mentoring programs. More experienced teachers can guide and help their younger coworkers. This helps newer teachers grow in their jobs and makes sure important knowledge gets passed down. The significant presence of younger teachers may facilitate quicker adoption of new educational technologies and fitness methodologies in PE curricula.

Based on educational attainment, the data revealed that teachers with advanced degrees were likely to bring research-based practices into their PE programs, potentially leading to more effective and innovative teaching methods. The high level of education suggests that many teachers may have specialized knowledge in area of physical education.

Based on the years of service, the even distribution allows for effective mentorship programs, where experienced teachers can guide newer colleagues. This ensures that new ideas were balanced with proven methods, potentially leading to more sustainable and effective changes in PE curricula. The presence of teachers with 16 years or more of experience provides valuable insights into career satisfaction.

The physical education teachers' profiles helped the researcher to determine the significant difference in their teaching efficacy in terms of Content and Subject Matter, Instruction, Assessment, Technology, and Extended Assistance/Accommodation.

The study showed intriguing age-related patterns in how educators employ educational technology. Older teachers demonstrated strong content and subject matter, while the youngest teachers were most comfortable with technology, reflecting their upbringing with digital tools. All age groups demonstrated similar abilities in the assessment, indicating that everyone has space for improvement in this area (Kurt, 2018). These results highlight the value of training programs that build on the advantages of every generation while tackling

its unique challenges. In order to promote a meaningful exchange of knowledge and skills, schools should consider implementing mentoring programs wherein younger, tech-savvy educators collaborate with more experienced educators.

Teachers with bachelor's degrees were more confident in instruction and assessment, but master's degree holders indicated greater proficiency in assessment and technology. All groups felt capable in terms of content and technology. These suggest to create a specific training programs that focus on the strengths of teachers from varied educational backgrounds.

This study found that physical education teachers demonstrate overall confidence in various areas in content and subject matter, instruction, assessment, technology, and extended assistance/accommodation.

The research reveals that PE teachers have a strong foundation of knowledge of basic movement skills and fitness ideas. Yet, the gaps found in their exercise science knowledge and the problems they faced with online teaching showed how education needs change. These findings illustrated the vital importance of learning and bring technology into PE classes. To address these issues and build on what teachers already know well, it's key to set up training and create an environment where everyone keeps building their skills. This flexible approach not fills in the gaps we see now but also gets teachers ready for what's coming in education.

The study showed that PE teachers excel at teaching in running safe active classes, showing skills, giving clear instructions, and asking questions to make students think deeply. Their advanced learning and training have helped them become skilled. But the study also found room to improve such as in helping students from different economic backgrounds. The challenges forced PE teachers to change how they teach. Even with few resources and the tough job of teaching PE online, these teachers adapted and came up with new ideas. They learned new skills, developed creative ways to teach, and worked hard to keep a good learning environment. The resilience demonstrated by PE teachers during and after the pandemic serves as a springboard for further innovation and improvement in the field of Physical Education. Chance to reshape PE and make sure all students can join in, enjoy, and benefit from it, no matter where they come from or what their situation is.

The PE teachers' efficacy in assessment showed particular strength in grading and adapting lessons based on assessment results. They're good at grading and work together with their colleagues. However, they still need to get better at making sure tests are valid, reliable, and authentic. The teachers need to keep learning on how to test students. The unique challenges made teachers come up with new ways to test students and use tools to check student progress along the way. This shows how teachers can adapt and be flexible to make sure students keep learning and make tests match clear measurable learning goals and to meet the needs of different students.

Technology in physical education brings opportunities and challenges. Based on the study, PE teachers feel sure about using technology, but online tools and teamwork platforms need work. The university's commitment to innovation through syllabus design and faculty development programs is commendable. The PE is ready for a digital shift that will make learning better. To keep up with these changes, it's key to set up technology training and help teachers learn from each other. Checking tech skills often will keep teachers on top of new digital ideas in PE.

The research showed that PE teachers were good at giving extra help and making adjustments. They got these skills from their training and advanced degrees, which gave them the knowledge to check performance and change tasks as needed. The PE teachers faced tough times in online learning but they demonstrated great flexibility by designing

with new ideas and trying out different ways to teach. They showed a holistic approach to physical education by fostering a cooperative and respectful class environment.

The researcher concluded the connection between teachers' efficacy and the TPACK framework. The study determined the teaching efficacy of PE teachers amid and beyond the pandemic, where teachers integrate technology into their teaching, it revealed both strengths and areas for growth in educators' technological, pedagogical, and content knowledge. While teachers demonstrated high overall efficacy, particularly those with advanced degrees and diverse experience, the research underscores the critical need for ongoing professional development in technology integration, especially in online learning environments. These findings carry significant implications for future teaching practices, suggesting that regardless of age, education, or experience, all educators can benefit from targeted training in effective technology use to enhance student learning outcomes.

Thus, by focusing on these areas, the enrichment program can empower PE teachers to create engaging and effective learning experiences for their students. The M.E.D.I.E enrichment program.

Based on the findings and conclusions of gathered data, the researcher recommends to the physical education teachers to; Master their understanding about racket games, recreation, and exercise science and gain the confidence and skills to deliver exceptional PE lessons. Attend seminar or training course about the concept of different racquet and net games and exercise science concepts and receive certification or license. Invite professional players in racket games and in recreation therapy, outdoor education, or game design, and experts in the field of exercise science or sports medicine to share their insights and expertise. Find and study the sample recreation program plans from reputable organizations and develop fitness activities tailored to age, skill level, and desired outcomes. Empower inclusive teaching strategies to cater to diverse learners and create engaging and inclusive learning environments. Be present at seminar workshops and Teacher Training Courses about 21st Century Skills or Current Trends in teaching Physical Education. Explore and utilize different strategies like interactive activities, games, and role-playing exercises to keep students engaged in the learning process and create inclusivity. Design projects that allow students to work together in service of their community, promoting collaboration and social responsibility. Create a classroom environment in which students feel comfortable expressing themselves without fear of being judged. Design and implement a lesson utilizing universal design for learning (UDL) principles and differentiation strategies to promote inclusivity in PE. And learn to adapt traditional PE activities and games to use available equipment or no equipment at all, focus on developing basic movement skills, and differentiate instruction to cater to different learning styles, abilities, and physical limitations. Develop and implement well-made assessment tools for Physical Education to improve their teaching. Involve in seminar workshop and invite an assessment expert in education or a PE curriculum specialist to share their insights and best practices in assessment for physical education. Design effective assessment tools involve choosing assessments that align with learning objectives, creating objective rubrics and checklists, and exploring authentic assessments that require students to apply skills in real-world PE situations, such as self-designed fitness routines or modified games. Explore the use of technology for assessment (ex. video analysis, online platforms) and learn to analyze assessment data to identify strengths and weaknesses, track progress, and inform instructional decisions. Develop effective feedback strategies to motivate students and promote self-assessment skills. Communicate student PE progress effectively to parents. Work with colleagues to develop rubrics focusing on assessing skills and assessment in PE mechanics, accuracy, and consistency and receive constructive feedback for improvement.

Implement a newly created rubric in the classroom, analyze student performance data, reflect on the effectiveness of the rubric, and identify strengths and weaknesses in their design. And explore online platforms for creating and sharing rubrics, analyze data to identify trends, adjust instruction, track student progress, and discuss strategies for sharing rubrics with parents and guardians, promoting transparency and communication about PE learning. Integrate technology to enhance student engagement and learning and stay updated on the current trends with the latest educational technology and enhance differentiated instruction to support all students. Join in seminar or invite a PE teacher with experience using video conferencing and LMS platforms (using Google Meet, Zoom, Moodle, and Google Classroom) to share their best practices in online learning. Explore online resources and tools for teaching and learning (ex. video tutorials, virtual simulations, interactive whiteboards, and learning management systems, instructional videos, online quizzes, online grading, digital portfolios, real-time feedback, student response systems).Explore wearable technologies like fitness trackers and heart rate monitors for personalized feedback, apps that use video analysis or motion capture for visual feedback on skill execution, and learn about interactive games and simulations like virtual reality balance training for fun skill development. Learn best practices for professional email communication for PE programs, write concise emails with activity ideas, lesson plans, and teaching tips for colleagues, and discuss strategies for regular emails to parents outlining PE activities, learning goals, and ways to support their child's physical development at home. Emphasizes the significance of promoting responsible digital citizenship among students, teaching them about cyber security practices, understanding copyright laws, and ethical considerations when using email and the internet for PE-related activities, and sharing resources with colleagues. And explore the features of Google Meet, Zoom, Moodle, and Google Classroom. (or other chosen platforms) and practice uploading resources, creating assignments, and navigating communication tools. Enhance learning in PE differentiated Instruction Strategies and create a positive learning environment that fosters improvement in skill development. Participate in seminar or invite a professional known for their skill in differentiated instruction and supporting diverse learners in PE and share their experiences and best practices. Develop effective communication skills through practicing active listening, provide constructive feedback, and motivate students. Emphasize positive reinforcement, celebrate progress, and build student confidence. Incorporate strategies to foster a growth mindset and encourage perseverance in the face of challenges. And collaborate with specialists/professionals to provide comprehensive support for students with specific needs. Effectively communicate with parents/guardians about progress, challenges, and personalized PE strategies. Provide guidance and resources for home practice activities. And for the future researcher; utilize the output of this study, the M.E.D.I.E enrichment program. Conduct in-depth study from different educational level (Primary – Tertiary) to determine the effectiveness of the program for the PE teachers' efficacy, student outcomes attainment, and overall PE program quality. Gather feedback from PE teachers, administrations, and other stakeholders to understand their experiences and know their suggestions for improvement. Explore the long-term impact of online adaptations on PE instruction and student outcomes. Lastly, conduct a study on how to support the adaptability and expertise of PE teachers to create more inclusive and effective physical education programs for all students, and effective online and technologically advanced assessment methods that can give valuable insights for future educational practices.

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