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# Development of the Physical Activity Plan for Physical Education Instruction in Public Senior High Schools: An Exploratory Sequential Mixed Method Inquiry

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## Abstract

Physical education (PE) develops students' motor skills, knowledge, and behaviors for active living. As such, individuals need to participate in various physical activities (PA) which contribute to a healthy lifestyle. But many PE programs fail to bring the actual value of a lifetime PA and fitness. Therefore, there should be extended scientific research that promotes participation level as a health intervention that will promote health and wellness. Through this, an exploratory- sequential mixed method inquiry was utilized to gather insights of senior high school PE teachers towards the development of physical activity plan (PAP). Likewise, the remaining senior high school PE teachers in the province assessed the degree of alignment of the PAP in the most essential learning competencies in PE, and the degree of the practical application of the developed PAP in PE instruction. The qualitative results summarized the general ideas of PE teachers regarding the PAP. They have specific suggestions on what topics, PA, and classroom assessment tools should be included in the plan related to the competencies in PE 1, PE 2, PE 3, and PE 4. As such, a series of performance rubrics have been attached to the plan. Moreover, the quantitative results revealed that the developed PAP has a high degree of alignment with the current competencies in the senior high school PE curriculum. Likewise, the developed PAP has a high degree of practical application in PE instruction. Integrating the data in the two phases of the data collection, showed that the developed PAP can be implemented in the senior high school PE curriculum. As such, the PAP may be utilized as the baseline for PE teachers for implementation. Moreover, future researchers may address the limitations of the conducted study.

**Keywords:** Education, Physical Education, Physical Activity Plan, Senior High School, Philippines

## 1. Introduction

Physical education (PE) is an academic subject that provides students with a sequential, planned, standard-based curriculum and instruction to develop motor skills, knowledge, and behaviors for active living, fitness, sportsmanship, self-efficacy, and emotional intelligence. Moreover, it targets to development of individuals with knowledge and skills through a lifetime of healthy physical activity (PA) (Society of Health and Physical Educators [SHAPE] America, 2018). Thus, individuals must regularly participate in various PAs to contribute to

a healthy lifestyle (Xu et al., 2021). Nevertheless, many physical education (PE) programs fail to bring the true value of a lifetime PA and fitness that supposedly facilitates motor skills development, health-related fitness, overall PA levels, sports or game performance and social skills (Ferkel et al., 2017). Hence, a planned, progressive, and inclusive learning experience should be part of the primary and secondary education curriculum to attain quality that will lead to a physically active life (Ahmed, 2017).

The pandemic paved the way for learning institutions to be closed, and PE instruction was delivered remotely (Webster et al., 2021). Teachers used several trial-and-error methods to implement the instruction (Jeong & So, 2020). In the United States, they adapted an Online Physical Education Network (OPEN) for PE teachers to help students stay active while at home (Mercier et al., 2021). Also, online physical education (OLPE) has become a central focus as a virtual alternative program delivery (Kim et al., 2021), so as with distance education who gained popularity in recent times (Vilchez et al., 2021). Likewise, in China, online PE classes took place where students experienced many difficulties affecting their PA performance and health (weight gain, depression, and anxiety) (Laar et al., 2021).

The senior high school PE curriculum in the Philippines includes fitness concepts, games, sports, and other topics subdivided into four quarters in an academic year (Department of Education [DepEd], 2016). However, World Health Organization (2019) report states that Filipino students ranked second in the high prevalence of physical inactivity (PI). This happened in implementing online classes in PE because of the course's unique nature (Aguinaldo, 2021). PE teachers were forced to implement several approaches (Do, 2020) like synchronous and asynchronous teaching, distance education, and module-based learning using technology and other digital platforms (Daniel, 2020). But these modalities posed a bigger challenge to teachers in redesigning learning activities because of several factors (limited time, material and technical resources, and training) (Tanucan et al., 2021).

In Negros Occidental, the widest division implemented the Basic Education Learning Continuity Plan to respond to continuous basic education while battling the pandemic. It ensures the implementation of curriculum adjustments, learning materials alignment, multiple learning delivery modalities, and other safety precautions (DepEd, 2020). Through this, an application of Most Essential Learning Competencies (MELCs) in the curriculum was used, adapted from the competencies listed in the regular curriculum guide of the department (DepEd, 2021). From 17 competencies in PE 1 to PE 4, it was trimmed down to 9 competencies in PE 1, 7 in PE 2, 8 in PE 3, and PE 4, respectively (DepEd, 2020). Unfortunately, remote learning application decreases students' PA level (Pinotti, 2021), and teachers have trouble delivering the task (Tanucan et al., 2021).

It is reported that middle school students have a moderately positive attitude toward PE and continuously increase (Pereira et al., 2020). Comparatively, short-term studies indicate a decrease in PA levels during school closures, leading to an increase in obesity (Dunton et al., 2020; Xiang, Zhang et al., 2020). Equally, there should be extended scientific research to develop and enhance the curricula and policies in PE that will promote positive effects and induce the participation level of students in sports and other PAs (Cruz et al., 2021). It is time for academicians to design a challenging and engaging learning environment to shape the PE field (Ferkel et al., 2017). A call for health interventions (An, 2020) that will focus on PA during the pandemic (Mercier et al., 2021) is needed (Pinotti, 2021).

In turn, this study explored the insights of selected PE teachers in designing physical activity plan (PAP), including the activities needed in every PE subject to enhance PE instruction in Senior High School. Consequently, the PAP was assessed by the remaining PE teachers on its alignment with the mandated essential competencies by the Department of Education and practical application in PE instruction. Subsequently, the results were the basis for the development of PAP to be implemented in a school setting, specifically in the PE curriculum in senior high school.

## 2. Method

This study utilized the exploratory sequential mixed method research design. The first phase is characterized by an initial qualitative data collection (focus group discussion) and analysis (3 C's Thematic Analysis) (Creswell & Creswell, 2018). The qualitative data collection phase was used to explore teachers' ideas in the PAP. Likewise, the gathered qualitative data were used to build a new measure to be tested quantitatively in a large sample.

Consequently, an interim phase was conducted. It is where the development of the quantitative instrument in the form of a survey questionnaire was crafted. The participants' responses in the first phase were carefully noted and considered in the different parts of the questionnaire. As such, the newly crafted tool was subjected to validity by the different experts in PE and reliability testing by the PE teachers from other schools' divisions.

Moreover, the second phase followed through a quantitative inquiry. This is where PE teachers in the whole division assessed the degree of agreement with the insights of PE teachers in the PAP, the degree of alignment of PAP in the PE MELCs, and the extent of the practical application in the PE instruction. Hence, the results of the two phases were presented in the joint display, and a meta inference was formulated to show the connection between the two independent results.

### 2.1 Phase I: Qualitative

2.1.1 Participants. The public SHS PE teachers were utilized as participants in the qualitative phase. There was a total of sixteen (16) teachers selected from the north (6), central (5), and south (5) groups respectively. Hence, a purposive sampling technique was utilized to draw SHS- PE teachers involved in the qualitative phase of the data collection. One teacher in every city or municipality was taken from the south, north, and central area of the division. They have been chosen according to the inclusion criteria set by the researcher. Participants are bachelor's degree holders in physical education or any related area in MAPEH. Additionally, they are teachers in senior high school with experience teaching PE 1- PE 4 subjects. Lastly, they have earned substantial units or master's degrees in the same field of specialization.

2.1.2 Research instrument. This study utilized a focus group discussion with three different groups of teachers in the province (south, central, and north) and explored their ideas for making a physical activity plan. Guided by the interview protocol, each group has been asked about their ideas in PAP, topics, activities, duration, and assessments to be included in the development of the PAP.

2.1.3 Data collection procedure. A letter was sent to the office of the school's division superintendent to ask permission to conduct the study at the different public senior high schools in the province. In addition, a separate letter of approval addressed to the different principals in every district was sent, attaching the letter of approval from the division office to conduct the study in their respective schools. Similarly, a letter addressed to the first group of participants in the south, central, and north area have been handed down to them personally to obtain voluntary participation in the focus group discussion. Thus, a schedule of FGD for three groups was given to every group of participants. Moreover, the researcher huddled each group to conduct the FGD in three different schedules.

During the interview, each participant was given enough time to introduce themselves to set the mood and establish rapport for comfortability. Likewise, the interview began with posing the first question and letting each participant answer one at a time. Similarly, the researcher asked probing questions for answers that seemed vague and needed elaboration. Moreover, the interview ended with a recapitulation of the salient points answered by the participants. Lastly, the researcher instructed the participants to be individually communicated for the debriefing and confirmation of their responses during and after the qualitative data had been analyzed through the interview transcripts.

2.1.4 Data analysis procedure. Recursive textual data analysis was utilized for the qualitative phase to facilitate the method. It was used to determine the participants' ideas on the question. Utilizing the three C's of Lichtman (2013), the following steps were done to analyze the transcripts from the interview.

It started with coding where significant statements of each participant were highlighted while reading and re-reading participants' responses to qualifying each significant statement. Likewise, similar codes were grouped and put in one category. Each category was based on the collected ideas in the coding.

Moreover, similar categories were grouped and assigned a specific concept. Each specific concept was based on the meaning obtained in the previous stage. Lastly, similar concepts were grouped and assigned specific themes and sub-themes. The researcher condensed the statements describing the essence of the participants' responses. Thus, the participants validated the findings of the qualitative phase by comparing their original statements during the interview.

2.1.5 Data trustworthiness. Concerns about bias and subjectivity in a qualitative study were properly addressed by employing strategies that ensured trustworthiness and rigor throughout the research process. This also ensures the reliability and validity of the research study consisting of interactive dialogues between the researcher and participants. Therefore, credibility, transferability, dependability, and confirmability were utilized (Lincoln & Guba, 1985).

2.1.5a *Credibility* ensures the internal validity of the analyzed qualitative data. Member checking was utilized, which allowed participants to review their responses after the interview and data analysis through their transcripts.

2.1.5b On the other hand, *transferability* ensures the external validity or generalizability of the collected data. Therefore, a thick description was used, which gives a sufficient complex description of the participants' true understanding of the development of the physical activity plan.

2.1.5c *Dependability* maintains trustworthiness in all steps of the research process where responses should come from individuals with first-hand experience of the explored area. Thus, purposive sampling following an inclusion criterion was used in a focus group discussion that drew PE teacher's representatives in each area of the province to discuss suggestions to be included in the PAP. Thus, a video recording and minutes of every FGD ensured its dependability.

2.1.5d *Confirmability* ensures that the findings reflect what the teachers accurately described rather than what was known already from their experience. In this respect, an audit trail was utilized to certify that the data existed, and the interpretation was made in ways consistent with the teachers' responses during the interview. Hence, the two independent experts in qualitative data analysis have used the interview transcripts to trace where the themes and sub-themes came from. Therefore, a record of the FGD supported by relevant documentation proved that analyzed data were from the PE teachers alone.

## 2.2 Interim Phase: Instrument Development

From the findings in the qualitative phase of the study, a physical activity plan and a survey questionnaire was created. The items in the PAP and questions in the instruments were taken from the participants' statements. And so, the tools have undergone validity and reliability.

The results in the qualitative phase paved the way to create the PAP. The topics, activities, and different classroom assessment tools were taken from the PE teachers' suggestions during the FGD. As such, a series of performance rubrics were also designed for the plan.

Moreover, a survey questionnaire was created to further analyze the PAP's content. Each significant statement of the participants was considered in every part of the quantitative tool. The teachers' insights on the essence of PAP, its significance to teachers, its necessity to students, and the urge for a longer PA were incorporated into the first part of the tool. Likewise, the teachers' suggested topics, physical activities, and classroom assessments were included in the second part of the questionnaire. Moreover, the coverage of the developed PAP in PE1- PE4, its duration for implementation, availability of the facilities and equipment, and a factor of teachers' knowledge and skills in delivering the instruction were included in the third part to test the practical application of the plan.

2.2.1 Validity. The PAP was validated using the content validity ratio (CVR) pioneered by Lawshe (1975) by the five independent experts in PE. The experts considered all the items in the PAP essential to be part of the plan. Therefore, each item on the preliminary page, all the way to the attached rubrics in the PAP, was retained.

Likewise, the survey questionnaire was validated by the same experts who were MAPEH Education Program Supervisors (3) and college professors in a state university (2) using the Good and Scates (1954) validation criteria. The overall validity index was 4.84. Therefore, the instrument was valid. Furthermore, the PAP was finalized, and the survey questionnaire was prepared for the reliability test.

2.2.2 Reliability. A letter was sent to the five (5) divisions in the province to ask permission to conduct reliability testing for the teachers under their division. After the approval, the researcher prepared the survey questionnaire and administered it to thirty (30) senior high school teachers from the five different schools' divisions through the google form platform, attaching the PAP for their reference. The respondents were given enough time to accomplish the survey. After which, the collected responses were prepared for reliability analysis. A Cronbach's alpha value was 0.973 after the analysis. Therefore, the instrument was reliable. Moreover, the instruments were prepared for the actual testing in the quantitative phase.

### 2.3 Phase II: Quantitative

2.3.1 Participants. For the quantitative phase, the respondents were 87 senior high school teachers in a public senior high school. They were selected using the convenience sampling technique wherein PE teachers in all senior high schools teaching PE subjects in the division were qualified and were included to participate, but only those who answered the questionnaire in a given duration were used for data analysis. The sampling technique was appropriate in this phase since respondents were only taken based on their location and accessibility to the internet. The Raosoft Sample Size Calculator was utilized to obtain the desired sample size. The distribution of the respondents is reflected in table 2.

2.3.2 Research instrument. The quantitative phase of this study utilized a researcher-made questionnaire taken and considered from the results in the qualitative phase. It was used to gather the data which measures the degree of agreement of PE teachers in the insights and ideas about the PAP in the first part, the degree of alignment of the PAP in the PE MELCs in part two, and the extent of application of the different suggested topics, activities, and classroom assessment tools in the PE instruction in part three of the questionnaire respectively.

Consequently, the first part of the instrument includes items in the perspective of teachers in the PAP, the significance of the PAP to PE teachers, the necessity of the PAP to students, and the suggested additional duration for physical activity. As such, the respondents have answered this area according to the attached scale before the main questions.

Thus, the second part of the instrument includes a copy of the MELCs in every PE area. After which, the suggested topics, activities, and classroom assessment tools in PE1, PE2, PE3, and PE4 were listed. These were taken from the first phase of the data collection. As such, the respondents have answered the second part based on the scale provided in the questionnaire.

As such, the third part of the instrument includes questions in the areas of coverage, duration, facilities and equipment, and teachers' knowledge and skills in the different PE areas. Consequently, the respondents have answered the third part based on the scale provided in the questionnaire.

2.3.3 Data collection procedure. Before the actual administration of the survey, a letter addressed to the respondents in the south, central, and north area have been handed down to them personally and through email to obtain their voluntary participation. Likewise, they were oriented about the research process. During the survey, a soft copy of the PAP and the survey questionnaire in a google form were sent to them individually with the help of teacher participants in the first phase. The respondents were given enough time to respond to the survey questionnaire. After they have responded, their responses have been consolidated and prepared using an office productivity tool. Finally, it has undergone statistical analysis.

2.3.4 Data analysis procedure. The descriptive analysis was utilized as an appropriate statistical tool. The mean and standard deviation (SD) was used to determine the degree of agreement of the senior high school teachers in

the preliminary ideas in PAP, the degree of alignment of the PAP in the PE MELCs, and the extent of the practical application of the suggested topics, activities, and classroom assessment tools in the PE instruction in the areas of coverage, duration, resources, and teachers; knowledge and skills.

### 3. Results

#### 3.1 Qualitative Results

##### 3.1.1 Insights in Physical Activity Plan (PAP)

*3.1.1a Perspectives in PAP.* The participants generally defined physical activity plan according to how they perceived it. They have described it as a kind of initiative to plan out activities given to students aligned to the most essential learning competencies that will increase their physical activity. Likewise, it includes objectives, purpose, and steps to follow to develop the learners through a period. Consequently, it is a tool used by PE teachers composed of a guide that the students and their family members could use during this pandemic. It may be a short-term or long-term goal that we can provide the students with a step-by-step process that gauge their progress. Some participant verbalizes that PAP is:

- “kind of program or initiative to plan out activities given to students which are aligned to MELC.”
- “Program with objective and purpose and steps to follow that you intend to develop for learners.”
- “A plan made by an individual that can be followed thru a period of time like a day a month”
- “plan or a program given to students for them to acquire.”
- “Tool or a plan used by a PE teacher composed of initiatives wherein it can be used by the students or family members.”

*3.1.1b Significance of PAP to Teachers.* Teachers also emphasize the importance of PAP in physical education instruction. They stressed that PAP helps teachers organize and finalize the activities for the quarter to avoid delays in conducting the lesson. Likewise, it helps teachers to assess students during performances. Teachers will not get lost since there are bases and patterns to give the students the simplified activity that will encourage them to do their physical activity. Therefore, teachers can deliver a better and quality approach to the learners to enhance their activity. Most of the participants mentioned that:

- “help us plan ahead for students, help us organize and finalize for the quarter.”
- “organization of activity.”
- “No delay in conducting the lesson”
- “help me assess students in conducting physical activities”
- “for teachers not to get lost”
- “have the basis and pattern to give to the students to meet the objective comprehensively. an innovation to simplify the activity for the students.”
- “guide for students”

*3.1.1c Necessity of PAP to Students.* School teachers strongly emphasized the incorporation of PAP into PE instruction. They stressed that PAP enables the students to be more engaged and improve health and well-being. Since not all activities are applicable, considering the facility and students' needs and skills is necessary to attain long-term health benefits. Most of the participants shared these:

- “Not all activities are applicable. need to consider the facility and the student’s needs and skills”
- “to help students to be more engage and improve health being.”
- “Improves the whole being of the learners. guide in determining the exercise for the learners”
- “Long term health benefits.”
- “To promote good health and staying active throughout all stages of life regardless of your body type or BMI.”

*3.1.1d Duration of Physical Activity.* The participants mentioned that one hour per week is not enough to attain all the competencies in PE on time, and students have different physiological needs. Thus, they suggested additional time for the students to do PAs within and beyond class hours. Most of the participants suggested that:

“2 -3 hours per week time for physical activity.”

“3 hours a week in SHS to follow up the skills taught to the students.”

“It depends on the type or intensity of the activity of activity.”

“We cannot limit to 1 hour only. It depends on the physiological needs of the learners.”

*3.1.2 Suggestions for the Development of Physical Activity Plan in Exercise for Fitness (PE 1), Individual/ Dual and Team Sports (PE2), Dance (PE 3), and Outdoor Recreational Activities (PE 4)*

*3.1.2a Topics for PE1, PE2, PE3, and PE4.* The participants profoundly suggested topics to be used in PE 1- PE 4 in senior high school. Likewise, they simplified the areas to be attainable and flexible depending on the school's availability of resources and students' capacity to accomplish the tasks. Each group of participants suggested the following:

“Barriers, Self- Assessment, Cardiovascular Endurance, Physical Activity and Exercise, Healthiest and Fittest Me. Subtopic: Component of Physical Fitness, Exercise for Fitness, Health-related Fitness Test, Aerobic activities and Anaerobic, Muscle and bone-strengthening activities (resistance training), Principles of Exercise, Types and Forms of Exercise, FITT principles and Goal Setting, Developing a Personal Fitness Program or Training Plan”, Physical Activity, Identify the intensity of dance fitness, Application of Moderate to Vigorous Activities, Rate of Perceived Exertion and Physiological Indicators in Exercise, Dehydration, Overexertion, Hypothermia, and Hyperthermia (Definition of Terms, Factors, Things to do to avoid exercise-related injuries), Personal safety protocol during physical activity, Exercise Equipment and Proper Etiquette, Safety Protocols in the use of Facility and Equipment, Etiquette and safety in sports, Health Fitness Programs, Benefits of PE Lifestyle, How to Organize Health Events/ Programs, Physical Activity Event Planning, Value of Optimizing Oneself thru Physical Activity, Career Opportunities in Health and Fitness, Post Assessment in HRF”

“Sports and Its Types, Stress management thru Physical activity, Safety Protocol to Avoid Sports-related Injuries during Sports Participation, Individual/ Dual and Team Sports: History, Nature and Background, Terminologies, Facilities and Equipment, Basic Skills, Basic Rules”

“Introduction to Dance, Physiological Indicators and Managing Stress Through Dance, Dances (Home-Based Performances), Folk dance, Ballroom, Hip Hop, Cheer dance, Festival dance, Modern dance, Dances to be introduced will depend on the expertise of the instructor”

“Nature and Purpose of Outdoor Recreation, Topics to be introduced will depend on the availability of the resources, Principles of Outdoor Activities, Safety Protocols in Outdoor Recreation, Recreational Activities (Home-Based), Hiking, Recreational Swimming, Survival in Swimming, Mountaineering, Camping with the family, Laro ng Lahi, Water Games, Biking”

*3.1.2b Physical activities for PE1, PE2, PE3, and PE4.* The participants also suggested physical activities that can be applied to the topics in PE 1- PE 4 in senior high school. They have focused more on active physical activities that students can easily perform. They suggested the following:

“Aerobic and Zumba Fitness, Physical Fitness Test, Create a video of aerobic dance steps showing aerobic, muscle strength, & Bone strengthening activities, Cardio Exercises, Breathing Exercises, Light to moderate physical activity that assesses their aerobic activities, PA Log applying Principles of Exercise, PA Plan for a week (Chart depending on their physiological needs), PA Log using FITT, Personal Fitness Program with Family Members, Household chores, dances, sports, Active Recreation (Specific PA of Different Levels), My Fitness Plan (Moderate or Vigorous Activity), PA Using RPE Levels, Aerobic or Anaerobic PA in Different Levels of RPE, Advertisement (how to execute safety protocol), Any Physical Activity in which safety protocol is applied, Roleplaying highlighting the precautionary measures (Comparison of what is the right or wrong way), Aerobic Fitness outdoor, Fitness



Program using gym and improvised equipment, Choose a physical activity that would use equipment showing the proper way of handling it through a video, Organize Fitness Event with family members, Group presentation of any fitness activity, Assist in organized sports events in school or within the community, PPFT Post- Test”  
 “Basic Skills in specific sports” (Perform at home), Correct and proper execution of skills, Perform the striking techniques, rate the performance based on rubrics, and execute the basic skills”  
 “Perform Basic Steps of the Dance, Perform the dance using simple choreography”  
 “Conduct outdoor activity at home following Safety Protocols, Basic Skills in Performing the Recreational Activity”

*3.1.2c Classroom assessments for PE1, PE2, PE3, and PE4.* The participants emphasized that written assessment should always be present. Hence, performance rubrics should be available for every performance task introduced in PE 1-PE 4 in senior high school. As such, the points in the rubrics can be modified by teachers. The following performance assessments were suggested:

“Aerobic or Zumba Fitness, PPFT with MOV’s, Video Dance Performance, Cardio or Breathing Exercises, Light to Moderate PA that focuses on Aerobics, Modification of points is subject to the teacher's discretion, Activity Log with MOVs, FIIT Principle Activity Log with MOVs, Personal Fitness Program Plan, Activity Plan with MOVs, Active Recreation Plan, Fitness Plan (MVPA), PA with RPE Application, Aerobic and Anaerobic PA, Rubrics (Advertisement on how to execute safety protocol), Rubrics (Any Physical Activity in which safety protocol is applied), Roleplay with rubrics (Roleplaying highlighting the precautionary measures), Performance Rubrics (Safety Protocols for MVPAs), Rubrics (Fitness Program using gym and improvised equipment), Video Performance in Doing PA following the Etiquette in Exercise), Video Presentation (home base work out with Family members), Video Presentation (Compiled Fitness Act. of Group Members) Portfolio, PPFT with MOVs”  
 “Video (Basic Skills), Picture (Basic Skills, Actual game, PPFT with MOVs”  
 “Basic dance steps, Dance presentation, Modification of points is subject to the teacher's discretion, Video Format: assessment of dance genre with rubrics”  
 “Video Presentation on safety protocols with Rubrics (Conduct outdoor activity Safety Guide), Video Presentation with Rubrics (Principles of Outdoor Activities – Lecture), Video Presentation (Safety Protocol), seven principles, Benefits, Discussion of Recreational activities”

### *3.2 Discussion of Qualitative Results*

Physical Activity Plan (PAP) is an initiative aligned to the most essential learning competencies that increase physical activity (PA) participation. It should include a proper exercise plan for positive improvements (Pederson & Saltin, 2015). This will enable the teacher to observe, measure, and produce an impact on every individual (Musumeci, 2021). Likewise, PAP includes procedures that monitor the learners' progress since a school-based program is a powerful approach to improving student's physical fitness and cognitive health (Latino et al., 2021). Students who perform additional PA manifest an improvement in cognitive and psychomotor areas (Santana et al., 2017). PAP can be utilized by students and their family members during the pandemic because regular exercise improves physical fitness, which results in academic success (Phillips et al., 2015). Also, a higher PA results in more pleasant learning (Singh et al., 2019). Consequently, PAP is a self-paced guide that is more achievable for learners.

PAP generally helps teachers organize PA in PE to avoid delays and assess students during PA performance. Additionally, it is common for young people to engage in PA outside of school. Thus, the institution should stress the importance of PA since it relates to enhanced cognitive benefits, behaviors, and school performance (Martin et al., 2018; Álvarez-Bueno et al., 2017). Since PAP is a simplified guide for teachers not to get lost, they can deliver quality PE where knowledge and skills can be extended in students' homes to enhance PA participation. Because of the prevalence of weight gain, attention to improving PA should consider avoiding physical inactivity and improper eating behavior (Greco et al., 2019).

Likewise, limited PA has an adverse unfavorable effect, especially during the pandemic. Thus, making adequate PA will maintain a healthy lifestyle and should be prioritized, especially during a critical situation (Latino et al., 2019). This will make PA regular at home, which will enable the individual to stay active, vigorous, and safe, which are needed for mental and physical health, especially during the pandemic (Lippi et al., 2020). Therefore, it is important to create a practical and efficient intervention to enhance health (O'Brien et al., 2020).

An intervention in PE instruction is necessary since students are getting less active because of the pandemic restrictions (O'Brien et al., 2020) to improve health and well-being. Since not all activities are applicable, individual planning is an effective intervention to increase PA in individuals. The findings indicate that routines positively affect the plan (Keller et al., 2017) in which the need to consider the facility and student's needs and skills are a must to attain long-term health benefits.

Likewise, additional time to be spent in PA is needed to meet the recommended amount of daily activity to maintain health. Therefore, a physical activity guideline suggests that to attain various health outcomes, 60 minutes or more of moderate to vigorous physical activity (MVPA) daily (Piercy et al., 2018).

### 3.3 Quantitative Results and Discussion

#### 3.3.1 Degree of Agreement on the Insights on the Physical Activity Plan

Table 1 results showed that the PE teachers in the quantitative phase generally agreed with the different perspectives about the PAP (M=3.84, SD=0.25, Int= SA). Specifically, teachers strongly agreed that the PAP is significant to them (M=3.80, SD=0.30, Int=SA). It is a necessity for the students (M=3.83, SD=0.29, Int=SA), and a strong emphasis on adding physical activity time for implementation (M=3.81, SD=0.26, Int=SA).

PA interventions are believed to improve competence, health (Halaidiuk et al., 2018), and fitness-related attitudes (Haible et al., 2019). By incorporating it into the curriculum, it will have a positive impact on students' PA and academic outcomes (Norris et al., 2020). Likewise, it improves proficiency, intensifies PA, and reduces other health risks (Engel et al., 2018). Moreover, introducing such an intervention gives a positive attitude to students to change their health behavior, solve academic barriers, and avoid chronic disease (Newsome et al., 2021). These benefits will be attained through engaging in moderate to vigorous PA (MVPA) (Jakicic et al., 2018) in higher intensities (Tarp et al., 2018) and longer duration to avoid depression (Currier et al., 2020), to be more active (Stewart et al., 2018) and mortality risk reduction (Saint-Maurice et al., 2018).

Table 1: Insights of Physical Education Teachers in the School's Division of Negros Occidental to Develop the Physical Activity Plan

Items	M	SD	Int
Perspective on Physical Activity Plan			
<i>Average Weighted Mean</i>	3.84	0.25	SA
Significance of PAP to Teachers			
<i>Average Weighted Mean</i>	3.80	0.30	SA
Necessity of PAP to Students			
<i>Average Weighted Mean</i>	3.82	0.29	SA
Duration of Physical Activity			
<i>Average Weighted Mean</i>	3.71	0.32	SA
<i>Overall Mean</i>	3.81	0.26	SA

*Mean Range:* 1.00-1.75=Strongly Disagree (SD), 1.76-2.50=Disagree (Di), 2.51-3.25=Agree (Ag), 3.26-4.00=Strongly Agree (SA)

#### 3.3.2 Degree of Alignment of the Physical Activity Plan in the MELCs

Table 2 results revealed that the suggested topics, activities, and classroom assessments in Exercise for fitness are well-aligned (M=4.50, SD=0.57, Int=VHD). Likewise, for Individual/ Dual and Team Sports, it also showed well-alignment in the MELCS (M=4.52, SD=0.50, Int=VHD). Moreover, topics, activities, and classroom assessments

in Dance were well- aligned ( $M=4.45$ ,  $SD= 0.53$ ,  $Int=VHD$ ), and the same degree for Outdoor Recreational Activities ( $M=4.54$ ,  $SD=0.49$ ,  $Int=VHD$ ). This reflects that all the suggested topics, activities, and classroom assessments in PE1-PE4 are well-aligned ( $M=4.50$ ,  $SD=0.46$ ,  $Int=VHD$ ).

Thus, the topics, activities, and assessment tools in each PE area coincide with the essential competencies of the curriculum. Thus, there is a very high degree of alignment of PAP in the PE MELCs. Therefore, the different suggestions could hit the target of each area that the students should acquire. It will help them be competent in the skill's pre-requisite to the next skills to be learned in the succeeding areas. Therefore, physical literacy is attained for healthy sustenance.

The crafted PAP may be a structural model to be used as an intervention for health promotion and active lifestyle (Carl et al., 2020) and improve health competencies (Haible et al., 2020). Adapting the PAP in the PE curriculum may be a major reform in educational philosophy. However, a clear description will ensure alignment in the education delivery system (Care et al., 2018).

Since the PAP was a collaborative effort of PE teachers, the implementation of the program will support the schools' PA program (Egan et al., 2019), help engages students in PA and sports, and help teachers understand motor perceptions of students as long as the competencies were clearly defined (Estevan & Barnett, 2018). Moreover, activities reflected in the PAP were modified and contextualized. This is important in reaching fitness (Miller et al., 2019) since the perceived motor competence of students was low (De Meester et al., 2020). School-based interventions like the PAP should be promoted to promote PA levels, behaviors, and student competencies (Haible et al., 2019).

In addition, the PAP is considered a self-paced tool for students in mastering the important competencies that will bring positive experiences, especially to those who have less motivation in doing PA (Holt et al., 2019), and enhance students learning (SHAPE America, 2018). Thus, the developed learning experience enables competency building while optimizing the available resources (Webster et al., 2021). Moreover, the PAP embarks on a skill-themes approach that will improve students' competencies (Richards et al., 2019; Kim & Cardinal, 2019), increasing PA levels and participation (Weaver et al., 2018).

### 3.3.3 Extent of Practical Application of the Suggested Topics, Activities, and Classroom Assessment Tools in PE instruction

In Table 3, the analysis revealed that the coverage in PE1-PE4 is sufficient. ( $M=3.70$ ,  $SD=0.38$ ,  $Int=Very\ Great\ Extent$ ). Likewise, the duration for the suggestions in PE1-PE4 was adequate ( $M=3.67$ ,  $SD=0.46$ ,  $Int=Very\ Great\ Extent$ ). Consequently, the schools have available and feasible facilities and equipment to be utilized from the suggestions in the PAP ( $M=3.72$ ,  $SD=0.46$ ,  $Int=Very\ Great\ Extent$ ). Moreover, PE teachers demonstrate knowledge and skills in delivering the suggestions in the PAP ( $M=3.83$ ,  $SD=0.31$ ,  $Int=Very\ Great\ Extent$ ).

Thus, the suggested topics, activities, and classroom assessment tools in all PE areas are applicable and feasible in PE instruction, considering the different areas in PE. This means that the coverage of the PAP targets the essential areas the students need to master to develop specific skills. Likewise, the PAP provides adequate time for the different PAs to be performed to attain mastery and physical improvement. Moreover, each school has the necessary facilities and equipment to implement the PAP. This implies that every school focuses on the basic activities that are popular, easy to be performed and master, and contextualized for the students to easily understand the concept and perform the necessary skills. Lastly, PE teachers possess the basic and necessary skills to implement the PAP in PE instruction. It implies that the teachers are credible and have the skills to deliver the instruction using different approaches in PE1 to PE4.

Table 2: Degree of Alignment of PAP in the MELCs

Items	M	SD	Int
<b>Exercise for Fitness</b>			
The suggested topics in PE 1	4.52	0.63	VHD
The suggested activities in PE 1	4.55	0.64	VHD
The suggested classroom assessments in PE 1	4.43	0.66	VHD
<i>Average Weighted Mean</i>	<i>4.50</i>	<i>0.57</i>	<i>VHD</i>
<b>Individual/ Dual and Team Sports</b>			
The suggested topics in PE 2	4.52	0.63	VHD
The suggested activities in PE 2	4.52	0.59	VHD
The suggested classroom assessments in PE 2	4.52	0.53	VHD
<i>Average Weighted Mean</i>	<i>4.52</i>	<i>0.50</i>	<i>VHD</i>
<b>Dance</b>			
The suggested topics in PE 3	4.46	0.63	VHD
The suggested activities in PE 3	4.46	0.57	VHD
The suggested classroom assessments in PE 3	4.44	0.60	VHD
<i>Average Weighted Mean</i>	<i>4.45</i>	<i>0.53</i>	<i>VHD</i>
<b>Outdoor Recreational Activities</b>			
The suggested topics in PE 4	4.54	0.57	VHD
The suggested activities in PE 4	4.59	0.56	VHD
The suggested classroom assessments in PE 4	4.51	0.57	VHD
<i>Average Weighted Mean</i>	<i>4.54</i>	<i>0.49</i>	<i>VHD</i>
<i>Overall Mean</i>	<i>4.50</i>	<i>0.46</i>	<i>VHD</i>
<i>Mean Range: 1.00-1.80=Very Low Degree (VLD), 1.81-2.60=Low Degree (LD), 2.61-3.40=Moderate Degree (MD), 3.41-4.20=High Degree (HD), 4.21-5.00=Very High Degree (VHD)</i>			

The coverage in the PAP is sufficient for the delivery of the instruction. This creates stability and develops habits (Hagger, 2019), and regulates lifestyle (Hammami et al., 2022), which leads to positive effects (Coumans et al., 2021). This improvement will lead to a population-level impact (Ding et al., 2020). Thus, the structured plan should be a recommended alternative (Fong et al., 2018).

Likewise, the durations in the PAP were adequate for implementing the PE instruction. Having enough time to do PA plays an important role (Rogers et al., 2018), intensifies movement, and improves health (Borghese & Janssen, 2019). Thus, it improves academic performance (Mineshita et al., 2021). Additionally, varied amounts of PA create varied health outcomes while following the guidelines (Piercy et al., 2018). However, some schools do not implement this policy; therefore, a strategy like enough PA time improves implementation and increases PA among students (Nathan et al., 2018), body composition, mental health, and well-being (Riso & Jürimäe, 2018) as long as it is age-appropriate (Liu et al., 2020).

Moreover, the schools have the basic facilities and equipment to be used in the implementation of the PAP that improves the implementation of the PE program (Asiimwe et al., 2021). This proves to be useful in developing health and well-being (Carroll et al., 2018). Considering the resources needed in PE activates students' PA and lifestyle formation (Zhamardiy et al., 2020; Aro et al., 2018) that reduces sedentary behaviors (Bull et al., 2020). On the other hand, poor access to PA resources results in lower participation (Borena et al., 2019; Black et al., 2019) and a negative effect on PA levels (Theis et al., 2021). Therefore, accessibility to the resources improves PA participation (Wang et al., 2019).

Lastly, PE teachers have sufficient knowledge and skills to implement the suggested topics, activities, and classroom assessment tools in PE1 to PE 4 to their PE instruction. This improves students' well-being, knowledge, and performance in PE programs (Behzadnia et al., 2018) and PE curriculum in general (D'elia, 2019). Applying the designed PAP is professional development for PE teachers (Kim et al., 2018) that will make PE teaching effective and influence students' literacy and participation (Sum et al., 2018). Moreover, this scientific innovation will develop schools' structure and organization that enables teachers to value new approaches in PE to acquire key competencies (D'Elia et al., 2018) and improve teachers' implementation for potential benefits (Auerbach et al., 2018). Likewise, this new pedagogical approach creates positive outcomes for students in PE (Harvey et al., 2020) with high health and fitness competencies (Griban et al., 2020).

Table 3: The extent of Practical Application of the Suggested Topics, Activities, and Classroom Assessment Tools in PE1, PE2, PE3, and PE4 instructions

Items	M	SD	Interpretation
The coverage of the suggested topics, activities, and classroom assessment tools are sufficient in <i>Average Weighted Mean</i>	3.70	0.38	<i>Very Great Extent</i>
The duration is adequate for the suggested topics, activities, and classroom assessment tools in <i>Average Weighted Mean</i>	3.67	0.46	<i>Very Great Extent</i>
The resources are available and feasible for suggested topics, activities, and classroom assessment tools in <i>Average Weighted Mean</i>	3.72	0.46	<i>Very Great Extent</i>
Teachers can demonstrate knowledge and skills for the suggested topics, activities, and classroom assessment tools in <i>Average Weighted Mean</i>	3.83	0.31	<i>Very Great Extent</i>
<i>Overall Mean</i>	3.73	0.36	<i>Very Great Extent</i>
<i>Mean Range: 1.00-1.75=</i> Poor Extent, <i>1.76-2.50=</i> Moderate Extent, <i>2.51-3.25=</i> Great Extent, <i>3.26-4.00=</i> Very Great Extent			

### 3.4 Discussion and Integration of Data

The interconnection of the themes obtained from the focus group discussion, and a majority of high scores in the degree of agreement of PE teachers on the insights in PAP, degree of alignment in the PE MELCs, and extent of practical application in the PE instruction denote five major concepts why PAP is essential.

The integrated qualitative data on the insights of PE teachers regarding the PAP and how the PE teachers agreed and accepted those ideas clearly states that teachers have a common understanding of what PAP is all about. It described the synchronicity of the PE teachers on the general purpose of the plan for effective implementation of the instruction and health optimization (Haible et al., 2019). As such, the PAP is an enhanced curriculum guide for PE teachers to better implement the curriculum (Halaidiuk et al., 2018).

Likewise, the emphasis that the PAP is an aid to PE teachers supports the idea that the teachers have a systematic guide in designing the subject curriculum for quality delivery of instruction (Egan et al., 2019). More so, it is an innovative strategy that allows every topic, activity, and classroom assessment tool aligned in the PE MELCs, which can be practically and feasibly applied in the PE instructions (Care et al., 2018).

Consequently, the general recommendation of the World Health Organization for a minimum amount of PA in a week for health sustenance can be obtained (Saint-Maurice et al., 2018) since teachers agreed that the PAP helps students to be more engaged. In this light, specific and varied activities which are easy and not complicated address higher motivation to complete PA recommendations (Newsome et al., 2019). Therefore, the PAP develops the most essential competencies the students need to effectively perform the skills in every PE area (Haible et al., 2020).

Moreover, a 30-60-minute PA is recommended for a school-aged adolescent (Jakicic et al., 2019). Unfortunately, PE class time cannot suffice the need and recommendation for effective PA (Nathan et al., 2018). Aside from the regular PE class, an acceptable amount of additional time for PA will help attain PA recommendations (Bull et al., 2020). This is all for improving motor skills, health, and well-being (Tarp et al., 2018).

The PE curriculum in senior high is broad in nature, and the application of the MELCs from the start of the pandemic narrows the scope to be implemented (Sum et al., 2018). Thus, the suggestions in the different PE areas clearly show what should be covered and focused on for skill themes to be mastered and improve PA levels (Coumans et al., 2021). Therefore, a strong recommendation for the PAP to be implemented in PE instruction (Fong et al., 2018) is a call of the PE teachers in the field since it is applicable and feasible.

#### 4. Conclusion

The participant's insights on the development of the PAP paved the way for creating an innovative strategy for improving PE instruction. Their suggestions on the different topics, activities, and classroom assessment tools make the delivery of the instruction more specific. And so, it will help students acquire the skills for performance. Moreover, the high degree of alignment of the PAP in the PE MELCs and its practical application to PE instruction denotes a strong recommendation that the developed PAP may be implemented in the SHS PE curriculum. It adds up to delivering the PE instruction with quality in which students acquire the necessary competencies required in every PE area. As such, teachers have a defined tool in their learning plan to ensure quality in implementing instruction.

This study understands and recognizes some limitations that might affect the generalizability of the results. The results from the two phases of the study and analysis in the integration are solely applicable to a public senior high school in Negros Occidental. A private senior high school situation may have different results and analyses. Also, the developed PAP is only for PE teachers in public senior high schools. Through this, other institutions may introduce other types of plans for their instruction. Moreover, the size of the respondents in the quantitative phase is limited. Hence, more samples may have a different presentation of the results. Likewise, the data collection instrument (survey questionnaire) may focus on obvious areas in PE where other important areas may be left out. Lastly, the duration of the data gathering is a limitation. Thus, a longitudinal approach may be a consideration for further exploration of this study.

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