Instructional Activities and Level of Flexibility of Grade 7 Learners

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Abstract- ***This study determined the influence of instructional activities on the level of flexibility of Grade 7 learners in San Pedro National High School, San Pascual South District, Division of Masbate Province, School Year 2024 2025. Specifically looked into: (1) demographic profile of the learners in terms of sex and their body mass index; (2) status of flexibility of Grade 7 learners; (3) level of utilization of instructional activities; (4) level of flexibility of Grade 7 learners after the utilization of the instructional activities; (5) significant difference between the level of flexibility before and after using instructional activities; and (6) the effectiveness of the instructional activities to develop flexibility. This study employed descriptive-comparative-correlational method of research. There were 94 Grade 7 learners involved in the study. The data were gathered through survey questionnaire and evaluation checklist which were treated by statistical tools such as frequency count, percentage technique weighted mean, Pearson Product Moment Correlation, Cohen's D. The following were the findings: (1) The demographic profile included 54 males and 40 females. Of the total respondents, 85 had a normal BMI; (2) Regarding flexibility, 37 males and 27 females achieved an overlap of 8 cm or more with their right arm, while 25 males and 18 females achieved the same with their left arm., 66 learners aged 12 performed the sit-and-reach test; (3) the highest indicator is the static stretching exercise with a weighted mean of 3.23, while the lowest is Calisthenics with a weighted mean of 2.73. The average weighted mean across all activities is 3.23 (4) 69.15% of all participants overlapping their fingers by 8 cm or more; 50% of females and 48.15% of males in left arm overlap of 8 cm or more, and the scores ranged from 23.2 cm to 24.0 cm, with the majority scoring around 23.9 cm; (5) zipper test, the t-statistics for right and left overlap are -0.0582 and -0.116, with a critical value of 2.3060. For the sit and reach test, the t-statistics for males and females are -0.0022 and -0.0026, both with the same critical value.; (6) zipper test, right and left overlaps had Cohen's d values of 0.04 and 0.07, sit and reach test showed Cohen's d of 0.23 for males and 0.29 for females The conclusion drawn were: (1) demographic profile of the learners in terms of sex, there were more male learners than female learners. Majority of the learners had normal BMI with a total of 85 individuals or 90.43%; (2) the status of flexibility of learners in terms of zipper test right overlap arm had most respondents demonstrated increasing finger overlap, with the highest proportion achieving the maximum score; in overlap left arm, most respondents scored high points for finger overlap, overall scoring five points, and in sit and reach, majority of respondents across different age groups exhibit a relatively high level of flexibility; (3) the level of utilization of instructional strategies shows that static stretching exercises are most prominently utilized; (4) majority of learners demonstrated flexibility, particularly in the higher overlap right arm, considerable proportion of learners demonstrated high flexibility posttest in overlap left arm, and in sit and reach, female learners generally exhibited greater flexibility than male; (5) here was no significant difference in learners' flexibility before and after the instructional activities; (6) the instructional activities employed had limited impact on enhancing flexibility, as evidenced by the small effect sizes.***

Index Terms- ***Instructional Strategies, Flexibility, Grade 7 Learners***

I. INTRODUCTION

Instructional activities are an important part of learning because they help students understand and apply new knowledge. However, there are many issues and problems that can affect how effective these activities are. Sometimes, activities may not match students' learning styles or needs. Other times, there may be a lack of resources or proper planning. These challenges can make it difficult for learners to

stay engaged, understand the lessons, or achieve their full potential. It is important to recognize these problems so educators can find ways to improve instructional activities and support all learners better.

Furthermore, flexibility is an important part of physical fitness that helps improve movement and prevent injuries. However, many learners face challenges when it comes to flexibility tests like Overlap Right Arm, Overlap Left Arm, and Sit and Reach. Some students find it hard to reach or stretch properly, which can affect their scores and overall progress. These issues may be caused by factors such as lack of regular stretching, muscle tightness, or physical limitations. Understanding these problems can help in finding better ways to improve flexibility and promote a healthier, more active lifestyle for learners.

Understanding how instructional activities affect learners' flexibility is important for designing effective physical education programs. Sometimes, students may struggle to perform certain flexibility exercises due to various factors. These issues can include differences in how instruction is given, the amount of practice students get, and their individual physical abilities. When instruction does not match the learners' needs or when flexibility levels are not properly supported, it can lead to frustration, slow progress, or even injury. Exploring the relationship between teaching methods and students' flexibility levels helps in creating better strategies to improve their physical skills safely and effectively.

In today's world, education and physical development are both important for overall well-being. One key challenge is understanding how different instructional activities affect learners' flexibility and physical skills. Many students have varying levels of flexibility, which can influence their participation and progress in physical activities like stretching and exercises. Globally, there is a growing concern about how to design effective teaching methods that accommodate these differences. Ensuring that all learners can improve their flexibility safely and effectively remains a significant issue for educators worldwide. Addressing this interplay is essential to promote healthier, more inclusive learning environments for everyone.

The Sustainable Development Goals (SDGs) aim to create a better world by addressing key global challenges. Goal No. 4 focuses on ensuring inclusive and equitable quality education for all. Education is the foundation for personal growth and development, and it plays a vital role in building sustainable communities. To achieve this goal, instructional activities must be engaging and adaptable to meet the diverse needs of learners. Providing flexibility in learning allows students to learn at their own pace, embrace different learning styles, and overcome challenges. This is in consonance with the Sustainable Development Goals. Specifically, Goal No. 4 which centers on quality education. It aims to: “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. This goal supports the reduction of disparities and inequities in education, both in terms of access and quality. It recognizes the need to provide quality education for all, and most especially vulnerable populations, including poor children, children living in rural areas, persons with disabilities, indigenous people and refugee children.

The Philippines faces ongoing challenges in education, particularly in how instructional activities are designed and how flexible these activities are for learners. Many students struggle to keep up with rigid teaching methods that do not consider their individual needs and learning paces. This mismatch can affect their motivation, understanding, and overall performance. As education continues to evolve, it is important to understand how the level of flexibility in instruction impacts learners' engagement and success, and to find ways to make learning more adaptable and inclusive for all students. Part of providing quality education is to consider the physical fitness of the students. With that, DepEd Order No.4, s. 2019 which is also known as Revised Physical Fitness Test Manual was implemented. Specifically:

Physical fitness is crucial for well-being and active life. The total progress of an individual should be prioritized in terms of the physical, mental, emotional, social aspects and health through a comprehensive physical fitness program and assessment. The learners can only perform at the height of their performance when they are healthy and strong. Thus, the learners need to actively engage in lifelong habits of regular physical activities for their overall health improvement and quality of life.

The PFT shall be treated as an essential component of the Physical Education and School Sports Program, for the elementary (Grades 4, 5) and secondary levels. It shall be administered at the beginning of the first quarter and of the third quarter, to monitor improvement/progress.

According to World Health Organization (2025), regular physical activity promotes both mental and physical health in people of all ages. Yet, today, more than 80% of adolescents and 27% of adults do not meet WHO's recommended levels of physical activity. This affects not only individuals over their life course, but also places a financial burden on health services and society as a whole.

According to de Faria (2023), the physical fitness of college students is not in their optimal values; the proportion of good and excellent is low; the normal BMI of female students is 87.526%, slightly higher than 76.674% of male students; the overweight BMI of male students is 13.787%, slightly higher than 8.058% of female students. In college students' total physical health score, the failed male students accounted for 12.48%, and the female students 7.58%. Only 77.07% of male and 78.75% of female participants passed; the fraction of males with a good grade was 10.31%, and females were 11.7%; only 0.12% of males and 1.95% of females achieved excellent grades.

Relevant to the abovementioned, teachers utilized various instructional strategies. For instance, Gumbo et al. (2017) conducted a study to analyze the teaching strategies which are used by physical education teachers in Gokwe north primary schools in the midland's province of Zimbabwe and also to assess the factors affecting the effectiveness of these strategies. This study adopted a qualitative methodology, utilizing the case study design which guided the generation of relevant data. A total of twenty-four participants were conveniently sampled for data collection and these included three heads of schools, six physical educators and fifteen form two students. Three focus group discussions were used to obtain the views of the three groups of participants. Research findings revealed that physical education teachers apply several teaching strategies. These included the lecture, individualized instruction, task teaching, cooperative learning, problem solving, interactive teaching, peer, station, simulation and active teaching. Among the stated teaching strategies, some were used more frequently than others. The effectiveness of these teaching strategies was found to be low because they are negatively affected by a host of factors such as negative attitudes of teachers, lack of examinations in the subject, lack of time, lack of appropriate equipment and facilities.

In addition, Sangco (2022) also conducted a study to determine the extent of the identified emerging physical education teaching strategies and their relation to students' academic performance in PE. The descriptive-correlational research design which made use of a researcher's made questionnaire was employed on the selected Physical Education teachers from CPSU System. A quota of five students for each teacher was also asked to answer the same set of questionnaires to measure the extent of the identified teaching strategies as perceived by them and the test of concordance as stipulated in the statement of the problem of this study. Results revealed that the majority of the respondents were below 30 years old, sex in favor female, most were part-time teachers, the majority had served in teaching for below 10 years and most have units in their master's degree/ graduated. PE teachers had a very high extent of implementation of the five strategies except for self-instructional strategies. Students perceived all strategies with high extent results. Students' academic performance in PE was rated very satisfactory based on the institutional grading system of CPSU and verbal interpretation was adopted and patterned from DepEd Order Number 8, series of 2015. Only self-instructional strategies were proven to have a highly significant and significant difference in terms of teaching status and educational attainment respectively. Students' academic performance in PE gained a highly significant difference with sex. Cooperative teaching and practice strategies were significantly concorded as perceived by teachers and students. Only the interactive teaching exposed a highly significant relationship with students' academic performance in Physical Education.

Also, Zhang & Zhang (2023) conducted a study which aimed at comparing and contrasting the differences between modern interactive learning and traditional teaching strategies. This modernization brings about other forms of physical education, being student centered and more interactive. This form of interaction promotes the connection between

teachers and students and promotes the transmission of feedback and the continuous improvement and novelty of activity forms. The modernization of physical education curriculum brings many benefits; some of which will be listed in this paper. This study is aimed at promoting more display of students' personality in modern physical education teaching with clear research conclusions. Let the students in the training interact with teachers and interact with the group, in the interaction to play their own greater initiative, enthusiasm. Let the relationship between students and teachers be more harmonious, and let the students' physical quality get better development.

Additinally, Weeldenburg et al. (2021) conducted a study with the aim of exploring the experiences and motivational needs of students within secondary school Physical Education, attempting to identify their preferred motivational instructional strategies. Nine focus group interviews were conducted comprising 61 students across 3 different schools. The semi-structured interview guide was based on the TARGET (Task, Authority, Recognition, Grouping, Evaluation, Time) framework. Interviews were analysed using the Framework Method. Results revealed that student-preferred instructional strategies were in line with the tenets of the self-determination theory and achievement goal theory. Students stressed the importance of variation, challenge, achievable tasks, involvement, structure, positive and individual feedback, careful grouping, progress evaluation, transparency of standards and reliable assessment. Structuring these strategies according to the TARGET dimensions provided an overview to support PE teachers in realizing an optimal motivational class climate.

Moreover, Zach et al. (2023) conducted a study to emphasize that cooperative learning in physical education classes is perceived as beneficial. The aim of this article was to examine whether field studies that include cooperative learning in their physical education intervention programs provide applicable data—to allow teachers to choose the optimal teaching strategy in line with their teaching goals. A systematic review of 44 research studies, published between 2000 and 2020, was conducted. Data related to teaching strategies and outcomes were compiled and discriminant function analysis was conducted, to classify the articles according to positive outcomes reported/not reported. Our results suggest a partial association between a range of cooperative teaching strategies (including Jigsaw, Learning Team, Complex, and Complex Instruction, as well as the cooperative learning model and combined strategies) and learning outcomes in four domains (social, physical, affective, and cognitive). Literature review reveals that while the published data is valuable, additional research is needed to complete the picture.

According to da Silva et al. (2020), Physical Education has historically been based on teaching strategies predominantly directives, it is possible speculate that less directive methodologies might contribute more effectively to learning. The aim of this study was to compare the possible implications of using different teaching styles for learning volleyball game. Thus end, 27 teenagers divided into three groups (Directive Group; Indirective group and control group) took part for an intervention program of eight meetings aimed at teaching procedural volleyball contents. Overall, the results suggest that indirective teaching styles contribute more effectively to participation decision, which causes a reflection on the need to revisit the teaching strategies used by teachers and the need for a more systemic approach to teaching games.

Similarly, Salters & Benson (2022) conducted a study which focused on Fundamental motor/movement skills (FMS) described as the basic skills necessary to complete physical tasks, and are a key aspect of primary school physical education (PE) programs. Yet, specific teaching styles for FMS development have been relatively unexplored. Through a mixed-methods design, experiences and perceptions of different PE teachers (preservice, specialist, and generalist) were explored. The Spectrum of Teaching Styles (STS) survey was used to quantify self-reported use of teaching styles that may be used by PE teachers (N = 102). Semi-structured, qualitative interviews with a subset of participants (N = 11) were employed to explore how PE teachers perceive FMS development in PE classes. Combined, the findings highlight a preference for collaborative approaches to teaching and learning in PE, with a specific preference for explicit teaching strategies. Survey results demonstrated a preference for Style B (the practice style), which promotes teacher facilitation of activities and constructive feedback, with opportunities for students to practice skills and receive feedback. Teachers described how confidence with PE content influences the ability to

provide lessons that target FMS development; this was reinforced by desires for additional professional development and training. Together, the findings provide a holistic view of teaching styles used in PE for FMS development, and outline a need to explore teaching approaches used by different PE teachers.

Moreover, Tsuda et al. (2024) emphasized that a teacher cannot teach what they do not know. Previous studies have demonstrated that increasing teachers' content knowledge (common content knowledge [CCK] and specialized content knowledge [SCK]) enhances teachers' teaching effectiveness, which in turn results in better student learning. In the limited curricular space available in physical education teacher education (PETE) programs, maximizing the allocated time for developing content knowledge among preservice teachers is crucial. The purpose of this article is to propose strategies for teaching content courses to develop preservice teachers' content knowledge using examples from volleyball. Various pedagogical strategies to develop content knowledge that can be used in classroom settings (e.g., repeated assessment, scaffolding, and modeling in different forms) are introduced. Increasing the amount of peer teaching and teaching of preK-12 students are also effective strategies to promote preservice teachers' learning of content knowledge and its application.

Furthermore, Williyanto et al. (2020) examined the creativity and strategies of physical education teachers in improving the quality of student learning outcomes. Researchers used a descriptive qualitative approach with research subjects, namely Physical Education teachers and students of Wonosobo Public Senior High School 1. The data collection techniques used were in-depth interviews and documentation. The results showed that the form of physical education teacher strategies was by using the method of publishing the work of students. This method is proven effective and can increase students' interest, motivation to learn, stimulate student discipline, and can make it easier for teachers to make assessments. The obstacle in this research is that not all students get the same facilities from their parents, both in terms of learning facilities and infrastructure at home.

Also, Garcia (2020) conducted a study on gender, age, length of physical education teaching experience, number of subjects/teaching load, specialization, and number of training, seminars, or workshops related to the topic of physical education, this study focused on the teaching performance of the physical education instructors at Kaling State University. A mixed-method with a descriptive sample and qualitative design was used by the investigator. The key data collection method used in the analysis was the Teacher Assessment Tool. To self-assess their results, it was administered to the educators. The PE Instructors have an awareness that their teaching output is generally true of them in terms of teaching abilities, teaching materials, and teaching strategies mentioned in the survey questionnaires addition, the level of teaching efficiency between the PE Major Instructors and the Non-PE Major Instructors who teach Physical Education does not vary significantly. Therefore, with the outcome of the data examined, the researcher suggests that the feedback of students about their PE instructors be done to decide whether the expectations of the instructors about their teaching results and teaching methods are the same as the feedback of the students about them.

In relation to instructional strategies employed by teachers, the researcher also looked into the flexibility of the learners. The declining flexibility levels among Grade 7 learners necessitate immediate attention from educators and policymakers. Exploring and implementing evidence-based instructional strategies, this study aims to address these gaps, fostering holistic physical development in students. Promoting flexibility not only enhances physical health but also supports mental well-being and long-term productivity (Robinson et al., 2016).

Studies about the benefits of stretching have had mixed results. Some research shows that stretching doesn't reduce muscle soreness after exercise. Other studies show that lengthening the muscle and holding the stretch immediately before a sprint may slightly worsen performance. However, research has shown that stretching can help improve flexibility, and, as a result, the range of motion of your joints. Better flexibility may improve performance in physical activities, decrease risk of injuries, help joints move through their full range of motion, increase muscle blood flow, enable muscles to work most effectively, improve your ability to do daily activities (Mayo Clinic Staff, 2023).

Moreover, Warneke et al. (2023) conducted a study to improve flexibility, stretching is most commonly used and in training interventions duration-dependent effects are hypothesized. However, there are strong limitations in used stretching protocols in most studies, particularly regarding documentation of intensity and performed procedure. Thus, aim of this study was to compare different stretching durations on flexibility in the plantar flexors and to exclude potential biases. Eighty subjects were divided into four groups performing daily stretching training of 10min (IG10), 30min (IG30) and 1h (IG60) and one control group (CG). Flexibility was measured in bended and extended knee joint. Stretching was performed with a calf muscle stretching orthosis to ensure long-lasting stretching training. Data were analyzed with a two-way ANOVA for repeated measures on two variables. Two-way ANOVA showed significant effects for time and significant interaction effects for time × group. Flexibility in the knee to wall stretch improved when measured via the goniometer of the orthosis. All stretching times led to significant increases in flexibility in both tests. While there were no significant differences measured via the knee to wall stretch between the groups, the range of motion measurement via the goniometer of the orthosis showed significantly higher improvements in flexibility depending on stretching duration with the highest increase in both tests with 60 minutes of stretch per day.

Similarly, Hidayatullah et al. (2022) emphasized that flexibility is an important basic component in sports activities, which supports the achievement of the maximum performance of an athlete. Exercises are needed for stretching proper this study aimed to determine the effect of passive static stretching on shoulder flexibility, the effect of Proprioceptive Neuromuscular Facilitation (PNF) stretching on shoulder flexibility, and determine which exercise is better on shoulder flexibility between stretching and PNF. the method used is experimental with pretest and post-test design. The results of the study was passive static stretching effect on togok flexibility, the test results show the value of sig. $0.00 < 0.05$. (2) practice PNF affects the flexibility of stakes. The study results show that both passive tactical stretching exercises and PNF exercises have a significant effect on increasing flexibility, but empirical data states that PNF exercise is more effective in increasing flexibility.

Additionally, Kumar (2021) pointed out that flexibility is one of the major aspects of total physical fitness of a human being. Purpose of the present study was to assess the level of flexibility of school students. The study was conducted on 300 school students of Ludhiana District in Punjab region. Aspect of flexibility was measured with the help of bend and reach test. The test was employed to assess the level of difference in flexibility in various age groups. ANOVA and Scheffe's Post Hoc Test were employed to get range of difference among various age groups. Agility is main component in physical fitness. As per the results indicate that there was a significant difference in all the three age groups and it was further found that the level of flexibility keeps on deteriorating with the increase in age.

Furthermore, Afroundeh et al. (2021) noted that stretching exercises, in static and dynamic states, are used at the beginning of any sport activity in schools. The purpose of this study was to evaluate the effect of the order of static and dynamic stretching on some physical fitness factors in children. Both dynamic after static and static after dynamic stretching had significant effects on reaction time, and flexibility, but they didn't show any significant effect on agility, power and speed. Moreover, the order of stretches had no significant effect on measured factors. Conclusions derived were: both stretching protocols improve reaction time and flexibility in children, but do not influence their agility, power and speed. Changing the order of performing of static and dynamic stretching does not make any change in the records of reaction time, agility, power, flexibility and speed.

On the other hand, Gubert & Hannan (2021) emphasized the use of exercise mimetics as a proposed class of therapeutics that specifically mimic or enhance the therapeutic effects of exercise. Increased physical activity has demonstrated positive effects in preventing and ameliorating a wide range of diseases, including brain disorders such as Alzheimer disease and dementia, cancer, diabetes and cardiovascular disease. This article discusses the molecular mechanisms and signaling pathways associated with the beneficial effects of physical activity, focusing on effects on brain function and cognitive enhancement. Emerging therapeutic targets and strategies for the development of exercise mimetics, particularly in the field of central nervous system disorders, as well as the associated

opportunities and challenges, are discussed. Physical activity has demonstrated positive effects in preventing and ameliorating a broad range of diseases, particularly central nervous system disorders. Accordingly, strategies to therapeutically mimic the effects of exercise are gaining interest. Here, Gubert and Hannan focus on the molecular and cellular effects of physical activity in the central nervous system, assessing opportunities for the development of therapeutic exercise mimetics.

Also, Agus et al. (2021) conducted a study to improve physical fitness is aerobic exercise. Thus, this quasi-experiment study aimed to figure out the effect of aerobic exercise on students' physical fitness. The sample of this study was 84 students' male students and selected through purposive sampling method from a population of all students in Sports Science Faculty Universitas Negeri Padang. One Group Pre-test Post-test design was employed in this study. Pre-test was conducted prior to a-24 sessions to 30 to 60 minutes for each aerobic exercise scheduled for three times a week. After this session, students were required to take the post-test. The result of this study showed that aerobic exercise was proven to improve students' physical fitness significantly. This was indicated by the result of data data analysis with t-test where tcalculated > ttable = 1.364 so that it can be concluded that there is a significant impact of a 24-session aerobic exercise on students' physical fitness.

Moreover, Parthanahalli & Hoovanna (2019) conducted a study on the effects of aerobics exercise on high school inactive student suffering from being overweight, also showed decrease of fat and increase of consumed oxygen. Regular physical activity can increase the quality of life. Flexibility of the range of motion around a joint. Good flexibility in the joints can help prevent injuries through all stages of life. The study was undertaken with the aim to observe the effect of aerobics exercises training on flexibility. For this study total 50 Girls students were selected as subject from of Government High School Rajkallhalli, Distract Kolar, Karnataka their age ranged between 12-16 years. Students were given the treatment of selected aerobic exercises for 12 weeks and consisted of daily sessions, lasting 45 min. Both Flexibility was measured with the method by using Measuring stick and mat Score in cms.

Furthermore, Grinko et al. (2020) conducted a study to experimentally test the impact of aerobic exercise on student flexibility. Exercise "Tilt the torso forward from the initial sitting position" was used to check the results. Results: At the end of the experiment (May), the results of the students of the experimental group differed qualitatively from the results of the students of the control group. The results of the experiment indicate the need to include aerobic classes in the curriculum of physical education of students in groups with a sports orientation, in particular (sectional classes) table tennis. The experimental program combines a training program with a sports orientation in table tennis - 75% of the general and aerobic classes - 25%. Conclusions: In this experiment, it was proved that the development and inclusion in the curriculum with a sports orientation (sectional classes) table tennis, aerobic classes, had a better impact on student flexibility. After statistical processing and comparison of the obtained data with the data of previous studies, such physical quality as flexibility, the students became better. The obtained results complement the scientific data on aerobic classes and their impact on student flexibility. The effectiveness of the methodological approach to the development of a program of physical education for students of groups with a sports orientation, which combines the generally accepted means of developing physical qualities and the latest techniques for their improvement, has been experimentally proven. The program of physical education for students of groups with sports orientation table tennis with the inclusion of aerobic classes to improve flexibility is substantiated.

Lastly, Sakinah et al. (2022) conducted a study with the purpose of this study was to determine the effect of calisthenics exercise on physical fitness. Materials and methods. 28 obese female students aged 20–30 with a BMI ranging between 30 kg/m2 and 35 kg/m2 were involved in this study. Participants were randomly divided into three groups which comprised a calisthenics exercise group, an aerobic calisthenics exercise and a control group. Sit and reach test (flexibility), sit up test (muscular endurance) and 20-meter shuttle run test (cardiovascular endurance) were measured as physical fitness parameters. All the tests were conducted before and after a 12-week intervention training program. The results of this study indicate that the calisthenics and aerobic calisthenics groups had significant improvement in

the sit and reach test performance compared to the control group. The aerobic calisthenics group also showed significant improvement in the sit up and 20-metre shuttle run test performance compared to the calisthenics and control groups. The findings demonstrated that calisthenics exercise when combined with aerobic exercise was more effective to improve flexibility, muscular endurance and cardiovascular endurance among obese female students compared to calisthenics exercise only.

Mishakat et al. (2022) find out variation in flexibility, strength and balance of university and school students on their dominant and non dominant sides. A cross section study conducted on healthy school and university students. The data was collected by non probability convenient sampling. Physical performance tests for measuring strength (sit-ups), flexibility (Zipper, sit and reach, dorsiflexion) and balance (Flamingo test) were demonstrated and were asked to perform. Sit ups excellent results were reported in majority of university students. Sit and reach test was found better in university, zipper test positive results were better in school students. Dorsiflexion test normal values were more in university. Flamingo test showed 45% university students had good balance. There was statistically significant difference in zipper, flamingo on non-dominant side and sit and reach dominant and non-dominant side. The normative data of physical performance measures can help prevent injuries, as these can be used as a reference to detect poor health and lethargy at school and university level. Both groups showed good physical performance measures. Flexibility test showed better results in School students. Strength test showed better result in university students whereas, balance test reported better in school students.

The purpose of the study of Nesbitt et al. (2021) was to identify research studies examining appropriate instructional practice in K–12 physical education since 2000, describe the study characteristics and summarize the findings, compare research to the SHAPE America's guidelines for appropriate instruction, and make recommendations for future research. Their study was conducted using the Preferred Reporting Items for Systematic Reviews (PRISMA) standards of quality for reporting meta-analyses. The findings were synthesized using a descriptive analysis. A total of 37 articles met the inclusion criteria. A thematic analysis was conducted to reduce the included articles into four themes that influenced student outcomes: (1) student engagement and participation, (2) motivation, (3) student learning, and (4) physical activity and fitness. This review of the literature provides evidence of the benefits of effective teaching practices and suggests that future studies in instruction should focus on teacher effectiveness and its relation to student learning outcomes.

Aside from the legal basis, related literature and studies, there were theories which supported the current study such as Vygotsky's Zone of Proximal Development as cited by Lusan (2019) as the main theory, Brand and Ekkekakis' Affective-Reflective Theory (ART) of physical inactivity and exercise as cited by Brand and Cheval (2019), and Schechner 's Performance Theory as cited by Juillion (2019).

The main theory that supported this study was Vygotsky's Zone of Proximal Development. Vygotsky defined the Zone of Proximal Development (ZPD) as, "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" instead of limiting children based on what they can only do on their own. Vygotsky said, "we should be encouraging them to extend and enhance their learning." By working collaboratively with others, children are able to open up new avenues of learning, developing skills they might not have been able to achieve on their own. As Vygotsky put it: "these functions could be termed the 'buds' or the 'flowers' of development rather than the 'fruits of development'.

Addressing a student's unique skill set and level of ability instead of slotting them into a predetermined path of learning, they are able to mature their skill level: what they cannot do without assistance today, they will be able to accomplish in the future. In addition, one of the concepts discussed by Vygotsky that influenced the ZPD is the learning by imitation. For example, if a child is shown how to complete a task by a more knowledgeable other, they are able to better understand and eventually learn how to do the task themselves. By imitating adults, children learn how to walk and talk. By imitating the solution of a math equation laid out by a teacher, a student can

grasp the solution well. “Learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers”, said Vygotsky.

Furthermore, the development of skills in the ZPD will eventually become internalized and will no longer need to be learned in a group setting, becoming an independent development achievement. In current pedagogical discussions, Vygotsky’s theory is more commonly known as scaffolding – a process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts.” A tutor or adult controls the elements that the child does not understand, allowing them to focus and solve what they do understand. Eventually, with the help of the more knowledgeable other, the student will be able to learn how to complete the task on their own.

This theory was found to be helpful in this study because learners performed flexibility exercises to improve their physical fitness. Though they were already in Grade 7, they still needed the assistance of a more knowledgeable others in performing tasks relevant to exercises to avoid injuries. More knowledgeable others could refer to the teachers, parents, any family members, classmates, and even people in the communities who could provide assistance to them at home and in school.

Another theory that supported the study was Brand and Ekkekakis’ Affective-Reflective Theory (ART) of physical inactivity and exercise as cited by Brand and Cheval (2019) is a dual-process theory, which assumes that stimuli (e.g., a friend's reminder that was intended to go for a run, or remembering that you it was planned to go for a run) trigger automatic associations and a resulting automatic affective valuation of exercise (type-1 process). An automatic affective valuation is the unattended assignment of positive (association with pleasure) or negative (association with displeasure) value to a stimulus, either as the result of repeated exercise-related emotional experiences mediated by cognitive appraisals (e.g., pride, embarrassment) or as a result of repeated experiences of core affective reactions to stimuli (e.g., sense of physical reinvigoration, bodily discomfort). The automatic affective valuation serves as the basis for a controlled, reflective evaluation (type-2 process), which can follow if self-control resources are available. The reflective evaluation draws on propositions about exercise and physical inactivity, derived from previous experience and mental simulation (e.g., anticipation of the affective consequence of actions). Higher-level cognitive operations, such as deliberative reasoning about one's needs and values. The automatic affective valuation is connected to an action impulse (approach or avoidance), whereas the controlled response can result in action plans.

The ART aims to explain and predict behavior in situations in which people either remain in a state of physical inactivity or initiate action. It assumes that experience, feelings, and thoughts connected with exercise influence whether someone would be willing to undergo physical strain similar to that previously experienced during exercise. Related to the topic of this opinion article, the ART posits that, in the face of an exercise-related stimulus, one's negative affective valuation of exercise will act as a restraining force that may counteract any positive cognitive motivational drives toward action (or, on the other hand, if the affective valuation is positive, it will present a driving force and thus make it more likely that the person will change his or her current state of physical inactivity).

This theory was deemed important in the present study because Grade 7 learners performed flexibility exercises to improve their physical fitness. Teachers served as motivators in order for the learners to pursue working on physical fitness. With the guidance of the teachers who assisted them in the proper execution of flexibility exercises, learners would refrain from being inactive.

Finally, Schechner ‘s Performance Theory also supported this theory as cited by (Juillion, 2019). The theory suggests that everyone in the society puts on a performance. It can be seen in the clothes they wear, the types of discourse they involve into, to the food they eat. These are all performance that create a signal-system in the social group where they belong. It unites several groups of performance under the same heading: play, games, sports, theatre, and ritual. These four share important qualities: (1) a special ordering of time, (2) a special value attached to objects, (3) non-productivity in terms of goods, and (4) rules. The theory posited that performance is not about achieving objectives but also about the process of achieving them. Having high performance result

comes from appropriate behavior and the effective use of required knowledge, skills, and competencies.

Linking these notions in the present study, flexibility exercises are performances being performed by learners to become physically fit. They are involved in a process where they need to put a performance whenever they perform specific exercise routines. To perform well, they must properly execute observing proper positioning of the body. As mentioned by Juillion (2019), this requires knowledge, skills, and competencies.

As time went by, and with the advent of technology, learners became more inactive. Instead of engaging in physical activities, learners devoted most of their time using their gadgets. As a result, their physical fitness was greatly affected especially their flexibility. Their bones and muscles were not flexible enough to perform simple exercises, and they got easily tired just by doing simple errands. People who were physically inactive were likely to experience pain when exercising, since their muscles were not used to strenuous body movements. With that, the researcher as the teacher of Grade 7 learners was motivated to conduct a study focusing on their health status as reflected in their body mass index, and its influence on their flexibility. Finally, the researcher observed that more learners became inactive causing them to be physically unfit.

Statement of the Problem

This study determined the influence of instructional activities on the level of flexibility of Grade 7 learners in San Pedro National High School, San Pascual South District, Division of Masbate Province, School Year 2024 2025.

Specifically, it answered the following questions:

1. What is the demographic profile of the learners in terms of:
a. Sex; and
b. Body Mass Index?
2. What is the status of flexibility of Grade 7 learners?
3. What is the level of utilization of instructional activities along:
a. Static stretching exercises;
b. Dynamic stretching exercises;
c. Mimetics; d. Aerobic exercise; and
e. Calisthenics?
4. What is the level of flexibility of Grade 7 learners after the utilization of instructional activities?
5. Is there significant difference between the level of flexibility before and after using instructional activities?
6. How effective are the instructional activities to develop flexibility?

Assumptions

The following assumptions were used in the study:

1. The demographic profile of the learners can be ascertained using their sex and BMI.
2. The status and level of flexibility of Grade 7 learners can be determined using certain parameters.
3. The level of utilization of instructional activities can be identifies through certain indicators.

Hypotheses

The study tested the following hypotheses:

1. There is significant difference between the level of flexibility before and after using instructional activities.
2. The utilization of instructional activities was effective.

Significance of the Study

This study was beneficial to the following entities:

Learners. The result of the study provided evidence on the importance of flexibility among Grade 7 learners in improving their overall physical fitness. Through the different instructional strategies, they would be more motivated to work on becoming physically fit.

Physical Education Teachers. The study offered insights to utilize effective instructional strategies which can be integrated to the curriculum with the aim of enhancing the learners' flexibility. Moreover, they will be able to use the instructional activities to make the teaching learning process in physical education more interesting to learners.

School Heads. The findings will serve as feedback to them about the development of more comprehensive Physical Education programs that include flexibility training as a core component, fostering healthier lifestyles among students. As such, they will support further the implementation and utilization of instructional activities in their schools.

DepEd Division of Masbate Province Officials. The study's findings can support DepEd officials in evaluating and improving the effectiveness of current physical education policies. It provides a basis for adopting innovative, research-driven approaches to fitness education, ensuring alignment with national health and education standards.

Curriculum Developers. The result of the study can provide them the needed data to create programs or modify existing ones which focus on the health status of the learners particularly on the development of flexibility among the learners.

Other Researchers. The study would contribute to the existing body of knowledge on flexibility training, particularly among adolescent learners, and may serve as a basis for future research on physical fitness and injury prevention in schools.

Scope and Delimitation

This study determined the influence of instructional activities on the level of flexibility of Grade 7 learners in San Pedro National High School, San Pascual South District, Division of Masbate Province, school year 2024 2025.

Furthermore, this study specifically looked into the demographic profile of the learners in terms of sex and their Body Mass Index. This research stated by determining the status and level of flexibility of Grade 7 learners. The level of utilization of instructional activities along static stretching exercises, dynamic stretching exercises, mimetics, aerobic exercise, and calisthenics were determined. After the administration of instructional activities, their level of flexibility was determined, the significant difference between their level of performance before and after was looked into. Hence, the effectiveness of the utilization of instructional activities was obtained. The respondents of the study were composed of 94 Grade 7 students from Section Camella (A) and Section Ilang-Ilang (B).

On the other hand, other grade levels and other school, both public and private were excluded in the study. Other components of flexibility, and other instructional strategies in teaching Physical Education and physical fitness test were also excluded in this study.

Definition of Terms

Common terms were conceptually and/or operationally defined for better understanding and clarity of the study to constitute general comprehension.

Demographic profile. It refers to the description of the populations and their characteristics like age, race, and sex (Investopedia, 2025). In this study, it was limited to sex, and Body Mass Index (BMI).

Sex. It refers to a set of biological attributes in humans and animals. It is primarily associated with physical and physiological features including chromosomes, gene expression, hormone levels and function, and reproductive/sexual anatomy (Canadian Institute of Health Research, 2025). In this study it identified the students as male or female.

Body Mass Index. It is a measurement of a person's weight with respect to his or her height. It is more of an indicator than a direct measurement of a person's total body fat (Mandal, 2025).

Level of Flexibility. This is the ability of a joint or series of joints to move through an unrestricted, pain free range of motion (Sports Medicine, 2025). In this study, it refers to the students' ability to move with ease.

Zipper Test. This test measures how mobile and flexible the upper arms and shoulder joints are. Reach one hand behind the neck and down along the spine. Then bring opposite hand behind back and up toward the top hand (Healthline, 2019). In this study, it refers to the overlap left and right arm test which the learners performed as one way to measure their level of flexibility.

Sit and Reach. This test measures how flexible the lower back and hamstrings are. This could be done by sitting on the floor with the legs fully extended in front. The distance that the hands are from the feet determine the flexibility (Healthline, 2019). In this study, it was the test done by the learners to test the flexibility of their lower back and hamstrings.

Instructional strategies. The term refers to the instructional materials and procedures that enable students to achieve the learning outcomes (Hill & Jordan, 2025). As used in this study, it refers to the

strategies used to enhance the flexibility of the students.

Dynamic stretching. This form of stretching improves speed, agility, and acceleration. It involves the active tightening of muscles and moving joints through their full range of motion throughout the stretch (Hospital for Special Surgery, 2024). In this study, it includes controlled movements like leg swings, arm circles, and torso twists, and is intended to improve muscle flexibility and joint mobility in preparation for physical activity.

Static stretching. It is performed by placing the body into a position whereby the muscle (or group of muscles) to be stretched is under tension (Walker, 2025) As used in this study, this type of stretching primarily targets muscle lengthening and joint flexibility, making it effective for improving overall flexibility and range of motion.

Mimetics. It means copying the behavior or appearance of somebody/something else (Oxford Learners' Dictionaries, 2025). As used in this study, these exercises imitate animal walks, lunges, or twisting motions that engage multiple muscle groups.

Aerobic Exercises. It is a physical activity that uses your body's large muscle groups, is rhythmic and repetitive. It increases your heart rate and how much oxygen your body uses (Cleveland Clinic, 2025). In this study, it refers to the Zumba dancing students perform during PE classes.

Calisthenics. It refers to the free body exercises performed with varying degrees of intensity and rhythm, which may or may not be done with light handheld apparatuses such as rings and wands. The exercises employ such motions as bending, stretching, twisting, swinging, kicking, and jumping, as well as such specialized movements as push-ups, sit-ups, and chin-ups (Britannica, 2025). As used in this study, it involves push-ups and squats.

Conceptual Framework

This study determined the influence of the instructional strategies in improving the level of flexibility of Grade 7 learners to enhance their physical fitness. The relationship of the variables is illustrated in Figure 1.

The study begins with the input phase, where participants' demographic profile was gathered, including their sex and BMI. This information helped categorize and analyze the data later in the study. Pre-test assessments were then conducted, utilizing the Zipper Test for both right and left arm overlap, as well as the Sit and Reach test to evaluate flexibility. These initial measurements established a baseline for each participant's physical capabilities before the intervention.

In the process phase, participants underwent various instructional activities designed to improve flexibility and physical fitness. These activities included static and dynamic stretching exercises, mimetics, aerobic exercises, and calisthenics, each targeting different aspects of physical health. The exercises were systematically administered to ensure consistency and effective engagement throughout the intervention period. This phase emphasized active participation and gradual progress to enhance flexibility and overall fitness.

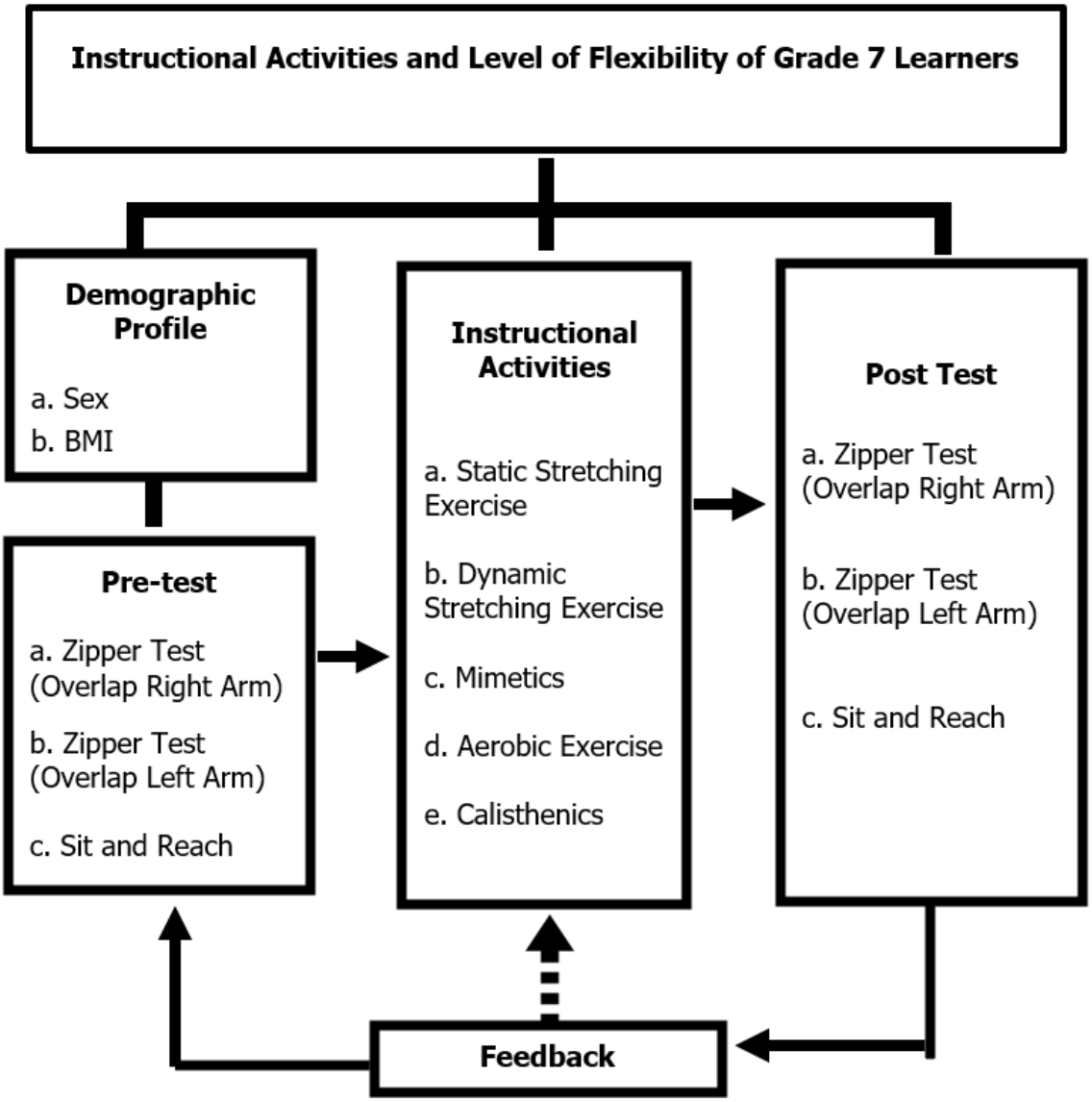

Figure 1
Conceptual Framework

This illustrates the interconnectedness of the different variables in the study.

.During the output phase, post-test assessments are performed to measure the effectiveness of the instructional activities. The same tests from the pre-test—Zipper Test for both arms and Sit and Reach—are repeated to track changes in flexibility and range of motion. The results are then compared to the initial data to evaluate improvements and the success of the intervention. This phase provides insights into the impact of the exercises and helps determine the overall effectiveness of the study.

Finally, there was the feedback loop which was another major aspect of the paradigm. The result of the study could be disseminated by conducting a meeting with the different stakeholders in the community to help improve the physical fitness of the learners. With this, they would be knowledgeable with the current health status of the Grade 7 learners, specifically, their level of flexibility. Aside from that, the findings of the study could serve as a basis in creating or modifying existing programs to ensure that the school administrators considered the health status of the learners since it was also a predictor of their academic standing.

II. METHODOLOGY

This section of the study includes the methods used, respondents of the study, data gathering tools, procedure of the investigation and statistical tools.

Methods Used

This study employed descriptive-comparative-associational-correlational method of research. Descriptive method was used in determining the demographic profile of Grade 7 learners in terms of sex, body mass index, status, and level of flexibility. The same method was utilized in determinng the level of utilization of instructional strategies along static stretching exercises, dynamic stretching exercises, mimetics, aerobic exercises, and calisthenics.

On the other hand, comparative method was used in determining significant difference of flexibility among Grade 7 learners before and after the utilization of instructional strategies. The same method was used in determining the effectiveness of utilization of instructional strategies.

Respondents of the Study

The respondents of the study were the Grade 7 learners enrolled at San Pedro National High School for the school year 2024–2025. Total enumeration was utilized to determine the number of the learners involved, which meant that all learners from two sections were part of the study. However, purposive sampling was also used in determining the grade level involved in the study. Only grade 7 learners were chosen as respondents of the study. Table 1 shows the data on the respondents of the study.

Table 1
Respondents of the Study

Section	N	%
A	45	47.87
B	49	52.13
Total	94	100

As shown on the table, Section B had the highest number of learners enrolled with 49 out of 94 or 52.13% of the total number of respondents. On the other hand, Section A had 45 out of 94 or 47.87% of the total number of respondents.

Data Gathering Tools

In gathering the data needed in this study, a researcher-made survey questionnaire was used which was divided into two parts. First part focused on the demographic profile of the learners, wherein they needed to indicate their age, gender, as well as height in meters, and weight in kilograms. On the other hand, the second part of the survey questionnaire centered on the pre-test and post-test. Learners needed to perform shoulder flexibility test, and sit and reach tests, and the results in centimeters were recorded. The same applied for the post-test, except that improvement from pre-test in percentage needed to be computed.

Moreover, an evaluation checklist was used containing the instructional strategies which included the following: statis stretching, dynamic stretching, mimetics, aerobic exercises and calisthenics. Learners recorded the sessions completed and the observed improvements. Aside from that, there was also the summary of findings where the researcher needed to provide the information such as the total number of learners showing improvement, average over-all improvement in flexibility, and some notable observations.

A Four-point Likert Scale was used to determine the level of utilization of instructional strategies with the following interpretation: (4) Always, (3) Often, (2) Sometimes and (1) Rarely. The scale range is drafted below:

Scale	Range	Verbal Description
4	3.26-4.00	Always
3	2.51-3.25	Often
2	1.76-2.50	Sometimes
1	1.00-1.75	Rarely

These survey questionnaires were presented to the PE teacher in other school who suggested to improve its content. After that, a dry-run was conducted with Grade 8 learners from the same school.

Procedures of the Investigation

To come up with a reliable result of the study, the study followed a step-by-step procedure:

Conceptualization of the research problem. The researcher identified problems related to flexibility and physical fitness of Grade 7 learners, and conceptualized solutions through the use of instructional strategies on the identified research problem.

Approval of the research title. The draft of the manuscript containing the proposed title, different variables, specific problems was submitted to the thesis committee for approval.

Securing of permit to conduct the study. After the approval of the research proposal, the researcher asked permission from the school head for a study to be conducted.

Preparation of the research tool. After the approval of the school head, a survey questionnaire was prepared to be used in the data gathering.

Validation and dry-run of the research tool. The questionnaire was validated by PE teacher from Boca Chica Integrated School. After that, a dry-run was conducted from the same school among Grade 8 learners who were also handled by the researcher.

Administration of the Research Instrument. After the validation of the research tool, the researcher began to gather the data during PE classes. Since there were 94 learners as respondents in the study. The researcher let the learners worked by pair and record their performance using ruler and tape measure. To ensure their safety, rubber mats were also used.

Retrieval and Processing of the Gathered Data. The researcher gave the respondents ample time to perform and record their performance. Since there were many respondents, the researcher allotted several sessions for them to perform the various exercises on flexibility

Utilization of the Instructional Strategies. After processing of the gathered data, the researcher utilized instructional strategies wherein learners were asked to perform static stretching exercises, dynamic stretching exercises, mimetics, aerobic exercises, and calisthenics.

Analysis of Gathered Data. After the responses have been gathered, the data were tabulated and analyzed using the statistical formula intended for each research objectives, in order to determine the research results.

Writing of the research report. The quantified data had been placed in a table to facilitate discussion. Analysis and interpretation of data were also presented together with the discussion.

Oral Defense of the Research Report. The researcher revised the manuscript following the suggestions and recommendations made by the panel members during the title proposal. After wards, the findings, conclusions and recommendations were presented. With the endorsement of the adviser, the manuscript was submitted for approval.

Submission of the Final Copy. After the research was defended and approved, it was revised following the suggestions and recommendations of the panel members. Finally, the research was ready for reproduction and submission.

Publication of the Thesis. The originality and academic integrity of the work was verified and ensured proper citation and adherence to institutional guidelines, and assessing compliance with copyright laws. It included reviewing the thesis for plagiarism, obtaining necessary approvals from relevant committees, and confirming that all required documentation is complete before granting permission for publication.

Statistical Tools

The following statistical tools were employed to analyze and interpret the data effectively:

Frequency Count. This was used to identify the number of male and female Grade 7 learners, as well as their age as part of the demographic profile.

Percentage Technique. This was used to determine the percentage of Grade 7 learners who belonged to a certain category as part of demographic profile.

Weighted Mean. This was used to determine the level of utilization of instructional strategies along static stretching exercises, dynamic stretching exercises, mimetics, aerobic exercises, and calisthenics.

Pearson Product-Moment of Correlation Coefficient. This tool was used to measure the significant difference between the pre-test and post results.

Cohen’s d. This tool was used to measure the extent of effectiveness of the utilization of developed instructional strategies.

III. RESULTS AND DISCUSSION

This section shows the results generated from the data gathered. It is sequenced based on the statement of the problem as presented in the Introduction. It presents the results of descriptive and inferential analysis.

Demographic Profile of the Learners

The demographic profile of learners often includes variables such as sex, which can influence learning styles and participation patterns. Additionally, body mass index (BMI) is sometimes considered in health-related educational programs to better understand the physical health status of the learners. Recognizing differences in BMI can help tailor health interventions and promote wellness among diverse student populations. The demographic factors enable educators to create more inclusive and effective learning environments. This is shown in Table 2.

Sex. The demographic profile of learners based on sex reveals notable differences in body mass index categories. The data shows the distribution of males and females across various BMI classifications, providing insight into their nutritional status. Analyzing these figures helps us understand the health trends within each sex group. This information is crucial for tailoring health interventions and educational programs specific to the needs of male and female learners.

Table 2
Demographic Profile of the Learners

	Male		Female			
Body Mass Index	f	%	f	%	Total	%
Severely Wasted	0	0	1	2.5	1	1.06
Wasted	5	9.26	1	2.5	6	6.38
Normal	47	87.04	38	95.0	85	90.43
Overweight	2	3.70	0	0	2	2.13
Total	54	100	40	100	94	100

In total, there are 54 learners, with 40 males and 94 females. Among males, 5 are classified as wasted, and none are severely wasted. Females have 1 individual who is severely wasted and 1 who is wasted. The majority of learners, regardless of sex, fall within the normal BMI category, with a higher percentage observed among females. There are also a small number of learners classified as overweight, with males having 2 and no females falling into this category.

The data indicates that most learners, both male and female, are within the normal BMI range, suggesting overall healthy weight levels in the population. However, the presence of wasted individuals, especially among males, highlights ongoing nutritional concerns. The absence of severely wasted females suggests better nutritional status among females in this context. The small proportion of overweight learners suggests that overweight status is relatively uncommon among this group.

The implications of these findings suggest that nutritional interventions should focus on addressing wasting among males, while maintaining the overall healthy status of the majority. The gender differences in wasting rates may reflect underlying social or biological factors influencing nutrition. Recognizing these differences can help in designing gender-sensitive health programs. Overall, understanding the sex-based demographic profile assists in targeting efforts to improve health outcomes among learners effectively.

Body Mass Index. The demographic profile of learners based on Body Mass Index (BMI) provides insight into their nutritional and health status. Understanding the distribution of BMI categories among male and female learners helps identify potential health risks and areas needing intervention. The data reveals variations in BMI classifications, which are crucial for designing targeted health programs and educational strategies. Analyzing this profile allows teachers and health practitioners to better comprehend the overall well-being of the learners and tailor their approaches accordingly.

The data shows that among all learners, the majority fall within the normal BMI range, with a total of 85 individuals, representing 90.43% of the population.

There are very few learners classified as overweight, with only 2 individuals or 2.13%, and an even smaller number are categorized as wasted or severely wasted. Specifically, 6 learners or 6.38% are wasted, and only 1 or 1.06% is severely wasted. No male learners fall into the severely wasted category, while a small percentage of females are in that category.

This distribution indicates that most learners maintain a healthy BMI, which is generally associated with good health and nutritional status. However, the presence of wasted and severely wasted categories, although minimal, suggests some learners are experiencing malnutrition or undernutrition issues. The negligible number of overweight learners implies that excess weight is not yet a widespread concern within this demographic. The data reflect a predominantly healthy weight profile among the learners, with some areas needing attention to prevent malnutrition.

This implies that health interventions should focus on maintaining the high percentage of learners with normal BMI while addressing the needs of those who are wasted or severely wasted. Preventive measures and nutritional support could be targeted towards at-risk groups to improve their health outcomes. The low incidence of overweight learners indicates that obesity is not currently a significant issue, but ongoing monitoring is essential to prevent future problems. Ultimately, sustaining the healthy BMI distribution among learners is vital for their overall well-being and academic performance.

The result was linked to the study of Hermassi et al. (2021) who focused on physical activity levels and the overall health status of individuals, which directly relates to their body composition and BMI. When linked with the demographic profile of learners, their BMI serves as a crucial indicator of their health status and potential risk factors. The findings suggest that demographic variables such as BMI distributions among learners, thereby impacting their physical health and fitness levels. Understanding this connection helps in tailoring targeted interventions to promote healthier lifestyles within specific demographic groups, highlighting the importance of considering demographic factors when assessing the status of learners.

This was supported by Vygotsky's Zone of Proximal Development. Vygotsky defined the Zone of Proximal Development (ZPD) as, the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers, instead of limiting children based on what they can only do on their own. Addressing a student's unique skill set and level of ability instead of slotting them into a predetermined path of learning, they are able to mature their skill level: what they cannot do without assistance today, they will be able to accomplish in the future. In addition, one of the concepts discussed by Vygotsky that influenced the ZPD is the learning by imitation.

Status of Flexibility of Grade 7 Learners

Flexibility is the ability of a joint or series of joints to move through an unrestricted, pain free range of motion. Although flexibility varies widely from person to person, minimum ranges are necessary for maintaining joint and total body health. Table 3a shows the data on the flexibility of learners as reflected in their performance along overlap right arm zipper test.

Overlap Right Arm Zipper Test. As shown on the table, no female and only one out of 54 or 1.85% of the males and 1.06% of the total respondents got 0 point did not able to touch their fingertips. Meanwhile, only four out of 54 or 7.41% of males, and only one out of 40 or 2.5% of female, with a total of five out of 94 or 5.32% of the total respondents got 1 point because they just touched the fingertips. Additionally, only two out of 54 or 3.70% of male, and only one out of 40 or 2.5% of female, with a total of three out of 94 or 3.19% of the total respondents was given 2 points for finger overlapped by 1 – 2 cms. Moreover, there were nine out of 54 or 16.67% of male, and six out of 40 or 15.0% of female, with a total of 15 out of 94 or 15.96% of the total population was given 3 points for fingers overlapped by 3 – 4 cms. Furthermore, only one out of 54 or 1.85% of male, and five out of 40 or 12.5% of female, with a total of six out of 94 or 6.38% of the total population was given 4 points for fingers overlapped by 5 – 7 cms. Finally, there were 37 out of 54 or 68.52% of male, and 27 out of 40 or 67.5% of female, with a total of 64 out of 94 or 68.09% of the total respondents was given 5 points for fingers overlapped by 8cms.and more.

Table 3a
Status of Flexibility in Overlap
Right Arm Zipper Test

Standards	Points	Male		Female		Total	%
		f	%	f	%		
Did not touch fingertips	0	1	1.85	0	0	1	1.06
Just touched fingertips	1	4	7.41	1	2.5	5	5.32
Fingers overlapped by 1-2 cms.	2	2	3.70	1	2.5	3	3.19
Fingers overlapped by 3-4 cms.	3	9	16.67	6	15.0	15	15.96
Fingers overlapped by 5-7 cms.	4	1	1.85	5	12.5	6	6.38
Fingers overlapped by 8 cms. and more	5	37	68.52	27	67.5	64	68.09
Total		54	100	40	100	94	100

The analysis indicates that the majority of respondents, regardless of gender, scored the highest in the Flexibility in Overlap Right Arm Zipper Test, suggesting a generally good level of flexibility in this area. A small proportion of participants demonstrated limited flexibility, with very few unable to touch their fingertips or only marginally overlapping fingers. There is a noticeable variation between males and females at lower scores, but both genders predominantly achieved higher scores, reflecting a tendency towards greater flexibility. The data reveals a distribution skewed towards higher overlap scores, implying that most individuals possess adequate flexibility in this specific movement.

This implies that the population tested generally has acceptable to good flexibility in the right arm zipper movement, which is important for functional mobility and injury prevention. The small percentage of respondents with limited flexibility could indicate the need for targeted stretching or flexibility exercises for those individuals. This result highlights the importance of regular flexibility assessments to identify those who may benefit from intervention. The high prevalence of favorable scores implies that flexibility in this movement is not a widespread issue within this group, supporting the idea that most individuals maintain functional range of motion for daily activities involving this motion.

Overlap Left Arm Zipper Test. The Overlap Left Arm Zipper Test is a specialized assessment used in the field of medical diagnostics and rehabilitation to evaluate the functional mobility and strength of the left arm, particularly focusing on the effectiveness and range of motion of the zippering movement. This test is often employed to identify impairments or limitations in arm movement that may result from neurological or musculoskeletal conditions. Observing the patient's ability to perform a zippering task with the left arm, clinicians can gather valuable information about muscle coordination, joint flexibility, and potential areas needing targeted therapy or intervention.

The table shows that 11.11% of males and 10.0% of females scored zero points for not touching the fingertips, totaling 10.64% of all respondents. Nine point-one percent of males and 12.5% of females scored one point for just touching the fingertips, also totalling 10.64%. Approximately 9.26% of males and 10% of females scored two points for finger overlap of 1 to 2 centimeters, totaling 9.57%. Seventeen percent of the overall group, including 20.37% of males and 12.5% of females, scored three points for 3 to 4 centimeters overlap. About 3.7% of males and 10% of females scored four points for overlap of 5 to 7 centimeters, totaling 6.38%. The largest group, 45.75%, including 46.3% of males and 45% of females, scored five points for overlap of 8 centimeters or more.

Table 3b
Status of Flexibility in Overlap Left Arm
Zipper Test

Standards	Points	Male		Female		Total	%
		f	%	F	%		
Did not touch fingertips	0	6	11.11	4	10.0	10	10.64

Just touched fingertips	1	5	9.26	5	12.5	10	10.64
Fingers overlapped by 1-2 cms.	2	5	9.26	4	10.0	9	9.57
Fingers overlapped by 3-4 cms.	3	11	20.37	5	12.5	16	17.02
Fingers overlapped by 5-7 cms.	4	2	3.70	4	10.0	6	6.38
Fingers overlapped by 8 cms. and more	5	25	46.30	18	45.0	43	45.75
	Total	54	100	40	100	94	100

It can be analysed that the flexibility in overlap left arm zipper test indicates that a relatively small proportion of learners performed at the lower end of the flexibility spectrum, with some respondents unable to touch their fingertips. A comparable number of participants managed to touch their fingertips, suggesting a slight variation in flexibility levels among the learners. The data reveals a consistent pattern across genders, with similar percentages of both males and females in the lowest performance categories. Overall, the results imply that most learners demonstrate a moderate level of flexibility, with only a minority struggling to achieve higher scores. The distribution of performance points suggests that flexibility, while present in most learners, varies subtly across individuals.

These findings imply that the overall flexibility among learners is generally adequate but not universal, highlighting areas for potential improvement. The small percentage of respondents with minimal flexibility indicates that targeted interventions could help those who struggle with this skill. Recognizing that a majority can touch their fingertips suggests that flexibility training might elevate overall performance and confidence. The results underscore the importance of incorporating flexibility exercises into regular physical education to support learners' development. Enhancing flexibility could positively influence their overall motor skills, leading to better functional movement and reduced injury risk.

Sit and Reach. The Sit and Reach test is a widely used measure of flexibility, particularly targeting the muscles of the lower back and hamstrings. It is a simple, straightforward assessment that helps evaluate an individual's range of motion and flexibility, which are important for overall physical health and injury prevention. Whether you're an athlete, a fitness enthusiast, or someone looking to improve your mobility, understanding and performing the Sit and Reach test can provide valuable insights into your flexibility levels and guide your stretching and training routines.

Table 3c
Status of Flexibility in Sit and Reach

	Male		Female			
Age	f	%	f	%	Total	%
24.0	37	68.52	29	72.5	66	70.21
23.8	11	20.37	8	20.0	19	20.21
23.6	5	9.26	2	5.0	7	7.45
23.4	1	1.85	1	2.5	2	2.13
23.2	54	100	40	100	94	100

The data shows that at an average age of 23.2 years, males had a total of 54 individuals, accounting for 100% of the male sample, with 37 males (68.52%) demonstrating flexibility at an average age of 24.0 years, 11 males (20.37%) at 23.8 years, 5 males (9.26%) at 23.6 years, and 1 male (1.85%) at 23.4 years. For females, at the same age of 23.2 years, there were 40 individuals (100%), with 29 females (72.5%) at 24.0 years, 8 females (20.0%) at 23.8 years, 2 females (5.0%) at 23.6 years, and 1 female (2.5%) at 23.4 years. The total sample comprised 94 individuals, with 66 males (70.21%) and 28 females (29.79%).

Based on the data presented, it could be analyzed that the majority of respondents across different age groups exhibit a relatively high level of flexibility as measured by sit and reach, with a notable proportion of both males and females demonstrating good flexibility. The data also shows a trend where flexibility levels vary among different age groups, with the younger respondents comprising the largest

portion of the sample, which could influence the overall flexibility results. It is evident that a significant number of respondents tend to have adequate or above-average flexibility, especially in the younger age brackets. Additionally, the distribution of respondents suggests that there are fewer participants in the older age groups, which may impact the generalizability of the findings for those ages.

These imply that flexibility in sit and reach improves or remains relatively high during early adolescence, but may decline as individuals grow older. This could imply that flexibility training and stretching exercises should be emphasized more as children age, to maintain or improve flexibility levels. The high proportion of young respondents with good flexibility highlights the importance of early physical activity habits that promote flexibility. The findings underscore the need for targeted interventions to preserve flexibility across different age groups, which could contribute to better overall physical health and reduced injury risk as individuals grow older.

The result of the study could be linked to Jiang et al. (2021) which provides valuable insights into the factors influencing flexibility among learners, highlighting the significance of various physical and perhaps psychological attributes that contribute to flexibility performance. Their findings are closely linked to the results observed in the status of flexibility assessments. This underscores the importance of joint mobility, muscle elasticity, and overall physical preparedness, which are critical determinants in the performance outcomes of these flexibility tests. This emphasis on the interconnectedness of physical attributes and flexibility capacity. This connection reinforces the idea that targeted flexibility training and assessment can effectively reflect and improve learners' overall flexibility status.

This was supported by Vygotsky's Zone of Proximal Development. Vygotsky defined the Zone of Proximal Development (ZPD) which provides valuable insights into the potential for learning and development within individuals. Vygotsky defined the ZPD as the difference between what a learner can achieve independently and what they can accomplish with guidance and support from a more knowledgeable other. When examining the status of flexibility in learners, the concept of ZPD becomes particularly relevant. These flexibility tests measure the current physical capabilities of individuals, but their progress can be understood through the lens of ZPD by considering how guided practice and encouragement can help learners extend their flexibility beyond their current limits. Essentially, the ZPD underscores the importance of appropriate support in helping learners achieve higher levels of physical and cognitive flexibility, highlighting the dynamic nature of development and the potential for growth within the boundaries of their individual ZPD.

Level of Utilization of Instructional Strategies

To improve the flexibility of the learners, instructional strategies were utilized by the teacher. The level of utilization of instructional strategies is the extent to which educators effectively implement various teaching methods and techniques within the learning environment. It encompasses the frequency, consistency, and appropriateness of instructional approaches used to facilitate student engagement, understanding, and retention of knowledge. Understanding this level is crucial for evaluating teaching effectiveness, identifying areas for professional development, and enhancing student learning outcomes.

Table 4a
Level of Utilization of Static Stretching Exercise

Indicators	WM	Interpretation	Rank
Performance of the prone buttocks kicks.	3.36	Very Good	1
Performance of the shoulder stretch.	3.26	Very Good	2
Performance of the seated hamstring stretch.	3.27	Very Good	3
Performance of the side bend.	3.16	Good	4
Performance of the half-kneeling position.	3.12	Good	5
Average Weighted Mean	3.23	Good	

Legend:

Scale Interval	Interpretation
3.26-4.00	Very Good
2.51-3.25	Good

1.76-2.50	Fair
1.00-1.75	Poor

Static Stretching Exercises. The exercise focuses on evaluating the level of utilization of static stretching exercises among participants. Static stretching is an essential component of physical activity routines, aimed at improving flexibility and preventing injuries. The assessment covers various stretching activities, providing insight into how often and effectively these exercises are incorporated. Understanding the level of utilization helps in identifying areas for improvement and promoting better stretching habits.

The data reveals that the highest indicator is the performance of the prone buttocks kicks with a weighted mean of 3.36, described as very good. The lowest indicator is the performance of the half-kneeling position with a WM of 3.12, categorized as good. The average weighted mean across all indicators is 3.23, also falling within the good category. These figures suggest a generally positive engagement with static stretching exercises among participants, with some variations in specific activities.

The data indicates that most participants regularly engage in static stretching exercises at a commendable level, particularly in the prone buttocks kicks and shoulder stretch. The variation among different stretching activities may be due to familiarity, perceived effectiveness, or ease of performance. The data suggests a consistent awareness and practice of static stretching exercises, contributing to better flexibility and injury prevention. However, some activities are less utilized, indicating potential areas to encourage more comprehensive stretching routines.

It can be inferred that participants generally recognize the importance of static stretching exercises, as reflected in their high utilization levels. The very good ratings for most activities imply that static stretching is an integral part of their fitness or warm-up routines. This high level of utilization can lead to improved flexibility, reduced injury risks, and enhanced athletic performance. Therefore, promoting continued practice and expanding awareness of all stretching activities could further optimize the benefits of static stretching exercises for the participants.

The result could be linked to the study of Afroundeh et al. (2021) which provides valuable insights that support the findings related to the level of utilization of static stretching exercises. Their research highlights the positive impact of static stretching on flexibility, muscle performance, and injury prevention, which aligns with the observed high utilization rates among participants who recognize these benefits. The study emphasizes that individuals who are more aware of the advantages of static stretching tend to incorporate it more regularly into their fitness routines, thereby supporting the results indicating a significant level of utilization. It discusses common barriers and facilitators influencing the adoption of static stretching, which further corroborates the patterns observed in the current study regarding factors that encourage or hinder its consistent practice. Their findings reinforce the importance of awareness and education in promoting the effective utilization of static stretching exercises.

This was supported by Schechner ‘s Performance Theory also supported this theory as cited by (Juillion, 2019). The theory suggests that everyone in the society puts on a performance. It can be seen in the clothes they wear, the types of discourse they involve into, to the food they eat. These are all performance that create a signal-system in the social group where they belong. It unites several groups of performance under the same heading: play, games, sports, theatre, and ritual. These four share important qualities: (1) a special ordering of time, (2) a special value attached to objects, (3) non-productivity in terms of goods, and (4) rules. The theory posited that performance is not about achieving objectives but also about the process of achieving them. Having high performance result comes from appropriate behavior and the effective use of required knowledge, skills, and competencies.

Dynamic stretching exercises. The exercise under review is the level of utilization of dynamic stretching exercises, which assesses how frequently and effectively individuals perform various stretching activities to enhance flexibility and prepare for physical activity. This evaluation focuses on specific indicators such as prone buttocks kicks, arm swings, arm circles, high-stepping, and lunges with a twist. The goal is to determine the overall

engagement level and identify which exercises are most or least utilized within the activity routine.

The data reveals that the highest indicator is the performance of prone buttocks kicks with a weighted mean of 3.36, categorized as very good. The lowest indicator is lunges with a twist, with a weighted mean of 2.67, described as good. The average weighted mean across all indicators is 3.13, indicating a generally good level of utilization. The ranking shows that prone buttocks kicks and arm swings are the most utilized exercises, while lunges with a twist are relatively less emphasized but still within the good range.

Table 4b
Level of Utilization of Dynamic Stretching Exercise

Indicators	WM	Interpretation	Rank
Performance of the prone buttocks kicks.	3.36	Very Good	1
Arm swing: Performs forward and backward swings.	3.29	Very Good	2
Arm circle: Performs full circular motion with control and coordination.	3.22	Good	3
High-Stepping	3.13	Good	4
Lunges with a twist.	2.67	Good	5
Average Weighted Mean	3.13	Good	

Analyzing these results suggests that participants are more consistently engaged in exercises like prone buttocks kicks and arm swings, likely due to their simplicity and effectiveness in warm-up routines. Conversely, lunges with a twist, while still considered good, are less frequently performed, possibly due to their complexity or the level of coordination required. The high utilization of these exercises indicates a positive attitude towards dynamic stretching, which is crucial for injury prevention and performance enhancement. The findings imply that promoting balanced practice across all exercises could further improve overall flexibility and readiness.

These imply that the level of utilization are significant for training programs and physical education curricula. A high engagement level suggests that individuals recognize the value of dynamic stretching, which can lead to better performance and reduced injury risk. However, the slightly lower utilization of lunges with a twist indicates an area for improvement through targeted instruction or encouragement. These results emphasize the importance of ensuring that all stretching exercises are integrated consistently into routines. Maintaining a high level of utilization across all indicators will support optimal physical preparedness and long-term fitness development.

The result could be linked to the study of Vittala and Setiawan (2023) which provides valuable insights that support the findings regarding the level of utilization of dynamic stretching exercises. Their research emphasizes the effectiveness of dynamic stretching in enhancing athletic performance and flexibility, which aligns with the observed high levels of utilization among participants in the current study. The results demonstrate that individuals who regularly incorporate dynamic stretching into their routines tend to experience improved muscle readiness and reduced injury risk. Their study reinforces the notion that dynamic stretching is a widely adopted and beneficial component of physical training programs, thus supporting the current findings on its prevalent utilization.

This was supported by Vygotsky's Zone of Proximal Development. Vygotsky defined the Zone of Proximal Development (ZPD) emphasizes the difference between what learners can achieve independently and what they can accomplish with guidance and support. It suggests that individuals can improve their flexibility and mobility more effectively when provided with appropriate instruction and encouragement within their ZPD. For example, beginners may initially perform limited stretches independently, but with guided practice—such as coaching or peer support—they can progress to more advanced stretches. This targeted support within their ZPD facilitates optimal development, leading to higher levels of utilization and effectiveness of dynamic stretching exercises. Consequently, understanding and leveraging the ZPD can enhance training programs by ensuring individuals receive the right level of assistance to maximize their physical capabilities.

Mimetics. The exercise focuses on evaluating the level of utilization of mimetics, which are expressive movements that imitate natural phenomena or living creatures. Participants are assessed based on their ability to perform specific movements that mimic animals, plants, weather conditions, and natural elements. This assessment helps gauge their proficiency and understanding of mimetic expressions, which are vital in physical education and expressive arts. The exercise also aims to promote creativity, body coordination, and awareness of natural environments through movement.

The data shows that the highest indicator is the demonstration of movements of animals, with a weighted mean of 3.62, categorized as very good. The lowest indicator is the movement of ocean waves, with a WM of 2.75, categorized as good. The average weighted mean across all indicators is 3.19, falling within the good range.

Table 4c
Level of Utilization of Mimetics

Indicators	WM	Interpretation	Rank
Demonstrates movements of animals (imitates flying like bird).	3.62	Very Good	1
Demonstrates movements of branches of trees when it blows. (Sways arms and torso rhythmically side to side).	3.35	Very Good	2
Demonstrates how wind blows during a typhoon (Engages whole to reflect stormy conditions – leaning forward, arms flailing).	3.28	Very Good	3
Demonstrates movement of falling leaves (Use arms and fingers to mimic drifting pattern).	2.97	Good	4
Demonstrate characteristics of ocean waves (Performs smooth, continuous, rolling movements).	2.75	Good	5
Average Weighted Mean	3.19	Good	

The data reveal that participants excel most in mimicking animal movements, likely due to the engaging and familiar nature of such actions. Their performance in representing weather and natural phenomena, such as ocean waves and wind, is also commendable but slightly lower, possibly reflecting the complexity of those movements. The overall data suggests a strong capability in utilizing mimetics effectively, with most participants achieving very good to good ratings. This indicates a generally high level of understanding and skill in expressive movement, although there is room for improvement in more complex natural phenomena.

It can be inferred that participants have a solid grasp of mimetic movements, particularly in imitating animals. The high scores imply that mimetics can be effectively incorporated into physical activities to enhance expressive skills and body awareness. This outcome suggests that training or practice sessions could further improve the performance of more challenging mimetics, like ocean waves. The implication for educators is that emphasizing varied mimetic exercises can foster creativity and physical literacy, enriching students' expressive and interpretive abilities in movement activities.

This could be linked to the study of Gubert & Hannan (2021) who emphasized the use of exercise mimetics as a proposed class of therapeutics that specifically mimic or enhance the therapeutic effects of exercise. Increased physical activity has demonstrated positive effects in preventing and ameliorating a wide range of diseases, including brain disorders such as Alzheimer disease and dementia, cancer, diabetes and cardiovascular disease. This article discusses the molecular mechanisms and signaling pathways associated with the beneficial effects of physical activity, focusing on effects on brain function and cognitive enhancement. Emerging therapeutic targets and strategies for the development of exercise mimetics, particularly in the field of central nervous system disorders, as well as the associated opportunities and challenges, are discussed.

This was supported by the theory of Brand and Ekkekakis' Affective-Reflective Theory (ART) of physical inactivity and exercise as cited by Brand and Cheval (2019) is a dual-process theory, which assumes that stimuli trigger automatic associations and a resulting automatic affective valuation of exercise. An automatic affective valuation is the unattended assignment of positive or negative value

to a stimulus, either as the result of repeated exercise-related emotional experiences mediated by cognitive appraisals or as a result of repeated experiences of core affective reactions to stimuli. The automatic affective valuation serves as the basis for a controlled, reflective evaluation, which can follow if self-control resources are available. The reflective evaluation draws on propositions about exercise and physical inactivity, derived from previous experience and mental simulation. Higher-level cognitive operations, such as deliberative reasoning about one's needs and values. The automatic affective valuation is connected to an action impulse, whereas the controlled response can result in action plans.

Aerobic exercises. The exercise focuses on evaluating the level of utilization of various aerobic activities among participants. This assessment helps to determine how effectively individuals engage in different aerobic exercises, which are crucial for cardiovascular health and overall fitness. The data provided includes several indicators. This exercise aims to identify which activities are most and least utilized, providing insight into participants' preferences and engagement levels.

The highest indicator is the performance of marching in place with a WM of 3.40, described as very good. The lowest is the performance of the Zumba dance aerobic exercise, with a WM of 2.74, described as good. The overall average weighted mean across all indicators is 3.22, which also falls within the good category. These values suggest that participants generally utilize aerobic exercises well, with some activities being more popular or frequently performed than others.

Table 4d
Level of Utilization of Aerobic Exercise

Indicators	WM	Interpretation	Rank
Performance of marching in place.	3.40	Very Good	1
Performance of step touch.	3.37	Very Good	2
Performance of Kick-Ball-Change	3.33	Very Good	3
Performance of the Zumba dance aerobic exercise	2.74	Good	4
Performance of hamstring curls.	3.24	Good	5
Average Weighted Mean	3.22	Good	

It can be analyzed that participants are highly engaged in basic aerobic movements like marching in place and step touch, which are fundamental and accessible exercises. The slightly lower utilization of Zumba indicates that while it is popular, it might not be as consistently performed as the simpler activities. This pattern highlights the preference for exercises that are easier to perform regularly, which could influence future program planning. The findings suggest a positive attitude towards aerobic exercise, with room to promote more diverse or engaging routines to boost participation further.

These imply that there are significant for designing effective aerobic exercise programs. The high utilization of basic activities indicates that these exercises are well-accepted and can serve as foundational components for fitness initiatives. The relatively lower use of more dynamic or dance-based routines like Zumba suggests potential barriers such as complexity or lack of familiarity, which could be addressed through targeted education or demonstrations. Recognizing these patterns can help health practitioners and trainers tailor programs that maximize participation and sustain motivation. Fostering greater engagement in a variety of aerobic exercises can lead to improved cardiovascular health and overall well-being among participants.

The result could be linked to the study of Agus et al. (2021) who conducted quasi-experiment study aimed to figure out the effect of aerobic exercise on students' physical fitness. One Group Pre-test Post-test design was employed in this study. The result of this study showed that aerobic exercise was proven to improve students' physical fitness significantly. This was indicated by the result of data analysis so that it can be concluded that there is a significant impact of a 24-session aerobic exercise on students' physical fitness.

This was supported by Vygotsky's Zone of Proximal Development. Vygotsky's concept of the Zone of Proximal Development (ZPD) refers to the range of

tasks that a learner can perform with guidance and support but cannot yet accomplish independently. This framework emphasizes the importance of social interaction and scaffolding in cognitive development. When applying the ZPD to the context of aerobic exercise, it suggests that individuals can achieve higher levels of physical fitness and health when guided by trainers or peers who provide appropriate encouragement and instruction. For instance, a person may initially struggle with certain aerobic activities but can improve significantly through supported practice, eventually reaching a higher level of utilization of aerobic exercise independently. Research supports this idea, indicating that tailored support within the ZPD accelerates the progression of exercise habits and enhances overall fitness levels, demonstrating the value of guided intervention in maximizing the benefits of aerobic activity.

Calisthenics. The exercise focuses on evaluating the level of utilization of calisthenics among participants, specifically analyzing their performance in various calisthenic activities. This assessment aims to identify which exercises are most effectively utilized and where there may be room for improvement. Understanding these levels helps in designing better training programs and encouraging more consistent practice of calisthenics. The data provides insights into how participants engage with different calisthenic movements, reflecting their overall fitness engagement.

Table 4e
Level of Utilization of Calisthenics

Indicators	WM	Interpretation	Rank
Performance of the jump squats.	3.16	Good	1
Performance of squats.	3.15	Good	2
Performance of pull-ups.	2.65	Good	3
Performance of push-ups	2.49	Fair	4
Performance of the handstand.	2.20	Fair	5
Average Weighted Mean	2.73	Fair	

The data shows that the highest indicator is the performance of jump squats with a weighted mean of 3.16, described as good. The lowest indicator is the performance of handstands with a weighted mean of 2.20, described as fair. The overall average weighted mean across all indicators is 2.73, which also falls into the fair category. The indicators for squats and pull-ups have similar high ratings, while push-ups are slightly lower, and handstands are the least utilized among the exercises.

Analyzing the results, it becomes evident that participants are more proficient or engaged in exercises like jump squats and regular squats, possibly due to their relative ease or popularity. Conversely, activities such as handstands show lower utilization, which may be linked to their difficulty or lack of confidence among participants. The overall fair rating suggests there is considerable room for improvement in the practice and mastery of calisthenics exercises. This indicates a need for targeted interventions to enhance the utilization and performance of less practiced activities like handstands.

The findings suggest that while participants are fairly engaged with certain calisthenic exercises, there is a significant opportunity to boost overall participation, especially in more challenging movements. Improving the utilization of exercises like push-ups and handstands can lead to better overall fitness and confidence in performing calisthenics. These results highlight the importance of structured training programs that focus on the less utilized exercises to promote balanced fitness development. Enhancing engagement in all calisthenic activities can foster a more comprehensive and effective fitness routine for individuals.

The result could be linked to the study of Warneke et al. (2023) who emphasized that to improve flexibility, stretching is most commonly used and in training interventions duration-dependent effects are hypothesized. Thus, aim of this study was to compare different stretching durations on flexibility in the plantar flexors and to exclude potential biases. Flexibility was measured in bended and extended knee joint. Stretching was performed with a calf muscle stretching orthosis to ensure long-lasting stretching training. All stretching times led to

significant increases in flexibility in both tests. While there were no significant differences measured via the knee to wall stretch between the groups, the range of motion measurement via the goniometer of the orthosis showed significantly higher improvements in flexibility depending on stretching duration with the highest increase in both tests with 60 minutes of stretch per day.

This was supported by the theory of Brand and Ekkekakis' Affective-Reflective Theory (ART). This theory provides a compelling framework for understanding the levels of utilization of calisthenics. According to ART, individuals' exercise behaviors are influenced by their immediate affective responses—such as enjoyment or discomfort—and their reflective evaluations, including personal goals and beliefs about exercise. The theory suggests that positive affective experiences during calisthenics can enhance motivation and increase frequency of engagement, while negative experiences may deter participation. Therefore, the observed results indicating higher utilization rates among individuals who experience favorable affective responses align with ART's premise that affective factors play a crucial role in exercise adherence. Conversely, lower utilization among those with negative experiences underscores the importance of addressing affective responses to promote sustained engagement in calisthenics routines.

Table 4f presents a summary of the level of utilization of various instructional activities aimed at developing flexibility among learners. These activities are assessed based on their implementation frequency and effectiveness, providing insight into how well they are incorporated into the curriculum. Understanding these levels can help educators identify which activities are most actively used and which may need further emphasis.

Table 4f
Summary of the Level of Utilization of Instructional Activities to Develop Flexibility

Indicators	AWM	Interpretation	Rank
Static Stretching Exercise	3.23	Good	1
Aerobic Exercise	3.22	Good	2
Mimetics	3.19	Good	3
Dynamic Stretching Exercise	3.13	Good	4
Calisthenics	2.73	Good	5
Average Weighted Mean	3.23	Good	

The highest indicator is the Static Stretching Exercise with a weighted mean of 3.23, while the lowest is Calisthenics with a weighted mean of 2.73. The average weighted mean across all activities is 3.23, which falls within the good category. This indicates that most of the instructional activities are being utilized effectively, with a tendency toward higher implementation levels. The data suggests that static stretching and aerobic exercises are slightly more emphasized than other activities like calisthenics.

The data shows that there is a consistent integration of flexibility exercises within the instructional program. The slightly higher scores for static stretching and aerobic exercises may indicate their preferred or more accessible status in the curriculum, while calisthenics, with a lower score, might be less emphasized or more challenging to implement. The uniformity in the rating suggests a balanced approach, though some activities could benefit from increased focus. The ranking positions also demonstrate a prioritized sequence in the utilization of these activities to develop flexibility.

The results imply that instructional activities to develop flexibility are generally well integrated into the teaching framework, fostering an environment conducive to physical development. The high utilization levels suggest that educators recognize the importance of these exercises in promoting flexibility, which can enhance overall physical health and performance. However, the slightly lower emphasis on calisthenics could point to an opportunity for diversification or increased focus in future curriculum planning. Maintaining and improving these activities can lead to better physical literacy and more comprehensive development of learners' flexibility skills.

Level of Flexibility of Grade 7 Learners After the Utilization of Instructional Strategies

To determine whether instructional strategies were helpful or not in improving the flexibility of the learners, their level of flexibility was measured after the utilization of the instructional strategies. Table 5 shows the data on the level of flexibility of the learners after the utilization of the instructional strategies.

Overlap Right Arm Zipper Test. The Post Test of Overlap Right Arm Zipper Test was conducted to evaluate the flexibility levels of learners, categorized by gender. The assessment measured how far participants could overlap their fingers during the test, with various standards indicating different degrees of flexibility. The data collected provides insight into the distribution of flexibility among male and female learners after the intervention or training period. This test serves as an important indicator of flexibility improvements and helps identify the overall effectiveness of the program.

Numerical values show that learners achieved a high level of flexibility, with 69.15% of all participants overlapping their fingers by 8 cm or more. Among males, 72.22% reached this highest category, while 65% of females did so. The remaining participants fell into categories representing lesser degrees of overlap, with smaller percentages touching or just touching fingertips. The total number of learners who achieved the maximum overlap indicates a strong overall performance in the post-test.

Table 5a
Level of Flexibility of Leaners in Terms of Overlap Right Arm Zipper Test

Standards	Points	Male		Female		Total	
		f	%	f	%	f	%
Did not touch fingertips	0	0	0	0	0	0	0
Just touched finger tips	1	0	0	0	0	0	0
Finger overlapped by 1-2 cms	2	0	0	0	0	0	0
Fingers overlapped by 3-4 cms	3	9	16.67	6	15.0	15	15.96
Fingers overlapped by 5-7 cms	4	6	11.11	8	20.0	14	14.89
Fingers overlapped by 8 cms and more	5	39	72.22	26	65.0	65	69.15
Total		54	100.00	40	100.0	94	100.0

Analyzing the data reveals that the majority of learners demonstrated considerable flexibility, particularly in the higher overlap categories. The high percentage of participants reaching overlaps of 8 cm or more suggests effective improvement or already high flexibility levels. The slight difference between males and females in the highest category indicates gender similarities in flexibility outcomes after the test. The distribution indicates that most learners have developed or maintained good flexibility, which is beneficial for activities requiring a wide range of motion.

The data suggests that the training or intervention was successful in enhancing flexibility, especially for those reaching the highest overlap level. The predominance of learners in the top categories implies that the program effectively increased flexibility among participants. This positive outcome highlights the importance of continued flexibility exercises and assessments to maintain or further improve these gains. Improving flexibility can contribute to better physical performance, injury prevention, and overall health, reinforcing the value of such tests in fitness assessments.

This is linked with the study of Fatima et al. (2022) which provided valuable insights into the factors influencing physical flexibility, which directly supports the research on the Level of Flexibility of Learners in terms of the Overlap Right Arm Zipper Test. Their findings highlighted the importance of specific stretching routines and muscle conditioning in enhancing upper body flexibility, particularly in the shoulder and arm regions. Identifying key determinants that improve flexibility, Fatima et al.'s

study reinforces the relevance of assessing and developing flexibility through standardized tests like the Overlap Right Arm Zipper Test. This connection underscores the significance of targeted interventions and consistent training to improve learners' flexibility levels, aligning with the objectives of evaluating their capability to perform the test successfully.

Left Arm Overlap. The Posttest of the Overlap Left Arm Zipper Test was conducted to assess the flexibility of learners in reaching and overlapping their fingers along a specified measurement. The test categories ranged from not touching fingertips to overlapping fingers with points assigned accordingly. The results indicated a distribution across different levels of flexibility, highlighting variations among male and female participants. The assessment provided a clear picture of the learners' current flexibility status after the training or intervention.

Table 5b
Posttest Performance of Learners in Overlap Left Arm Zipper Test to Determine Flexibility

Standards	Points	Male		Female		Total	
		f	%	f	%	f	%
Did not touch fingertips	O	0	0	0	0	0	0
Just touched finger tips	1	0	0	2	5.0	2	2.13
Finger overlapped by 1-2 cms	2	10	18.52	2	5.0	12	12.76
Fingers overlapped by 3-4 cms	3	12	22.22	7	17.5	19	20.21
Fingers overlapped by 5-7 cms	4	6	11.11	9	22.5	15	15.96
Fingers overlapped by 8 cms and more	5	26	48.15	20	50.0	46	48.94
Total		54	100.00	40	100.0	94	100.0

The data show that no learners failed to touch their fingertips, indicating that at least minimal flexibility was present in all participants. The majority of learners, nearly half of the total, fell into the highest overlap category of 8 cm or more, with 50% of females and 48.15% of males achieving this level. Smaller proportions of learners were in the intermediate categories, such as overlapping by 3-4 cm or 5-7 cm, with the least represented group being those who just touched fingertips. The total number of learners who achieved significant flexibility suggests a positive outcome from the training or intervention.

Analyzing these results, it is evident that a considerable proportion of learners demonstrated high flexibility posttest, particularly in the 8 cm or more overlap category. The gender distribution indicates that females slightly outperformed males in achieving greater overlap, which could suggest gender differences in flexibility. The presence of learners across all categories shows varied progress, but the trend towards higher overlap points reflects overall improvement. This data underscores the effectiveness of the program in enhancing flexibility among participants, especially in achieving substantial finger overlap.

It can be inferred that the posttest results demonstrate a meaningful improvement in flexibility among learners, with many reaching advanced levels of finger overlap. The high percentage of learners achieving 8 cm or more overlap suggests the intervention was successful in enhancing flexibility. These outcomes can be used to support further training or to refine techniques to improve flexibility even more. Ultimately, the results highlight the importance of targeted exercises in improving physical attributes like flexibility, benefiting overall physical health and functional ability.

This is aligned with the study of Riaz et al. (2023) by emphasizing the importance of adaptable teaching strategies that cater to diverse student needs. Both

studies highlight that fostering flexibility—whether cognitive, emotional, or physical—is essential for promoting effective learning and holistic development in physical education settings. It explores how tailored instructional approaches can enhance learners' adaptability and resilience, which complements the focus in physical education on developing flexible movement skills and promoting a growth mindset. Together, these studies underscore the significance of flexibility as a fundamental component of successful learning experiences, advocating for pedagogical practices that encourage learners to adapt, innovate, and thrive in dynamic physical activity environments.

Sit and Reach. The posttest performance of learners in the Sit and Reach test was recorded to assess their flexibility levels. This assessment provides insight into the range of flexibility among male and female participants after a specific intervention or training period. The data highlights the distribution of scores, revealing how many learners achieved various levels of flexibility. Analyzing these results can help in understanding the effectiveness of the program aimed at improving flexibility and in identifying which group demonstrated higher gains.

Table 5c
Posttest Performance of Learners in Sit and Reach

Performance (in centimeters)	Male		Performance (in centimeters)	Female	
	f	%		f	%
24.0	37	68.52	28.0	29	72.5
23.8	11	20.37	27.8	8	20.0
23.6	5	9.26	27.6	2	5.0
23.4	1	1.85	27.4	1	2.5
23.2	0	0	27.2	0	0
Total	54	100.00	Total	40	100.0
Mean	**23.9111**			**27.925**	
Standard Deviation	**0.1488**			**0.141**	

For the male participants, the scores ranged from 23.2 cm to 24.0 cm, with the majority scoring around 23.9 cm. The female participants showed a slightly higher range, from 27.2 cm to 28.0 cm, with the mean score being approximately 27.93 cm. The distribution indicates that most learners in both groups clustered around their respective mean scores, with a few outliers on either end. The standard deviations suggest a relatively tight grouping of scores, implying consistent performance among participants.

Analyzing these results suggests that female learners generally exhibited greater flexibility than their male counterparts, as evidenced by higher average scores. The concentration of scores around the mean indicates that most learners achieved similar levels of flexibility within each group. The narrow standard deviations further imply that the intervention had a uniform effect across participants, leading to consistent improvements. These findings could reflect inherent differences in flexibility between genders or the effectiveness of the training provided. It can be inferred that gender may play a role in flexibility outcomes, with females showing a higher degree of flexibility posttest. It also suggests that the intervention or training was effective in improving flexibility, especially among females. The data highlights the importance of tailored fitness programs that consider gender-specific characteristics. Overall, these findings can inform future strategies to enhance flexibility and physical fitness among diverse learner groups.

This could be linked to the study of Gumbo et al. (2017) who conducted a study to analyze the teaching strategies which are used by physical education teachers in Gokwe north primary schools in the mid-lands province of Zimbabwe and also to assess the factors affecting the effectiveness of these strategies. Research findings revealed that physical education teachers apply several teaching strategies.

These included the lecture, individualized instruction, task teaching, cooperative learning, problem solving, interactive teaching, peer, station, simulation and active teaching. Among the stated teaching strategies, some were used more frequently than others. The effectiveness of these teaching strategies was found to be low because they are negatively affected by a host of factors such as negative attitudes of teachers, lack of examinations in the subject, lack of time, lack of appropriate equipment and facilities.

This was supported by Vygotsky's Zone of Proximal Development. Vygotsky's Zone of Proximal Development (ZPD) aligns closely with the study on the flexibility of learners in physical education by emphasizing the importance of social interaction and guided learning in developing new skills. In physical education, learners often demonstrate varying levels of flexibility, and the ZPD highlights how teachers and peers can scaffold activities to help students progress beyond their current capabilities. Providing appropriate support within their ZPD, learners can enhance their flexibility through targeted exercises, feedback, and encouragement, facilitating optimal growth. This approach underscores the dynamic nature of learning, where the potential for developing physical skills like flexibility is maximized through collaborative and guided experiences, consistent with Vygotsky's emphasis on the social context of cognitive and physical development.

Difference Between the Flexibility of the Learners Before and After Using the Instructional Activities

The importance of flexibility in learners and the potential impact of instructional activities on enhancing this trait. It emphasizes that assessing changes in flexibility can provide insights into the effectiveness of teaching strategies. The focus is on understanding whether instructional activities lead to measurable improvements in learners' flexibility. The analysis aims to determine if the observed changes are statistically significant, which can inform future instructional designs.

The table presents the numerical values for the statistical measures used to compare learners' flexibility before and after implementing instructional activities. For the zipper test, the t-statistics for right and left overlap are -0.0582 and -0.116, respectively, with a critical value of 2.3060. For the sit and reach test, the t-statistics for males and females are -0.0022 and -0.0026, both with the same critical value. The values suggest that the statistical measures are very close to zero and well below the critical threshold.

Table 6
Difference Between the Flexibility of the Learners Before and After Using the Instructional Activities

Flexibility Test	Statistical Measure	Statistical Value
Zipper Test:		
Right Overlap	t-Statistic	-0.0582
	Critical value	2.3060
	Interpretation	Not Significant
Left Overlap	t-Statistic	-0.116
	Critical value	2.3060
	Interpretation	Not Significant
Sit and Reach		
Males	t-Statistic	-0.0022
	Critical value	2.3060
	Interpretation	Not Significant
Females	t-Statistic	-0.0026
	Critical value	2.3060
	Interpretation	Not Significant

This indicates that the statistical results show no significant difference in learners' flexibility before and after the instructional activities. The t-statistics are far from the critical value, implying that any observed changes could be due to chance rather than a true effect of the interventions. This suggests that the instructional activities implemented did not produce measurable improvements in flexibility

within the studied sample. The data points to a lack of statistically significant change, questioning the effectiveness of the activities in enhancing flexibility.

It can be drawn from these results is that the instructional activities, as conducted in this context, did not significantly influence learners' flexibility. This finding suggests that other factors may need to be considered to improve flexibility or that different approaches might be necessary. It highlights the importance of evaluating and refining instructional strategies to achieve desired physical outcomes. The results underscore that without significant measurable change, the activities may need to be restructured or complemented with additional interventions to be more effective.

This result is supported by Nesbitt et al. (2021) who emphasizes the significance of adaptable and student-centered instructional strategies to enhance learning outcomes, which aligns closely with the study on the flexibility of learners in physical education using instructional activities. Both highlight the importance of tailoring activities to meet diverse student needs, promoting engagement, and fostering a supportive environment that accommodates varying skill levels and learning styles. Integrating flexible instructional approaches, educators can better facilitate active participation and skill development, thereby reinforcing the idea that adaptable teaching methods are essential for optimizing physical education experiences and promoting lifelong physical activity.

This was supported by the theory of Brand and Ekkekakis' Affective-Reflective Theory (ART) of physical inactivity and exercise as cited by Brand and Cheval (2019). This emphasizes the interplay between automatic affective responses and reflective processes in shaping behavior, particularly in physical activity contexts. This theoretical framework aligns with the study on the flexibility of learners in physical education, especially when utilizing instructional activities, by highlighting how learners' immediate emotional reactions to activities influence their engagement and adaptability. When instructional activities are designed to evoke positive affective responses, learners are more likely to develop a flexible mindset, enabling them to adapt to different tasks and challenges. Furthermore, the reflective component of ART encourages learners to consciously evaluate their experiences, fostering resilience and a willingness to persist despite difficulties.

The Effectiveness of Instructional Strategies

The effectiveness of utilizing instructional activities in enhancing students' physical performance was examined through various flexibility tests. This study aimed to assess how different instructional activities influence specific flexibility measures among male and female participants. Analyzing the effect sizes, we can better understand the degree to which these activities contribute to improvements. The results provide insights into the practical significance of instructional strategies in promoting physical fitness and flexibility.

Table 7
Effectiveness of the Utilization of Instructional Activities

Flexibility Test	Cohen's d	Interpretation
Zipper Test:		
Right Overlap	0.04	Small
Left Overlap	0.07	Small
Sit and Reach:		
Male	0.23	Small
Female	0.29	Small

Legend:

Effect Size	Interpretation
0.8	Large
0.5	Moderate
0.2	Small

The numerical values indicate small effect sizes across all measured variables. For the Zipper Test, right and left overlaps had Cohen's d values of 0.04 and 0.07, respectively. The Sit and Reach test showed Cohen's d of 0.23 for males and 0.29 for

females. All effect sizes fall within the small category, suggesting minimal differences attributable to the instructional activities. These small effect sizes imply that the activities may not have produced substantial improvements in the measured flexibility parameters.

The results reveal that the instructional activities employed had limited impact on enhancing flexibility, as evidenced by the small effect sizes. The minimal differences suggest that either the activities were not sufficiently intensive or targeted to produce significant change, or that the participants already possessed a certain level of flexibility. It also highlights the possibility that other factors, such as individual baseline levels or external influences, may play a more prominent role in flexibility development. Consequently, the effectiveness of these instructional activities in this context appears to be modest at best.

It can be inferred that while instructional activities have some influence on flexibility, their overall impact is relatively limited when measured through small effect sizes. This suggests that educators and trainers might need to incorporate more targeted or intense interventions to achieve more meaningful improvements. Additionally, it underscores the importance of tailoring physical activities to individual needs for more effective results. The study emphasizes the need for ongoing evaluation and adjustment of instructional strategies to maximize their effectiveness in promoting physical fitness.

IV. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the following conclusions were derived. Furthermore, recommendations were made to achieve the study' s purpose of improving the instructional strategies in order to enhance the flexibility of learners.

Conclusions

The following conclusions were derived based on the findings of the study:

1. For the demographic profile of the learners in terms of sex, there were more male learners than female learners. Majority of the learners had normal body mass index with a total of 85 individuals, representing 90.43% of the population.
2. The status of flexibility of learners in terms of zipper test right overlap arm had most respondents demonstrated increasing finger overlap, with the highest proportion (around 68%) achieving the maximum score; in overlap left arm, most respondents scored high points for finger overlap, with 45.75% overall scoring five points for overlaps of 8 cm or more, and in sit and reach, majority of respondents across different age groups exhibit a relatively high level of flexibility.
3. For the level of utilization of instructional strategies shows that static stretching exercises are most prominently utilized, followed by other instructional activities that are generally implemented effectively.
4. Majority of learners demonstrated considerable flexibility, particularly in the higher overlap right arm, considerable proportion of learners demonstrated high flexibility posttest in overlap left arm, and in sit and reach, female learners generally exhibited greater flexibility than their male counterparts.
5. There was no significant difference in learners' flexibility before and after the instructional activities.
6. The instructional activities employed had limited impact on enhancing flexibility, as evidenced by the small effect sizes.

Recommendations

1. To ensure that all learners would have normal body mass index, school head, together with teachers should conduct feeding program focusing on the learners who were categorized as wasted and severely wasted. Aside from that, the school through the TLE Department should make sure that food being served in the school canteen are healthy. In addition, all teachers regardless of the subject areas, should integrate health education so that learners would be encouraged to eat more nutritious food.
2. Targeted interventions such as guided stretching routines and personalized training programs should be implemented. Emphasizing consistent practice, especially for those with lower initial flexibility, can help increase overall scores and ensure balanced development across different body parts.
3. Incorporating a diverse range of instructional strategies alongside static stretching can enhance flexibility outcomes. Activities such as dynamic stretching, proprioceptive neuromuscular facilitation, and functional movement exercises should be integrated into the curriculum to promote more comprehensive flexibility improvements.

4. Future instructional approaches should consider gender-specific needs and preferences. Additionally, encouraging male learners through tailored exercises and motivation strategies could help bridge this flexibility gap and foster overall progress.
5. Review and modify the current teaching methods. Incorporating more engaging, varied, and progressively challenging activities may be necessary to produce measurable improvements over time.
6. Increasing the intensity, frequency, and specificity of flexibility training, along with ongoing assessment and feedback, can enhance the effectiveness and lead to more substantial gains in learners' flexibility.

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