

Implementation of Arnis Training Program Plan for Elementary Level to Enhance Performance and Skill Acquisition

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Abstract—The present research assessed the efficacy of the Arnis Training Instructional Plan for Elementary Level in relation to the demographic profile, performance prior and post-training, difficulties encountered, and relationships between the variables involved. According to the results obtained, there was no imbalance in the distribution of respondents in terms of their age, sex, and experience as athletes. There were considerable improvements observed in the performance of the learners, especially in the fundamentals of striking, blocking, weapon handling, coordination, balance, speed, agility, and discipline. Nonetheless, there were some deficiencies noted in the respondents' footwork, transitions, and complex techniques. In addition, it can be seen that difficulties such as insufficient warm-up, inadequate training time, and lack of equipment, improper feedback, fatigue, and poor endurance had considerable effect on the overall effectiveness of the program, significantly influencing physical performance but having little impact on motor skills and learning. Based on these findings, it was concluded that the Arnis Training Instructional Plan for Elementary Level is effective in enhancing learners' psychomotor skills and overall performance, although improvements are needed in specific areas such as blocking, agility, transition balance, and physical conditioning. The presence of a diverse group of learners further supports the program's applicability across different developmental levels. However, the effectiveness of the program is partly constrained by external and physical factors that need to be addressed. In light of these conclusions, the study recommends maintaining inclusive and balanced groupings of learners, strengthening training in footwork and complex techniques, ensuring proper warm-up and longer practice sessions, providing adequate equipment, and delivering consistent feedback. It also suggests focusing on improving learners' endurance and fatigue management, and implementing an Arnis Training Instructional Plan for Elementary Level that emphasizes structured, learner-centered training, improved facilities, and individualized instruction. Future research is encouraged to explore long-term effects of Arnis training on skill retention and physical performance.

Keywords— Arnis Training Program, student-athletes, psychomotor skills, physical performance, motor skills, skill acquisition, discipline, coordination.

I. INTRODUCTION

The Philippine Physical Education is very vital in the growth and development of the learners, whereby physical fitness as well as discipline, cooperation, and awareness is developed in the learners. The different physical exercises include Arnis, which is the national martial art and sport of the Filipinos. Through the enactment of the Republic Act No. 9850, the

government has declared the practice of Arnis as the National Martial Art and Sport of the Philippines, whereby Arnis is integrated into the school curriculum in order to develop physical and moral discipline of the learners. This move is supported by the DepEd through the DepEd Order No. 34, s. 2010 as well as the other curriculum guides.

Notwithstanding the national mandates above, however, the application of Arnis training within the elementary school setting continues to be inadequate and sporadic. As secondary schools and tertiary institutions have already included Arnis training within their physical education and sports curricula, there are yet elementary schools that have not developed such training programs along with trained instructors and appropriate modules for instruction. The present study was founded upon

Republic Act No. 9850 and DepEd Order No. 23, s. 2014, both of which emphasize the significance of context-based sports programs that ensure Filipino cultural identity and physical well-being among the learners (DepEd, 2014; PSC, 2019). Moreover, the involvement of Arnis within the Palarong Pambansa, as recommended by the Philippine Sports Commission (PSC) and DepEd Memorandum No. 006, s. 2012, requires the establishment of Arnis fundamentals among the students in the elementary stage.

Though past literature has examined Arnis training for high school and college athletes, studies on the skill development and performance improvement of elementary pupils have been relatively few. There is very little standardization and appropriate training programs that could maximize the pupils' interest in the sport, resulting in minimal exposure, poor skill development, and lack of motivation. Physical education teachers and trainers tend to use physical education techniques instead of specific Arnis training routines, thus missing the process of skill development and enhancement that is needed. This study aims to fill up that need through the design and implementation of the Context-based Arnis Training Program for Elementary Pupils.

The objectives of the research include designing, implementing, and evaluating the effectiveness of the Arnis Training Program aimed at developing the physical and skill competencies of the elementary students. The program follows a systematic process through which skill learning and improved performance of the participants are achieved through compliance to national policies related to education

and sports development. Information gained from this study will be very important in guiding DepEd officials, school administrators, MAPEH teachers, and sports coordinators on Arnis training programs.

1.1 Statement of the Problem

Specifically, the research seeks to address the following inquiries:

1. What is the demographic profile of the two group of respondents in terms of:
 - 1.1. students athlete; 1.1.1 age;
 - 1.1.2 sex; and
 - 1.1.3 number of years being athlete
 - 1.2. teachers/coach
 - 1.2.1. age;
 - 1.2.2. sex;
 - 1.2.3. no. of years of experience being teacher/coach; and
 - 1.2.4. training attended.
2. What is the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of:
 - 2.1. basic skills (striking, blocking, footwork);
 - 2.2. coordination and balance
 - 2.3. speed and agility; and
 - 2.4. discipline and focus?
3. What are the challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing in terms of;
 - 3.1. motor skill
 - 3.2. skill acquisition, a
 - 3.3. physical performance
4. Is there a significant difference in the pupils' performance before and after the implementation of the Arnis Training Program when group according to demographic profiles?
5. Is there a significant relationships between the challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing?

II. METHODOLOGY

This study utilized a quantitative research design approach through a descriptive-experimental methodology to objectively evaluate the effectiveness of the Implementation Arnis Training Program Plan on improving performance and skill acquisition of elementary students. This type of research design is best suited for the study since this will allow the researchers to gather statistical data in the form of numbers which can then be analyzed to reveal patterns, relationships, and effects of the training program. The respondents of the study consist of three groups: the student-athletes who underwent the training in Arnis; the teachers who observe and give their assessments about the performance of the pupils; and the coaches/trainers who judge the skill and the accuracy of the training program on the part of the participants. The data that were collected using standard assessment methods such as testing for performance and evaluation checklists before and after the

training program helped in evaluating the effectiveness of the Arnis Training Program.

III. RESULTS AND DISCUSSION

In this chapter, the analysis and interpretation of the gathered data are presented to address the research questions outlined in the previous chapter. The confidentiality of the data was maintained, and ethical considerations were adhered to throughout the study.

1. Demographic profile of the two group of respondent's student's athlete in terms of age, sex and number of years being athlete, also demographic profile of respondent teacher/coach in terms of age, sex, no. of years of experience being teacher/coach and training attended?

Table 1.1 presents the demographic profile of respondent student's athlete in terms of age, sex, and number of years being athlete?

From the distribution of the demographics of the respondents, there seems to be a relatively balanced number of young and developmentally varying athletes at the elementary level. In this case, regarding the age of the respondents, the majority (34%) of them fall in the age range of 13 years and above, then come those whose ages range from 8-10 and 11-12 years each making up 24%, whereas the fewest respondents are less than 7 years (18%). From the above distribution, it is evident that most of the respondents fall under late childhood and early adolescence who may be able both physically and mentally to gain skills. On the other hand, concerning the composition of the sexes of the participants, one can note that almost half of the respondents are males (52%), while the other half (48%) are females.

TABLE 1.1 Profile of the collegiate athlete Respondents in terms of age, sex, and number of years being athlete

1.1.1 Age	f	Percentage (%)
7-BELOW	9	18
8-10	12	24
11-12	12	24
13 above	17	34
Total	50	100
1.1.2 Sex	f	Percentage (%)
Male	26	52
Female	24	48
Total	50	100
1.1.3 number of years being athlete	f	Percentage (%)
1-BELOW	9	18
2-3 years	12	24
4-5 years	12	24
6 years above	17	34
Total	50	100

In the final part of analysis, we should note the number of years of athletic experience of the participants. About 34% of the sample have had 6 or more years of experience, and the rest either have less but comparable experience (18-24%). As for the statistical evaluation of these data, the higher percentage of participants in the older age groups and higher experience in the field may be regarded as the initial base of physical literacy of the participants. It will lead to better outcomes during the post-training period because of the

correlation between the experience and learning speed. However, the presence of participants who are younger and have lower levels of experience helps to get a more complete evaluation of how the training course functions. Moreover, the equal distribution of men and women allows us to compare the skill development process.

The results of the study imply that Arnis training could possibly prove to be an efficient practice applicable at different age levels depending on how the training is conducted developmentally. Research indicates that martial arts, such as Arnis, are known to positively influence cognitive and psychomotor abilities along with increasing children's discipline

Study supports Lakes & Hoyt (2021). Practicing sports regularly helps one retain skills and produce better performance outcomes if training programs are effectively designed. Therefore, the implication for practice is that elementary-level Arnis programs should include progressively challenging tasks for all learners, regardless of whether they are novice or proficient.

Table 1.2 presents the demographic profile of respondent teacher/coach in terms of age, sex, no. of years of experience being teacher/coach and training attended?

The statistical results on the demographic composition of teacher/coaches involved in this study is composed of individuals who have considerable experience and educational background, which are crucial factors for the successful execution of the Arnis training program. As for the age composition, it reveals that the highest percentage (30%) belongs to the 31-35 group, 25% belong to the 26-30 age group,

TABLE 1.2. Profile of respondent teacher/coach in terms of age, sex, no. of years of experience being teacher/coach and training attended

1.2.1 Age	f	Percentage (%)
21-25	3	15
26-30	5	25
31-35	6	30
36-40	2	10
41-45	4	20
Total	20	100
1.2.2 Gender	f	Percentage (%)
Male	8	40
Female	12	60
Total	20	100
1.2.3 Educ Attainment	f	Percentage (%)
Bachelor	11	55
Masteral	4	20
Doctorate	5	25
Total	20	100
1.2.4. Training attended.	f	Percentage (%)
International Level	2	10
National Level	4	20
Regional Level	3	15
Division Level	6	30
District Level	5	25
Total	20	100

20% belong to the 41-45 age group, and the smallest percentage comes from the younger (21-25; 20%) and older (36-40; 5%) age groups. This shows that many of the teacher/coaches are in the prime of their career, where they are

physically fit and professionally stable. The distribution of genders shows that there are more females (60%) than males (40%), suggesting increased participation among women coaches. As for the education level, most of the teacher/coaches (55%) are college graduates, and a significant percentage (45%) is composed of those with postgraduate education.

Based on statistical results, the combination of mid-career age structure together with relatively high educational qualifications will guarantee that the respondents will be well-prepared to run efficient training programs. Advanced degrees held by the respondents (45%) might be crucial for planning and implementation of the program, since people who have received higher education normally teach better. However, taking into consideration the respondents' training experience, it becomes obvious that they have had training at relatively low levels: 30% have been trained at the divisional level and 25% - at the district level, whereas only 10% and 20% respectively have received training internationally and nationally. Thus, it seems that even though the respondents have been properly trained at relatively low levels, they have been exposed to relatively few international training programs in Arnis.

The results mean that the teacher/coaches have adequate academic qualification and teaching experience, but further professional development needs improvement in terms of their participation in higher-level training programs.

Literature suggests that continuous professional development, especially national and international training, has an extremely positive impact on the competence of coaches, teaching process, and athletes' results.

Study supports Gilbert et al. (2021). Coaches with advanced education and ongoing training are more likely to adopt learner-centered and skill-based approaches, which are crucial in martial arts instruction. Also, study highlights the importance of investing in advanced training programs and certifications for Arnis coaches to ensure the effective implementation of the training plan, ultimately enhancing students' performance and skill acquisition.

2. Level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of basic skills (striking, blocking, and footwork), coordination and balance, speed and agility and discipline and focus?

Table 2.1 presents the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of basic skills (striking, blocking, and footwork).

As seen from the results presented in Table 2.1, the overall level of competence of the students in basic Arnis techniques after the introduction of the training program showed an average score of 3.31, indicating excellent performance. This implies that the training program was effective in improving learners' competence in basic skills such as hitting, blocking, and weapon control. It is worth noting that the two highest mean scores were obtained from "Displays proper weapon handling and striking sequence" with an average of 3.61 and

“Performs blocking techniques effectively against simulated attacks” with an average of 3.60, both considered excellent.

TABLE 2.1. Weighted mean of the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of basic skills (striking, blocking, and footwork)

2.1 Basic Skills (Striking, Blocking, Footwork)	Mean	VI
1. Demonstrates accurate striking techniques using correct form and control.	3.49	Excellent
2. Performs blocking techniques effectively against simulated attacks.	3.6	Excellent
3. Maintains proper footwork and stance during practice and sparring.	2.89	Good
4. Transitions smoothly between offensive and defensive movements.	2.99	Good
5. Displays proper weapon handling and striking sequence.	3.61	Excellent
Overall	3.31	Excellent

Legend: 3.26 – 4.00 – Excellent 1.76 – 2.50 – Fair
2.51 – 3.25 – Good 1.00 – 1.75 – Needs Improvement

However, a little bit lower average score was recorded for “Maintains proper footwork and stance when practicing and fighting” (M=2.89) and “Moves from offense to defense with ease” (M=2.99). This suggests that students’ progress in terms of footwork and transitions is not as impressive as that for isolated moves such as striking and blocking; however, it should be pointed out that footwork and transitions are much more sophisticated skills than striking and blocking.

Study implications, one way that the researchers recommend for teachers to implement an improvement in their students’ physical abilities and knowledge is by integrating Arnis in the curriculum as a method of developing motor skills and defense techniques among the learners. Nonetheless, it would be advisable for instructors to pay more attention to activities aimed at refining footwork and overall physical agility among learners. The other implication is that students require ongoing practice and guidance throughout the learning process in order to improve their physical competence. Finally, future physical education programs can incorporate varied forms of activities in order to address weaker areas.

Study supports L. Santos et al. (2021). The above results are consistent with current research that points to the efficiency of physical education programs that rely on martial arts training for the development of psychomotor skills and discipline of learners, indigenous martial arts-based programs have shown to contribute greatly to the improvement of students’ motor coordination and reaction times. Arnis training is efficient in fostering both physical skills and mental focus.

Table 2.2 presents the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of coordination and balance.

Based on the data shown in Table 2.2, it can be deduced that the level of pupil’s performance in coordination and balance using the Arnis Training Program acquired a weighted mean of 3.25, which is regarded as “Good.” It implies that despite the effectiveness of the intervention in developing their level of skills, their degree of Table 2.2

Weighted mean of the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of coordination and balance

TABLE 2.2 presents the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of coordination and balance.

2.2 Coordination and Balance	Mean	VI
1. Demonstrates good body coordination when performing Arnis drills.	3.28	Excellent
2. Maintains stability during transitions between movements.	3.34	Excellent
3. Coordinates hand and foot movements effectively in various routines.	3.10	Good
4. Shows proper control of body weight and balance during execution.	3.28	Excellent
5. Demonstrates synchronized movements with partner or opponent.	3.24	Good
Overall	3.25	Good

Legend: 3.26 – 4.00 – Excellent 1.76 – 2.50 – Fair
2.51 – 3.25 – Good 1.00 – 1.75 – Needs Improvement

However, they are still not deemed as Excellent based on their mastery of basic skills. In terms of the indicators, “Maintains stability during transition between movements” (M = 3.34) and “Displays good body coordination when doing Arnis techniques/drills” (M = 3.28) fall into the Excellent category, thus, indicating the development of their stability in some practice situations. Furthermore, “Coordinates hand and foot movements effectively in different Arnis techniques/routines” (M = 3.10) and “Exhibits synchronized movements with partner or opponent” (M = 3.24) are defined as “Good,” which means that learners have reasonable proficiency in carrying out complex motor activities. The development of such skills requires more control and neuromuscular coordination in addition to external feedback (e.g., a partner). It might account for the low scores achieved by learners.

As far as the implications go, the results demonstrate that future Arnis learning should incorporate partner practice for the development of coordination and synchronization skills. It would also make sense for teachers to design exercise routines that focus on the development of agility, rhythm, and reaction time in order to develop better coordination between the hands and feet. The implementation of scaffolding, where the exercise starts off with simple movements and then difficulty is increased up to the point where one gains mastery, may help with that. Overall, the results have validated the significance of using Arnis in physical education.

This is explained by the opinion of A. Garcia (2023), who claims that “Balance and coordination skills develop slowly during martial arts training; both balance and coordination can be enhanced through practice, but complex movement requires more time for learning.” Also, this researcher points out that while martial arts classes increase body coordination and synchronization, balance still remains poor due to its complexity and motor-skill aspect. Similarly, the development of balance and coordination via martial arts mainly relies on learning and experience.

Table 2.3 presents the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of speed and agility.

Based on the results shown in Table 2.3, the performance of the learners regarding their speed and agility after the Arnis Training Program was determined using the weighted average in order to come up with a score of 3.25.

TABLE 2.3. Weighted mean of the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of speed and agility

2.3 Speed and Agility	Mean	VI
1. Performs Arnis movements with quick and accurate reactions.	3.16	Good
2. Demonstrates quick footwork and change of direction during drills.	3.30	Excellent
3. Executes striking and blocking techniques with increasing speed.	3.20	Good
4. Responds promptly to cues or commands from the coach/trainer.	3.30	Excellent
5. Shows noticeable improvement in agility during sparring sessions.	3.28	Excellent
Overall	3.25	Good

Legend: 3.26 – 4.00 – Excellent 1.76 – 2.50 – Fair
2.51 – 3.25 – Good 1.00 – 1.75 – Needs Improvement

This shows that good performance was obtained. It also indicates that there has been a positive effect of the said program on the development of the learners' quickness and readiness. But still, it has been observed that there is a need for more learning from the part of the learners, for they have not attained the "Excellent" level of performance in terms of the interpretation of the data collected. This is because the following indicators: "Demonstrates quick footwork and change of direction during drills" (M=3.30), "Responds promptly to cues or commands from the coach/trainer"

(M=3.30) and "Shows noticeable improvement in agility during sparring sessions" (M=3.28) were rated as excellent while "Uses correct reactions in doing Arnis techniques with great speed" (M=3.16) and "Uses fast strikes and blocks" (M=3.20) were rated as Good. It shows that while the trainees have increased their speed, they still find difficulty in maintaining their accuracy in performing the techniques when they are fast. The attainment of speed and agility in any style of martial arts needs more than speed alone because it includes the right timing, coordination, and decision-making which will need much time to develop through intensive practice.

Concerning implications, it may be considered that the Arnis training should consist of activities that involve speed and control. Specifically, the learner should be capable of striking an object or target within a set period of time. In addition, the learner should be able to learn how to defend himself by means of sparring. It is in this activity where he should respond quickly yet be able to maintain his accuracy. Moreover, the learner should also be able to move fast through the use of agility ladder. The trainer or instructor should encourage the learner to be fast yet accurate in moving.

The findings are supported by, R. T. Mendoza et al. (2022) emphasizing the role of martial arts training in enhancing speed and agility among students. Also, found that structured combat sports training significantly improves reaction time, agility, and neuromuscular efficiency, particularly when drills simulate real-game conditions. Reported that agility and speed improve more rapidly when learners are exposed to repetitive, high-intensity, and varied movement patterns, although precision in execution may require longer adaptation periods. These studies support the present findings, where agility-related indicators reached excellent levels while speed combined with accuracy remained at a good level.

Table 2.4 presents the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of discipline and focus.

TABLE 2.4. Weighted mean of the level of performance of the pupils before and after the implementation of the Arnis Training Program in terms of discipline and focus

2.4 Discipline and Focus	Mean	VI
1. Follows training rules and instructions consistently.	3.42	Excellent
2. Shows respect and sportsmanship toward peers and instructors.	3.50	Excellent
3. Displays focus and concentration during Arnis activities.	3.40	Excellent
4. Demonstrates self-discipline and motivation to improve.	3.36	Excellent
5. Maintains composure and control even during competitive drills.	3.46	Excellent
Overall	3.43	Excellent

Legend: 3.26 – 4.00 – Excellent 1.76 – 2.50 – Fair
2.51 – 3.25 – Good 1.00 – 1.75 – Needs Improvement

From the results provided in Table 2.4, the rating of the behavior of the students after implementing Arnis Training Program had an average weighted mean score of 3.43, which is Excellent. This proves that the training program was indeed successful in developing the physical ability of the trainees and at the same time making sure that good behaviors are developed among them. All the indicators under this category scored Excellent, with "Respects and displays good sportsmanship toward peers and trainers" scoring a mean of 3.50, and "Remains composed and in control despite competitive situations" scoring 3.46. Furthermore, other measures like "Always follows the training guidelines and instructions" (M=3.42), "Exhibits concentration while doing Arnis training" (M=3.40), and "Shows self-discipline and self-motivation to enhance performance" (M=3.36) received very high scores. From the consistent performances from the variables presented, the fact that Arnis Training Program helps improve the level of attention of the trainees through the disciplined training is evident. To put it simply, the results proved that aside from improving their focus on the activity, trainees became more responsible and self-motivated.

Implications of the study, the results indicate that classes of Arnis and other types of martial art must be included in the curriculum of schools as an effective way of improving physical health as well as fostering positive personal qualities in children. Teachers will be able to apply the information about Arnis to foster discipline, respectful attitude and concentration skills in students and hence to improve their learning results in class. In addition, it is also necessary for teachers to ensure the continuity of classes and active engagement in practicing martial arts as part of the reinforcing process.

These results are confirmed by D. Castillo (2022) stating the importance of psychosocial effects of martial arts in educational institutions. As well as the fact was discovered that martial arts programs have a very positive effect on self-discipline, emotional regulation and respect towards others in students due to the structure of training programs. Engagement in combat sports like Arnis promotes greater focus, persistence and behavior control, especially in schoolchildren.

3. Level of challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing in terms of motor skills, skill acquisition and physical performance?

Table 3.1 presents the level of challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing in terms of motor skills.

TABLE 3.1. Weighted mean of the the level of challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing in terms of motor skills

3.1 Motor Skills	Mean	VI
1. Pupils find it difficult to execute coordinated hand and foot movements during Arnis drills.	2.68	Agree
2. Limited time for practice affects pupils' development of basic motor skills.	2.88	Agree
3. Some pupils lack body coordination needed to perform Arnis routines effectively.	2.84	Agree
4. Fatigue and lack of physical conditioning hinder performance of Arnis techniques.	2.72	Agree
5. Inadequate warm-up or stretching activities affect pupils' motor control during training.	2.90	Agree
Overall	2.80	Agree

Legend: 3.26 – 4.00 – Strongly Agree 1.76 – 2.50 – Neutral
2.51 – 3.25 – Agree 1.00 – 1.75 – Disagree

Based on the results in Table 3.1, the respondents were able to point out problems faced in terms of the efficiency of the Arnis Training Program in developing pupils' motor skills, with a weighted mean score of 2.80. This implies that even though the Arnis Training Program is efficient, certain factors prevented pupils from maximizing their motor skills. From all the problems pointed out by the respondents,

"Insufficient warm-up or stretching exercises prevent pupils' effective motor coordination" (M = 2.90) and "Insufficient time allotted for practice prevents pupils from developing their basic motor skills" (M = 2.88) were among those with the highest mean scores. Furthermore, there was agreement on the statement "Some students lack body coordination necessary for performing Arnis moves effectively" (M=2.84), and "Fatigue and poor physical conditioning limit the performance of Arnis moves" (M=2.72). This shows that the participants had certain physiological limitations and difficulties in acquiring Arnis skills, which included endurance and physical strength. "The task of executing Arnis hand and foot coordination is difficult for the pupils" (M=2.68) is another statement that indicates that coordination is a major hindrance. From these responses, it can be understood that acquiring Arnis motor skills is not only an issue of practice but involves physical conditioning as well.

In terms of implications, the study suggests that improving the structure and delivery of Arnis training sessions is essential to address these challenges. Schools and instructors should allocate sufficient time for practice, incorporate comprehensive warm-up and conditioning exercises, and design progressive drills that match pupils' developmental levels. Additionally, strategies such as differentiated instruction and targeted interventions for learners with low coordination may help bridge skill gaps. Addressing these constraints will enhance the overall effectiveness of the Arnis

Training Program in developing pupils' motor skills and ensure more consistent performance outcomes.

This study support by K. L. Bautista (2022) the acquisition of motor skills within physical education classes. The insufficient training and warming up periods adversely affected the motor abilities of participants and posed a threat to executing actions appropriately. Also, pointed out that exhaustion and inadequate physical condition were among the reasons for which the learning process of more difficult movements could be considerably hampered.

Table 3.2 presents the level of challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing in terms of skill acquisition.

TABLE 3.2. Weighted mean of the the level of challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing in terms skill acquisition

3.2 Skill Acquisition	Mean	VI
1. Pupils experience difficulty in understanding and remembering proper Arnis techniques.	2.78	Agree
2. The limited availability of Arnis equipment hinders consistent skill practice.	2.82	Agree
3. Lack of individualized instruction affects pupils' mastery of Arnis skills.	2.66	Agree
4. Pupils have trouble adapting to more complex drills and movement patterns.	2.80	Agree
5. Inconsistent feedback or guidance from coaches delays skill improvement.	2.80	Agree
Overall	2.77	Agree

Legend: 3.26 – 4.00 – Strongly Agree 1.76 – 2.50 – Neutral
2.51 – 3.25 – Agree 1.00 – 1.75 – Disagree

The data presented in Table reveal that the participants were unanimous in their identification of the difficulties associated with the ineffectiveness of the Arnis Training Program concerning skill development. The weighted mean value for the questions was 2.77. Thus, despite the significant contribution made by the program in the process of training, there are many barriers preventing pupils from effectively acquiring Arnis skills. Among those identified difficulties, it can be mentioned that "the lack of equipment for practicing Arnis" (M = 2.82), as well as the fact that "pupils find it difficult to adjust to more complicated exercises and movement sequences" (M =

2.80) and "inconsistent feedback and coaching result in poor skill development" (M = 2.80) were rated most highly. Furthermore, the findings revealed that "Students encounter difficulties in comprehending and recalling appropriate Arnis movements" (M = 2.78). This statement emphasizes the cognitive aspects involved in mastering a particular set of sequential moves. However, the least mean value was found for the statement "Absence of differentiated teaching hinders students from acquiring Arnis skills" (M = 2.66). Despite its low score, it is still considered part of the "Agree" category, suggesting that differentiation remains an important issue, albeit not more significant than other problems.

The study implications, this research indicates that the allocation of resources, methods used in teaching, and feedback delivery play an important role in improving skills acquisition in the process of Arnis training. Firstly, schools need to allocate enough instruments so that there is enough opportunity for practicing. Secondly, educators must demonstrate how to do things and guide students accordingly.

The use of progressive drills and feedback systems will also help students get accustomed to challenging exercises and movements. This way, skills will be acquired more successfully.

This study support by R. S. Delgado et al. (2021) indicates that poor availability of equipment and restricted practice sessions greatly impact the development of physical skills among students. Moreover, the problem of delayed feedback in skill acquisition is also well-explained by M. T. Fernandez (2023), who argues that timely feedback plays an essential role in helping learners correct mistakes and improve their technique. Lastly, the challenges associated with complex tasks can be explained through cognitive load theory.

Table 3.3 presents the level of challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing in terms of physical performance.

TABLE 3.3. Weighted mean of the the level of challenges encountered by the respondents in effectiveness of the Arnis Training Program in enhancing in terms physical performance

3.3 Physical Performance	Mean	VI
1. Pupils lack endurance to sustain the physical demands of Arnis training.	3.12	Agree
2. The physical environment (space, weather, or flooring) limits optimal performance.	3.16	Agree
3. Pupils experience muscle soreness or minor injuries that affect training consistency.	2.82	Agree
4. Limited physical fitness affects pupils' strength and agility during training.	3.06	Agree
5. Inadequate rest and recovery time reduces overall training performance.	3.00	Agree
Overall	3.03	Agree

Legend: 3.26 – 4.00 – Strongly Agree 1.76 – 2.50 – Neutral
2.51 – 3.25 – Agree 1.00 – 1.75 – Disagree

Based on Table 3.3, the respondents were unanimous regarding the problems that impede the effectiveness of the Arnis Training Program as far as enhancing the physical performance of the pupils is concerned. The average weighted score was 3.03. It means that although the Arnis Training Program helps improve the physical performance of the pupils, there are various barriers that prevent optimal performance. According to the findings presented in Table 3.3, the two factors with the highest weighted average scores are “The physical environment (space, weather, or flooring) limits optimal performance”

(M=3.16) and “Pupils lack endurance to sustain the physical demands of Arnis training” (M=3.12). Moreover, there was also a consensus among respondents that “Physical fitness plays a key role in training performance” (M = 4.52), “Lack of proper physical training hinders performance achievement” (M = 4.33), and “Pupils require adequate physical training to develop their skills” (M = 4.27).

The results point out that physical readiness is a crucial aspect in terms of maintaining performance levels since lack of adequate conditioning and physical fitness may result in reduced proficiency in performing techniques. In addition, “Pupils undergo muscle soreness or slight injuries that hinder training progress” (M = 3.88) was identified as an important issue, which means that physical exhaustion can affect continuous training and performance improvement.

In terms of implications, the study suggests that improving training conditions and enhancing pupils' physical preparedness are essential for optimizing the effectiveness of the Arnis Training Program. Schools should ensure safe and adequate training environments, including sufficient space and appropriate flooring, while also considering weather-related adjustments. Additionally, incorporating conditioning exercises, endurance training, and structured rest periods can help improve pupils' physical fitness and reduce fatigue. Monitoring students' workload and providing injury prevention strategies are also important to maintain consistent participation. Addressing these challenges will contribute to better physical performance and more sustainable outcomes in Arnis training.

The results are supported by L. P. Gonzales (2022) sports science and physical education. The environmental factors such as training space and surface conditions significantly affect students' movement efficiency and safety during physical activities. Also, reported that inadequate endurance, poor physical conditioning, and insufficient recovery time can negatively impact performance and increase the likelihood of fatigue and injury among young athletes. These studies validate the present findings, confirming that both external and physiological factors play a crucial role in physical performance.

IV. CONCLUSION AND RECOMMENDATIONS

Based on the findings, the following conclusions were drawn:

1. Based on the results from demographic data, there is fairly equal representation of the children in terms of age, gender, and experience in playing sports. This means that most of the children have certain physical abilities which would help them perform better during Arnis class. However, the fact that there are some young children who have not much experience in playing sports allows the assessment of success of the program at different levels of development. Equal representation of boys and girls is also crucial for an unbiased assessment of the program's outcomes.
2. The Arnis instructional teaching program was found to be successful since the participants showed great skill in simple maneuvers such as attack, defense, and weapon handling. The participants had weaknesses in footwork. They did well in coordination, balance, speed, and agility but there needs to be improvement in some difficult maneuvers. Discipline on the part of the participants was identified as a strength.
3. Despite the Arnis Training Instructional Plan perceived efficiency, its effectiveness in improving students' motor skills, skill acquisition, and physical performance is limited by several factors. Motor skill development is hindered by inadequate warmups, insufficient practice time, fatigue, and coordination issues. Skill acquisition is negatively affected by a lack of necessary equipment, difficulties in understanding complex skills, and inconsistent feedback. Physical performance suffers primarily due to an unfavorable environment, low

endurance, inadequate fitness, and insufficient recovery time.

4. The Arnis Training Instructional Plan is effective in improving the performance of the learners, especially their psychomotor skills, as evidenced by their significant improvement in almost all aspects of skill acquisition in physical education. But there were weaknesses shown in blocking, transition balance, agility, and focus, which suggest that more training is needed in these aspects.
5. The research outcomes show that there is a variability in the effectiveness of the Arnis Training Instructional Plan depending on different factors; however, there is no clear relationship between the problems experienced and the development of motor skills or skills. However, a high correlation is seen between physical performance, which shows that problems such as fatigue and endurance can greatly impact its success.
6. Research indicates that subjects exhibit high discipline and some knowledge of

Arnis, yet improvements are needed in motor skills, learning capabilities, and performance. The Enhanced Arnis Training Instructional Plan aims to tackle these challenges through a structured, learner-focused approach emphasizing practice sessions, physical fitness, suitable learning environments, and personalized instruction.

Based on the findings and conclusions, the following recommendations are made:

1. Teacher/Coaches maintain a balanced and inclusive grouping of learners in Arnis classes, considering age, gender, and experience level, to ensure fair assessment and effective skill development across different developmental stages.
2. Strengthen training on footwork, transitions, and complex Arnis techniques while maintaining discipline-focused activities to further enhance learners' overall coordination, balance, and skill performance.
3. Improve the Arnis Training Instructional Plan by ensuring proper warm-up routines, increasing practice time, providing adequate equipment, giving consistent feedback, and enhancing training conditions to support better motor skill development and physical performance.

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