

# Physical performance of the North Luzon Philippines state college personnel

Raceles, Benjamin A. ✉

Ilocos Sur Polytechnic State College- Main Campus, Philippines ([racelesb5@gmail.com](mailto:racelesb5@gmail.com))

Received: 19 December 2023

Available Online: 15 February 2024

Revised: 6 February 2024

DOI: 10.5861/ijrse.2024.23078

Accepted: 15 February 2024

ISSN: 2243-7703

Online ISSN: 2243-7711

OPEN ACCESS



## Abstract

Physical Performance plays a pivotal role in improving the different duties and activities effectively and efficiently. Despite its importance, numerous personnel in the different academe face challenges in developing physical fitness. Addressing this concern is crucial for educational progress. This study focused on the Physical Performance of North Luzon Philippines State College through innovative methods, specifically creating a physical performance action plan that could be used to help them become physically fit, which contributes to other aspects of human beings and results becoming more effective in their assigned work and task in the school. The study employed descriptive-correlational research, with a questionnaire serving as the primary data collection tool. Collected data is processed and analyzed using frequency count, percentage mean, and correlation. The respondents are the teaching and non-teaching personnel of North Luzon Philippines State College. As a result, the majority of respondents are between the ages of 25 and 29, are males, and have a mesomorph body type. Many of them have completed their undergraduate courses, are full professors, and hold the academic rank of instructor. Moreover, in terms of their employment status, most respondents are permanent. The respondents' overall level of physical performance "needs improvement," but their aerobic performance is "satisfactory." Overall, the respondents' level of performance has no significant relationship with their profile, but moderate aerobics and muscle-strengthening are correlated with their appointment status.

**Keywords:** physical performance, physical fitness, aerobic, flexibility, muscle-strengthening

## Physical performance of the North Luzon Philippines state college personnel

### 1. Introduction

Today's new buzzword is "wellness". This is the holistic concept of health. Corbin (2002), states that wellness is the integration of many components (physical, emotional, mental, social, and spiritual) that enhance one's potential to live and work effectively as well as to have a significant contribution to society. It reflects one feeling about life and one's ability to function effectively. In this connection, the World Health Organization (WHO) on "Health for All" envisions to secure the health and well-being of all people around the world. Moreover, health, as emphasized by scientists and educators, is the optimal well-being that contributes to the quality of life. It is more than freedom from disease and illness, though freedom from disease is important to good health. According to the American Association of Health, Physical Education, Recreation and Dance (AAHRERD) defines physical fitness the state of well-being for people to perform daily tasks or activities with vigor, reduce the risk of health problems related to lack of exercise. It establishes a fitness-based program to participate in varied physical activities.

Consequently, people understand the importance of physical fitness and health. Studies have shown that fitness declines with age. Lack of fitness is the result of an inactive or sedentary lifestyle which may have influenced by modern technology such as cars, computers, elevators, and other machines resulting to the decrease of physical activities. Instead of climbing the stairs in a building, they used an escalator or elevator. Additionally, living in a technological world of modernization lessens the physical activities of people, however, regular physical activities are necessary for a healthy body. It is important then to follow a regular physical fitness program. Physical fitness becomes a growing concern and obsession of many people around the world. The equivalent of an expensive, advanced level of physical fitness that, with constant exercise, could be inexpensive. Despite this scenario, efforts are advanced by health organizations and nations to improved physical wellness of their people because of the awareness of the benefits.

Corbin (2022), states that a healthy lifestyle depends on the process on what a person does, rather what a person can do. If a person does the healthy lifestyle process, positive changes occur to the person. Lifestyle is the most important factor influencing health, fitness, and wellness. Healthy lifestyle is also within a person's individual control. An individual benefit from lifestyle change. The lifestyle changes will make a difference in health, fitness, and wellness for all people. However, when a health crisis occurs, the human body is already in a broken-down state and frequently, it is already too late. When this happens, most people left in fear, worried, and helpless and discouraged. In fact, the stresses produced by these emotions add to the breakdown of the body at a time when it needs to build up. In addition, if there was no prior wellness planning or preparation, then there are no emotions, spiritual or physical "tools" to effectively solve the health crisis. At this point, the efforts required in getting out of the health crisis and pursuing wellness, and the stress of negative emotions can be an overwhelming burden to the person. Massive efforts in the whole person (body, mind, and spirit) have rallied and treated if there is still hope of overcoming the health crisis. To observe the crisis, exercise, and natural alternatives against the symptoms such as fatness/obesity, aches and pains, tendinitis/tendonitis, allergies before things get worse.

Everyone has a wellness goal – lose a couple of pounds, exercise regularly, eat right, and manage stress. There are many ways to achieve those goals; the most important is self-discipline. The physical performance of NLPSC personnel can be determined through the questionnaire. It is at this point, that the researchers are motivated to conceptualize the study. The researchers realized the importance of results in coming up with concrete solutions. This is to instill in the minds of the NLPSC personnel the significance/value of physical fitness, proof of their physical strengths and weaknesses should be evident. Furthermore, the researcher is concerned more about how to develop a training design to enhance the physical performance of the NLPSC

personnel.

## 2. Research Questions

This study determined the Physical Performance of the North Luzon Philippines State College Personnel. Specifically, the study sought to answer the following research questions: What is the personal profile of the respondents in terms of: age, gender, body type, educational attainment, designation, academic rank, and workload/number of preparation status? What is the degree of physical skills of the NLPSC personnel? Is there a significant relationship on the degree of physical activities of the NLPSC personnel and the profile of the respondents?

## 3. Methodology

### 3.1 Research Design

This study utilized a descriptive-correlational research design. Valdez (2012), states that descriptive research is a description of data and characteristics of a population. The objective is to gather systematic, factual, and correct data for statistical computations such as averages and frequencies. Consequently, the design described the personal profile of the teacher respondents and the degree of physical skills of the NLPSC personnel.

### 3.2 Participants

The respondents of this study were the 49 personnel of teaching and non-teaching, composed of sixteen (16) full-time faculty, sixteen (16) non-teaching personnel, eight (8) program heads, three (3) directors, two (2) deans and one (1) president of North Luzon Philippines State College (NLPSC) for the SY 2021-2022.

### 3.3 Instrumentation and Data Collection

Prior to conducting the study, the researcher diligently obtained the necessary permission letters from the relevant authorities. Permission was first sought from the teacher-in-charge, ensuring the study's ethical foundation. Subsequently, armed with completed documentation, the researchers initiated the study. The primary data-gathering tool employed was a validated researcher-made questionnaire, utilized in the assessments. The research design followed a meticulous process of answering the questionnaires. Subsequently, the questionnaire has 2 parts. Part 1 elicited the profile of the personnel respondents which included the age, gender, body type, educational attainment, designation, academic rank, workload/no. of prep and status and part II determined the degree of physical skills of the NLPSC personnel.

### 3.4 Data Analysis

The statistical tools used in the treatment of data were the mean, t-test, frequency counts, and percentage. Mean is the statistical tool that determines the physical performance of the personnel in the different physical activities. The following descriptive rating scale is used to describe the physical performance of the personnel:

Score per category	Rating	Descriptive Level	Interpretation
5	4.21-5.00	Always	Outstanding
4	3.21-4.20	Often	Very Satisfactory
3	2.61-3.20	Sometimes	Satisfactory
2	1.81-2.60	Rarely	Needs Improvement
1	1.00-1.80	Never	Poor

Furthermore, to find out if there is a significant difference relationship between the degree of physical activities of the NLPSC personnel and the profile of the respondents, the researcher utilized the t-test.

## 4. Results and Discussion

### 4.1 Level of physical performance of the NLPSC Personnel

Table 1 presents the Level of physical performance of the NLPSC

Physical Activities Aerobic Moderate	Mean	Interpretation
Brisk Walking (5 km/hr)	3.10	Satisfactory
Leisure cycling (16 km/hr)	2.22	Needs Improvement
Leisure swimming	2.18	Needs Improvement
Playing doubles tennis	1.71	Poor
Line-dancing	2.35	Needs Improvement
<b>Sub-mean</b>	<b>2.72</b>	<b>Satisfactory</b>
Vigorously		
Jogging or running	3.24	Satisfactory
Swimming continuous laps	1.82	Needs Improvement
Playing single tennis	1.61	Poor
Playing basketball or football	1.76	Poor
Skipping with a rope	2.18	Needs Improvement
Aerobic exercise	2.59	Satisfactory
Dancing	3.10	Satisfactory
Bicycle riding (Stationary or on a path)	2.33	Needs Improvement
<b>Sub-mean</b>	<b>2.78</b>	<b>Satisfactory</b>

The table shows the level of physical performance of NLPSC personnel based on the selected physical activities. On aerobic activities, moderate, playing double tennis has the lowest mean, which is 1.71 and described as poor while brisk walking has a mean 3.10 with descriptive level of satisfactory. With these moderate aerobic physical activities, it appears that the sub-mean is 2.72 describe as satisfactory. This means that respondents doing moderate aerobic activities, and since they are just moderate, it is easy for them to execute with even pleasure and enjoyment.

On vigorous aerobic activities, the table shows that jogging and running, aerobic exercise, and dancing have a common descriptive level of satisfactory, although jogging and running has the highest mean of 3.24. Moreover, playing single tennis and playing basketball or football gained the lowest means which are 1.61 and 1.76 respectively, and with a descriptive level of poor. Based on the table, the sub-mean of these items resulted in a mean of 2.78 describe as satisfactory. For the whole aerobic physical activity, the mean is 2.75 describe as satisfactory.

This means that when it comes to aerobic physical activities, the respondents show a satisfactory result, and it could imply that respondents could still perform satisfactorily the different aerobic activities. The result is consistent with the study of Grimby (1994), states that correlation between physical activities and physical performance, which included maximal walking activities. It resulted in a moderate level of physical performance. However, through in this study, the respondents are more aged compared to the ages of the respondents in the study, it still amends the result that regardless of the age, the performance is still moderate or satisfactory.

Flexibility		
Stretching	3.45	Very Satisfactory
Yoga	1.67	Poor
Tai-Chi	1.37	Poor
<b>Sub-mean</b>	<b>2.43</b>	<b>Needs Improvement</b>

On flexibility, the table show that stretching has a mean of 3.45 described as very satisfactory. The items yoga and tai-chi have the same descriptive level of poor, although tai-chi has a lower mean of 1.37. The sub-mean for the physical activities' flexibility is 2.43 describe as needs improvement. This means that on

flexibility activities, respondents in this study do not merely execute or perform, although many of them are still young to be more adept at functioning in these activities, which unfortunately are not.

Fagnani (2006), states that in increasing the flexibility of female athletes through 8 hours of training did not result in a significant one. This means that their level of flexibility is just the same before and after the intervention. The purpose of increasing the flexibility of the respondents does mean the respondents have a lower performance on it. More flexibility of the respondents has a low result despite being young and able to still undergo those activities easily and safely. Moreover, Philippaerts (2005), negated the result of the present study which is flexibility of the respondents exhibited a peak development during the tear after peak height velocity and flexibility in actual activities.

Muscle – strengthening		
Heavy gardening	2.84	Satisfactory
Lifting weights	2.10	Needs Improvement
Push-ups on the floor or against the wall	2.33	Needs Improvement
Sit-ups	2.67	Satisfactory
<b>Sub-mean</b>	<b>2.48</b>	<b>Needs Improvement</b>

On muscle-strengthening, the items heavy gardening and sit-ups have the same level of description, which is satisfactory based on the acquired means of 2.84 and 2.67, respectively. For the items lifting weights and push-ups on the floor or against the wall, they are both described as needs improvement with their means of 2.10 and 2.67. It also reveals on the table that the sub-mean of these physical activities, muscle-strengthening, is 2.48 and needs improvement as the level of description. This means that when it comes to muscle-strengthening activities, the respondents really need to improve. Performance really suffered because of this. These activities need a lot of strength, which the respondents do not have enough, especially since they are more numerous than by females, who basically display lower strength in terms of physical activities.

#### 4.2 Level of Physical Performance of the Respondents as a Whole

##### Level of Physical Performance of the Respondents as a Whole

Physical Activities	Mean	Descriptive Level
<b>Aerobic</b>	2.75	Satisfactory
<b>Flexibility</b>	2.43	Needs Improvement
<b>Muscle – strengthening</b>	2.48	Needs Improvement
<b>Grand Mean</b>	2.55	Needs Improvement

The table shows the level of physical performance of the NLPSC personnel as a whole. It was gleaned on the table that aerobic has a mean of 2.75 describe as satisfactory, while flexibility and muscle-strengthening are both needs improvement with a mean of 2.43 and 2.48 respectively. The level of physical performance of the NLPSC personnel has a mean of 2.55 and is describe as needs improvement. In the study conducted by Kremnický (2015), negated that the level of general physical performance of the respondents except for the flexed arm hang test. This is partially true with the present study, which gained a descriptive level of needs improvement in the physical performance of the respondents. Though the prior study's respondents were younger, and the present study considered adults, it implied that regardless of their ages, they still needed physical development to improve their level of physical performance.

#### 4.3 Significant Relationship between the Respondents' Profile and their level of Physical Performance

The table shows the significant relationship between the profile of the respondents and their level of physical performance. This means that the tenure of the respondents in their workplaces has contributed to their physical performance on moderate aerobics. Since engaging in physical activities commits time and focus, sometimes for better and earlier effects, sitting in a permanent position means that the respondents are more settled in whatever activities they engage in moderate aerobic. Moreover, brisk walking and line-dancing have

significant relationships with the number of preparations in their teaching load of the respondents, and leisure swimming and their designation.

Aerobic	Age	Gender	Body Type	Educ. Attainment	Designation	Acad. Rank	Workload	No. of Preps Status	
Moderate									
Brisk Walking (5 km/hr)	-0.245	-0.088	0.161	-0.060	0.067	-0.063	0.242	0.350*	
Leisure cycling (16 km/hr)	-0.032	-0.012	-0.014	0.079	0.074	0.013	-0.103	-0.039	0.167
Leisure swimming	-0.008	-0.075	-0.072	0.145	0.318*	-0.132	-0.200	-0.139	0.398**
Playing doubles tennis	-0.103	0.063	0.176	-0.070	0.007	0.116	-0.064	-0.028	0.082
Line-dancing	0.021	0.069	-0.017	0.192	0.152	-0.238	-0.166	-0.053	0.382**
	-0.141	-0.014	0.090	0.076	0.135	-0.180	0.0521	0.187	0.352*
Vigorously									
Jogging or running	-0.208	-0.138	0.044	-0.212	-0.103	0.057	0.261	0.352*	0.047
Swimming continuous laps	0.041	-0.184	0.011	0.124	0.095	0.046	-0.010	-0.007	
Playing single tennis	0.015	-0.129	0.215	-0.021	0.004	0.032	-0.017	-0.003	0.086
Playing basketball or football	0.009	-0.418*	0.182	-0.096	-0.083	0.126	0.034	0.016	0.149
Skipping with a rope	-0.212	-0.208	-0.087	0.072	0.033	0.013	-0.007	-0.127	0.255
Aerobic exercise	-0.214	-0.015	-0.086	0.221	-0.351*	-0.204	-0.073	-0.032	0.385**
Dancing	-0.206	-0.103	0.105	0.010	-0.072	-0.141	0.109	0.142	0.140
Bicycle riding (Stationary or on a path)	-0.112	-0.020	0.0101	0.205	-0.054	-0.165	-0.108	-0.151	0.236
	-0.193	-0.096	0.033	-0.007	-0.095	-0.064	0.095	0.124	0.169
Flexibility									
Stretching	-0.210	-0.154	0.118	0.030	-0.016	-0.192	0.149	0.229	0.095
Yoga	-0.147	-0.294*	0.215	0.073	-0.013	-0.119	0.069	-0.033	0.325*
Tai-chi	-0.059	-0.166	0.105	0.126	0.144	-0.075	0.034	-0.013	0.172
	-0.197	-0.206	0.147	0.088	0.060	-0.191	0.136	0.176	-0.162
Muscle – strengthening									
Heavy gardening	0.246	-0.223	-0.129	0.080	-0.020	0.058	-0.112	-0.181	0.130
Lifting weights	-0.156	-0.184	0.220	-0.017	0.003	0.126	0.157	0.134	0.167
Push-ups on the floor or against the wall	-0.019	-0.341*	-0.076	-0.055	0.026	0.108	-0.082	-0.081	0.152
Sit-ups	-0.109	-0.323*	-0.034	0.052	0.064	-0.036	-0.003	-0.0140	0.007
	-0.012	-0.352*	-0.008	0.021	0.024	0.082	-0.013	-0.047	0.246

On vigorous aerobics, it resulted that there was no significant relationship with any of the profiles of the respondents. That is, the respondents' demographics have no effect on their physical performance during vigorous aerobics. Singly, jogging or running as vigorous aerobics has a significant relationship with the number of preparations of the respondents; playing single tennis is negatively correlated with gender; and skipping with a rope has a significant relationship with the designations and status of appointment of the respondents.

On flexibility, it shows that in the above table there is no significant relationship among the profiles of the respondents, but singly, gender and status of appointment have a contribution to the performance of the respondents along yoga. In a study on the effect of flexibility on physical performance by Voyer (2014), he stated that age played a role; older active women outperformed younger and inactive women. This study negated the result of the present study, wherein the age of the respondents had nothing to do with their physical performance. In the present study, both male and female respondents are respondents.

On muscle-strengthening, the gender of the respondents has a significant relationship with this variable. Furthermore, gender also contributed to the physical performance of the respondents, particularly on push-ups on the floor or against the wall and sit-ups. This means that when it comes to muscle-strengthening, based on the results, male respondents have higher performance than female respondents. This is because females are physically weaker than males.

Based on the study conducted by West (2016), he stated that on determining the relationship between physical fitness, gender, and life. Except for partial curl-ups, there is a significant correlation between physical fitness and physical fitness. This means their physical performance has something to do with their gender, especially for the male respondents. They are notably stronger and have longer endurance. The result of this

study is congruent with the present study.

## 5. Conclusion

Many of the respondents are within the age bracket of 25–29, more males, majority of them have a mesomorph body type. Many of them finished their undergraduate courses, full faculty, and are sitting at the academic rank of Instructor. Many of the respondents are non-teaching personnel, and the number of workloads and preparations determined by the nature of their work. Most of the respondents are permanent in terms of the status of work. Moreover, the respondents' overall level of physical performance needs improvement, but their aerobic performance is satisfactory. Lastly, the level of performance of the respondents has no significant relationship with their profile, but for the moderate aerobics and muscle-strengthening, they are correlated to their status of appointment and their gender.

## 6. References:

- Fagnani, F. (2006). The effects of whole-body vibration program on muscle performance and flexibility in female athletes. Retrieved on November 22, 2023 from <https://www.tandfonline.com/doi/abs/10.1080/02640410500189371>
- Grimby, F. G. (1994). Assessment of physical activity, fitness and performance. Retrieved on November 24, 2023 from <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0838.1994.tb00404.x>.
- Kremnicky, J. (2015). The level of general physical performance and physical development of 110-year-old pupil. Retrieved on December 13, 2023 from <https://www.researchgate.net/publication/284195518>
- Philippaerts, R. M. (2005). The relationship between peak height velocity and physical performance in youth soccer players. Retrieved on November 24, 2023 from <https://doi.org/10.1080/02640410500189371>
- Voyer, D. (2014). Gender differences in scholastic achievement: a meta-analysis. Retrieved on November 24, 2023 from [https://www.researchgate.net/publication/261953087\\_Gender\\_Differences\\_in\\_Scholastic\\_Achievement\\_A\\_Meta-Analysis](https://www.researchgate.net/publication/261953087_Gender_Differences_in_Scholastic_Achievement_A_Meta-Analysis)
- West, K. B. (2016). Determining the relationship between physical fitness, gender and life satisfaction . Retrieved on December 13, 2023 from Journal Sage: <https://journal.sagepub.com/doi/pdf/10.1177/2158244016669974>

