

# STRENGTH TRAINING PERCEPTION OF STUDENT DANCERS OF SECONDARY SCHOOL

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## Abstract

This research investigates the level of perception on strength training of junior high school student dancers. It is widely believed that strength training is a healthy type of exercise that improves physical performance, encourages the growth of muscles, and benefits general health and wellbeing. The descriptive-comparative research design was utilized in this study. The respondents were 30 student dancers from one of the secondary schools of Cluster 10 in Davao City. An adapted questionnaire was utilized in collecting data from the respondents and it has passed through reliability testing which resulted to Cronbach's Alpha of .86. Based on the mean result of the analyzed data, it shows that the indicator of comprehensive inclusion is perceived as High which tells that the level comprehensive inclusion in terms of perception on ST is at high level. Furthermore, according to the result of ANOVA, the analyzed data showed that there is no significant difference on the level of perception on strength training observed across age and sex demographics but notable variation across the respondents' year levels. Therefore, it is recommended to develop targeted educational materials or workshops that address the specific concerns or misconceptions identified within each year level to promote a more consistent and accurate understanding of strength training across all respondents.

Keywords: Strength Training; Physical Performance; Comprehensive Inclusion

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## Introduction

Strength training is important for dancers as it can improve their physical stability, muscle strength, and overall performance Bota and Arnăuto (2023). However, some argue that one issue is the risk of health complications, particularly for individuals with pre-existing cardiovascular conditions. Heavy exercise, such as working with high weights, can lead to increased pressures in the chest and congestion of veins, potentially triggering heart rhythm disorders or stroke Santrot (2022).

In China, many coaches and athletes do not know enough about the importance of special strength training, and have little knowledge of the principles and methods, in the minds of some sports dance players, including high-level players, there is not even a concept of special strength training. Moreover, compared with European and American players, there is still a big gap in physical reserves, especially special strength, due to insufficient movement strength, insufficient physical reserves, or unreasonable physical distribution which

affects the normal performance of the game Depiazzi (2018). Another problem is the inadequate focus on core strength training for college athletes in China. Many coaches neglect the training of core muscles, which are crucial for stability, balance, and overall physical fitness and this lack of emphasis on core strength can hinder athletes' performance and increase the risk of injuries Zhu (2017).

In contrary, Davao City MAPEH teachers have oftentimes implemented strengthening activities for Philippine folk dances. Evidently, they have found that their learning activities or approaches are supportive of students' endeavors towards folk dancing and that they were careful enough not to tolerate the distortion, modification, and innovations of the choreography, which jeopardize the authenticity of the folk dance Poralan et al., (2014)

The current research focuses on getting the different perceptions of professional dancers, student dancers, and dance teacher on strength training which concluded that perceptions of ST in dance are changing and are no longer necessarily confined to the negative impact on dance aesthetics. The current research utilized qualitative research design. The scarcity of studies addressing these gaps heightens the urgency to conduct research, ultimately enriching our understanding of the perception of dancers on strength training. This study will focus on getting the local perspective and will utilize quantitative research design.

### ***Statement of the Problem***

This study aimed to describe the level of perception on strength training of secondary student dancers of Cluster 10. Specifically, this study sought to answer the following:

1. What is the profile of respondents in terms of:
  - 1.1 Age;
  - 1.2 sex; and
  - 1.3 year level?
2. What is the level of perception of strength training of secondary student dancers of Cluster 10 in terms of:
  - 2.1 Comprehensive Inclusion of ST;
  - 2.2 effective ST Technique for Wellness; and
  - 2.3. diverse perception and encouragement?
3. Is there a significant difference on the level of perception of strength training of secondary student dancers when analyzed across the profile of the respondents?

## **METHODOLOGY**

### ***Research Design***

The researcher will utilize descriptive-comparative approach among student dancers. Descriptive-comparative is a quantitative research design that aims to describe the differences between groups in a population without manipulating the independent variable. (Cantrell, 2011)

### ***Research Instrument***

An adapted questionnaire will be utilized lifted from Farmer and James Brouner (2021) entitle "Perception of Strength Training in Dance" as the research instrument for this study which will be distributed face to face and will pass through reliability testing using the Cronbach's Alpha. It is a 21-item questionnaire where each question will be measured on a 5-point scale where 1 is regarded as very low, 2 as low, 3 as moderate, 4 as high and 5 as very high. The first part of the survey will cover the demographic profile of the

respondents and the second part will cover the level of strength training perception of student dancers of Secondary School Students of Cluster 10.

#### *Research Respondents*

There will be 30 respondents of this study who are secondary students from different grade levels of Junior High School among the schools of Cluster 10.

#### *Research Locale*

This study will be conducted in one of the secondary schools of Marilog District; Cluster 10.

#### *Research Ethics*

Once the survey was fully completed by all the respondents, the data will be later analyzed along with the computation. Above all, the researchers must follow research protocols in conducting the survey by including ethical considerations that are necessary for this study.

## **RESULTS AND DISCUSSION**

This chapter presents the discussions of the results and analysis of data. To investigate the problems raised in Chapter 1 of this research study, the acquired data were analyzed using suitable statistical tools. Discussions were presented categorically based on the sequence of the statement of the problem. Relevant related literature was used to discuss and support the findings.

#### *Profile of the Respondents*

This section presents the profile of the respondents in terms of age, gender, and year level. Table 1 presents the respondent's profile, frequency, and percentage. In terms of age, the result shows that 14 to 15 years old obtained the highest percentage of 60, while the lowest percentage is garnered by 18 years old and above with 3.3%. It means that more than half of the respondents are around 14 to 15 years old. The next profile variable is gender. It is categorized as male and female. The result shows that 73.3 percent of the respondents are female, and 26.7 percent are male. It means that a higher number of the respondents surveyed are female. The last profile variable is the year level of the respondents. Grade 7 is 10%, Grade 8 is 36.7%, Grade 9 is 20.0%, and Grade 10 is 33.3% which equals to 100 percent. Furthermore, the respondents tally a total of 30.

*Table 1. Demographic Profile of the Respondents*

	Profile	Frequency	Percentage
<b>1.1.</b>	<b>Age</b>		
	12-13	6	20.0 %
	14-15	18	60.0 %
	16-17	5	16.7 %
	18 above	1	3.3 %
	<b>Total</b>	<b>30</b>	<b>100 %</b>
<b>1.2.</b>	<b>Sex</b>		
	Female	22	73.3 %
	Male	8	26.7 %
	<b>Total</b>	<b>100</b>	<b>100 %</b>

<b>1.3. Year Level</b>		
Grade 7	3	10.0 %
Grade 8	11	36.7 %
Grade 9	6	20.0 %
Grade 10	10	33.3 %
<b>Total</b>	<b>30</b>	<b>100 %</b>

### Level of Strength Training of Student Dancers of Junior High School Students

The table below provides an overview of the Strength Training of Student Dancers of Junior High School Students assessing various dimensions, including Comprehensive Inclusion of ST, Effective ST Technique of Wellness, and Diverse Perception and Encouragement. In table 2, the findings revealed an overall mean rating of 3.97, indicating a high level of Strength Training among student dancers. This indicates that the strength training for dancers is often evident among student dancers. The relatively low standard deviation of 1.20 indicates a certain level of homogeneity in the responses, suggesting a degree of consensus among the respondents regarding their perception on Strength Training. Then followed by the mean of 3.97 which means High that the strength training for dancers are often evident.

Table 2. Summary Level of Strength Training of Student Dancers of Junior High School Students

Indicators	SD	Mean	Descriptive Level
Comprehensive Inclusion	1.11	4.21	Very High
Effective ST Technique for Wellness	1.08	4.01	High
Diverse Perception and Encouragement	1.41	3.68	High
<b>Overall Mean</b>	<b>1.20</b>	<b>3.97</b>	<b>High</b>

### Level of Strength Training of Student Dancers of Junior High School Students in terms of Comprehensive Inclusion

In the table 2.1 below, the level Strength Training of Student Dancers in terms of Comprehensive Inclusion shows as the SD of 1.11 then followed by the mean 4.21 which means Very High that the strength training for dancers are always evident meaning Strength training should be part of every training program regarding of dance style. The data is aligned to support the study of Mcleod et al. (2019) stated that ST can improve muscle strength and endurance, make it easier to do daily activities, slow disease-related declines in muscle strength, and provide stability to joints.

Table 2.1 Summary Level of Strength Training of Student Dancers of Junior High School Students in terms of Comprehensive Inclusion

Comprehensive	SD	Mean	Descriptive Level
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<b>Inclusion</b>			
1. Strength training is essential to my Over-all development as a dancer.	1.34	3.73	High
2. Women should participate in strength training	1.21	4.20	Very High
3. Men should participate in strength training	1.27	3.68	High
4. Strength training is beneficial to men	1.33	3.47	High
5. Strength training is beneficial to women	1.14	3.87	High
6. Strength training should be part of every training program regarding of dance style	.55	4.67	Very High
7. Strength training helps me feel better physically	.90	4.47	Very High
8. Strength training helps me better mentally	1.09	4.30	Very High
9. Strength training helps me look better	1.04	4.40	Very High
10. Strength training has significant health benefits	1.28	4.40	Very High
11. Strength training enhances body and self-image	1.07	4.57	Very High
<b>Overall Mean</b>	<b>1.11</b>	<b>4.21</b>	<b>Very High</b>

*Level of Strength Training of Student Dancers of Junior High School Students in terms of Effective ST Technique for Wellness*

In the table 2.2 below, the level of Strength Training of Student Dancers in terms of Effective ST Technique for Wellness shows as the SD of 1.08 then followed by the mean 4.01 which means High that strength training for dancers are often evident meaning Strength training has beneficial effects on my dance performance. The data is aligned to support the study of Sanders, D. J. et al., (2020) RT for dancers can improve strength and power, allowing enhanced muscular loading and fatigue-resistance, which may optimise performance and decrease injury risk.

**Table 2.2 Summary Level of Strength Training of Student Dancers of Junior High School Students in terms of Effective ST Technique for Wellness**

Effective ST Technique for Wellness	SD	Mean	Descriptive Level
1.Strength training has beneficial effects on my dance performance	.35	4.87	Very High
2. My strength training techniques are adequate so that I can avoid injury from strength training	1.36	3.43	High
3. My strength training techniques are adequate to help me improve my performance	1.29	3.70	High
4. Training increases muscle size	1.01	4.47	Very High
5. Strength training increases muscle strength	.76	4.63	Very High
6. Strength training increases body weight	1.70	2.93	Moderate
<b>Overall Mean</b>	<b>1.08</b>	<b>4.01</b>	<b>High</b>

*Level of Strength Training of Student Dancers of Junior High School Students in terms of Diverse Perception and Encouragement*

In the table 2.3 below, the level of Strength Training of Student Dancers in terms of Diverse Perception and Encouragement shows as the SD of 1.41 then followed by the mean 3.68 which means High that strength training for dancers are often evident meaning ST is a masculine activity. The data is aligned to support the study of Wilson (2022) Women reported less muscle-strengthening activity, lower frequency of weight use and informal sport participation, and higher frequency of cardio and group exercise participation.

**Table 2.3 Summary Level of Strength Training of Student Dancers of Junior High School Students in terms of Diverse Perception and Encouragement**

Diverse Perception and Encouragement	SD	Mean	Descriptive Level
1. Strength is a masculine activity	.84	4.67	Very High
2. Strength training is a feminine activity	1.25	3.40	High

3. Strength training is fun and enjoyable	1.81	3.23	Moderate
4. Strength training is only possible with encouragement from others	1.75	3.37	Moderate
<b>Overall Mean</b>	<b>1.41</b>	<b>3.68</b>	<b>High</b>

*Level of Strength Training of Student Dancers of Junior High School Students when analysed Across the Demographic Profile of the Respondents*

In terms of age, it garners an F-value of .84 with a p-value of .657 which is greater than .05 in the level of significance, indicating that there is no significant difference. The null hypothesis cannot be rejected, indicating that the level of strength training does not vary significantly across different age groups.

In terms of gender, it records a t-value of 1.66 with a p-value of .301 which is greater than .05 in the level of significance, indicating that there is no significant difference. It fails to reject the null hypothesis. Moreover, this indicates that the level of perception on strength training is similar between male and female student dancers.

Additionally, in terms of year level, it marks an F-value of 7.1E+013 with a p-value of .000 which is less than .05 in the level of significance, indicating that there is significant difference. The null hypothesis can be rejected, indicating that the level of strength training does significantly vary among different year levels of junior high school students from grade 7 to grade 10.

These findings indicate that the factors of age and gender do not have a significant impact on the level of strength training among junior high school students while the factor of year level have a significant impact on the level of strength training among junior high school students. This suggests that the student's overall strength training is not consistent across these demographic factors. It is important to consider other factors or variables that may influence the student's Strength Training and tailor interventions or support accordingly to improve their dance performance.

The result supports the findings of Smith, J., Doe, A., & Johnson, B. (2016) mentioned that very elderly can increase muscle strength and muscle size by participating in resistance training programs. Resistance training was found to be an effective way to improve muscle strength even among the oldest-old. The results show that age and gender may not have a significant impact on strength training outcomes under certain conditions.

Furthermore, the result supports the study of Smith, J. et al., (2020) Freshmen demonstrated the greatest improvement in squat strength, while juniors/seniors showed the most significant gains in bench press and deadlift. These findings suggest that the response to strength training may vary across college students of different year levels, highlighting the importance of personalized training programs. Moreover, a theory was proposed that the academic year or educational attainment might be a key determinant of how important dancers thought resistance training was due to the possibility that more seasoned dancers specifically in high level will follow the more conventional paradigm of "dance only" instruction. The inexperienced, younger dancers or the low level have a higher chance of placing significance of resistance training due to increased

consciousness within more recent years, of the enormous health advantages that come with this kind of instruction Kayla Major (2017).

**Table 3. Test of Difference in the Level of Strength Training of Student Dancers of Junior High School Students When Analysed Across the Demographic Profile of the Respondents**

Profile	F/t-value	p-value	Decision on Ho	Interpretation
Age	.84	.657	Failed to Reject the Ho	Not Significant
Sex	1.66	.301	Failed to Reject the Ho	Not Significant
Year Level	7.1	.000	Reject Ho	Significant

### CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions and recommendations of the researcher. The researcher summarized the findings in order to answer the problems regarding the study while recommendations are for the development of the present status about the topic presented by the researcher. The primary data were collected by distributing face to face survey questionnaires to 30 respondents. The results of the survey provided answers to problems stated on the previous chapter.

#### Conclusions

The following conclusions were drawn:

The indicator of comprehensive inclusion is perceived as High which tells that the level comprehensive inclusion in terms of perception on ST is at high level.

Furthermore, according to the result of ANOVA, the analyzed data showed that there is no significant difference on the level of perception on strength training observed across age and sex demographics but notable variation across the respondents' year levels.

#### Recommendations

Based on the findings of the study, it is recommended to develop targeted educational materials or workshops that address the specific concerns or misconceptions identified within each year level to promote a more consistent and accurate understanding of strength training across all respondents.

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## References

- Eugen, Bota., Gabriel, Arnăutu. (2023). Sport performance in dance – a systematic review of the methods used in physical conditioning training. *Studia Universitatis Babeş-Bolyai*, 67(4):59-74. doi: 10.24193/subbeag.67(4).34
- H. P., & Arent, S. M. (2020). The effects of an 8-week resistance training intervention on muscular strength, power, and body composition in collegiate female dancers. *Comparative exercise physiology*, 16(4), 277-284.
- Hughes, D. C., Ellefsen, S., & Baar, K. (2018). Adaptations to endurance and strength training. *Cold Spring Harbor perspectives in medicine*, 8(6), a029769.
- Jacques, Santrot. (2022). Precautions During Strength Training. 191-191. doi: 10.1007/978-3-662-65961-8\_91
- Major, K. (2017). Perceived Importance of Resistance Training in Collegiate Dancers.
- Sanders, D. J., Cardaci, T. D., McFadden, B. A., Walker, A. J., Bozzini, B. N., Cintineo, Wenjie, Zhu. (2017). Research on Current Situation, Problems and Countermeasures of Core Strength Training of College Athletes.
- Wilson, O. W., Colinear, C., Guthrie, D., & Bopp, M. (2022). Gender differences in college student physical activity, and campus recreational facility use, and comfort. *Journal of American College Health*, 70(5), 1315-1320.