

# A STUDY OF ALTERATION AMONG THE STUDENTS OF PHYSICAL EDUCATION

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## ABSTRACT

This study's primary goal was to evaluate physical changes that took place in the bodies of students as a direct result of their participation in Physical Education programs. The goal of this study was to determine whether or not the fitness levels of students are related to their ability. If a connection was found, the study also sought to determine which aspects of fitness had the most influence on this ability. In the event that a correlation was discovered, the researcher wished to determine, in addition, which components of fitness had the most significant impact on this capability.

In the Sequence of Methods, a detailed plan or plan of action, the perspectives of twenty-one of the research's participants, who were both male and female college students of the same age, provided support for the quantitative findings of the study. The participants were all in their twenties. After initially determining their aerobic endurance, the researcher moved on to testing their reaction times to see how quickly they could react to different stimuli. According to the conclusions of this research project, a person's capacity to respond quickly in various situations is determined by a variety of elements, some of which include their strength, endurance, power, cardio respiratory fitness, and body composition. Those participants in the study who engaged in higher amounts of physical exercise had an easier experience initially coping with the imaginary situation (they did so in a shorter length of time), and they also completed the task more quickly. On the other hand, there did not appear to be any type of link between the degree of adaptation and the reduction in the necessary amount of response time. This was the case despite the fact that there was an apparent connection between the two. According to the findings of this investigation, having a greater degree of physical fitness may improve response times in the aftermath of catastrophic events and reduce the overall impact of these occurrences.

KEY WORDS: Alteration, Physical fitness, Response, Situations, Endurance.

## INTRODUCTION

People living in today's world are more likely to become infected with a variety of illnesses, experience the phases of loss and sorrow, and be troubled by a pervasive sense of uncertainty as a result of their surroundings. People are deprived of the benefits connected with their physical capabilities in an unequal manner as a consequence of this, and as a consequence, a wide array of illnesses affects them. In the environment we live in today, having mental fortitude and having faith in the truth are both ideals that cannot be realistically expected. Interactions with the environment that surrounds us are directly responsible for the transformations that take place on the inside of us. Every person who is currently residing in this planet has given up on their initial goal and instead is completely focused on bettering themselves as individuals. This occurs whenever there is a disruption in one's life, whether that disruption originates from inside or from without. The conditions and experiences that motivate, inspire, and drive one individual human being are not the same as those that motivate, inspire, and drive another individual human being. Individuals experience stress as a result of the amount of effort that is required to fulfil them, which in turn encourages individuals to make changes in their lives. The same may be said for the outside world, which undergoes change at every turn and incessantly thrusts additional duties upon the person. This is due to the fact that the external world is always changing. If one is able to modify their actions in reaction to shifts in the environment, it is possible to reduce the amount of stress they are experiencing. When it comes to social adoptions, having solid ties with other people who are already part of the community is also highly important. It suggests that a human being will, at some point in their lives, be required to go through both internal and exterior transformations simultaneously.

According to the research conducted by Jenifer Lucomsky (2006), a youngster who is deaf has a larger number of emotional and social challenges in comparison to their hearing counterparts. According to these data, it would appear that there is a significant difference between hearing and deaf children not just in terms of behaviour but also in terms of social interaction.

According to a study that was carried out by Glan Metcol (2006), students from other nations have a lesser amount of emotional upheaval when confronted with organisational and societal change than their American counterparts do. These students have a more challenging

time adjusting to the rigorous academic standards of college and, more broadly, the expectations of the working world.

## STUDY OBJECTIVES

To study alteration among the students of Physical Education for quick response in various situations.

## HYPOTHESIS

The following null hypothesis were constructed and tested:

**H<sub>01</sub>** There is no significant difference in the mean score of alteration among urban students of Physical Education for quick response in various situations.

**H<sub>02</sub>** There is no significant difference in the mean score of alteration among rural students of Physical Education for quick response in various situations.

**H<sub>03</sub>** There is no significant difference in the mean score of alteration among male students of Physical Education for quick response in various situations.

**H<sub>04</sub>** There is no significant difference in the mean score of alteration among female students of Physical Education for quick response in various situations.

## TOOLS

For the purpose of this investigation, we made use of a questionnaire designed by Dr. Pramod Kumar that consisted of a total of just 40 statements.

## RESEARCH METHOD

In this survey investigation, responses were collected from students of physical education.

## INTERPRETATION & ANALYSIS

The technique of analysing the collected data consisted of a "Variance test (t-test)," with the purpose of determining the students' development in terms of their physical education.

**TABLE 1**

A Comparison of the Mean Scores, Standard Deviation, Standard Error of the Mean (SEM), and "t" Value Achieved by Students of Physical Education.

| Sr. No. | GROUP  | N  | MEAN  | S.D. | SED  | "t" VALUE | SIGNIFICANCE            |
|---------|--------|----|-------|------|------|-----------|-------------------------|
| 1       | Urban  | 12 | 10.10 | 4.36 | 0.90 | 2.61      | Rejected at 0.001 level |
| 2       | Rural  | 9  | 10.75 | 4.04 |      |           |                         |
| 3       | Male   | 11 | 9.31  | 4.21 |      |           |                         |
| 4       | Female | 10 | 9.86  | 4.65 |      |           |                         |

There is a difference that is statistically significant between the estimated value of "t" (2.61), which represents the mean score of change among students of Physical Education, and the table value (2.58;  $p = 0.01$ ) of the variable. The estimated value of "t" reflects the mean score of change among students of Physical Education. In addition, students who take Physical Education in urban settings have a mean change score of 10.10, whereas students who study Physical Education in rural settings have a mean change score of 7.75. The typical score for students who take Physical Education is 9.75, and both of these scores are greater than that. While the mean change score for female Physical Education majors is greater (9.75), the score for male Physical Education majors is lower (9.31) than the score for female Physical Education majors, which is (9.86). This provides further support for the contention that the distinction was uncovered.

## FINDINGS

The following is a rundown of the findings from this investigation:

- (1) The difference between the mean scores of students living in urban areas (10.10) and rural students (10.75) is statistically significant.
- (2) Male students have undergone a noticeable shift from the norm. Male and female Physical Education students have different averages on the change scale.

- (3) Results of the current study are coherent with the former studies of Jenifer Lucomsky (2006) and Glan Metcol (2006).

The major hypothesis of the study, which argues that more active students will have faster response times in various circumstances, is the primary justification for utilising a test with two different possible outcomes. In addition, the primary focus of the research was not on determining whether or whether people who engage in regular physical activity react to various situations more quickly, but rather on identifying the aspects of a person's physical makeup that have the most impact on how quickly they react. The proportion of “body fat, muscular strength, the muscular power, the muscular endurance”, the cardio respiratory fitness, and the quick reaction time all indicated statistically significant variations from one another. According to these findings, most important variables in establishing quick response times & performance for students who have not been trained are “body composition, handgrip strength, standing long jump performance, push-up performance, and performance on the Rockport One-Mile Fitness Walking Test”. On the other hand, when contrasting the speed of response students who were “physically active” vs. those who were “sedentary (physically inactive)”, body fat percentage & range of motion were not display significant variations between the two groups.

Students who said they engaged in a greater amount of physical exercise finished a 55-meter sprint significantly ( $p < 0.05$ ) quicker & had a quicker time to respond in event of various. Second, the  $p$ -value for the correlation between physical activity and reduced body fat was 0.003, indicating a significant relationship between the two. Third, a “test of muscular strength (a handgrip test showing a total score for both hands)” revealed that students who engaged in regular physical activity had greater results than those who did not ( $p=0.002$ ). A standing broad jump test  $p$ -value of less than 0.001 was associated with higher performance among students who were physically active. In conclusion, the results of a test of muscular endurance (the number of push-ups one can execute) demonstrated that students who were physically active had a significantly better performance than students who were physically inactive with a significance level of less than 0.001. Students who participated in more physical activities had a lower  $p$  value on the cardio respiratory fitness test than their less active counterparts. On the other hand, in terms of physical measures like flexibility, there was very little to no difference between the children who engaged in physical activity and those who did not. The findings of this study

provide evidence in favour of the primary hypothesis by demonstrating that students who engage in greater physical activity react more swiftly in times of crisis.

## CONCLUSION

This study investigated whether or not individuals who exerted themselves & handled a fictitious crisis more rapidly also reported increased levels for several indicators of fitness. Assumption underlying the research was - performance ability is an essential characteristic of various response teams. The results of this research suggest that the levels of “muscular strength, endurance & power”; cardio respiratory fitness; as well as “body composition” of persons who engage in regular physical activity may have an effect on the amount of time to their reaction to various situation. Despite the fact that there is no requirement for students at physical education to engage in physical activity, given significance of demonstrated connection in between physical activity & disaster response, those who were physically inactive during this trial and their co-workers may benefit from increasing their activity levels.. Future study should focus on relationship between various drills and physical fitness, which may be considered as an integral part of training & greater readiness for such crisis. This connection should be a primary focus. There is a clear link between improved readiness & reduced susceptibility of the vulnerable population, which demonstrates the advantages of disaster drills & training. Studies demonstrated direct association among enhanced preparedness & at-risk population’s decreased vulnerability. People should engage in physical activity to preserve both their physical & mental health, as well as to be ready to respond effectively in the event of various. This is in addition to participating in disaster preparation training, which will enhance their performance in various situations.

## REFERENCES

- (1) Shah Gunvant and Pandya Kulin (1978), Educational Psychology, First Edition, Ahmedabad, Uni. Granth Nirman Board, Gujarat State.
- (2) Parikh (1994-95), Psychology and effective Behaviour, Tenth Edition, Ahmedabad, Parikh – Zala Publication.
- (3) Flin, R.; Slaven, G. Personality and various command ability. Disaster Prev. Manag. Int. J. 1996, 5, 40–46.

- (4) Baldwin, R. Training for the Management of Major Emergencies. *Disaster Prev. Manag. Int. J.* 1994, 3, 16–23.
- (5) Subramaniam, C.; Ali, H.; Shamsudin, F.M. Influence of physical ability on initial various response performances. *Disaster Prev. Manag. Int. J.* 2012, 21, 556–571.
- (6) Kobes, M.; Post, J.; Helsloot, I.; De Vries, B. Fire Risk of High-Rise Buildings Based on Human Behavior in Fires; Dealu Spirii Various Situations Inspectorate, General Inspectorate for Various Situations: Bucharest, Romanian, 2008.
- (7) Kobes, M.; Helsloot, I.; de Vries, B.; Post, J.G. Building safety and human behaviour in fire: A literature review. *Fire Saf. J.* 2010, 45, 1–11.
- (8) Proulx, G. High-rise office egress: The human factors. In *Proceedings of the Third International Conference on 3-D Digital Imaging and Modeling*, Quebec City, QC, Canada, 28 May–1 June 2001; pp. 179–186.
- (9) Jenifer Lucomsky (2006), Deaf college students perception of the year, Social Emotional Alteration, School of Psychological Department, Rosester Institute of Technology, Rosester, New York, USA. Glan Metcol (2006).