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Eher-Sulat: The Effectiveness of Physical Exercise to The Writing Ability of Grade 10 Online Distance Learning (Odl) Students

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ABSTRACT

The primary aim of the study was to determine the effectiveness of physical exercise to the writing ability of Grade 10 Online Distance Learning (ODL) students of Margarito A. Duavit Integrated School. To achieve this aim, the researcher used an experimental design of research wherein thirty-one (31) out of fifty-nine (59) enrolled students enthusiastically engaged in the activity. The principal tool for analyzing the respondents in this study was a researcher-created activity sheet. A rubric was used to collect the essential data on the effectiveness of physical activity on the writing abilities of the school's Grade 10 online distance learning students. Results of the study, from the pretest scores in terms of fluency, originality, and flexibility revealed low level of scores ranging from 5 – 14 from a possible maximum score of 15 points as evidenced by a 6.968 – 10.452 mean scores while the students' posttest scores revealed an increase from 5 – 15 and mean scores from 10.45 – 12.548 after conducting the Eher-Sulat activity. Results of the analysis of variance revealed significance value of 0.05. The null hypothesis that there is no significant difference in the effectiveness of physical exercise on the respondents' writing ability after exposing them to the Eher-Sulat activity was rejected because the computed t value exceeds the critical value, indicating that the means are significantly different. This demonstrates that Eher-Sulat activity, which entails performing physical exercises prior to beginning a class, differs significantly from the usual method of introducing a subject or topic. This implies that writing is a bodily as well as a mental endeavor. It's critical for us to understand the link between our mind and body. To keep our mental skills where we want them, we have to keep our bodies healthy and active.

CONTEXT AND RATIONALE

Physical activity is essential for a person's well-being, as we all know. Because children's physical and emotional development is ongoing, the advantages of movement – and, conversely, the negative effects of inactivity – have a substantial impact on them. Educators can't control how much exercise children get at home during a pandemic, any more than they can regulate their food habits or family environment. Many children are no longer active at home or at school, according to several research. As a result, schools must provide physical education programs to keep all students engaged. However, due to sudden changes in laws, regulations, and protocols as a result of the pandemic, education delivery in the country has dramatically changed as a result of the coronavirus disease 2019 (Covid-19). To safeguard the health of students and teachers, public and private schools were shuttered, and teaching had to be done remotely using modular and digital platforms.

The Department of Education issued D.O. No. 12, s. 2020 in response to this, titled "Adoption of the Basic Education Learning Continuity Plan for School Year 2020-2021 in Light of the COVID-19 Public Health Emergency." The COVID-19 pandemic poses challenges to various sectors, particularly in responding to fundamental rights. Physical separation and community quarantine are two of the techniques being used to contain COVID-19, and this has had a significant impact on basic education, since schools and community learning centers have been closed due to physical conduct.

Moreover, as stated in Enhanced Basic Education Act of 2013, the K to 12 PE Curriculum develops the students' skills in accessing, synthesizing, and evaluating information, making informed decisions, enhancing and advocating their own and others' fitness and health. The knowledge, understanding, and skills underpin the competence, confidence, and commitment required of all students to live an active life for fitness and health.

Writing, on the other hand, is a fundamental talent that serves children from kindergarten through college. It is the foundation of communication, history, art, and a plethora of other fields. Production abilities are employed in classrooms on a daily basis, from early practice of fine motor skills to the eventual writing of comprehensive essays to demonstrate critical thinking or persuasive skills.

We provide students with a foundation of expression that they can build on throughout their academic careers. Despite the fact that specific writing programs such as composition have vanished from popular pedagogy, writing necessitates a complex intersection of important abilities in a student's life, both in and out of the classroom.

The researcher, who has been a Physical Education and Health (PEH) educator for more than eight (8) years, understands the importance of physical activity, especially in pandemics such as COVID-19, and how it relates to the current study of distance learning students.

Understanding the impact of physical activity on students' writing ability is topical and important because it plays such an important role in children's development and education. Physical activity and writing assist youngsters enhance their concentration and attention while also encouraging them to get off the sofa and connect with the world around them. It will benefit the students because they will develop divergent thinking, and as a result, they will become more creative thinkers and resilient. They will grow up to obtain lifelong skills, which is what 21st-century education is all about.

INNOVATION, INTERVENTION AND STRATEGY

According to Chaddock et al. (2014), strategies to optimize cognitive and brain development, including physical activity, computerized training games, martial arts, yoga, mindfulness, and school curricula, are spotlighted. For example, aerobic fitness plays an essential role in children's brain health, especially in brain structure and brain function, including grey matter volumes, basal ganglia, and functional brain networks. These fitness-related differences in brain health are often coupled with performance differences. Such that higher fit children have been shown to outperform their lower fit peers on tasks of cognitive control and memory and academic achievement tests in the classroom.

The researcher was able to determine the effectiveness of physical exercise to the writing ability of online distance learning students of Margarito A. Duavit Integrated School, School Year 2020-2021.

Out of fifty-nine (59) Grade 10 ODL learners officially enrolled in one section and verified by the school registrar, thirty-one (31) students were able to be present on the conduct of the study virtually. The research study included pre-test about the study's writing activity; on the other hand, respondents participated on various physical exercises instructed by the researcher before doing the post-assessment about alternative uses test.

ACTION RESEARCH QUESTIONS

This study aimed to determine the effectiveness of physical exercise to Grade 10 online distance learning students' writing ability. Specifically, it sought to answer the following:

1. What is the level of writing of the respondents before and after exposing them on the Eher-Sulat activity in terms of:
 - 1.1 Fluency
 - 1.2 originality
 - 1.3 flexibility
2. Is there significant difference on the effectiveness of physical exercise to the respondents' writing ability after exposing them to the Eher-Sulat activity concerning the variables mentioned above?

SIGNIFICANCE OF THE STUDY

The findings of the study may provide information beneficial to the following individuals:

School Administrators

The Results of this study may give a hint towards the best school policies which appreciates the importance of teacher's effectiveness on delivering the content and pedagogy of Physical Education and Health (PEH) subject as well as other disciplines and escalate the roles of Physical Education and Health teachers in terms of developing relevant policy with regards to innovative teaching strategies specially for the Margarito A. Duavit Integrated School and Schools Division of Rizal.

Physical Education and Health (PEH) Teachers

This will be a reminder to Physical Education and Health (PEH) subject teachers as regards to their important role to their students in crafting and implementing sessions that are enjoyable and fun. Also, they must equip themselves with new ideas in teaching 21st century learners in educational environment because this may determine the breed of future leaders of the society who are having a deep sense of patriotism for the country.

Students. The study hopes to reinforce teacher-students collaboration in attaining quality education which would ultimately determine the level of achievement of the students and success of the education.

Other Researchers. This can serve as a springboard for prospective researchers in conducting studies that aim to seek knowledge and further testing of the theory to solve gaps in teaching Physical Education and Health as well as other subjects this time of pandemic. The research could provide helpful in conceptualizing their studies.

ACTION RESEARCH METHODS

A. Participants and/or other Sources of Data and Information

The study is limited to Margarito A. Duavit Integrated School's current Grade Ten (10) online distance learning students. Thirty-one (31) respondents took part in the survey, which was performed in the third quarter of the school year 2020–2021. The effectiveness of physical exercise on the respondents' writing skills was determined using a researcher-created activity sheet. The school registrar confirmed that the respondents were enrolled learners before they were included in the study.

B. Data Gathering Methods

The research began with the creation of a research proposal, which was then submitted to the panel for a pre-oral presentation. The school's principal, grade level coordinator, subject teacher, and class adviser all received letters. The researcher came up with the research activity.

The principal tool for analyzing the respondents in this study was a researcher-created activity sheet. The effectiveness of physical exercise on the writing ability of the school's Grade 10 online distance learning students was evaluated using a rubric to gather the necessary data. Different professionals in the fields of research, education, and sports program validated the research tool used in the study.

With the approval of the school head and the teachers involved, the class adviser told the responders ahead of time that the researcher will participate via their online class schedule. To facilitate the study's activities, the researcher joined them in their virtual classroom (Google Meet). Simultaneous instruction and activity execution took place, consuming ninety (90) minutes of their time.

Because the respondents engaged via their online class, the study and data collection methods were conducted remotely in accordance with the norms and recommendations provided by the Inter-Agency Task Force on Emerging Infectious Diseases (IATF-EID) and the Department of Health (DOH).

C. Data Analysis Plan

The study aimed to determine the effectiveness of physical exercise to the writing ability of Grade 10 online distance learning students of Margarito A. Duavit Integrated School.

The researcher employed a descriptive method, namely an activity sheet created by the researcher. This method is used to determine a current state in this study: the effectiveness of physical activity on the respondent's writing skills.

On the basis of organizing and analyzing the research data to achieve the objectives related to the goals set, the following data analysis plan were used:

The weighted mean and standard deviation were used to determine the respondents' level of writing before and after they were exposed to the Eher-Sulat activity.

The paired-samples t test was used to compare the different components, which are the pre-test and post-test using the same group of learners, in order to ascertain the significant difference in the effectiveness of physical exercise on the students' writing ability after exposing them to the Eher-Sulat activity.

DISCUSSION OF RESULTS

This section shows the results of the study in relation to both research questions and existing knowledge following the sequence of the research objectives: (a) to determine the level of writing of the respondents before and after exposing them on the Eher-Sulat activity in terms of fluency, originality, and flexibility; and, (b) to measure the significant difference on the effectiveness of physical exercise to the respondents' writing ability after exposing them to the Eher-Sulat activity concerning the mentioned variables.

A. Respondents' Level of Writing Before and After Exposure to Eher-Sulat Activity in Terms of Fluency, Originality, and Flexibility

Table 1. Scores of the Respondents (Fluency)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pretest	31	5	14	10.064	2.614
posttest	31	7	15	10.452	2.563

Table 1 shows that out of a possible maximum score of 15, respondents receive a 5 as the lowest score and a 14 as the highest. In terms of Fluency, the pretest scores are 10.064 weighted mean with a 2.614 standard deviation. This means that prior to participating in the Eher-Sulat exercise, students' writing abilities are limited to 5-14 out of a possible 15 points. On the other hand, posttest analysis reveals that out of a possible maximum score of 15, respondents receive a 7 as the lowest score and a 15 as the greatest. In terms of Fluency, the pretest scores are 10.452 weighted mean with a 2.563 standard deviation. This suggests that pupils' writing skills improved by 7-15 points after participating in the Eher-Sulat program.

Table 2. Scores of the Respondents (Originality).

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pretest	31	10	13	10.452	0.711
posttest	31	10	15	12.548	1.623

Table 2 shows that out of a possible maximum score of 15, respondents receive a 10 as the lowest score and a 13 as the highest. In terms of Originality, the pretest scores are 10.452 weighted mean with a 0.711 standard deviation. This means that before participating in the Eher-Sulat exercise, pupils' writing abilities are limited to 10-13 points out of a possible 15. In contrast, posttest analysis reveals that out of a possible maximum score of 15, respondents receive a 10 as the lowest score and a 15 as the highest. The pretest scores for Originality have a weighted mean of 12.548 and a standard deviation of 1.623. This suggests that after participating in the Eher-Sulat activity, pupils' writing abilities improved by 10-15 points.

Table 3. Scores of the Respondents (Flexibility).

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
pretest	31	5	11	6.968	1.823
posttest	31	5	15	10.968	2.335

Table 3 shows that out of a possible maximum score of 15, respondents receive a 5 as the lowest score and an 11 as the highest. In terms of Flexibility, the pretest scores yielded a weighted mean of 6.968 and a standard deviation of 1.823. This means that prior to participating in the Eher-Sulat exercise, pupils' writing abilities are limited to 5-11 out of a possible 15 points.

While posttest analysis reveals that out of a possible maximum score of 15, respondents receive a 5 as the lowest score and a 15 as the greatest. The pretest scores for Flexibility have a weighted mean of 10.968 and a standard deviation of 2.335. This suggests that students' writing skills improved by 5-15 points after participating in the Eher-Sulat program.

B. Significant Difference Between the Respondents' Scores (Before and After)

Table 4. Difference Between the Scores of the Respondents (Before and After)

Paired Samples Difference

	N	Difference	Sig.
pretest & posttest (Fluency)	31	1.452	0.05
pretest & posttest (Originality)	31	2.096	0.05
pretest & posttest (Flexibility)	31	4	0.05

Table 4 reveals the difference between the scores of the respondents on Fluency, Originality, and Flexibility before and after the Eher-Sulat activity. Results of the analysis of variance revealed significance value of 0.05. The computed t value exceeds the critical value, so the means are significantly different, therefore, the null hypothesis that there is no significant difference on the effectiveness of physical exercise to the respondents' writing ability after exposing them to the Eher-Sulat activity is rejected.

Table 4 shows that the Eher-Sulat activity, which involves performing physical exercises before beginning a class, has a substantial difference from the traditional manner of starting a lesson or topic.

This implies that writing is a bodily as well as a mental endeavor. It becomes increasingly difficult to keep our mental health sharp without good physical well-being. It's critical for us to understand the link between our mind and body. To keep our mental skills where we want them, we have to keep our bodies healthy and active.

This is in line with a 2019 study published by the American Academy of Neurology, which claims that regular cardiovascular exercise such as walking, cycling, or climbing stairs can boost thinking skills in both older and younger persons. The study also discovered that as people get older, the good effects of exercise on thinking skills may get stronger.

Action Plan

The success of the result of this study will be implemented and utilized to other Online Distance Learning (ODL) students and be shared to teachers through School Learning Action Cell (SLAC). This paper also aims to be presented in the Division and International Research Conferences and be published in the International Publications such as International Journal for Advanced Research (IJAR) and International Journal of Multidisciplinary Research.

Objectives	Activities	Time Frame	Resources			Performance Indicator
			Human	Material	Money	
To develop and support teachers by nurturing their knowledge and attitudes in terms of the Eher-Sulat activity	Learning Action Cell (LAC) Session	June 2021 – July 2021	Researcher, School Personnel	computer, and/or mobile phones, ppt slides to be used	P200.00 (internet load provision)	School Memo on the conduct of the LAC Session, Certificate of Participation and/or Attendance
To boost the learners' physical & mental skills through active involvement in Eher-Sulat activity	Eher-Sulat Activity	3 rd Qtr, of School Year 2021 – 2022	ODL Teachers, Students	computer, and/or mobile phones, subject pretest and posttest	P200.00 (internet load provision)	School Memo (conduct of the program), Submission of subject's pretest and posttest results
To make teachers, students, and school admins be aware of Eher-Sulat activity	Participation in Sub-Office, Division and International Research Conferences	School Year 2021 - 2021	Teachers, Students, School Admins, Conference Organizers	computer, and/or mobile phones, ppt slides to be used	P200.00 (internet load provision)	Endorsement on the conference participation, Certificate of participation and/or attendance

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