

**IMPACT OF DOUBLE REDUCTION POLICY: INPUT TO MANAGEMENT OF PUPILS' ACADEMIC PERFORMANCE AND PHYSICAL HEALTH****DR. WEI XIANJUN\***

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The study assessed the academic performance and physical health of grade 4-6 pupils under the Double Reduction Policy as a basis for policy enhancement. This study was conducted to two hundred fiftyfive (255) teachers, three hundred (300) pupils, and three hundred (300) parents for a total of eight hundred fifty-five (855) respondents. The study used descriptive research design. It utilized mean, SD, t test and Pearson Product moment of Correlation in treating the data. The study revealed that the pupils when grouped according to age, gender, birth order and grade level have moderate level of perception when it comes to the implementation of the double reduction policy, the status of the physical health of the pupils is Fair, their academic performance was Fair, there is a significant difference on the physical health and academic performance of pupils under the double reduction policy management according to age, gender, birth order and grade level, as well as there is a significant relationship in the physical health and academic performance of pupils under the double reduction policy when grouped according to age, gender, birth order, and grade level. The study recommended that the pupils can apportion more time to participate in interests, hobbies, and comprehensive quality development, parents better focus on their children's healthy growth. Teachers can provide flexible teaching activities which can help cultivate students' comprehensive qualities and innovative abilities. Policy makers and the government agencies can promote education system reform to cultivate more innovative and practical talents.

**Key words:** *Academic performance, double reduction policy, management, physical health, pupils*

**INTRODUCTION**

Teachers plays a crucial role in the learnings of primary graders. Excessive academic burden and insufficient physical exercise for primary school pupils can lead burnout at a younger age. In order to achieve high-quality and efficient development, our Education system has implemented a "double reduction" policy in recent years to alleviate the physical health issues of students in the education stage, as well as the burden of homework and off school training. Due to the continuous progress of society, various temptations are also affecting primary learners, and the full expectations of families are also the reason for students' heavy academic burden and reduced extracurricular activity time. Policy guidelines, clarify the issues that need to be noted and action strategies under the dual reduction policy, in order to reduce academic pressure and enhance students' physical fitness. Research has shown that the overall physical fitness and health level of primary and secondary school students have decreased compared to 20-30 years ago, which is greatly related to physical activity (Zhou, et al, 2019). A study showed that the physical indicators and

strength of primary school students increased with age, while lung capacity and sitting posture flexion performance were not ideal, and the overall performance of physical fitness decreased, Jianguo (2022).

The quality of compulsory education is crucial for the healthy growth of billions of children, as well as for the development of the country and the future of the nation. A construction of a strong education country through modern education, we must deepen education and teaching reform, comprehensively improve the quality of compulsory education, and cultivate students with comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor. The reduction in physical exercise may also have adverse effects on students' physical fitness and physical fitness, leading to problems such as obesity and poor posture in children. Therefore, improving the service level of schools and meeting the diverse needs of students requires schools to develop relevant service implementation plans. The education department should collect and develop rich and high-quality online education and teaching resources, utilize national and local high-quality platforms, and guide students to better access free and high-quality online education resources.

Education is the foundation of a country. In order to promote the comprehensive development and healthy growth of students' morality, intelligence, physical fitness, aesthetics, and labor, further reduce the homework burden and off-campus training burden of students in the compulsory education stage, build a good education ecosystem, promote students' comprehensive development, and enable them to achieve moral development. Meng Yuan (2023), stressed that double reduction policy is a significant measure to reduce the burden of pupils and relieve them from education anxiety and re design education ecology. The double reduction policy targeted to improve the quality of after-school programs, decrease the amount of homework required of pupils in compulsory education, cut down on the number of pupils who needed extracurricular classes outside of school, and accommodate pupils of varying backgrounds and learning styles.

Faced with this struggle in the education system, studying the management of the "double reduction" policy on the academic performance and physical health of primary school pupils helped us better understand the effects behind the policy, provide scientific basis for improving the learning and physical condition of primary school learners, and promote the deepening of educational reform.

### Research Questions

To give light to the problem, the researchers sought to answer the following:

1. What is the profile of the grade 4-6 pupils in six primary schools in Daxing District, Beijing in terms of:
  - 1.1 Age;
  - 1.2 Gender;
  - 1.3 Birth order; and
  - 1.4 Grade Level?
2. What is the level of perception of the grade 4-6 pupils in the implementation of the Double Reduction Policy in terms of:
  - 2.1 Age;
  - 2.2 Gender;
  - 2.3 Birth order; and
  - 2.4 Grade level?

3. What is the physical health status of the grade 4-6 pupils when grouped as to:
  - 3.1 Age;
  - 3.2 Gender;
  - 3.3 Birth order; and
  - 3.4 Grade level?
4. What is the academic status of the grade 4-6 pupils when grouped as to:
  - 4.1 Age;
  - 4.2 Gender;
  - 4.3 Birth order; and
  - 4.4 Grade level?
5. Is there a significant difference in the physical health and academic performance of Pupils under the Double Reduction Policy management when grouped according to;
  - 5.1 Age;
  - 5.2 Gender;
  - 5.3 Birth order; and
  - 5.4 Grade level?
6. Is there a significant relationship in the physical health and academic performance of Pupils under the Double Reduction Policy management when grouped according to;
  - 6.1 Age;
  - 6.2 Gender;
  - 6.3 Birth order; and
  - 6.4 Grade level?
7. Based on the research results, what educational policies can be recommended for development?

### **Research Hypothesis**

Based on the research questions posted, the following hypotheses

Ho1: There is no significant difference in the physical health and academic performance of Pupils under the Double Reduction Policy management when grouped according to age, gender, birth order, and grade level.

Ho2: There is no significant relationship in the physical health and academic performance of Pupils under Double Reduction Policy management when grouped according to age, gender, birth order, and grade level.

### **Research Design**

The study utilized descriptive research design. It will be used in the light of the nature of the process, as well as the objectives of the study vis-à-vis the nature of descriptive composition of processes of phenomena. Descriptive aims to characterize a condition, problem, or occurrence in a methodical, factual, accurate, and objective manner. It tries to put into words what is. Adams & Lawrence (2019) stressed that descriptive research collected information about the overall distribution characteristics and provides information about the overall structure, phenomena, etc. According to Team (2023), the practical reason henceforth dictates the necessity of this method, considering the fact that the study to assess the academic

performance and physical health of grade 4-6 pupils under the double reduction policy as a basis for policy enhancement.

### Research Locale and Participants

The present undertaking will be conducted in the six (6) primary schools located in Daxing District, Beijing, China namely: Panggezhuang No.1 Central Primary School, Panggezhuang Second Central Primary School, The First Central Primary School in Huangcun Town, Primary School Department of Daxing District No.1 Middle School, Primary School Department of Daxing District Second Middle School, and Primary School Department of Xinghua Middle School.

The respondents of this study will be divided into three groups namely: three hundred (300) grade 4 to grade 6 pupils from six (6) primary schools in Beijing, China enrolled for the Academic Year 20232024. Two hundred fifty-five (255) teachers teaching in the grade levels 4-6, and three hundred (300) parents for a total of eight hundred fifty-five (855) respondents. There is a total of one thousand two hundred (1200) pupils in these schools, six hundred (600) teachers and one thousand two hundred (1200) parents.

**Table A**

*Target Respondents of the Primary Schools*

Respondents	Total Number of Respondents	Sample
Pupils	1200	300
Teachers	600	255
Parents	1200	300
<b>Total</b>	<b>3000</b>	<b>855</b>

### Research Instrument

Guided by the social theory and landscape ecology Van, et. Al (2024), states that a holistic awareness on how human undertakings influence the environment and how the environment, in turn affect the humanities. A researcher-made questionnaire was developed and organized for the assessment of the parents and the teachers, and relevant experts were consulted for further revisions. The reliability and validity of the questionnaire were tested for its effectiveness and rationality, and the specific content of the questionnaire was finally determined.

### Data Gathering Procedure

Data was collected using structured questionnaires and assessments designed to assess the academic Performance and Physical Health of the grade 4-6 pupils of the identified institutions.

The researcher invites panel of experts in the field to assess whether the questions in the questionnaire cover the relevant field. There were five panel of experts who evaluated the questionnaire, collect their feedback and suggestions, and adjust the questionnaire according to the feedback. A total of 4.68 validity

results show's a Very High Validity. Then, the said questionnaire undergoes pilot testing. A pilot test was conducted to twenty (20) respondents who are not included in the actual study. The test results were statistically analyzed using Cronbach Alpha the most commonly used reliability assessment tool in educational tests, higher consistency indicates greater reliability. Cronbach's alpha result was 0.98 shows excellent reliability.

The researcher, personally administering the questionnaire, took care to ensure the comfort of the participants during the process. Data collection and processing procedures were carefully planned to ensure the accuracy and reliability of the data. Subsequently, quantitative data analyses were conducted.

### Data Analysis

The study follows the ethical standard of research. After gathering all the data, the researchers used the Weighted Mean, Standard Deviation, independent t test and ANOVA.

### Results

This part includes the discussion of results.

#### 1. Profile of the Grade 4-6 Pupils in the Six Primary Schools in Daxing District, Beijing in terms of: **Table 1.1**

##### *Profile of Pupils as to Age*

Age	School 1	School 2	School 3	School 4	School 5	School 6	F	%
10 years old	16	16	17	17	17	17	100	33 %
11 years old	16	17	17	17	17	16	100	33 %
12 years old	17	17	17	17	16	16	100	33 %
Total	49	50	51	51	50	49	300	100 %

#### **Table 1.2**

##### *Profile of Pupils as to Gender*

Gender	School 1	School 2	School 3	School 4	School 5	School 6	F	%
Male	25	26	26	26	25	24	152	51 %
Female	24	25	25	25	25	24	148	49 %
Total	49	51	51	51	50	48	300	100 %

#### **Table 1.3**

##### *Profile of Pupils as to Birth Order*

Birth Order	School 1	School 2	School 3	School 4	School 5	School 6	F	%
First	5	5	6	5	5	5	33	11 %
Second	30	24	22	24	30	34	164	55 %
Third	13	10	11	15	12	15	76	26 %

Others	4	3	4	6	4	6	27	9 %
Total	52	42	43	50	51	60	300	100 %

**Table 1.4***Profile of Pupils as to Grade Level*

Grade Level	School 1	School 2	School 3	School 4	School 5	School 6	F	%
Grade 4	16	17	17	17	17	17	100	33 %
Grade 5	16	17	17	17	17	16	100	33 %
Grade 6	17	17	17	17	16	16	100	33 %
Total	49	51	51	51	50	49	300	100 %

## 2. Level of Perception of the Pupils in the Implementation of the Double Reduction Policy in Terms of:

**Table 2.1***Perception of the Pupils in the Implementation of the Double Reduction Policy in Terms of Age*

Age	Weighted Mean	SD	Verbal Interpretation
10 years old	2.27	.425	Low
11 years old	3.62	.275	High
12 years old	3.95	.438	High
Mean	3.28	.379	Moderate

\*Very High (VH) 4.21-5.00; High (H) 3.41-4.20; Moderate (M) 2.61-3.40; Low (L) 1.81-2.60; Very Low (VL) 1.00-1.80

**Table 2.2***Perception of the Pupils in the Implementation of the Double Reduction Policy in Terms of Gender*

Gender	Weighted Mean	SD	Verbal Interpretation
Male	2.31	0.45	Low
Female	3.28	0.32	Moderate
Total Weighted Mean	2.80	0.38	Moderate

**Table 2.3***Perception of the Pupils in the Implementation of the Double Reduction Policy in Terms of Birth Order*

Birth Order	Weighted Mean	SD	Verbal Interpretation
First	3.30	0.22	High

Second	2.62	0.32	Low
Third	4.25	0.35	Very High
(Others)	3.35	0.48	Moderate
Total Weighted Mean	3.21	0.33	Moderate

\*Very High (VH) 4.21-5.00; High (H) 3.41-4.20; Moderate (M) 2.61-3.40; Low (L) 1.81-2.60; Very Low (VL) 1.00-1.80

**Table 2.4**

*Perception of the Pupils in the Implementation of the Double Reduction Policy in Terms of Grade Level*

Grade Level	Weighted Mean	SD	Verbal Interpretation
Grade 4	2.28	0.34	Low
Grade 5	2.29	0.28	Low
Grade 6	2.31	0.38	Low
Total Weighted Mean	2.47	0.33	Low

\*Very High (VH) 3.51-4.00; High (H) 3.01-3.50; Moderate (M) 2.51-3.00; Low (L) 1.00-2.50; Very Low (VL) 1.00-1.50

**Table 3**

*Physical Health Status of the Pupils as Assessed by the Parents and Teachers*

		Parents			Teachers		
		W.M.	S.D.	V.I.	W.M.	S.D.	V.I.
<b>Age</b>	10 years old	2.27	0.34	Fair	2.52	0.38	Good
	11 years old	2.29	0.28	Fair	2.58	0.41	Good
	12 years old	2.29	0.38	Fair	2.56	0.55	Good
<b>Gender</b>	Male	2.31	0.41	Fair	2.61	0.55	Good
	Female	2.28	0.35	Fair	2.56	0.45	Good
<b>Birth Order</b>	First	2.30	0.47	Fair	3.14	0.58	Good
	Second	2.29	0.42	Fair	3.00	0.65	Good
	Third	2.25	0.43	Fair	2.28	0.54	Fair
	Others	2.31	0.34	Fair	2.71	0.45	Good
<b>Grade Level</b>	Grade 4	2.28	0.44	Fair	3.51	0.67	Excellent
	Grade 5	2.29	0.28	Fair	2.50	0.55	Fair
	Grade 6	2.31	0.36	Fair	3.71	0.49	Excellent

Excellent (E) 3.51-4.00; Good (G) 2.51-3.50; Fair (F) 1.51-2.50; Poor (P) 1.00-1.50

**Table 4**

*Academic Status of the Pupils according to the Profile Variables*



		Average	VI
<b>Age</b>	10 years old	91.42	VS
	11 years old	90.46	VS
	12 years old	91.56	VS
<b>Gender</b>	Male	91.47	VS
	Female	90.81	VS
<b>Birth Order</b>	First	91.82	VS
	Second	91.13	VS
	Third	90.74	VS
	Others	91.56	VS
<b>Grade Level</b>	Grade 4	91.42	VS
	Grade 5	90.46	VS
	Grade 6	91.56	VS

**Legend: Outstanding (O) -95-100; Very Satisfactory (VS) -90-94; Satisfactory (S) -85-89; Fairly Satisfactory (FS) -80-84; Poor (P) – 75-79; Very Poor (VP) -75-79**

**Table 5.1**

*Significant Difference in the Physical Health and Academic Performance of Pupils under the Double Reduction Policy Management when grouped according to Age*

	X2	P-Value	VI
Test of Significance Difference of Physical Health and Academic Performance Under the Double Reduction Policy management and the Age	15.49	.004	Significant

**Table 5.2**

*Significant Difference in the Physical Health and Academic Performance of Pupils under the Double Reduction Policy Management when grouped according to Gender*

	X2	P-Value	VI
Test of Significance Difference of Physical Health and Academic Performance Under the Double Reduction Policy management and the Gender	14.72	.005	Significant

**Table 5.3**

*Significant Difference in the Physical Health and Academic Performance of Pupils under the Double Reduction Policy Management when grouped according to Birth Order*



ISSN: 2278-6848   Vol. 15   Issue 3   Jul - Sep 2024	X <sup>2</sup>	P-Value	VI
Test of Significance Difference of Physical Health and Academic Performance Under the Double Reduction Policy management and the Birth Order	19.91	.001	Significant

Double

**Table 5.4**

*Significant Difference in the Physical Health and Academic Performance of Pupils under the Double Reduction Policy Management when grouped according to Grade Level*

	X <sup>2</sup>	P-Value	VI
Test of Significance Difference of Physical Health and Academic Performance Under the Double Reduction Policy management and the Grade Level	18.77	.002	Significant

**Table 6.1**

*Significant Relationship in the Physical Health and Academic Performance of Pupils under the Double Reduction Policy Management when grouped according to Age*

Test of Significant Relationship of Physical Health and Academic Performance Under the Double Reduction Policy management and the Age	Df	F	Sig.
Between Groups	3		
Within Groups Total	297	2.52	.855
	300		

Very Strong Significance 0.70, Strong Significance 0.40-.069; Moderate Significance 0.30-0.39, Weak Significance 0.20-0.29, No or Negligible Significance 0.01-0.19 (Adapted from Dancey and Reidy, 2004)

**Table 6.2**

*Significant Relationship in the Physical Health and Academic Performance of Pupils under the Double Reduction Policy Management when grouped according to Gender*

Test of Significant Relationship of Physical Health and Academic Performance Under the Double Reduction Policy management and the Gender	Df	F	Sig.
Between Groups	2	2.23	.755
Within Groups Total	298		
	300		

Very Strong Significance 0.70, Strong Significance 0.40-.069; Moderate Significance 0.30-0.39, Weak Significance 0.20-0.29, No or Negligible Significance 0.01-0.19 (Adapted from Dancey and Reidy, 2004)

**Table 6.3**

*Significant Relationship in the Physical Health and Academic Performance of Pupils under the Double Reduction Policy Management when grouped according to Birth Order*

Test of Significant Relationship of Physical Health and Academic Performance Under the Double Reduction Policy management and the Birth Order	Df	F	Sig.
Between Groups	4		
Within Groups Total	296	2.38	.605
	300		

Very Strong Significance 0.70, Strong Significance 0.40-.069; Moderate Significance 0.30-0.39, Weak Significance 0.20-0.29, No or Negligible Significance 0.01-0.19 (Adapted from Dancey and Reidy, 2004)

**Table 6.4**

*Significant Relationship in the Physical Health and Academic Performance of Pupils under the Double Reduction Policy Management when grouped according to Grade Level*

Test of Significant Relationship of Physical Health and Academic Performance Under the Double Reduction Policy management and the Grade Level	Df	F	Sig.
Between Groups	5		
Within Groups Total	295	2.28	.705
	300		

Very Strong Significance 0.70, Strong Significance 0.40-.069; Moderate Significance 0.30-0.39, Weak Significance 0.20-0.29, No or Negligible Significance 0.01-0.19 (Adapted from Dancey and Reidy, 2004)

## Conclusions

In the light of the findings, the following conclusions were drawn:

The pupils who are 10, 11, and 12 years old had the same number and percentage, majority of them are male which is one hundred fifty-two (152) pupils or 52 percent, and majority of them are second child and the grade levels 4, 5, and 6 have also the same number of pupils to become the respondents of the study.

The pupils when grouped according to age, gender, birth order and grade level have moderate level of perception when it comes to the implementation of the double reduction policy.

The responses of the both teachers and parents when grouped according to age, gender, birth order and grade level shows that the status of the physical health of the pupils is Fair.

The academic performance of the pupils shows that when grouped according to age, gender, birth order and grade level it can be interpreted to Fair.

The test of difference in the physical health and academic performance of pupils under the double reduction policy management according to age, gender, birth order and grade level shows that there is a significant difference, therefore, the null hypothesis is rejected.

The test of significant relationship in the physical health and academic performance of pupils under the double reduction policy when grouped according to age, gender, birth order, and grade level shows that there is a significant relationship between these variables which rejects the null hypothesis of the study.

### **Recommendations**

Based on the findings and conclusions of the study, the following recommendations are hereby offered:

The pupils must provide more time participate in interests, hobbies, and comprehensive quality development as involving themselves in physical activities can better achieve comprehensive development, cultivate innovative abilities and practical experience, and reduce the negative impact of excessive competition on mental health.

Parents must better focus on their children's healthy growth through the Double Reduction Policy, rather than just pursuing academic performance. Collaboration between the parent and the child can help improve the relationship between families and children, encouraging positive parent-child interaction.

Teachers must provide more teaching flexibility, which can help cultivate students' comprehensive qualities and innovative abilities. Teachers can better pay attention to individual differences among students and cultivate their interests and potential.

Schools may promote comprehensive quality education and cultivate talents with innovative and practical abilities by adjusting their educational methods. This helps to enhance the quality and reputation of the school's education.

Policy makers must promote education system reform and better meet society's demand for comprehensive quality and innovative ability. Policy makers can take this opportunity to optimize education policies and achieve better development of education.

The government can also help cultivate more innovative and practical talents, and enhance the comprehensive competitiveness of the country. The implementation of policies can also alleviate social conflicts, promote social stability and sustainable development.

Future researchers may conduct similar studies with a different set of respondents and different setting or locale in the future. Reiterate and conduct reorientation on the benefits of the Double Reduction Policy. Establish a regular physical health activities and programs good for pupils according to their age and interest.

### **Compliance with Ethical Standards**

The authors declare compliance in ethical standards. After getting the approval from the university administrators/heads, getting the permission from the teachers/trainers' and students to conduct the questionnaire. The researchers guaranteed that all the data gathered from the respondents remained confidential. Proper citations of related literature and studies are maintained. Moreover, there is no bias or prejudice in the findings and results of the study.

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