

Effects of Inclusive Education on the Development of Diverse Talents and Academic Performance of Grade Four Pupils

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Abstract

This study assessed the extent of the effects of inclusive education on the development of diverse talents and academic performance of Grade Four pupils in selected public elementary schools in District 6, Division of Manila during the School Year 2024–2025. The study was conducted in Beata Elementary School, Fernando Amorsolo Elementary School, Gen. Emilio Aguinaldo Integrated School–Elementary Department, Sta. Ana Elementary School, and Tomas Earnshaw Elementary School. A total of 298 respondents were selected using Slovin’s formula and simple random sampling. The descriptive survey research design was employed, utilizing a researcher-made questionnaire-checklist to gather data on pupils’ talents in visual arts, sports, and musical aspects. Documentary analysis was also used to determine the academic performance of the respondents based on their average grades. Findings revealed that most respondents were female, first- or second-born children, belonging to small families with 1–3 children and low-income households. Their parents were mostly college undergraduates or graduates employed in private or government sectors. Inclusive education was found to have a high extent of effects on the development of diverse talents in visual arts, sports, and music. Significant differences were observed in terms of sex, monthly family income, parents’ educational attainment, and occupation, while sibling position and number of children in the family showed no significant difference. The overall academic performance of the pupils was rated as Very Satisfactory. Moreover, a significant relationship was found between inclusive education and pupils’ academic performance. The study concludes that inclusive education positively influences both talent development and academic achievement. It is recommended that schools continuously implement varied teaching strategies, encourage talent development, and adopt the proposed action plan. Further studies may explore additional variables and contexts.

Keywords: inclusive education, diverse talents, academic performance, Grade Four pupils, talent development, descriptive survey, Manila schools

1. Introduction

Education plays a vital role in shaping individuals and communities, serving as a foundation for personal growth, social development, and national progress. It equips learners with essential knowledge, skills, values, and attitudes necessary for holistic development. In the Philippines, the 1987 Constitution (Article XIV, Section 1) guarantees the right of every citizen to quality education, emphasizing accessibility, inclusivity, and equity for all learners. This legal mandate underscores the responsibility of educational institutions to provide meaningful and inclusive learning experiences that cater to diverse learners. In response to the evolving educational landscape, inclusive education has been institutionalized through Republic Act No. 11650 and DepEd Order No. 021, s. 2019, which promote equal opportunities and access to quality education regardless of learners’ abilities and backgrounds. Inclusive education seeks to eliminate barriers to learning by embracing diversity and fostering an environment where every learner is valued. It emphasizes differentiated instruction, learner-centered approaches, and the development of students’ diverse talents in areas such as visual arts, sports, and music, alongside academic achievement.

A growing body of literature supports the positive impact of inclusive education on students’ academic and holistic development. For instance, Erkus (2021) highlighted that instructional strategies aligned with multiple intelligences significantly improve students’ academic performance. Similarly, Yildiz et al. (2020) found that student characteristics such as gender and engagement influence the development of multiple intelligences. Further, Zhang (2023) demonstrated that participation in extracurricular activities, such as sports, is positively associated with improved academic outcomes. These findings suggest that diverse learning experiences contribute to both talent development and academic success. Local studies also affirm the significance of inclusive education in Philippine settings. The study of Catolico and Cabanlit Jr. (2023) revealed a high level of inclusive education implementation in schools, contributing to equitable learning environments. Similarly, Masongsong et al. (2023) emphasized the importance of teacher training in enhancing inclusive

practices and learner engagement. Meanwhile, Paguirigan (2020) highlighted challenges such as lack of training and resources in implementing inclusive education effectively.

Despite these studies, research gaps remain. Most existing studies focus on general implementation, teacher perspectives, or specific intelligence domains, with limited emphasis on the direct relationship between inclusive education, the development of diverse talents (visual, musical, and sports), and academic performance among elementary pupils, particularly in the Philippine context. Furthermore, there is a lack of localized studies focusing on Grade Four pupils in public elementary schools in Manila, where contextual factors such as socioeconomic status, family background, and school environment may influence outcomes. This study, therefore, aims to address these gaps by examining the extent of the effects of inclusive education on the development of diverse talents and academic performance of Grade Four pupils in selected public elementary schools in District 6, Division of Manila. It seeks to provide empirical evidence that will contribute to improving inclusive education practices and enhancing learner outcomes in the Philippine basic education system.

2. Material and methods

2.1 Research Design

This study applied the descriptive method of research utilizing a researcher-made questionnaire-checklist to gather the needed data.

2.2 Locale of the Study

The study was conducted in selected elementary schools in District 6-, Division of Manila. These schools include Beata Elementary School, Fernando Amorsolo Elementary School, Gen. Emilio Aguinaldo Integrated School-Elementary Department, Sta. Ana Elementary School, and Tomas Earnshaw Elementary School. The schools offer complete elementary education from kindergarten to grade six..

2.3 Respondents of the Study

The respondents of the study were 298 grade four pupils in selected public elementary schools in District 6, Division of Manila. The sample size was determined using the Slovin's formula. They were chosen utilizing simple random sampling technique. They were described in terms of sex, sibling position, number of children in the family, monthly family income, parents' educational attainment, and parents' occupation..

2.4 Sample and Sampling Procedure

The sample size was determined using Slovin's formula to ensure an adequate representation of the population. The respondents were selected through a simple random sampling technique, giving each pupil an equal chance of being included in the study. The participants were described according to their demographic profile, which included sex, sibling position, number of children in the family, monthly family income, parents' educational attainment, and parents' occupation. This approach ensured that the sample accurately reflected the characteristics of the target population while maintaining objectivity and reducing sampling bias.

2.5 Research Instrument

A researcher-made questionnaire-checklist was used to gather the necessary data in this study. It consisted of two parts: Part I covered the respondents' profile in terms of sex, sibling position, number of children in the family, monthly family income, parents' educational attainment, and parents' occupation, while Part II focused on the extent of the effects of inclusive education on the development of diverse talents with respect to visual arts, sports, and musical abilities, with ten (10) items per aspect for a total of thirty (30) items. The respondents answered using a five-point Likert scale ranging from 1 (Never/Least Extent) to 5 (Always/Very High Extent). The academic performance of the pupils was measured using their average grades, interpreted as Outstanding (90 and above), Very Satisfactory (85–89), Satisfactory (80–84), Fairly Satisfactory (75–79), and Did Not Meet Expectations (below 75). The instrument underwent content validation by experts, including the thesis adviser, dean, statistician, professorial lecturers, master teacher, and principal, whose comments and suggestions were incorporated to ensure its validity and reliability before administration.

2.6 Data Gathering Procedure

The researcher followed the Gantt Chart of Activities in the conduct of the study. The researcher came up with the conceptualization of the research title. It was followed by reading and scanning of several research in order to come up with the development of Chapters 1, 2 and 3 of the study. After the proposal defense, the instrument was content-validated, then, permission from concerned authorities will be secured by the researcher from the Schools Division Superintendent. Then, the questionnaire checklist was administered to the respondents, then retrieved them from the respondents using Google Survey forms. The researcher was guided by Data Privacy Act. The data were tallied, tabulated, analyzed and interpreted using Statistical Package for Social Sciences (SPSS) to answer the specific problems of the study. Then,

summary of findings, conclusions and recommendations followed. After the final oral defense, revision and incorporation of the suggestions and recommendations of the Oral Examination Committee, the manuscript was subjected to anti-plagiarism at the statistical center. Finally, hardbound copies were submitted to the Office of the Graduate Studies Program and other offices concerned.

2.7 Data Analysis Techniques

The data gathered in this study were analyzed and interpreted using appropriate statistical tools. To describe the profile of the Grade Four pupils in terms of selected variables, frequency, percentage, and rank distribution were utilized. The extent of the effects of inclusive education on the development of diverse talents of the pupils, particularly in visual arts, sports, and musical aspects, as perceived by the respondents, was determined using the weighted mean. To test the significant differences in the perceived effects of inclusive education on diverse talents when grouped according to respondents' profile variables, a one-way analysis of variance (ANOVA) was employed. Meanwhile, the level of academic performance of the pupils, as reflected in their average grades, was analyzed using frequency, mean, and standard deviation. Lastly, to determine the significant relationship between the effects of inclusive education on the development of diverse talents and academic performance, correlation analysis was used.

2.8 Ethical Considerations

This study strictly adhered to ethical standards in the conduct of research. Prior to data collection, permission was sought from the school authorities and concerned officials to ensure proper coordination and approval. The respondents were informed about the purpose of the study, and their participation was entirely voluntary. Informed consent was obtained, assuring them that they could withdraw from the study at any time without any consequences. Confidentiality and anonymity of the respondents were strictly maintained by not disclosing their identities and ensuring that all collected data were used solely for academic purposes. Additionally, the researcher ensured that no harm, discomfort, or bias would affect the participants throughout the process. All information gathered was treated with utmost respect and integrity, and results were presented honestly and objectively.

3. Results and Discussion

3.1 Profile of the Respondents in Terms of the Selected Variables

As shown in the table, out of 298 pupils involved in the study, 160 or 53.7% are females and 18 or 46.3 % are males. In terms of sibling position, 84 or 28.2 % are first born and 80 or 26.9% are second born child. The rest are third, fourth and fifth child. With regard to the number of children in the family, 92 or 30.9% belong to families with 3 children, 86 or 28.8% belong to families with only one child while 58 or 19.5% belong to families with two children and the rest belong to families with 4 and more number of children. In terms of monthly family income, 95 or 31.9% have monthly family income of ₱10,000 – ₱14,999 while 83 or 27.8% have monthly family income Below ₱10,000. The rest belong to families with monthly income ₱15,000 and above. As to the parents' educational attainment, most of the parents are college undergraduates and college graduates. Only few are elementary graduates and elementary undergraduates. As regard to their parents' occupation, most of the parents are employed in private companies and government agencies

Table 1

Profile of the Respondents in Terms of Selected Variables

Sex	F	%	Rank
Male	138	46.3	2
Female	160	53.7	1
	298	100.0	
Sibling Position	F	%	Rank
First	84	28.2	1
Second	80	26.9	2
Third	60	20.1	3
Fourth	54	18.1	4
Fifth and above	20	6.7	5
Total	298	100.0	
Number of Children in the Family	F	%	Rank
5 and above	25	8.4	5
4	37	12.4	4
3	92	30.9	1
2	58	19.5	3
1	86	28.8	2
Total	298	100.0	

Monthly Family Income	F			%		Rank
₱20,000 and above	59			19.8		4
₱15,000 –₱19 ,9999	61			20.5		3
₱10,000 –₱14,9999	95			31.9		1
Below ₱10,000	83			27.8		2
Total	298			100.0		
Parent's Educational Attainment	Father			Mother		
	f	%	Rank	f	%	Rank
College Graduate	77	25.8	2	68	22.8	2
College Undergraduate	87	29.2	1	80	26.9	1
High School Graduate	60	20.1	3	62	20.8	3
High School Undergraduate	39	13.1	4	48	16.1	4
Elementary Graduate	19	6.4	5	29	9.7	5
Elementary Undergraduate	16	5.4	6	11	3.7	6
Total	298	100.0		298	100.0	
Parent's Occupation	Father			Mother		
	f	%	Rank	f	%	Rank
Government Employee	87	29.2	1	89	29.8	1
Private Company Employee	79	26.5	2	75	25.2	2
Self-employed	72	24.2	3	65	21.8	4
Unemployed	60	20.1	4	69	23.2	3
Total	298	100.0		298	100.0	

3.2 Extent of Effects of Inclusive Education on the Development of Diverse Talents of Grade Four Pupils as Perceived by Themselves with Respect to the Different Aspects

The table depicts that all aspects are interpreted High Extent with a composite weighted mean of 3.81. First in rank is Visual Arts with an overall weighted mean of 4.09. Second in rank is Sports with an overall weighted mean of 3.82 and last in rank is Musical with an overall weighted mean of 3.51. It could be deduced from the results that inclusive education has high extent of effects in the development of diverse talents of grade four pupils with respect to visual arts, sports and musical. This means that pupils' talents in visual arts, sports and Music is developed through their exposure to inclusive education. Findings imply that inclusive education generally has a positive impact on both the diverse talents and academic performance of students, though the extent of this effect can vary. Inclusive education fosters a more supportive learning environment, promoting social and emotional development alongside academic growth. Inclusive settings provide opportunities for students with and without disabilities to interact, fostering social skills, empathy, and understanding of diverse perspectives. This is in consonance with the discussion of Smith (2020) that Inclusive settings provide opportunities for students to interact, fostering social skills, empathy, and understanding of diverse perspectives. Inclusive classrooms, with their diverse student populations, offer a wider range of learning experiences and opportunities for students to explore and develop their unique talents and abilities. Inclusive environments can promote positive attitudes towards diversity and inclusion among all students, leading to a more accepting and supportive school community.

Table 2

Extent of Effects of Inclusive Education on the Development of Diverse Talents of Grade Four Pupils as Perceived by Themselves with Respect to the Different Aspects

Aspects	W $\bar{X}$	Verbal Interpretation	Rank
Visual Arts	4.09	High Extent	1
Sports	3.82	High Extent	2
Musical	3.51	High Extent	3
Composite W$\bar{X}$	3.81	High Extent	

3.3 Significant Difference on the Extent of Effects of Inclusive Education on the Development of Diverse Talents of Grade Four Pupils as Perceived by Themselves with Respect to the Different Aspects in Terms of Their Profile

It could be gleaned from the table that with respect to the different aspects, in terms of sex, monthly family income, parents' educational attainment and parents' occupation, the null hypothesis is rejected since all the probability values are less than .05. On the contrary, in terms of sibling position and number of children in the family, the probability values are greater than .05, hence the null hypothesis is accepted. Findings indicate that sex, monthly family income, parents' educational attainment and parents' occupation are significant on the pupils' perception on the perceived effects of inclusive education in developing their diverse talents. On the contrary, sibling position and number of children in the family are not significant. Findings imply that male and female differ in the development of diverse talents in their exposure to inclusive education. Likewise, socio economic status, level of parents' education and parents' occupation are contributory. On the contrary, sibling position and number of children in the family have nothing to do with the perceived effects of inclusive education in the development of diverse talents among pupils. This relates with the conclusion of the study of Bolanos (2025) that sports engagement of pupil-athletes with respect to planning and preparation, training and participation in actual competition vary when they are grouped according to age, sex, sibling position, number of children in the family, monthly family income, parents' educational attainment and parents' occupation..

Table 3

Result of the F-test on the Significant Difference on the Extent of Effects of Inclusive Education on the Development of Diverse Talents of Grade Four Pupils as Perceived by Themselves with Respect to the Different Aspects in Terms of Their Profile

Aspects/Variables	F-value	p-value	Ho	Verbal Interpretation
Sex				
Visual Arts	4.437	0.016	Rejected	Significant
Sports	5.243	0.032	Rejected	Significant
Musical	7.632	0.002	Rejected	Significant
Sibling Position				
Visual Arts	0.073	0.954	Accepted	Not Significant
Sports	0.036	0.922	Accepted	Not Significant
Musical	0.722	0.321	Accepted	Not Significant
Number of Children in the Family				
Visual Arts	0.212	0.823	Accepted	Not Significant
Sports	1.245	0.312	Accepted	Not Significant
Musical	0.357	0.743	Accepted	Not Significant
Monthly Family Income				
Visual Arts	7.671	0.042	Rejected	Significant
Sports	8.653	0.007	Rejected	Significant
Musical	9.116	0.002	Rejected	Significant
Fathers' Educational Attainment				
Visual Arts	6.517	0.019	Rejected	Significant
Sports	7.875	0.042	Rejected	Significant
Musical	9.795	0.039	Rejected	Significant
Mothers' Educational Attainment				
Visual Arts	7.758	0.024	Rejected	Significant
Sports	8.745	0.019	Rejected	Significant
Musical	9.642	0.033	Rejected	Significant
Fathers' Occupation				
Visual Arts	8.459	0.015	Rejected	Significant
Sports	6.844	0.003	Rejected	Significant
Musical	7.021	0.012	Rejected	Significant
Mothers' Occupation				
Visual Arts	9.444	0.015	Rejected	Significant
Sports	7.021	0.012	Rejected	Significant
Musical	8.112	0.026	Rejected	Significant

3.4 Level of Academic Performance of Grade Four Pupils as Revealed by their Average Grades

The table shows that out of 298 pupils, 123 or 41.3% obtained Very Satisfactory performance with average ratings of 85-89. Meanwhile, 91 or 30.5% obtained Satisfactory performance with average ratings of 80-84. Only 84 or 28.2 % obtained Outstanding performance with average ratings of 90-100. No pupils scored below 80, indicating that the lowest grade is still in the Satisfactory level. The highest recorded grade was 97, the lowest was 81, and the overall mean grade was 87.28, which falls within the "Very Satisfactory" category. The relatively low standard deviation of 3.811 suggests that most pupils' grades were clustered closely around the mean. These results indicate that the majority of pupils are performing well academically, with a strong foundation in core subjects as reflected in their grades. The absence of failing grades suggests effective teaching strategies and a supportive learning environment. This level of performance may encourage educators to maintain current instructional approaches while also identifying opportunities to support the percentage of pupils in the "Satisfactory" category, ensuring that all students can achieve higher academic standards. Findings imply that high academic performance among grade four pupils is closely linked to effective classroom instruction, inclusive education practices, supportive learning environments, and continuous assessment practices. Findings further imply that pupils' engagement and motivation, coupled with timely feedback, contribute to maintaining high achievement levels and minimizing underperformance. Furthermore, monitoring student progress using consistent grading criteria, as demonstrated in this data, aligns with best practices that support academic success in inclusive education.

Table 4

Level of Academic Performance of Grade Four Pupils as Revealed by their Average Grades

Grade	Verbal Interpretation	Frequency	Percent	Rank
90-100	Outstanding	84	28.2	3
85 – 89	Very Satisfactory	123	41.3	1
80 – 84	Satisfactory	91	30.5	2
Total		298	100	
Highest Grade	97			
Lowest Grade	81			
Mean	87.428 (Very Satisfactory)			
Standard Deviation	3.811			

3.5. Significant Relationship Between the Perceived Extent of Effects of Inclusive Education on the Development of Diverse Talents of Grade Four Pupils and their Level of Academic Performance

The computed r-values indicate the strength and direction of the relationship between diverse talents and pupils' academic performance. Data show high positive correlation coefficients in all aspects. The p-values for all aspects, are less than the typical significance level of 0.05. Findings reveal that the null hypothesis (Ho) of no significant relationship is rejected for all aspects, indicating that there is a statistically significant relationship between the extent of effects of inclusive education in developing diverse talents of grade four pupils and their academic performance. The verbal interpretation confirms that effects of inclusive education on developing diverse talents of pupils with respect to visual, sports and musical significantly correlate with academic performance. Findings imply that diverse talents and backgrounds among students can positively influence academic performance by fostering a richer learning environment, encouraging critical thinking, and promoting a broader understanding of the subject matter. When students with varying perspectives and experiences collaborate, they can create more innovative solutions and develop a deeper understanding of the material. This is similar with the findings of descriptive correlational study of Azmoudeh (2021) which revealed positive correlations in Musical Intelligence when compared to Mathematical Intelligence. There was a negative correlation between knowing how to play a musical instrument and grade point average, while there was a positive correlation with believing that learning a musical instrument can help when learning science and academic performance.

Table 5

Significant Relationship Between the Perceived Extent of Effects of Inclusive Education on the Development of Diverse Talents of Grade Four Pupils and their Level of Academic Performance

Aspects	r-values	p-values	Ho	Verbal Interpretation
Visual Arts	0.764	0.021	Rejected	Significant
Sports	0.835	0.006	Rejected	Significant
Musical	0.689	0.017	Rejected	Significant

4. Conclusion & Recommendations

The findings of the study lead to the conclusion that certain demographic variables, specifically pupils' sex, monthly family income, parents' educational attainment, and parents' occupation, significantly influence the effects of inclusive education in the development of diverse talents in visual arts, sports, and musical aspects. Furthermore, the study concludes that the level of academic performance of pupils is significantly associated with the perceived effects of inclusive education, indicating that inclusive practices contribute not only to talent development but also to improved academic outcomes.

In light of these findings, it is recommended that pupils be encouraged to actively participate and showcase their diverse talents in school to maximize their potential and enhance academic performance. Teachers are also encouraged to continuously apply varied and innovative teaching strategies to better support inclusive education and develop pupils' talents. The implementation of the proposed action plan is likewise recommended to strengthen inclusive practices, while future researchers are encouraged to conduct similar studies using additional variables to further enrich the understanding of inclusive education and its impact on learners.

Compliance with ethical standards

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