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Performance Assessment of High and Low Income Families through "Online RAW Achievement Battery Test" of Primary Grade students

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Abstract
This study is intended to investigate student's achievement capability among two families i.e. Low and High income families and designed for primary level learners. A Reading, Arithmetic and Writing (RAW) Achievement test that was developed as a part of another research study (Tamim Ahmed Khan, 2015) was adopted for this study. Both English medium (student's studies in private school) and Urdu medium (student's studies in government schools) are selected from Punjab province using stratified sampling technique. In Current study, researcher's selected a sample size of 200 students from both groups and assessed students' performance by using automated software i.e. "**Online RAW Achievement test**". The study has also revealed that there is a positive and significant difference between high income families and low income families in majority of Reading, Arithmetic, Writing test and their subtests.
Keywords: Online RAW, High income, Low income, private, performance, government

1. Introduction

In modern era, Achievement tests have become an important characteristic in educational, psychological and in occupational context. Achievement test plays an important role in school level evaluation scheme and it has moderate significance in learning fulfilments, accomplishments and helpful for scheduling and curriculum improvement (association, 1985). An achievement test plays a critical role in providing an objective feedback to educators in order to judge how much students learned and understand. Educational institution uses these types of assessment to judge student's performance level and to improve course curriculum.

Researchers observe from study that there is study orientation difference among female and male students and rural background students are different from urban students from performance viewpoint (Rowntree, 1983). Sarwar depict that high achiever i.e. English standard students' performance, study alignment, lifestyles, habits and attitude level is better than low achiever i.e. Urdu standard (Sarwar & Bashir, 2009). There is no learning difference among two groups i.e. High and Low achievers (Learning styles of high and low academic achieving fresh man teacher education students, 2009). Researchers revealed that high achievers are more motivated than low achievers (Farha, 2004). (Kapoor, 1987) in his research has found that students with high achievement capability are physically stronge, high moral value. In 2007, researchers have found that students with high degree of motivation always achieve high success in examination. Author demonstrates from his research that some studies conclude that achievement test is a good facilitator and some studies shows that there is no difference between academic achievement and achievement needs (Peipei & Gvirong, 2007). Author seeks to explains an inventive considering capacities High and Low achievers has uncovered that there is no noteworthy distinctive in understudies imaginative speculation capacities because of the level of scholarly accomplishment (Muhammad Nadeem Anwar, 2012).

There are numerous researches conducted to judge performance difference among two group's i.e. High achievers and Low achievers, English medium and Urdu medium, male students and female students and likewise rural and urban academic differences but in current research we have compared the performance difference among two income families groups i.e. High and Low income family groups and we have considered high income family group as those students who are studying in private school and Low income family groups are those students who are studying in government school using Online RAW Achievement test.

Other similar researches have been conducted among two groups i.e. (Samia & Mahmood , 2013); (Kumar, 2015); (Konstantopoulos, 2007); (Renu , 2014) that is further explained in Related work.

2. Online RAW Achievement Test

RAW (Reading, Arithmetic and Writing) achievement test is developed for primary level students for performance assessment and it is designed to judge student's capabilities in English and mathematics subject through different tests. RAW is built in Pakistan in 2015 and researchers adopted all construction steps and psychometric principles for development of this achievement test as well as researchers also develop application of this achievement to check performance of students in a computerized way and the purpose of augmenting the cognitive performance measures of the WRAT Wide Range achievement test, developed by Joseph F. Jastak. (Wilkinson, G.S & Roberston, G.J, 2006). RAW (reading, Arithmetic and writing) achievement test was

developed for a specific age group i.e. for Primary level (5 to 9 years age) Researchers develop this achievement test to check student capabilities individually. It consist of total three tests that is reading, arithmetic and writing test and is divided into further 5 subtests i.e. English Letter Reading, English Word Reading , Oral mathematics , mathematical problems and spelling tests and researchers understood that educational performance should be measured through a cognitive battery. We have developed our RAW achievement test on the basis of Criterion-Referenced test. Criterion referenced test was proposed by (Glaser, 1963) which interpret scores according to set standards. The Reading Test consist of total 150 test items for all grades and subtests include Letter Reading (50 items), Word Reading (50 test items) and Oral Math's (50 test items), Arithmetic Test consist of total 50 test items which comprises of Arithmetic problems (Addition, subtraction, Multiplication & Division questionnaires) and writing test which consist of 50 words for spelling test. Reading Test which comprises of further two tests checks the speech of child, writing check spelling and Math's check arithmetic computation. Using different version of textbooks (Punjab textbook, National book foundation and Oxford textbook) researchers selected test items from those books and store items in item bank in Online RAW software furthermore researchers perform item analysis to validate and finalize test items (Tamim Ahmed Khan, 2015)

3. Related Work

Researchers compare the adjustment issue and worth among high achievers and low achievers. On the basis of these factors and qualities for example hypothetical, monetary, tasteful, social, political and religious and alterations like social conformity, wellbeing and passionate change, school conformity, home modification utilizing the school attitude assessment survey high achievers are different from low achievers (Renu , 2014).

In another similar study researchers compared high and low achievers with respect to study orientation by utilizing an adapted SOS (Study orientation scale) which comprises of total 52 test items. Researchers randomly selected total 360 students from X class from Purulia district. Authors in his study considered achievement score as marks they achieve in board level examination in IX class and researchers further explores that study orientation of secondary school level is associated with academic achievement and conclude that students with high achievement has better study orientation style than low achievers and furthermore researchers also shows that there is no significant and positive difference between low achievers and high achievers (Kumar, 2015). To study achievement of high and low achievers of class 9^{th} level students, researcher's selected two informative regions from district Budgam in which author randomly selected 300 students from low achievers and 300 from high achievers. To measure performance, Mukherjee adopt an incomplete sentence test items that was part of another research study (Mishra, 1992). Authors conclude from his study that high achievers have high need accomplishment, have 'any expectation of progress', have 'high sense of self perfect', have 'diligence', have 'reasonable state of mind' are agreeable to 'inside control of destiny', while as low achievers have low need accomplishment, have trepidation of disappointment, have low inner self perfect, are not perseverant, have improbable disposition and have a sentiment outer control of destiny. The study has likewise uncovered that there is a positive and huge relationship between need accomplishment and Academic accomplishment of high and low achiever bunches (Samia & Mahmood , 2013)

4. Objective of Research:

The main purpose of current research is to compare performance scores among High income families (Students studies in private school) and Low income families (Students studies in government school) using Online RAW Achievement battery test with five subtest and 250 test items that researchers developed from course curriculum of primary level records.

- To identify relationship between private and government students
- To study performance difference among High and Low income families

5. Hypothesis:

Researchers have generated hypotheses on the basis of prior literature.

5.1- Reading Test:

Todays the most critical issues in US society is to improve achievement performance among national minority i.e. poor families child (Shonkoff JP, 2000). In African America, teacher-student relationship plays a significant role and it also impact reading skills (Burchinal , Peisner, Pianta, & Howes, 2002). Former study empirically shows that major role in the child development and performance can be affected through family income and also poverty and due to other financial problems (Marks , 2000).

H1: There is a significant and positive relation between performance of high income group (studying in private schools) and low income group (studying in government schools) families in Letter Reading test.

Reading test serves as the most essential skill necessary for achievement on standardized tests (Zimmerman, 2000). Former studies empirically shows a moderate to high degree of correlation between a

student's ability to reading fluently and standardized reading achievement scores (Wiliam, 2010)
H2: There is a significant and positive relation between performance of high income group (studying in private schools) and low income group (studying in government schools) families in Word Reading test.

5.2: Arithmetic Test:
Several reviews have concluded that there is significant difference in math anxiety among gender basis; researchers have shown that self-efficacy is positively related to both persistence and performance in mathematics (Waslsh, 2005)
H3: There is a significant difference between performance of high income group (studying in private schools) and low income group (studying in government schools) families in Oral Math's test.

Previous studies empirically show that wages differ among age level of juvenile. Besides, the writing has proposed that adjustments in salary have more grounded relationship with results for kids in low-pay contrasted and higher pay families (Alderson DP, 2008)
H4: There is a significant difference between performance of high income group (studying in private schools) and low income group (studying in government schools) families in Mathematical computation test.

5.3- Writing Test: Females are better at spelling and perform better on tests of literacy, writing, and general knowledge (Simone & D, 2012)
H5: There is a significant difference between performance of high income group (studying in private schools) and low income group (studying in government schools) families in spelling test.

6. Theoretical Framework

A collection of interconnected variables or concepts for example a theory not essentially worked out so well is depicted in the theoretical framework. Theoretical framework helps in determining the variables that need to be measured and also describe what statistical associations must be looked for the research (Cooper, 1988).

On the basis of broad literature review the research model and variables were drawn in Figure 1. In current research, six variables are considered for investigation purpose. Out of these, one is dependent and five are independent variables. Independent variables are reading test, arithmetic test and writing tests. Here in current research oral math test, mathematical problems, letter reading test, word reading and writing test that are subtypes of RAW (Reading, Arithmetic and Writing) are active variables which is the type of independent variable whereas dependent variable is RAW performance score.

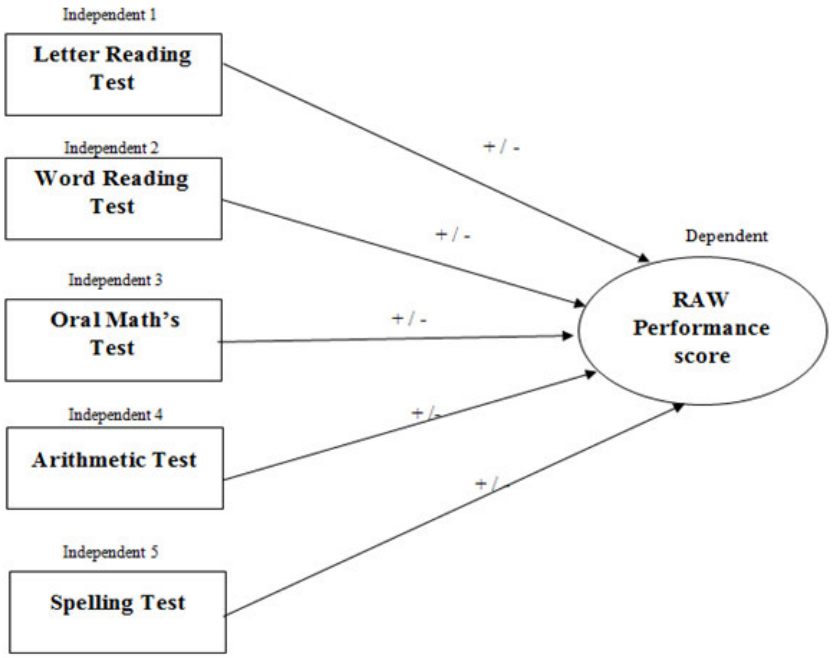

Figure 1: *Schematic diagram: Influence of letter reading, word reading, oral math's, mathematical problem & spelling test on RAW performance score*

7. Methodology, Participant and Tool:

This section describes the research methodology that researchers adopted to conduct the study. This section

comprises of participants, performance measurement tool (Online RAW Achievement test), scoring criteria, and methods for statistical analysis, data analysis as well as reliability.

Participants:

Testing research method was used in current research. In current research, authors randomly selected a sample size of 200 students from primary level education system from district Rawalpindi.

High income group: Students studies in private school (Rainbow public school, Harley street Rawalpindi).

Low income group: Students studies in Government school (Government Shoukat school sadder Rawalpindi).

Performance measurement tool (Online RAW):

To measure performance of these two groups, researcher's uses Online RAW software which comprises of grade 1 to grade 5 level assessments sheet furthermore consist of 250 test items along with five subtests i.e. letter reading, word reading, oral math's, mathematical problems and spell test.

*Scoring Criteria***:**

Our online RAW test items are built on dichotomous theory i.e. it uses binary layout 0 for incorrect and 1 for correct response.

```
Input: Perform tests
Output: Percentage
Step 1: Start (Login)
Step 2: Fill your personal information in Bio data form
Step 3: Select your grade from 1-5
Step 4: Declare variables LetterReading, WordReading, OralMaths, MathsProblem,
    SpellingTest, N (Number of test-items), sum, Divide, Multiply, Subtract, num1, num2.
Step 5: Read values of LetterReading
    If read_correct
      Display "True"
    Else
      Display "False"
Step 6: Read values of WordReading
    If read_correct
      Display "True"
    Else
      Display "False"
Step 7: Read values of OralMaths
    If read_correct
      Display "True"
    Else
      Display "False"
Step 8: Fill values of MathsProblem
  Add Num1, Num2 and assign result to Sum
    Sum<--num1+num2
    Display Sum
  Subtract Num2 from Num1 and assign result to Subtract
    Subtract<--num1-num2
    Display Subtract
  Multiply Num1 with Num2 and assign result to multiply
    Multiply<--num1*num2
    Display Multiply
  Divide Num1 by Num2 and assign result to divide
    Divide<--num1/num2
    Display Divide
Step 9: Write values of SpellingTest
    If textbox item == database item
      Display "Correct"
    Else
      Display "Incorrect"
Step 10: Repeat step 5-9 until N=250
Step 11: Display Percentage
Step 12: Stop
```

Methods for statistical Analysis:

After testing, collected data were analyzed through Spss (statistical package for social sciences) analysis by using latest version IBM 20. Standard deviation, means, sum, medium, maximum and minimum scores were computed furthermore we have also performed non-parametric test to support or reject null hypothesis that are shown in below section no VIII.

Reliability of Test items:

Reliability analysis was conducted to determine the reliability of test items. Reliability lies between 0 to 1. Reliability coefficient α= 0.50 or above is acceptable in any case (Cronbach, 1971). Our Cronbach's alpha (internal consistency) of all test items (250 test items) is 0.608 so these test items are validated and are reliable. Table I shows Cronbach's alpha and mark the entire variable of the research reliable.

Table 1: Reliability of Overall test items

Reliability Statistics: Overall RAW Test item reliability		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.608	.650	250

Researchers also checked the reliability for all grades (1-5) test items that is shown in Table II.

Table 2: Reliability of Grade 1-5.

Reliability Statistics: Grade 1		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.735	.780	50
Reliability Statistics: Grade 2		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.930	50
Reliability Statistics: Grade 3		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.798	.803	50
Reliability Statistics: Grade 4		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.835	0.890	50
Reliability Statistics: Grade 5		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.703	.790	50

8. Results and Discussion

From grade 1, we have taken total sample size of 40 in which we have randomly selected 20 students from English standard and 20 from Urdu standard school as shown in table III and performance of grade 1 for English standard in letter Reading is 89.65% whereas for Urdu standard, score is different and i.e. 65.5%. In word reading test, performance score of English standard is 73% whereas the performance score of Urdu standard is 63.5%, the performance score of oral math test is 82% in English standard whereas for Urdu standard there is 65% performance score, the performance score of mathematics test of Urdu standard is greater than performance score of English standard and i.e. 67.5% and 87% and there is a huge difference i.e. approximately 20% performance difference among them that is shown in Table III.

Table III: Grade 1 Group-wise performance

Group Statistics: Grade 1					
	PrivateVsGovernmentGrade1	N	Mean	Std. Deviation	Std. Error Mean
LetterReadingGrade1	High-inCome	20	8.9500	1.09904	.24575
	Low-Income	20	6.5500	1.50350	.33619
WordReadingGrade1	High-inCome	19	7.2632	2.15618	.49466
	Low-Income	20	6.3500	1.59852	.35744
OralMathsGrade1	High-inCome	20	8.2000	1.67332	.37417
	Low-Income	20	6.5000	2.03909	.45595
SpellingGrade1	High-inCome	20	7.9000	1.44732	.32363
	Low-Income	20	4.3000	1.80933	.40458
MathProbGrade1	High-inCome	20	6.7500	2.19749	.49137
	Low-Income	20	8.7000	1.34164	.30000

In grade 2, performance of letter reading for English standard is 77% whereas for Urdu standard it is 56.5% but in 2nd test, which is word reading test performance of English medium is 75.5% and performance of Urdu standard is 55.5% moreover the performance of English standard in oral mathematics is 83.0% and the performance of Urdu standard in oral mathematics is 58.0% , the performance of mathematical problem in English medium is 72.5% and in last test, performance of grade 2 in spelling is 69.5% and 44% which is very less and detail of this test is shown in Table IV

Table IV: Grade 2 Group wise performance

Group Statistics: Grade 2					
	PrivateVsGovernmentGrade2	N	Mean	Std. Deviation	Std. Error Mean
LetterReadingGrade2	High-Income	20	8.3000	1.21828	.27242
	Low-Income	20	6.5500	2.06410	.46155
WordReadingGrade2	High-Income	20	7.0500	1.87715	.41974
	Low-Income	20	5.6000	2.54227	.56847
OralMathsGrade2	High-Income	20	8.5000	1.50438	.33639
	Low-Income	20	7.4500	1.31689	.29447
MathProbGrade2	High-Income	20	7.3500	2.15883	.48273
	Low-Income	20	8.3000	1.68897	.37767
SpellingGrade2	High-Income	20	8.3000	1.08094	.24170
	Low-Income	20	5.0000	1.89181	.42302

In grade 3, letter reading performance of grade 3 for English standard is 86.5%, whereas for Urdu standard it is 66.5% which is less than English standard and there is a difference among their performance that is approximately 20% less, performance of English standard in word reading is 67% and 46.5% of both medium, performance percentage of oral math's and mathematical calculation is high for Urdu standard students and that is 74.5% and the performance of spelling test in both medium is 66.5% and 38.5% , Moreover details of grade 3 is discussed in Table V.

Table V: Grade 3 Group wise performance

Group Statistics: Grade 3					
	PrivateVsGovernment3	N	Mean	Std. Deviation	Std. Error Mean
LetterReadingGrade3	High-Income	20	8.7000	1.38031	.30865
	Low-Income	20	7.4000	1.27321	.28470
WordReadingGrade3	High-Income	20	7.6500	1.95408	.43695
	Low-Income	20	6.0000	1.77705	.39736
OralMathsGrade3	High-Income	20	8.8000	1.39925	.31288
	Low-Income	20	6.3500	2.30046	.51440
MathProbGrade3	High-Income	20	6.8500	2.25424	.50406
	Low-Income	20	9.2500	1.01955	.22798
SpellingGrade3	High-Income	20	8.5500	1.23438	.27601
	Low-Income	20	5.4000	1.98415	.44367

In grade 4, performance of English standard in letter reading test is 81.5% and 61.5% score achieved by Urdu standard school furthermore performance score of word reading in English medium is 80% and Urdu standard is 46% which is approximately 34% less than English standard performance. Moreover performance of oral maths of English standard is 83.5% and Urdu standard is 77.5% additionally 87% marks achieved by Urdu medium and 73% by English medium. In third test i.e. spelling test performance of English students are 74.5% and 40.5% by low achievers and more details are mentioned in below Table no VI.

Table VI: Grade 4 Group wise performance

Group Statistics					
	PrivateVsGovernmentGrade4	N	Mean	Std. Deviation	Std. Error Mean
LetterReadingGrade4	High-Income	20	9.8500	.36635	.08192
	Low-Income	20	8.7000	.65695	.14690
WordReadingGrade4	High-Income	20	7.6500	1.22582	.27410
	Low-Income	20	5.1500	1.87153	.41849
OralMathsGrade4	High-Income	20	9.2500	.91047	.20359
	Low-Income	20	8.8500	1.08942	.24360
MathProbGrade4	High-Income	20	7.7000	1.55935	.34868
	Low-Income	20	8.3500	1.53125	.34240
SpellingGrade4	High-Income	20	7.6500	1.59852	.35744
	Low-Income	20	5.1000	1.80351	.40328

In grade 5, letter reading performance of grade 3 for English standard is 86.5%, whereas for Urdu standard it is 66.5% which is less than English standard and there is a difference among their performance that is approximately 20% less, performance of English standard in word reading is 67% and 46.5% of both medium, performance percentage of oral math's and mathematical calculation is high for Urdu standard students and that

is 74.5% and the performance of spelling test in both medium is 66.5% and 38.5% , Moreover details of grade 3 is discussed in Table VII.

Table VII: Grade 5 Group wise performance

Group Statistics: Grade5					
Test Types	PrivateVsGovernmentGrade5	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
LetterReadingGrade5	High-Income	20	9.1500	1.18210	.26433
	Low-Income	20	7.1500	1.56525	.35000
WordReadingGrade5	High-Income	20	6.8000	1.93581	.43286
	Low-Income	20	4.3500	1.66307	.37187
OralMathsGrade5	High-Income	20	8.5000	1.00000	.22361
	Low-Income	20	7.9500	1.60509	.35891
MathProbGrade5	High-Income	20	7.4000	1.50088	.33561
	Low-Income	20	7.2500	2.89964	.64838
SpellingGrade5	High-Income	20	7.6000	1.39170	.31119
	Low-Income	20	5.4000	1.93037	.43164

9. Hypothesis Testing

There are numbers of methods through which we can check the relationship between independent and dependent variables i.e. to compare means among two groups these are: one sample t- test, independent sample t-test, paired sample t-test, one-way ANOVA, Pearson's bivariate correlation method and others non-parametric test i.e. Mann Whitney u-test and it is also known as Kruskal Wallis test and these are equivalent to independent sample t-test (Lani, 2016). In current research, researchers uses Mann Whitney u-test to compare two groups i.e. Private and government schools.

Mann Whitney U-test Results:

Unlike the independent sample t-test, Mann Witney U-test is also used to compare means among two groups and it is the type of non-parametric t-test which we have compare two groups i.e. private and government schools students (Hart, 2001)

Grade 1 Hypothesis Testing Result Using Mann Whitney U-test:

From grade 1 hypothesis test we have conclude that:

1- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Letter reading Test of Grade 1.
2- There is no significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Word reading Test of Grade 1.
3- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Oral Math's Test of Grade 1.
4- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Mathematical problems Test of Grade 1.
5- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Spelling Test of Grade 1.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of LetterReadingGrade1 is the same across categories of PrivateVsGovernmentGrade1.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
2	The distribution of WordReadingGrade1 is the same across categories of PrivateVsGovernmentGrade1.	Independent-Samples Mann-Whitney U Test	.054	Retain the null hypothesis.
3	The distribution of OralMathsGrade1 is the same across categories of PrivateVsGovernmentGrade1.	Independent-Samples Mann-Whitney U Test	.008	Reject the null hypothesis.
4	The distribution of MathProbGrade1 is the same across categories of PrivateVsGovernmentGrade1.	Independent-Samples Mann-Whitney U Test	.004	Reject the null hypothesis.
5	The distribution of SpellingGrade1 is the same across categories of PrivateVsGovernmentGrade1.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Grade 2 Hypothesis Testing Result Using Mann Whitney U-test:
From grade 2 hypothesis test we have conclude that:

1- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Letter reading Test of Grade 2.
2- There is no significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Word reading Test of Grade 2.
3- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Oral Math's Test of Grade 2.
4- There is no significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Mathematical problems Test of Grade 2.
5- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Spelling Test of Grade 2.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of LetterReadingGrade2 is the same across categories of PrivateVsGovernmentGrade2.	Independent-Samples Mann-Whitney U Test	.006	Reject the null hypothesis.
2	The distribution of WordReadingGrade2 is the same across categories of PrivateVsGovernmentGrade2.	Independent-Samples Mann-Whitney U Test	.071	Retain the null hypothesis.
3	The distribution of OralMathsGrade2 is the same across categories of PrivateVsGovernmentGrade2.	Independent-Samples Mann-Whitney U Test	.011	Reject the null hypothesis.
4	The distribution of MathProbGrade2 is the same across categories of PrivateVsGovernmentGrade2.	Independent-Samples Mann-Whitney U Test	.148	Retain the null hypothesis.
5	The distribution of SpellingGrade2 is the same across categories of PrivateVsGovernmentGrade2.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Grade 3 Hypothesis Testing Result Using Mann Whitney U-test:
From grade 3 hypothesis test we have conclude that:

1- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Letter reading Test of Grade 3.
2- There is a significant and positive relation between performance of high income group(studying in private

schools) and low income group (studying in government schools) families in Word reading Test of Grade 3.

3- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Oral Math's Test of Grade 3.
4- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Mathematical problems Test of Grade 3.
5- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Spelling Test of Grade 3.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of LetterReadingGrade3 is the same across categories of PrivateVsGovernmentGrade3.	Independent-Samples Mann-Whitney U Test	.003	Reject the null hypothesis.
2	The distribution of WordReadingGrade3 is the same across categories of PrivateVsGovernmentGrade3.	Independent-Samples Mann-Whitney U Test	.004	Reject the null hypothesis.
3	The distribution of OralMathsGrade3 is the same across categories of PrivateVsGovernmentGrade3.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
4	The distribution of MathProbGrade3 is the same across categories of PrivateVsGovernmentGrade3.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
5	The distribution of SpellingGrade3 is the same across categories of PrivateVsGovernmentGrade3.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Grade 4 Hypothesis Testing Result Using Mann Whitney U-test:

From grade 4 hypothesis test we have conclude that:

1- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Letter reading Test of Grade 4.
2- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Word reading Test of Grade 4.
3- There is no significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Oral Math's Test of Grade 4.
4- There is no significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Mathematical problems Test of Grade 4.
5- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Spelling Test of Grade 4.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of LetterReadingGrade4 is the same across categories of PrivateVsGovernmentGrade4.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
2	The distribution of WordReadingGrade4 is the same across categories of PrivateVsGovernmentGrade4.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
3	The distribution of OralMathsGrade4 is the same across categories of PrivateVsGovernmentGrade4.	Independent-Samples Mann-Whitney U Test	.234	Retain the null hypothesis.
4	The distribution of MathProbGrade4 is the same across categories of PrivateVsGovernmentGrade4.	Independent-Samples Mann-Whitney U Test	.180	Retain the null hypothesis.
5	The distribution of SpellingGrade4 is the same across categories of PrivateVsGovernmentGrade4.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Grade 5 Hypothesis Testing Result Using Mann Whitney U-test:

From grade 5 hypothesis test we have conclude that:

1- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Letter Reading Test of Grade 5.
2- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Word Reading Test of Grade 5.
3- There is no significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Oral Math's Test of Grade 5.
4- There is no significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Mathematical problems Test of Grade 5.
5- There is a significant and positive relation between performance of high income group(studying in private schools) and low income group (studying in government schools) families in Spelling Test of Grade 5.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of LetterReadingGrade5 is the same across categories of EnglishVsUrduGrade5.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
2	The distribution of WordReadingGrade5 is the same across categories of EnglishVsUrduGrade5.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
3	The distribution of OralMathsGrade5 is the same across categories of EnglishVsUrduGrade5.	Independent-Samples Mann-Whitney U Test	.234	Retain the null hypothesis.
4	The distribution of MathProbGrade5 is the same across categories of EnglishVsUrduGrade5.	Independent-Samples Mann-Whitney U Test	.180	Retain the null hypothesis.
5	The distribution of SpellingGrade5 is the same across categories of EnglishVsUrduGrade5.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

10. Conclusion

In this research paper, researchers randomly selected a sample size of 200 from two types of families i.e. High (students studying in private institute) and Low (students studying in government institute) income families and checked their performance using automated way i.e. through "Online RAW Achievement test" and author also revealed that "there is a significant and positive relationship between high income group and low income group in letterReading1, OralMaths1, MathsProblems1, Spell1, letterReading2, OralMaths2, SpellingTest2, LetterReading3, WordReading3, OralMaths3, MathsProblem3, SpellingTest3, LetterReading4, WordReading4, SpellingTest4, LetterReading5, WordReading5, SpellingTest5 Whereas there is no relationship in WordReading1, WordReading2, MathProblem2, OralMath4, MathProblem4, OralMath5 and MathProblem5

among High and Low income families so our majority of hypothesis testing concludes that there exist a difference among two income families groups i.e. student studies in private and government school and this is due to their family background, poverty, lack of attention , absence of consideration , absence of guardian association, lack of parent involvement and also due to financial problems parents did not pay attention to their child and due to these issues, students lead to low performance.

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