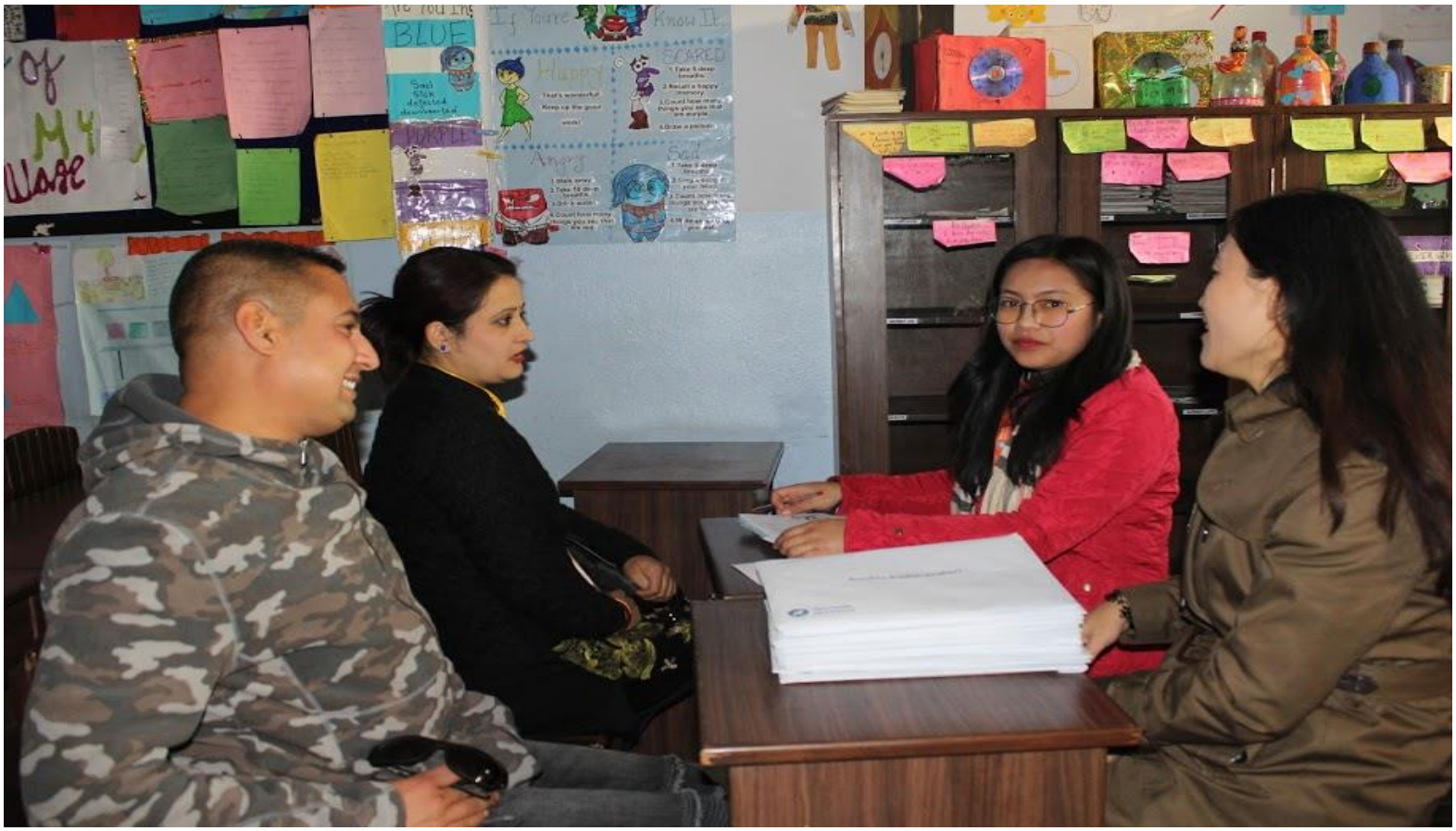
COMPARATIVE ANALYSIS OF TERM I AND II RESULT USING SPSS, 2075



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Introduction

This report provides evaluation of First Term and Second Term examinations. Analyses were based on the marks obtained by the students out of 100 marks in each subject, i.e. percentage secured. The total 100 marks are CAS (Continuous Assessment System) Marks + Examination Marks (Theory + Practical, or Theory wherever applicable). If an examination was of less than 100 marks, marks obtained were adjusted to 100 marks. Statistical analyses were performed for each grade for all subjects. Pattern of results of First Term and Second Term was also compared.

Methods

Data

The data were obtained from mark sheet ledgers: DSS - Marksheet Legder First Term Exam – 2075 and DSS – Marksheet Ledger Second Term Exam - 2075 as referred by the Examination Committee Coordinator (Mr. Arjun Khatiwada). Pop Quiz Test for reading books was started from second term. In First Term, marks of Performing Arts were based on direct GPA score, not out of 10 in each category as in the second term. So, the marks of performing arts in first term were not evaluated.

Data Entry and Analysis

Data entry and statistical analyses were performed using the 'Statistical Package for the Social Science' (SPSS) Software (IBM, New York, US). Average marks obtained in first term and second term was compared by a statistical test (t-test). To compare the results, following hypotheses were set and tested:

Null Hypothesis (H_0): There is no significant difference in the performance between First Term Examination and Second Term Examination, i.e. $\mu F = \mu S$

Alternate Hypothesis (H_1): There is a significant difference in performance between First Term Examination and Second Term Examination, i.e. $\mu F \neq \mu S$

Level of Significance: The level of significance is defined as the probability (p) of rejecting a null hypothesis by the test when it is really true, which is denoted as α. A p-value of <=0.05 is widely considered to be statistically significant result. That is, p (Type I error) = α. Type I error is the rejection of a true null hypothesis (also known as a "false positive" finding). Type II error is failing to reject a false null hypothesis (also known as a "false negative" finding).

Results

Results are provided grade wise. Results of second term were compared with that of first term.

Grade I

The evaluation was based on 43 students. The table below provides **Mean and Median** of the marks obtained by grade I students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	**Term I**		**Term II**		**Inference**	**Conclusion**
	Mean	**Median**	**Mean**	**Median**	**p-value**	
English	89.89	90.7	84.55	86.1	0.000	In second term, 50% of grade I students scored >86.1 in English. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Nepali	84.07	86	81.3	82.2	0.024	In second term, 50% of grade I students scored >82.2 in Nepali. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Math	85.21	84.8	85.97	87.6	0.57	In second term, 50% of grade I students scored >87.6 in Math. Since p>α, we retain null hypothesis and conclude that first term and second term results are NOT significantly different.
Science	79.54	80	77.47	78.8	0.81	In second term, 50% of grade I students scored >78.8 in Science. Since p>α, we retain null hypothesis and conclude that first term and second term results are NOT significantly different.
Social	82.11	82.6	77.01	79.4	0.007	In second term, 50% of grade I students scored >79.4 in Social. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Local	82.7	83.58	85.72	85.8	0.007	In second term, 50% of grade I students scored >85.8 in Local. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Computer	90.47	81	84.45	83.5	0.000	In second term, 50% of grade I students scored >83.5 in Computer. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Sanskrit	63.16	66	48.06	40.5	0.000	In second term, 50% of grade I students scored >40.5 in Sanskrit. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.

In Term II

- Average marks **significantly increased in Social and Local** ($p<0.05$).
- Average marks **significantly decreased in English, Nepali, Computer and Sanskrit** ($p<0.05$).
- Increase or decrease in average marks in Math and Science were not statistically significant ($p>0.05$).

Grade II

The evaluation was based on 41 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade II students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I		Term II		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	84.09	83.5	80.56	81.8	0.000	In second term, 50% of grade II students scored >81.8 in English. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Nepali	81.04	83.6	77.87	81.3	0.01	In second term, 50% of grade II students scored >81.3 in Nepali. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Math	73.77	71.4	65.95	61.4	0.000	In second term, 50% of grade II students scored >61.4 in Math. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Science	80.86	81.85	80.4	80.2	0.66	In second term, 50% of grade II students scored >80.2 in Science. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Social	79.47	80.2	75.59	76.4	0.072	In second term, 50% of grade II students scored >76.4 in Social. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Local	74.38	75.9	67.81	70.6	0.517	In second term, 50% of grade II students scored >70.6 in Local. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Computer	87.19	86.5	79.34	81.5	0.000	In second term, 50% of grade II students scored >81.5 in Computer. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Sanskrit	80.48	82	41.8	44	0.000	In second term, 50% of grade II students scored >44 in Sanskrit. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.

In Term II

- No **average marks** in any subject was **significantly increased** ($p<0.05$).
- Average marks **significantly decreased in English, Nepali, Math, Computer and Sanskrit** ($p<0.05$).
- Increase or decrease in average marks in Science, Social and Local was not statistically significant ($p>0.05$).

Grade III

The evaluation was based on 22 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade III students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I Mean	Median	Term II Mean	Median	Inference p-value	Conclusion
English	73.01	74.7	67.19	70.75	0.003	In second term, 50% of grade III students scored >70.75 in English. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Nepali	74.97	74.25	81.71	83.1	0.000	In second term, 50% of grade III students scored >83.1 in Nepali. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Math	70.69	72.85	66.36	66.2	0.02	In second term, 50% of grade III students scored >66.2 in Math. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Science	73.54	72	74.93	79.45	0.404	In second term, 50% of grade X students scored >79.45 in Science. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Social	76.28	77.65	68.09	68.55	0.000	In second term, 50% of grade III students scored >68.55 in Social. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Local	60.29	59.25	72.44	72.35	0.000	In second term, 50% of grade III students scored >72.35 in Local. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Computer	88.18	89	82.69	83.26	0.000	In second term, 50% of grade III students scored >83.26 in Computer. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Sanskrit	75.36	79	43.31	44.5	0.000	In second term, 50% of grade III students scored >44.5 in Sanskrit. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.

In Term II

- Average marks **significantly increased in Nepali and local** ($p<0.05$).
- Average marks **significantly decreased in English, Math, Social, computer and Sanskrit** which was statistically significant ($p<0.05$).

- Increase or decrease in average marks in Science was not statistically significant.

Grade IV

The evaluation was based on 20 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade IV students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I		Term II		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	58.04	57.28	57.85	53.2	0.901	In second term, 50% of grade IV students scored >83.2 in English. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Nepali	69.73	70.35	74.49	74	0.005	In second term, 50% of grade IV students scored >74 in Nepali. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Math	63.83	62.35	11.12	68.45	0.079	In second term, 50% of grade IV students scored >68.45 in Math. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Science	71.2	69.72	10.26	70.2	0.817	In second term, 50% of grade IV students scored >70.2 in Science. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Social	73.67	72.8	10.47	78.35	0.044	In second term, 50% of grade IV students scored >78.35 in Social. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Chinese	52.39	52.1	43.18	42.7	0.000	In second term, 50% of grade IV students scored >42.7 in Chinese. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Computer	74.09	75.83	74.87	73.8	0.629	In second term, 50% of grade IV students scored >73.8 in Computer. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Sanskrit	66.12	68.28	88.8	67.95	0.775	In second term, 50% of grade IV students scored >67.95 in Sanskrit. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.

In Term II

- Average marks **significantly increased in Nepali and Social** ($p<0.05$).
- Average marks **significantly decreased in Chinese** ($p<0.05$).

- Increase or decrease in average marks in English, Math, Science, Computer, and Sanskrit was not statistically significant ($p>0.05$).

Grade V

The evaluation was based on 25 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade V students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I Mean	Median	Term II Mean	Median	Inference p-value	Conclusion
English	58.83	56.84	62.42	59.1	0.03	In second term, 50% of grade V students scored >59.1 in English. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Nepali	68.64	68.05	62.05	68.3	0.01	In second term, 50% of grade V students scored >68.3 in Nepali. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Math	49.69	48.5	42.94	40.5	0.008	In second term, 50% of grade V students scored >40.5 in Math. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Science	76.8	76.35	60.71	62.4	0.000	In second term, 50% of grade V students scored >62.4 in Science. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Social	73.73	74	79.18	80.2	0.000	In second term, 50% of grade V students scored >80.2 in Social. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Chinese	53.82	51	48.4	44	0.104	In second term, 50% of grade V students scored >44 in Chinese. Since $p>\alpha$, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Computer	69.6	69.54	71.51	71.1	0.184	In second term, 50% of grade V students scored >71.1 in Computer. Since $p>\alpha$, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Sanskrit	52.63	52.7	55.1	53.7	0.166	In second term, 50% of grade V students scored >53.7 in Sanskrit. Since $p>\alpha$, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.

In Term II

- Average marks **significantly increased in English and Social** ($p<0.05$).

- Average marks **significantly decreased in Nepali, Math and Science** ($p<0.05$).
- Increase or decrease in average marks was not statistically significant in Chinese, Computer and Sanskrit ($p>0.05$).

Grade VI

The evaluation was based on 25 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade I students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I		Term II		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	61.52	59.3	59.88	61.6	0.113	In second term, 50% of grade VI students scored >61.6 in English. Since $p>\alpha$, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Nepali	63.93	64.2	61.32	63.8	0.027	In second term, 50% of grade VI students scored >63.8 in Nepali. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Math	58.35	62.6	56.2	56.4	0.189	In second term, 50% of grade VI students scored >56.4 in Math. Since $p>\alpha$, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Science	63.03	63.96	67.54	68.5	0.001	In second term, 50% of grade VI students scored >68.5 in Science. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
OBTE	66.66	68.3	70.51	74.7	0.029	In second term, 50% of grade VI students scored >74.7 in OBTE. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
HPE	66.23	68.6	71.87	74.7	0.001	In second term, 50% of grade VI students scored >74.7 in HPE. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Moral	74.96	78.14	61.99	65.7	0.000	In second term, 50% of grade VI students scored >65.7 in Moral. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Social	76.17	77.4	67.42	65.1	0.000	In second term, 50% of grade VI students scored >65.1 in Social. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Computer	68.35	69.79	74.75	74	0.000	In second term, 50% of grade VI students scored >74 in Computer. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Sanskrit	61.59	61.4	56.86	55.8	0.000	In second term, 50% of grade VI students scored >55.8 in Sanskrit. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Chinese	51.92	48.65	46.4	44	0.000	In second term, 50% of grade VI students scored >44 in Chinese. Since $p<\alpha$, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.

In Term II

- Average marks **significantly increased in Science, OBTE, Moral and Computer** ($p<0.05$)
- Average marks **significantly decreased in Nepali, HPE, Social, Chinese and Sanskrit** ($p<0.05$).
- Decrease in average marks in English and Math were not statistically significant ($p>0.05$).

Grade VII

The evaluation was based on 19 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade VI students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I		Term II		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	58.59	59.51	58.56	57.3	0.97	In second term, 50% of grade VII students scored >57.3 in English. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Nepali	58.59	64.5	64.6	69.7	0.000	In second term, 50% of grade VII students scored >69.7 in Nepali. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Math	62.84	61.1	60.53	61.5	0.201	In second term, 50% of grade VII students scored >61.5 in Math. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Science	56.18	57.1	58.48	55.9	0.096	In second term, 50% of grade VII students scored >55.9 in Science. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
OBTE	68.19	72	64.42	66	0.088	In second term, 50% of grade VII students scored >66 in OBTE. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
HPE	69.63	73.9	76.13	81.2	0.009	In second term, 50% of grade VII students scored >81.2 in HPE. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Moral	75.54	74.2	68.68	68.3	0.006	In second term, 50% of grade VII students scored >68.3 in Moral. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Social	68.95	70	71.68	72.4	0.002	In second term, 50% of grade VII students scored >72.4 in Social. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Computer	69.79	70.08	76.19	77.8	0.001	In second term, 50% of grade VII students scored >77.8 in Computer. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Sanskrit	59.54	59.2	60.98	61.2	0.327	In second term, 50% of grade VII students scored >61.2 in Sanskrit. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
Chinese	59.12	55.2	41.56	32.9	0.000	In second term, 50% of grade VII students scored >32.9. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.

In Term II

- Average marks **significantly increased in Nepali, Moral, Social and Computer** ($p<0.05$)
- Average marks **significantly decreased in HPE and Chinese** ($p<0.05$).
- Increase or decrease in average marks in English, Math, Science, OBTE, and Sanskrit were not statistically significant ($p>0.05$).

Grade VIII

The evaluation was based on 24 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade VII students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I Mean	Median	Term II Mean	Median	Inference p-value	Conclusion
English	72.95	72.4	68.68	65.9	0.001	In second term, 50% of grade VIII students scored >65.9 in English. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Nepali	60.54	61.7	66.27	68.05	0.000	In second term, in all subjects combined, 50% of grade VIII students scored >68.05 in Nepali. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Math	63.7	66.16	64.26	64.95	0.706	In second term, 50% of grade VIII students scored >64.95 in Math. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Science	58.72	61.5	62.4	58.6	0.001	In second term, 50% of grade VIII students scored >58.6 in Science. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
OBTE	71.72	77.5	76.09	77.55	0.004	In second term, 50% of grade VIII students scored >77.55 in OBTE. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Moral	75.4	76.05	77.99	77.7	0.036	In second term, 50% of grade VIII students scored >77.7 in Moral. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
HPE	80.33	81.72	73.41	73.2	0.000	In second term, 50% of grade VIII students scored >73.2 in HPE. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Social	76.96	82.75	68.67	70.4	0.000	In second term, 50% of grade VIII students scored >70.4 in Social. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Computer	62.56	63.77	65.56	67.85	0.026	In second term, 50% of grade VIII students scored >67.85 in Computer. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.

In Term II

- Average marks **significantly increased in Nepali, Science, OBTE, Moral, and Computer** ($p<0.05$).
- Average marks **significantly decreased in English, HPE and Social ($p<0.05$).**
- Increase in average marks in Math was not statistically significant ($p>0.05$).

Grade IX

The evaluation was based on 22 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade IX students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I Mean	Median	Term II Mean	Median	Inference p-value	Conclusion
English	57.14	57.18	62.42	62	0.018	In second term, 50% of grade IX students scored >62 in English. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Nepali	60.79	63.25	62.05	63.35	0.591	In second term, 50% of grade IX students scored >63.35 in Nepali. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Math	46.58	42.6	46.37	41.6	0.93	In second term, 50% of grade IX students scored >41.6 in compulsory math. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Add. Math	50.36	45.6	52.99	45.9	0.34	In second term, 50% of grade IX students scored >45.9 in additional math. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Science	55.38	57.45	60.76	59.8	0.022	In second term, 50% of grade IX students scored >59.8 in Science. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Social	64.65	72.15	58.12	62.65	0.006	In second term, 50% of grade IX students scored >62.65 in Social. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
HPE	67.76	69.65	67.64	68.05	0.96	In second term, 50% of grade IX students scored >68.05 in HPE. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Computer	62.56	65.27	66.88	67.7	0.056	In second term, 50% of grade IX students scored >67.7 in Computer. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.

In Term II

- Average marks **significantly increased in English and Science** ($p<0.05$).
- Average marks **significantly decreased in Social** ($p<0.05$)
- Increase or decrease in average marks in Nepali, Math, Additional Math, HPE and Computer was not statistically significant ($p>0.05$).

Grade X

The evaluation was based on 13 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** of the marks obtained by grade X students in different subjects. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term I Mean	Median	Term II Mean	Median	Inference p-value	Conclusion
English	66.11	66.4	68.86	68.6	0.012	In second term, 50% of grade X students scored >68.6 in English. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Nepali	62.7	62.8	64.64	59.5	0.193	In second term, 50% of grade X students scored >59.5 in Nepali. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Math	51.29	52	55.26	45.8	0.207	In second term, 50% of grade X students scored >45.8 in compulsory math. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Add. Math	51.44	53.9	51.26	40.2	0.92	In second term, 50% of grade X students scored >40.2 in Additional Math. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Science	65.51	61.3	62.96	54.5	0.062	In second term, 50% of grade X students scored >54.5 in Science. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
Social	69.49	76.9	59.66	58.6	0.000	In second term, 50% of grade X students scored >58.6 in Social. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
HPE	78.7	84.25	74.33	73.2	0.009	In second term, 50% of grade X students scored >73.2 in HPE. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.
Computer	59.63	63.22	69.95	69.7	0.001	In second term, 50% of grade X students scored >69.7 in Computer. Since p<α, we fail to accept null hypothesis and conclude that first term and second term results are significantly different.

In Term II

- Average marks **significantly increased in English and Computer** ($p<0.05$).
- Average marks **significantly decreased in Social and HPE** ($p<0.05$)
- Increase or decrease in average marks in Nepali, Math, Additional Math, and Science was not statistically significant ($p>0.05$).

Overall Results

In overall analysis, mean and median were calculated based on the marks obtained (all subjects combined except performing arts and reading books) in a grade by all students. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided. The data will provide the overall impression of results in each grade.

Grade	Term I		Term II		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
I	82.14	85.04	78.07	82	0.000	In second term, in all subjects combined, 50% of grade I students scored >82. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
II	80.16	81.87	71.23	75.5	0.000	In second term, in all subjects combined, 50% of grade II students scored >75.5. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
III	74.04	75.55	69.59	72.44	0.000	In second term, in all subjects combined, 50% of grade III students scored >72.44. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
IV	66.13	68.07	66.39	69.1	0.68	In second term, in all subjects combined, 50% of grade IV students scored >69.1. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
V	62.97	66.16	60.63	62.5	0.004	In second term, in all subjects combined, 50% of grade V students scored >62.5. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
VI	64.79	65.8	63.16	64.7	0.004	In second term, in all subjects combined, 50% of grade VI students scored >64.5. Since p<α, we fail to retain null hypothesis and conclude that first term and second term results are significantly different.
VII	64.27	65.58	63.8	66.2	0.49	In second term, in all subjects combined, 50% of grade VII students scored >66.2. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
VIII	69.21	70.15	69.26	69.25	0.92	In second term, in all subjects combined, 50% of grade VIII students scored >66.2. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.
IX	58.15	61.69	59.65	61.55	0.091	In second term, in all subjects combined, 50% of grade IX students scored >61.55. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different. *However, at α = 10%, we can accept the alternative hypothesis and say the results in second term significantly increased.*
X	63.11	65.55	63.36	64.1	0.763	In second term, in all subjects combined, 50% of grade X students scored >64.1. Since p>α, we accept null hypothesis and conclude that first term and second term results are NOT significantly different.

Performing Arts and Monthly Reading Books

Subject	Mean	Median
	Grade I	
Music	78.13	77.5
Sports	91.51	43
Yog	80.93	43
Dance	77.61	43
Arts	77.2	43
Reading_Nepali	84.67	90
Reading_English	72.25	73
	Grade II	
Music	80.93	80
Sports	93.17	92.5
Yog	81.79	85
Dance	80.68	80
Arts	73.65	72.5
Reading_Nepali	71.48	70
Reading_English	73.65	77
	Grade III	
Music	81.13	80
Sports	78.97	80
Yog	75.68	77.5
Dance	81.13	80
Arts	97.5	85
Reading_Nepali	66.04	65
Reading_English	47.59	46.5
	Grade IV	
Music	82.62	82.5
Sports	79	77.5
Dance	82.5	82.5
Arts	76.12	70
Reading_Nepali	54.85	53
Reading_English	58.55	62.5
	Grade V	
Music	82.8	80
Sports	82.3	82.5
Dance	80.00	80
Arts	74.9	70
Reading_Nepali	39.88	40
Reading_English	32.96	33
	Grade VI	
Performing arts	74.8	75
Reading_Nepali	40.72	43
Reading_English	48.64	50
	Grade VII	
Performing arts	77.5	77.5
Reading_Nepali	53	53
Reading_English	47	47
	Grade VIII	
Performing arts	63.95	80

Reading_Nepali	61.58	63
Reading_English	48.00	52
	Grade IX	
Performing arts	82.61	80
Reading_Nepali	61.77	63
Reading_English	39.27	37.5
	Grade X	
Performing arts	85.19	85
Reading_Nepali*	NA	NA
Reading_English*	NA	NA

* No Reading Books Test score for Grade X students because no reading books were provided to them from Mangsir.

Report Card Distribution

Parents were invited to receive the report card as per the provided different time slots of five minutes interval. The table below shows the percentage of the parents who received the report card on the day.

IA	IB	IIA	IIB	III	IV	V	VI	VII	VIII	IX	X	ALL
91.30	100.00	90.48	90.48	90.91	90.00	92.00	92.00	78.95	83.33	77.27	53.85	87.06

The class teachers and the advisors of the respective grades were provided with a separate sheet to write specific and general comments both. General comments are only for the idea what the parents still perceive to the teaching learning philosophy of the school. While the parents with the specific comments were asked to attend a scheduled meeting, either with the subject teacher/s or the concern Head of Schools (HoSs). The comments from different grades are given below.

S.N.	Student	Comment	Type
		IA	
1	Bibechana Dangol	He suggested that project works should be very simple where students should not need parents' help, journal writing should be exercised in class first so that his child can do it as homework easily, and sending reading books every month is not effective, his child didn't get time to complete the reading books within a month.	Generic
2	Krisab Tandukar	His parents were concerned about his reserved nature and have expected us to motivate him.	Generic
		IB	
		No Comments	
		IIA	
1	Anshu Rajbhandari	Her Father was concerned about the winter vacation is too short.	Generic
2	Anweeta Shrestha	Her Father was concerned about the winter vacation is too short.	Generic
3	Nivi Chhetri	Her mother was worried about her studies. She was concerned about further exams from school. She wanted to meet the Math and Nepali Teacher.	Specific
		IIB	
1	Shuvee Lamichhane	Parents are quite satisfied with the overall growth of their daughter. They suggested the teachers to design more activities related to subject matter.	Generic
2	Iraj Shrestha	Parents accepted that Iraj is a slow writer. They asked for our suggestions and help to improve Iraj's studies. They also suggested us to give less number of extra reading books as Iraj does not read the books at home.	Generic
3	Shrians Raj Bhandari	Mother asked for extra tuition class after school and give less number of extra reading books.	Generic

4	Melisha Karki	Mother is overall satisfied with her progress. She suggested to give less number of extra reading books.	Generic
		III	
1	Ashutosh Subedi	Do not read at home and do not obey mother.	Generic
2	Aradhya Shah	Winter vacation date can be changed.	Generic
3	Eshanee Manandhar	Nepali Vyakaran is very weak.	Generic
4	Liya Shrestha	Events more, weak in study	Generic
5	Nreep Shrestha	Will be better if extra class for weak students provided	Generic
6	Prasiddha Shrestha	Want to meet with math teacher	Specific
7	Prasiddhi Dongol	Want to know the position of her child in class.	Generic
8	Rheyon Joshi	Eating habit is poor and want to meet math teacher	Specific
9	Tanishq Shakya	Start to watch serial like CID , counsel her	Generic
10	Dristi B.K.	Lot of reading books, do not understand English work.	Generic
		IV	
1	कृष्टिना राई	कृष्टिना राईको अभिभावकले अङ्गेजी शिक्षकलाई भेट्न खोज्नुभएको थियो ।	Specific
2	सोनु लामा	सोनु लामाको अभिभावकले अङ्गेजी शिक्षकलाई भेट्न खोज्नुभएको थियो ।	Specific
3	रविराज सिंह	रविको अभिभावकले दशैँ तिहार लगातार विदाको सन्दर्भमा चाँसो राख्नुभएको थियो ।	Generic
4	मानसी सिंह	मानसीको अभिभावकले दशैँ तिहार लगातार विदाको सन्दर्भमा चाँसो राख्नुभएको थियो ।	Generic
5	मानवी रेग्मी	मानवीको अभिभावकले दशैँ तिहार लगातार विदाको सन्दर्भमा चाँसो राख्नुभएको थियो ।	Generic
6	संयम पोखरेल	संयम पोखरेलको अभिभावकले शैक्षिक उपलब्धिलाई विद्यालयले जोड दिनुपर्ने कुरा राख्नुभएको थियो ।	Generic
		V	
1	Aavash Malla	His father demanded the monthly report of Aavash but was kindly suggested to check his diaries and copies for his activities.	Generic
2	Niroov lal Joshi	Niroov's father requested to list the activities and events in the diary but was suggested to follow the notices we send them.	Generic
3	Manaswi Sapkota	Her father suggested to extend the winter break especially during the coldest weeks and was duly noted.	Generic
4	Sanskriti Singh Thakuri	Her mother was requesting to put extra classes after school but was advised to let Sanskriti meet teachers after the school hours.	Generic
5	Florence Karki	Her mother was worried about the academic growth of Florence and suggested to put extra classes after school.	Generic
		VI	
1	Prasanna Shrestha	His mother was concerned about the meetings with subject teachers. She complained that in DSS teachers are not easily available but she was kindly advised to inform front desk officer if she needs any subject teacher to meet, she will be informed with date and time for the appointment.	Specific
2	Shrish Rajbhandari	Shrish's mother was worried about her son's academic progress and requesting for coaching class in the school but she was kindly advised that DSS does not run any coaching classes but Shrish can ask teachers again and again if there is any difficulty or confusion in the subjects. Parents were requested to spend quality time with their kids and help him in his studies.	Generic
		VII	
1	Ocean Subedi	Extra class for grade 10	Generic
2	Samrat Bhattarai	Biased Student selection for extra activities.	Generic
3	Pratik Sakya	Extra class for improvement of the score.	Generic

4	Rijan Basnet	Extra class for improvement of the score	Generic
5	Aayaz Shrestha	No improvement in studies.	Generic
		VIII	
1	Nischal K.C	His mother and aunt were asking about the academic performance of the school especially in SEE and other various things.	Generic
2	Sabin Shrestha	Sabin's mother was worried about her son's academic progress and requesting for extra classes.	Generic
3	Manip Maharjan	His mother was concerned about her son's handwriting and its improvement.	Generic
4	Prasoon Man Shrestha	His mother was requesting to put extra classes after school and also requested to help in home tuition.	Generic
5	Sonishma Basnet	Her mother was worried about the academic growth of Sonishma and suggested to put extra classes after school	Generic
		IX	
1	Samipya Dangol	Samipya's father suggested for the parents meeting at least once in a term. Teachers should inform the parents about the student's progress throughout the term.	Generic
2	Saisha Pudasaini	Her mother was raising her voice to say that students should have coaching classes. Her daughter's performance is declining. So, she is worried about it.	Generic
3	General comments	Extra classes/coaching classes/tuition must be there.	Generic
		X	
1	Bikesh Maharjan	His mother was concerned about further exams to be conducted by the school for SEE preparation. She also suggested not to involve grade X students in various events. She has enrolled Bikesh in home tuitions and also suggested privilege of extra classes in school.	Generic
2	Prabit Shakya	His mother demanded extra classes, mock tests and special care for weak students from school side. She also suggested for hostel service for distant students.	Generic
3	Aayush Malla	His father asked for a progress letter from school about his son's performance in each and every subjects. He demanded special care for weak students.	Generic
4	Sumnima Rai	His father requested not to involve his child after school except related to studies. He was also concerned about exam and preparation classes for SEE.	Generic
5	Supriya Rana Magar	His brother was concerned about project and assignments loads in 3rd Term and suggested for Mock tests for SEE preparation.	Generic
6	Amit Yadav	His brother was worried about his studies. In addition to it, they were unable to give extra attention and time towards his studies at home. They were concerned about further exams from school.	Generic
7	Puskar Saud	His mother demanded extra classes from school. She suggested for further exams for SEE preparation and hostel services for distant students.	Generic

Appendix

A. Examination Team

Tasks	Name
Examination Committee Coordinator	Arjun Khatiwada
Question Prep./Examination/Copy Checking/Marks Entry	Subject Teachers
Online Handbook Prep.	Suraj Gautam
Mark Sheet Ledger Prep.	Arjun Khatiwada
Mark Sheet Prep./Distribution	Class Teachers/ HOS/ Principal
Evaluation Report by	Narendra Maden