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Impact of English Medium Instruction in Enhancing Students Lower Order Thinking Skills in Science at Primary School Level.

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ABSTRACT
The study was sought to determine the effectiveness of EMI in enhancing students learning at the remembering level, to find out the effectiveness of EMI in enhancing students learning at the understanding level, and to identify the effectiveness of EMI in enhancing students learning at applying level. Data were collected from 200 primary school teachers with the help of a closed-ended questionnaire containing 28 items based on the Likert scale. Percentage, mean and standard deviation were used as a statistical tool to analyze the data. The findings of the study revealed that the majority of the participant were agreed that EMI is effective in enhancing students learning at the remembering level of class 4th science. Most of the respondents disagreed that EMI is effective in enhancing students learning at the understanding level of class 4th science. More than half of the participants were not in favor of EMI, that it does not enhance students learning at applying level of class 4th science. Based on findings results it was recommended that Government may think over their decision of introducing EMI at the primary school level for the better interest of the student. The government may introduce EMI, if necessary, in only one subject from class 1st and upgraded it gradually. The government may arrange refresher courses for teachers before introducing EMI. The course content of science may be developed according to the level of bloom's taxonomy. School Heads may also provide adequate audio-visual aids for adaptation of English as a Medium of Instruction. The teacher may also arrange their scheme of studies according to the table of specifications.

KEYWORDS
English medium instruction, higher order thinking skills, remembering, understanding, applying.

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1. INTRODUCTION

1.1. BACKGROUND OF THE STUDY

According to Shamim (2011), the present medium of instruction in the education system of the Republic of Pakistan as being one of 'linguistic discrimination'. Rahman (2004) has also, argued about 'instructive apartheid' between the English - medium schools for the elite class and the Urdu - medium schools for the middle and lower class in Pakistan. Rahman (2010) also explains the situations are more destructive: "By supporting English through a similar scheme of influential education, Pakistan's ruling class acts as a partner of the powers of globalization, at any rate, the extent that the authority of English is concerned. The chief outcome of this decision is the deteriorating of local dialects and the bringing down of their status. This, in turn, restricts semantic and social assorted variety, weakens the 'have - nots' even further, and builds neediness by leaving the best-paid employment in the hands of the global first-class and the English - utilizing tip-top of the peripheries."

The conclusion of the above-mentioned discussion elaborates that during the 19th century the influence of the English language in Pakistan in form of popularity and being adopted as lingua-franca. The English language is considered as the language of the elite class in Pakistan and middle and lower-class people are still far away from learning or speaking the English language.

According to Pinnock (2009), any education system in which instructions are delivered to the students in a foreign language negatively affects their academic performance. The foreign language or language not widely use might create problems in developing students' lower and higher order thinking skills. Pinnock (2009) stated that almost 91% of the people in Pakistan communicate with each other in their mother tongue, so how their young ones could learn concepts in the English language.

The literacy rate of countries depended upon the quality of instructions and the quality of instruction is directly related to the medium of instruction. If there is no association between mother tongue and other languages, then the education system of that country might be moving toward decline (Zubair & Torwali, 2010)

"The education rate in Bahrain, Swat, and Kohistan is about 12% for guys and a minor 1.5% for women. Among the numerous factors behind this grieved condition of education is the fact that a foreign dialect is utilized by educators. Local inhabitants speak Torwali, a dialect not quite the same as Pashtu. For as far back as a decade or somewhere in the vicinity, all educators in primary schools in Bahrain and Swat have been speaking and using Pashtu language for teaching, whose dialect could not be understood properly by the students. This has increased the drop-out ratio of learners from the instructions, and this has resulted in the low literacy rate in Bahrain, Swat." (Torwali, 2010).

According to Pinnock (2009), the academic success of any individual is dependent on coordination between school and community. If the child spoke mother tongue at home and the teacher delivers instruction in English medium.

This situation creates an imbalance between students learning and the medium of instruction. When the students are not able to use their gained knowledge in a real-life situation then how could we achieve the milestone of quality education? Pakistan is at 44th position in facing such the worst situation of quality of education among different countries.
The countries whose education system does not fulfill the learner needs and aspirations has always a chance of declination. Leaners need an appropriate medium of instruction in which they develop their conceptual understanding, but here in Pakistan situation is different. Public and private sectors educational institutions are free to adopt any kind of medium, whether it is related to the level of the learner or not. The curriculum developer did not pay concern to the geographical situation of a province or country. The teachers, the implementer of the curriculum have not been involved in the curriculum development process. The instructional process has always been suffered due to the medium of instruction at different school levels (Pinnock 2009).

1.2. STATEMENT OF THE PROBLEM

Medium of instruction plays a significant role in transmitting information to the learners in an effective way. In any instructional process teachers and students interact with each other through a specific medium. Teachers teaches different subject by adopting different medium of instruction. The present study is design to determine the effectiveness of English Medium Instruction in enhancing students' lower order thinking skills in Science at primary school level in Swabi.

1.3. OBJECTIVES OF THE STUDY

1. To identify the effectiveness of English Medium Instruction in enhancing students' learning at remembering level.
2. To identify the effectiveness of English Medium Instruction in enhancing students' learning at understanding level.
3. To identify the effectiveness of English Medium Instruction in enhancing students' learning at applying level.

1.4. RESEARCH QUESTIONS

1. How EMI is effective in enhancing students' learning at remembering level of class 4th science?
2. How EMI is effective in enhancing students' learning at understanding level of class 4th science?
3. How EMI is effective in enhancing students' learning at applying level of class 4th science?

1.5. SIGNIFICANCE OF THE STUDY

The study will be beneficial for teachers and students to develop an insight into the present medium of instruction and its effects on the teaching-learning process. The study might guide policymakers and curriculum designers to look into any matter regarding any change in the curriculum. The study might also be helpful for teachers, students, parents, the Directorate of curriculum and teacher education, textbook boards in the country, teachers' training institutions, translators, and future researchers.

Delimitation of the study

The study was delimited to the teachers' teaching science to class 4th at the public sector in district Swabi.

1.6. DELIMITATION OF THE STUDY

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2. LITERATURE REVIEW

2.1. MEDIUM OF INSTRUCTION

According to Nisar and Ahmad (2011), the word medium is Latin in origin which means middle in the field of education, medium. Is the name of the tool, device, or means utilized for the exchange and sharing of learners during the teaching-learning process? It is the carrier boat of shifting knowledge, values, and expertness used by the teacher in the class to the learners. A target language is used as a tool for communication in this process.

There is an open hand to each nation in the selection of medium of instruction for the teaching-learning process of the children. The choice of this selection depends on the language used by the learners. In most of the cases, this selection is carried act is the view of LI (mother tongue) of the learners. Medium of instruction and its right choice is the leading step to nation-building in general and the success of the educational system in particular. It is the guiding force and factor for the development of curriculum, research studies, and planning of teachers' training in the field of education (UNESCO, 2000).

2.2. SIGNIFICANCE OF MEDIUM OF INSTRUCTION

Medium of instruction plays a vital role in the development and progress of education. It is known as the eyes and brain of the whole stature of education. It is very well said by Noam Chomsky, 2016 "that if you want to study the development of education of a state, study its medium of instruction".

Arshad (1997) stated that the medium of instruction and its selection is a very tough task and is always brought into practice after the researchers, psychologists, and teachers as these heads and ears are always the originators is always in society. The choice of medium of instruction is always practiced keeping in view the academic and professional qualification of the teachers and the mother tongue of learners in mind.

It is the irony of irony that the selection of medium of instruction is made blur with the haze of language to such an extent that we have lost the track and spot for language teaching. Language has been made the mark of prestige and has adopted the structure of a political statement.

(Benson, 2005) argued that the causes and factors which have puzzled and banged our education and policymakers in making a bold step regarding the choice of medium of instruction are so many. The quality of education,

quality of textbooks and selection and qualification of teachers, the social and political weightage are hampering the free and open choice of medium of instruction in schools.

2.3. IMPLEMENTATION OF THE MEDIUM OF INSTRUCTION IN PAKISTAN

According to the analysis of the British Council Pakistan (2014), Pakistan has witnessed severe dilemmas regarding the selection of medium of instruction. It was approved and applauded that the medium of instruction at the primary level shall be Urdu as it has been declared as the national language of the state. Later, it was proposed that the medium of instruction up to the primary level should be the mother tongue of the teachers in respective provinces such as Sindhi in Sindh, Pashto in Khyber Pakhtunkhwa, and Balochi in Balochistan province. Further studies and views of experts and researchers proved the value of the medium of instruction in mother-tongue at the primary level because it furnishes a high ratio of understanding of the students along with avoiding the building up of psychological and class complexes in the minds of the young learners. Medium of instruction, when delivered in the students' mother tongue, ensures drastic success in future life. The pattern and structure of speech and knowledge are always innate and there in the minds of the students. Instruction in local language is further verified by the studies that in almost every developed country, primary education is imparted in local language to the students.

2.4. MEDIUM OF INSTRUCTION AT PUBLIC AND PRIVATE SECTOR

Pakistan has an old history of keeping a dual medium of instruction right from its existence in 1947. In the past, there was a tussle of Hindi-Urdu and later on, it was changed into English-Urdu. In Present, there is the utilization of a double medium of instruction at the government and private school levels. The bulk of students enrolled in government schools are getting knowledge in local languages especially in Pashto in KPK. There is a scarcity of the use of Urdu in the Medium of instruction. Same measures have been taken to provide an excess of Urdu to the medium of instruction. The government of Khyber Pakhtunkhwa has changed the medium of instruction from Urdu to English after the year 2014

According to the Government of Khyber Pakhtunkhwa NEP (2009), all the curriculum and related contents have been published in English. There is bad luck with KPK in the sense that the medium of instruction and syllabus has been changed to English, but teachers and students have been given no attention. The success of curriculum and medium of instruction always rests on the shoulders of teachers. Teachers are facing tough issues in coping with the contents and pedagogies prescribed in the new curriculum, there should be an extensive schedule of training of teachers well before time to prepare them in true sense for the change of medium of instruction.

Aziz (2003) stated that this unplanned and hasty decision regarding the medium of instruction has compelled the KPK government to induct a lot of qualified and talented teachers to do justice with the new medium of instruction and curriculum in a real sense. The stretching owner of the medium of instruction from Urdu to English has enhanced the learning level of the learners and has assured the development of all four language skills (Listening, Speaking, Reading, and Writing) in the true sense. This shift has boomed the art and practice of communication and creativity among the learners. It has also proved passages towards the acquisition of second language i.e L2 quickly and smoothly among students at the primary level.

2.5. TRANSFORMATION OF MEDIUM OF INSTRUCTION AS ENGLISH IN KP

English has adopted the students of global language and it has been accepted as the surety of knowledge and success in the global market, keeping in view the value and need of English. The shift from Urdu to English was a medium of instruction in April 2014.

It is an undeniable fact that English is the need and demand of the world of science and technologies. It is the medium of research and worlds diplomats. The decision of the KPK government is plausible as it has opened new horizons of the Blustering future. All the curriculum at the secondary and higher secondary level is published in English with an especial focus on science subjects. This is a heuristic step because English has a vast vocabulary and is having the capacity to adjust and express any type of concept and approach with fluency. The teachers training and appointed through umbrellas have raised agitation with baseless charges, but they have to adopt this new shift with devotion and smiling forehead of they are willing to face the challenges of modernism science and technology in the field of education. (Coleman, 2012).

2.6. LEARNING

Learning is the most compelling phenomenon because it is both internal and external. It is the systematic process of traveling from the status of ignorant and unknown to listening and known. There are several interpretations and definitions of the word learning psychologists have their concept regarding learning while philosophers and educators bear their inclination and elaboration of learning. Some of the popular definitions of learning are listed below:-

Munn defines learning as the permanent innovation of behavior through extensive observation, training, and activates (S.M Shahid, 2011-2012).

Gates announces learning is the up life of behavior through experience (S.M Shahid -2011-2012).

Daniel Bell defines learning as the modification of behavior through the energies applied by the environment and organism itself (S.M Shahid, 2011,2012)

G.A Kimble explains learning as the change in behavior because of practice (S.M Shahid, 2011-2012). Behaviorist and mentalists have their approach regarding learning. Behaviorists declare learning as a permanent change in individuals' behavior because of experience (Ormrod, 1998).

The above-cited definitions extend the concept about learning that it is a dynamic and continuous process of experiences that occur due to the cause of communication and influencing of individuals on each other.

2.7. REVISED BLOOM TAXONOMY

S.B. Bloom, 1856, a psychologist presented as a model of taxonomy. His taxonomy consisted of three domains i.e cognitive domain, Affective and Psychomotor domains. Bloom's cognitive domain consisted of knowledge, comprehension, application, synthesis, and evaluation, later on, the student of Bloom, Lorin Anderson in collaboration with curriculum developers, psychologists, and educational researchers modified the cognitive domain of bloom's taxonomy. They rephrased the whole domain keeping its specific functions in mind (Anderson and Krathwhol, 2001).

The modified pattern of the domain and its terms are as under:

a. **Remembering:** Bearing, providing, mentioning, and conveying information from long-term memory.
b. **Understanding:** Deducing and formatting of meaning from oral learned material. It is learning through writing and graphing it includes classification, explanation, and comparison of learned knowledge.
c. **Applying:** The practical display and use of the learned material and concepts in real situations of life.
d. **Analyzing:** The comprehension and study of contents through breaking into compulsory parts and evaluating its function.
e. **Evaluating:** The climax stage of high order learning is in which learners gain the capability of passing judgment based on patterns and data collected through reliable tools.
f. **Creating:** The process of composing a unique whole by placing the parts in developed patterns and planning. (Foreland, 2005).

3. RESEARCH METHODOLOGY

The study is descriptive. The researcher collected data concerning the status of the subject of the study.

3.1. POPULATION OF THE STUDY

There are 596 Primary schools for boys in district Swabi working under the jurisdiction of the Elementary and Secondary Education Department Khyber Pakhtunkhwa. The total number of primary school teachers (male) is 2243 in these schools. The population for the study was 2243 primary school teachers (male) of district Swabi (Government of Khyber Pakhtunkhwa, 2017).

3.2. SAMPLE OF THE STUDY

Cluster sampling technique was used for participant selection. The sample of the study was 200 teachers who were randomly selected from the schools of four tehsils of district Swabi. From each tehsil 50 primary school teachers who were teaching science to grade IV were randomly selected.

3.3. RESEARCH INSTRUMENT

To collect data from the respondents the researchers use some data collecting tools which are suitable and accurate. A closed-ended questionnaire based on a Likert scale containing 28 items was developed.

3.4. RELIABILITY

To check the reliability of the instrument, it was tested in a pilot mode. The questionnaire was distributed among 25 primary school teachers easily available, and SPSS was used to determine the reliability using the Cronbach Alpha reliability test. The value of α was 0.83.

3.5. DATA COLLECTION

The data was collected personally through a questionnaire from the teachers on the 5 Points Likert Scale. In this regard, permission was also sought from the concerned District Education Officer Swabi.

3.6. ANALYSIS OF DATA

The collected data were analyzed with the help of SPSS. Mean, Standard deviation, and percentage were used as statistical tools to analyzed data.

4. DATA ANALYSIS AND INTERPRETATION

Table 4.1 Students learning at remember level in class 4th science

S/N	Items	SA		A		N		DA		SDA	
		f	%	f	%	f	%	f	%	f	%
1	EMI is effective in enhancing students' ability to remember major parts of the human body in science subject	81	44	62	33.7	40	21.7	0	0	1	0.5
2	EMI is effective in enhancing students' ability to remember the function of major parts of the human body	78	42.4	79	42.9	10	5.4	16	8.7	1	0.5
3	EMI is effective in enhancing students' ability to recall factors that are necessary for both animals and plants to survive.	35	19	43	23.4	91	49.5	13	7.1	2	1.1

4	EMI is effective in enhancing students' ability to retrieve sources of common food	32	17.1	63	34.2	88	47.8	1	.5	0	0
5	EMI is effective in enhancing students' ability to memorize the definition of environment.	31	16.8	122	66.3	22	12.0	7	3.8	2	1.1
6	EMI is effective in enhancing students' ability to write the names of state of matter.	46	25	117	63.6	13	7.1	5	2.7	3	1.7
7	EMI is effective in enhancing students' ability to memorize the definitions of force, speed, velocity, and acceleration.	40	21.7	121	65.5	17	9.2	3	1.6	3	1.6
8	EMI is effective in enhancing students' ability to learn the basic concept of simple machine	41	22.3	117	63.6	23	12.5	2	1.1	1	0.5
9	EMI is effective in enhancing students' ability to identify insulator and conductor among a given list.	33	17.9	96	52.2	27	14.7	20	10.9	8	4.3
10	EMI is effective in enhancing students' ability to learn the basic concept of revolution.	33	17.9	86	46.7	58	31.5	4	2.2	3	1.6

Table 4.1 explored the teachers' responses regarding the effectiveness of English Medium Instruction at remembering level of class 4th science. The table elaborates 77.7% of the respondents were agreed that EMI is effective in enhancing students' ability to remember major parts of the human body in science subject, 85.3% teachers were agreed that EMI is effective in enhancing students' ability to remember the function of major parts of human body, 49.5% of the respondents were remain neutral that EMI is effective in enhancing students' ability to recall factors that are necessary for both animals and plants to survive., 51.6% respondents were agreed that EMI is effective in enhancing students' ability to retrieve sources of common food, 83.1% respondents were of the opinion that EMI is effective in enhancing students' ability to memorize the definition of environment, 88.6% respondents were in favour of EMI is effective in enhancing students' ability to write the names of state of matter, 87.5% respondents were of the opinion that EMI is effective in enhancing students' ability to memorize the definitions of force, speed, velocity and acceleration, 85.9% respondents agreed that EMI is effective in enhancing students' ability to learn the basic concept of simple machine, 70.1% teachers agreed that EMI is effective in enhancing students' ability to identify insulator and conductor among a given list and 64.6% teachers agreed that EMI is effective in enhancing students' ability to learn the basic concept of revolution.

Table 4.1.1 Mean and Standard Deviation

Remembering Level	N	Mean	Std. Deviation
	1829	3.9163	.85176

Table 4.1.1 showed the mean score of participants' responses was 3.91, which concluded that all the respondents were agreed that EMI is effective in enhancing students' learning at the remembering level of class 4th science.

Table 4.2 Students learning at understanding level of class 4th science

S/N	Items	SA		A		N		DA		SDA	
		f	%	f	%	F	%	f	%	f	%
1	EMI is effective in enhancing students' ability to explain the role of bone and muscle to produce movement	10	5.3	39	20.6	7	3.7	133	70.4	0	0
2	EMI is effective in enhancing students' ability to explain the concept of heredity.	7	3.7	25	13.2	7	3.7	129	68.3	21	11.1
3	EMI is effective in enhancing students' ability to explain the effect of heredity on individual personality	8	4.2	13	6.9	16	8.5	142	75.1	10	5.3
4	EMI is effective in enhancing students' ability to explain the role of balance diet in human life	22	11.6	7	3.7	38	20.1	98	51.9	24	12.7
5	EMI is effective in enhancing students' ability to describe major properties of major food groups	5	2.6	45	23.8	35	18.5	88	46.6	16	8.5
6	EMI is effective in enhancing students' ability to discuss component of environment with examples.	11	5.8	10	5.3	36	19.0	76	40.2	56	29.6
7	EMI is effective in enhancing students' ability to explain how one state of matter dissolved in other	5	2.6	28	14.8	57	30.2	50	26.5	49	25.9
8	EMI is effective in enhancing students' ability to explain how force can change the position of an object	6	3.2	32	16.9	10	5.3	87	46.0	54	28.6
9	EMI is effective in enhancing students' ability to describe the effect of noise on human health.	15	7.9	10	5.3	41	21.7	55	29.1	68	36.0
10	EMI is effective in enhancing students' ability to differentiate between insulator and conductor.	7	3.7	33	17.5	37	19.6	67	35.4	45	23.8

Table 4.2 elaborated the teachers' responses regarding the effectiveness of English Medium Instruction in enhancing students' ability at understanding level of class 4th science. The table elaborates 70.4% subjects were against the statement that EMI is effective in enhancing students' ability to explain the role of bone and muscle to produce movement, 79.4% of subjects were disagreed that EMI is effective in enhancing students' ability to explain the concept of heredity, 80.4% of the respondents were disagreed that EMI is effective in enhancing students' ability to explain the effect of heredity on individual personality, 64.6% respondents were of the opinion that EMI is not effective in enhancing students' ability to explain the role of balance diet in human life, 55.1% of the respondents were disagreed that EMI is effective in enhancing students' ability to describe major properties of major food groups, 69.8% of the subject were disagreed that EMI is effective in enhancing students' ability to discuss component of environment with examples, 52.4% subjects were of the opinion that EMI is not effective in enhancing students' ability to explain how one state of matter dissolved in other, 74.6% subjects were disagreed that EMI is effective in enhancing students' ability to explain how force can change the position of an object, and 59.2% respondents were disagreed that EMI is effective in enhancing students' ability to differentiate between insulator and conductor.

Table 4.2.1 Mean and Standard Deviation

Understanding Level	*N*	*Mean*	*Std. Deviation*
	1890	*2.3772*	*1.07673*

Table 4.1.2 elaborated that the mean score of participants' responses were 2.37, which concluded that all the respondents were disagreed that EMI is effective in enhancing students learning at understanding level of class 4th science.

Table 4.3 Students learning at Applying level of class 4th science

S/N	Items	SA		A		N		DA		SDA	
		f	%	f	%	F	%	f	%	f	%
1	EMI is effective in enhancing students' ability to construct an experiment to show the growth of plants.	9	4.8	7	3.7	21	11.1	39	20.6	113	59.8
2	EMI is effective in in enhancing students' ability to demonstrate the activity of separation of insoluble solids from water by decantation and filtration	3	1.6	27	14.3	32	16.9	60	31.7	67	35.4
3	EMI is effective in enhancing students' ability to perform a task of making simple food chain to show the relationship between producer, consumer and decomposer.	3	1.6	27	14.3	32	16.9	60	31.7	67	35.4
4	EMI is effective in enhancing students' ability to measure body temperature through thermometer	6	3.2	36	19.0	40	21.2	82	43.4	25	13.2
5	EMI is effective in enhancing students' ability to demonstrate that some objects can return to their original shape after the release of force	3	1.6	25	13.2	34	18.0	116	61.4	11	5.8
6	EMI is effective in enhancing students' ability to demonstrate that sound can travel through solids, liquids and gases but cannot travel through vacuum.	16	8.5	9	4.8	66	34.9	55	29.1	43	22.8
7	EMI is effective in enhancing students' ability to demonstrate that like poles of a magnet repel each other and unlike attract.	20	10.6	28	14.8	74	39.2	50	26.5	17	9.0
8	EMI is effective in enhancing students' ability to demonstrate how magnet can be formed.	41	22.3	117	63.6	23	12.5	2	1.1	1	0.5

Table 4.3 shows the teachers responses regarding the effectiveness of English Medium Instruction in enhancing students' learning at applying level of class 4th science. The table elaborated 80% of respondents were disagreed that EMI is effective in enhancing students' ability to construct an experiment to show the growth of plants, 67.1% teachers were disagreed that EMI is effective in in enhancing students' ability to demonstrate the activity of separation of insoluble solids from water by decantation and filtration, 70% of the respondents were disagreed that EMI is effective in enhancing students' ability to perform a task of making simple food chain to show the relationship between producer, consumer and decomposer, 56% respondents were disagreed that EMI is effective in enhancing students' ability to measure body temperature through thermometer, 67.2% respondents were disagreed that EMI is effective in enhancing students' ability to demonstrate that some objects can return to their original shape after the release of force, 51.9% respondents were disagreed that EMI is effective in enhancing students' ability to demonstrate that sound can travel through solids, liquids and gases but cannot travel through vacuum, 39.2% respondents were remain neutral that EMI is effective in enhancing students' ability to demonstrate that like poles of a magnet repel each other and unlike attract and 63.6% respondents were disagreed that EMI is effective in enhancing students' ability to demonstrate how magnet can be formed

Table 4.3.1 Mean and standard deviation

Application Level	N	Mean	Std. Deviation
	1890	2.121	1.0985

Table 4.1.3 elaborated that the mean score of participants' responses were 2.121, which concluded that all the respondents were disagreed that EMI is effective in enhancing students learning at applying level of class 4th science.

5. FINDINGS

1. Table 4.1.1 showed the mean score of participants' responses was 3.91, which concluded that all the respondents were agreed that EMI is effective in enhancing students' learning at the remembering level of class 4th science.
2. Table 4.1.2 elaborated that the mean score of participants' responses was 2.37, which concluded that all the respondents disagreed that EMI is effective in enhancing students learning at the understanding level of class 4th science.
3. Table 4.1.3 elaborated that the mean score of participants' responses was 2.121, which concluded that all the respondents disagreed that EMI is effective in enhancing students learning at applying level of class 4th science.

5.1. DISCUSSION

The findings of the study revealed most of the participant were agreed that EMI is effective in enhancing students learning at the remembering level of class 4th science. Most of the respondents disagreed that EMI is effective in enhancing students learning at the understanding level of class 4th science. More than half of the participants were not in favor of EMI, that it does not enhance students learning at applying level of class 4th science.

6. CONCLUSION

Discussion of the study clarified that EMI plays no significant role in enhancing students' lower order thinking skills. Lower order thinking skills belong to Bloom's taxonomy of educational objectives. This study elaborates that EMI is effective in enhancing students learning to memorize, recall, remember and retrieve knowledge but it is not effective in explaining and applying different science concepts. Concepts learn through EMI can be recalled by students, but students cannot grasp meaning from the concepts thought through EMI. Students cannot be able to apply the learned or memorized concept in a real-life situation. In short, EMI is not suitable for primary school students.

6.1. RECOMMENDATIONS

1. The government may think over their decision of introducing EMI at the primary school level for the better interest of the student.
2. The government may introduce EMI if necessary, in only one subject from class 1st and upgraded it gradually.
3. The government may arrange refresher courses for teachers before introducing EMI.
4. The course content of science may be developed according to the level of bloom's taxonomy.
5. School Heads may also provide adequate audio-visual aids for adaptation of English as a Medium of Instruction.
6. The teacher may also arrange their scheme of studies according to the table of specifications.

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