Quality of Elementary Education in Himachal Pradesh
An Evaluative Study

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Abstract

Quality education is the education that best fits the present and future needs of the learners in given circumstances and prospects. Quality education embraces the development of every student's potential in every new generation. The present study aimed to examine the existing quality of elementary education in Himachal Pradesh state which came up as a unique example of success in India for its high literacy rate and access to elementary education. The Gross Enrolment Ratio, for both boys and girls across rural and urban areas, is consistently above 100. Despite the enhanced enrolments, many reports indicated poor quality of education here. In this study, investigators intended to find out whether students were being prepared for life, which is the aim of education as envisaged in RTE, 2009. To have an insight about this, other related quality indicators (input and process) were studied. Descriptive survey method with mixed approach (quantitative and qualitative) was used. The sample of study consisted of 17 schools from three districts of Himachal Pradesh. Both non-testing techniques (observations and focus group discussion) and psychological tests/questionnaires were employed as per the objectives of the study. The results indicated that the input indicators of quality, related with learners (intelligence and achievement motivation), teachers (qualification, status and attitude towards teaching) and school infrastructure, were of satisfactory level to a large extent in most of the schools, still learners' outcome was not satisfactory. The unsatisfactory output may be attributed to the flawed input/process indicators, especially the modes of curriculum transactions which lacked child-centeredness.

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Introduction

Himachal Pradesh, which was considered one of the backward regions of North India for long, has fared much better in the field of elementary education than some of its more prosperous neighbors and in a much shorter time span. The state recognises education as the most important tool to achieve human development and is giving due emphasis on education by establishing primary, middle and secondary schools in difficult, isolated and marginal areas. It has made faster strides in education over the last two decades than most other states in the country. The average literacy level in the state is 83.8%. The total male literacy level is 90.08%, while the female literacy level is 76.6% (Census 2011).

The achievements of Himachal Pradesh in universalisation of elementary education have begun to be recognised lately. The Public Report on Basic Education (PROBE) published in year 1999 has brought the achievement of Himachal Pradesh 'a surprising exception' to the general pattern one can observe in North India. It was noted that four decades back, the status of elementary education in Himachal Pradesh was no different from Uttar Pradesh or Bihar or any other North Indian state, but it came in the league of a few states that have achieved Universal Elementary Education (Dreze, 1999). Drawing on PROBE, the achievement of Himachal Pradesh was described as a 'quiet leap forward' (Mander, 1999).

The state opened new upper primary schools by covering all the remote areas of the state, to ensure that the children have to walk minimum distance from their habitation to attend the school. With the efforts of State Government, Himachal Pradesh emerged as the best performer with 100.81 GER at elementary level (DISE, 2014–2015). At present, there are functional 10,712 primary, 2,201 middle and 2,385 high schools (10+2) in Himachal Pradesh (Department of Economics and Statistics, Government of Himachal Pradesh, 2015).

Despite the improvement in enrolment and retention rates, students' attendance continues to be patchy, with one national survey reporting that around one quarter of enrolled children were absent on any given school day (ASER, 2011). Also, the performance of students of government schools (both primary and upper primary) is not up to the mark as reported in various studies and surveys (Aggarwal and Chugh, 2003; ASER, 2012, 2014; and Team lease Service, 2007). As per Annual State of Education Report (2014) of H.P., 30% of Class III students in Himachal Pradesh government schools were not able to comprehend the textbooks meant for the students of Class I. Likewise, students of Class V (25%) could not read a textbook meant for Class II. Less than two percent students of Class VI got

'A' grade on the achievement test in Hindi. In other subjects like English, Mathematics and Environmental Studies, the performance was poorer than that. The percentage of Class V students who could read Class II level textbook had gone down from 82.3% in 2007 to 72.8% in 2012, and the percentage of students who could solve three-digit problems, had declined from 66.9% to 48.7% during this period. A majority of students at primary level were not able to read and write properly, also the students at upper primary level had poor understanding of languages, mathematics, science and social sciences subjects (Kanwar, 2013).

This may be an indication of the fact that considerable quantitative expansion of education is happening at the cost of quality. It is to reiterate again that education is a process of development of physical, mental and spiritual aspects of human beings. Only admitting in a school is not 'education'. A student must have to learn the specific contents of the curriculum at a particular point or level of education and acquire the knowledge, skills, attitudes and values that help them in leading a meaningful life. Thus, every child has a right to learn,i.e., the right to education (admission). There has been a greater emphasis on the provision of more schools ('quantity') than on the activities that actually take place inside the classrooms ('quality'). Low quality education implies that even those children who have completed schooling may not be functionally literate and numerate (Bajpai and Goyal, 2004).

The educational outcomes depend on various factors which include learners' readiness, teachers' preparedness, availability of teaching and learning resources and their effective use by teachers in the actual classroom activities. Educational outcomes also depend on how much teaching actually takes place, which in turn depends upon a number of factors including teachers' own attitudes towards teaching and their competencies. These different elements influencing educational outcomes can be thought of as comprising the 'quality' of education. Low quality of the school system contributes to irrelevant curriculum, faulty methods of teaching and evaluation, parental apathy towards actually sending their children to school, and teacher apathy towards developing learners' potentialities.

It is imperative that the quality of school system at elementary level may be improved because retention and transition from elementary to high school education depends upon the quality. The World Bank (1997) suggested that 'the best way to improve access is to improve quality which would make coming to school or staying in school a more attractive option from the perspective of parents as well as children'. Thus, after enrolment, concern to improve the quality of education in schools has started receiving the highest

priority in almost all countries of the world. The concern for improving the quality of education is equally thought about by developed and developing nations, i.e., at the places where access to education has been achieved and where people are still trying to accomplish it (Reddy, 2007). In fact, it has now been established that access and quality are not sequential elements, and a number of international organisations have visualised the role of quality as being instrumental in improving access to education (UNESCO 2003, UNESCO 2005). Thus, it has been realised that only education with quality can effectively fulfill the human development agendas, and therefore, provision of quality education is increasingly gaining importance in educational discourse across the globe. Additionally, the endeavours to improve quality will increase the proficiency of the public expenditure and will urge the stakeholders, especially parents to add to their education of wards (Quality of Primary Education in Pakistan, 2003).

Most of the empirical evidences available so far, on the quality of education in India, especially in Himachal Pradesh, have focused on the outcomes in terms of achievement in various school subjects only. Very little has been done to take an objective picture of what goes on in the classroom and whether the curriculum being taught is related with life, i.e., whether the school is really preparing the learners for better future? How efficient learners are being produced? For this, there is a dire need to conduct empirical studies to assess the present system with regard to its compliance with the various quality indicators and to identify the issues which require immediate attention for improvement in education. The effort may help in suggesting an integrated model for education at elementary level to make education 'relevant for the learners'.

Quality Indicators of Elementary Education

Quality can be defined in various ways depending on the circumstances. For Coombs (1985), quality in education refers to significant changes in the educational system itself, in the nature of its inputs (students, teachers, facilities and equipment); its objectives, curriculum, educational technologies; and its socioeconomic, cultural and political environment. Cheng (1995) defined education quality as 'the character of the set of elements in the input, process, and output of the education system that provides services that completely satisfy both internal and external strategic constituencies by meeting their explicit and implicit expectations'.

'Quality education is the education that best fits the present and future needs of the particular learners in question and the community, given the particular circumstances and prospects' (Navaneetham, 2017).The quality concept also has to embrace

the development of every member's potential in every new generation (Fredriksson, 2004).

To summarise, it may be said that if education is considered to be a pre-requisite for the acquisition of knowledge, enhancing skills, developing attitudes and values and leading a meaningful life, then quality education is one that satisfies the basic learning needs and enriches the lives of learners and their overall experience of living. Quality also pertains to the relevance of what is taught and learned and how well it fits the present and future needs of the particular learners in question in their context.

Quality indicators proposed by UNESCO (2003) have been classified into three categories— input including policy administration, support inputs, teachers and accessibility, process indicators include school climate, teachers' job assignments and satisfaction, teaching learning process and parent-school relationship; and output indicators include participation, retention, and completion rates, academic achievement, knowledge, skills and attitudes measured against the set standards linked to national goals, personality and other traits, students' perception of school and community's perception of school.

Input Indicators

Input indicators refer to those factors or conditions in school which may affect the outcomes. According to Chalmers (2008), 'Input indicators reflect the human, financial and physical resources involved in supporting institutional programmes, activities and services'.

In this study, the investigator selected human resource (teachers and learners related variables) and material (infrastructural facilities given by RTE) in schools as input indicators, as these are essential factors in an effective teaching learning process and may have an impact on the outcomes of the pupils, as is evident from many researches.

Process Indicators

Process indicators are those factors which are related with the delivery of educational programmes, activities and services within the institutional environment (Burke,1998).

The mode of transaction of curriculum and problems faced by the teachers were studied as process indicators in this study as these may determine effective transaction of the teaching learning process and hence may have impact on the learning outcomes of the students.

Output Indicators

Output refers to the immediate measurable results which are direct consequences of the activities implemented to produce such results (Burke, 1998).

In the present study, investigator assessed the output of education in terms of the ability of learners to use their classroom learning in real life situations. Therefore, functional aspects of learning (Math, Social

Studies and Language) were tested, which is in coherence with the main objective of the SSA (Education for Life).

Objectives Of The Study

1. To investigate the input indicators of quality education in elementary schools,viz.
   a. Teachers (in terms of qualification, status of job and attitude towards teaching)
   b. Learners (intelligence and achievement motivation)
   c. Availability of infrastructural facilities (as per RTE Act 2009)
2. To examine the process indicators of quality of education, namely, modes of curriculum transaction and problems faced by teachers
3. To assess the output indicator of quality, i.e., learning outcomes of the students at the last ladder (ClassVIII) of elementary schooling in terms of:
   a. Functional mathematical ability
   b. Functional knowledge
   c. Awareness about civic functionaries, rights and duties
   d. Language proficiency

Methodology

In the present study, descriptive survey method was used to examine the quality of elementary education in Himachal Pradesh. Keeping in view the intent of the study, mixed approach (quantitative and qualitative) was adopted. Both non-testing techniques (observations and focus group discussion) and psychological tests and questionnaires were employed.

The input indicators related with teachers, students and school infrastructure were studied by employing the psychological tests, scales and checklist. Input indicators included teachers' qualification, job status and their attitude towards teaching, students' intelligence and achievement motivation and school infrastructure.

The school teachers' educational and professional qualification and their job status were assessed as per the norms cited in Right to Education Act 2009. The attitude of teachers was evaluated on the basis of Teaching Attitude Scale given by Goyal (2007). This scale consisted of 22 items. Out of these 22 items, 10 items indicated favourable attitude, two indicated neutral and 10 indicated unfavourable attitude towards teaching. The reliability coefficient of the scale was 0.90 by using split half method and 0.95 with Spearman Brown correlation formula. The validity of the scale was determined through content validity and validity coefficient is 0.78.

The general mental ability, i.e., intelligence of the students was measured by employing culture fair intelligence test by Kapoor and Singh (2002). This intelligence test is designed in such a manner that reduces, as much as possible, the influence of verbal fluency, cultural climate, and educational level on individual's intelligence. In this test,

the examinees need to perceive the relationship in shape and figures. The test consisted of four subtests, involving different perceptual tasks, so that the composite intelligence measure avoids spurious reliance on a single skill. The reliability coefficient calculated by test-retest method was 0.73 and split half coefficient was 0.76. For the validity of the test, concept validity and concrete validity methods were used. The values of concept validity and concrete validity were found to be 0.81 and 0.70 respectively.

To assess the achievement motivation of the students, the investigator used Academic Achievement Motivation Scale developed by Sharma (1984). The scale consisted of 38 items, each with two possible alternative responses. The reliability coefficient calculated for the test retest correlation coefficient was 0.079 (boys) and 0.810 (girls), and split half coefficient was 0.697. Besides, three types of validity indices (content, criterion and construct) were established by the author of the scale.

The scores obtained by the sample of students in intelligence test and achievement motivation scale were evaluated on the basis of norms established by the authors of these tests. Available infrastructural facilities were observed by using a checklist and evaluation of these facilities was done on the basis of recommendations for infrastructures prescribed in Right to Education Act, 2009.

For examining and evaluating the process indicators, the investigator conducted observations and focus group discussions. The modes of curriculum transaction were observed by the investigator on an observation record sheet and information for the same was also obtained from the students in focus group discussions. This data was compared with the recommendations given in National Curriculum Framework (2005) and suggested the strategies prescribed in the curriculum of Central Board of Secondary Education (C.B.S.E). The observation record had information pertaining to the class, subject, teaching methods used by the teachers, use of teaching aids, use of blackboard and classroom interaction. The investigator made four to five observations in each of the selected schools over a period of ten months. The data obtained by these observation sheets were analysed to find out the strategies/methods used by teachers to teach in and outside the class. Frequency of various methods being used by the teachers were found out and compared with the suggestions given in NCF (2005) to deal with the curriculum.

To collect data on the problems faced by elementary school teachers, a questionnaire was constructed. Situations, conditions and experiences with respect to the availability of resources, classroom environment, administrative attitude, workload, students' behaviour, their parents' behaviour, etc., due to which a teacher feels uncomfortable or

unable to devote proper time to teach, have been termed as 'problems' for constructing the questionnaire on teachers' problems. The questionnaire had 63 questions related to problems faced by the teachers. The Cronbach's alpha was used to find the reliability that was found to be 0.775.

The output indicators were examined in terms of the ability of Class VIII students to translate their learning at schools to real life situations. Therefore, their functional mathematical ability, functional knowledge, awareness about civic functionaries, rights and duties, and language proficiency (Hindi and English) were measured. The bases of all these areas were derived from the objective of SSA and RTE, i.e.,focus of elementary education of satisfactory quality with emphasis on education for life. Criterion referenced tests were constructed by the investigator to assess functional mathematical ability, functional knowledge and awareness about civic functionaries and rights and duties.

The functional mathematical ability test included items related to cost accounting/commercial mathematics, ratio and proportion in domestic life, measurement and mensuration. All these items are related to basic functional mathematics problems which are related to daily life. The functional mathematical ability test included items like— (i) What will be the price of 400 grams of sugar if price of 1 kg sugar is ₹40? (ii) What will be the price of a book, if its actual price was ₹700 and shopkeeper sells it at 30% discount? etc.

Functional knowledge test consisted of questions related to practical knowledge which is useful in everyday life. Questions pertaining to health and hygiene, general safety, consumer awareness, local conditions, general science, etc., were included. Functional knowledge test included items like— (i) On which side should we walk on the road?, (ii) Which colour is used to show danger? etc.

Test on awareness about civic functionaries and rights and duties covers the items related to civic functionaries, local governance, its role and responsibilitiesas well asthe rights and duties of citizens enshrined in Indian Constitution. Test on awareness about civic functionaries and rights and duties included the items like— (i) Who is the head of gram panchayat?,(ii) Which right is violated if a child of age 13 is made to work in a factory? etc.

In language proficiency test for assessing the writing skills, the investigator selected three topics (i.e., my village, my school and aim of my life) on which students were required to write paragraphs. The students had to write one paragraph in Hindi and another in English. For assessing the reading skills, paragraphs were selected from the language books of NCERT, Class VIII. Investigator gave 10 lines for reading.

The evaluation of students' responses on functional mathematical ability test, functional knowledge test and test on awareness about civic functionaries and rights and duties was done by creating a holistic rubric scale and four scale values (between 0 to 1) were assigned to the responses depending on the degree of correctness of the responses. Score 1 was given to the responses which were fully correct or the model response and Score 0 for either no response or a totally wrong response. In between these, scores of 0.5 and 0.25 were given for partially correct responses depending on the extent of correctness. The scores obtained by the students on these tests were graded as per the CBSE assessment system. The language proficiency of Class VIII students was assessed on the basis of two skills viz. reading and writing. The writing skills were assessed and scored on the basis of four criteria, i.e., Error per line, sequence of ideas, grammatical correctness and thoughtfulness. All these criteria were scored on three points scale i.e. Good, Average and Poor and the same criterion was adopted for scoring reading skills.

The data was analysed to have a better insight about the number of schools (out of the selected sample) with high, average or poor quality of input indicators, process indicators and output indicators of quality education.

Sample

Multistage random sampling technique was used to collect the data. Out of twelve districts of Himachal Pradesh, the investigator selected three districts by random sampling method. Again by using random sampling method, five/ six government elementary schools were selected from the three districts (depending upon the size of the district). In total, 17 elementary schools were selected from the three districts. The sample of teachers was taken from these selected schools. The sample of students constituted of all the students studying in Class VIII in 17 elementary schools. From these schools, all the available students were included, which ultimately make a total of 223 students, who provided information on all of the data collection instruments. The data was collected from the selected sample from December 2014 to March 2016.

Findings

Related with Input Indicators

- ***Teachers***

With regards to the availability of teachers in schools, it was found that all the schools had requisite number of teachers as per RTE norms. Most of them were employed on regular basis (69%) and some were on contractual basis (18%) or under some other schemes (13%) like SMC, PTA, etc. In all the schools

(except one), teachers possessed the required educational qualification (or even more than required). Besides basic qualification, 27% teachers had Junior Basic Training (JBT) or Elementary Teacher Training (ETT), 34% had obtained B.Ed. degree, and three percent had completed M.Ed. And 34% had professional diplomas/ degrees in Arts/Drawing, Physical Education, Languages, etc. Only two percent teachers had not obtained any professional qualification.

Regarding their attitude towards teaching, it was found that there was not even a single teacher who had unfavourable attitude towards teaching. About 18% teachers possessed most favourable attitude, 72% teachers had favourable attitude and 10% teachers had neutral attitude towardsteaching.

On the whole, it may be said that the quality of teachers in elementary schools in Himachal Pradesh is satisfactory.

• ***Learners***

About intelligence level of the students, it was found that about 72% students possessed either average or above average intelligence but a few students exhibited below average intelligence (28%) on intelligence test. Out of these 28% students, only five percent scored low in the intelligence category.

Pertaining to achievement motivation, it was found that 44% students exhibited high achievement motivation, 18% had average achievement motivation and 38% students exhibited below average achievement motivation. This shows that more than 60% students had high or average academic achievement motivation.

With regards to learners' attributes, it may be said that the quality of learners in elementary schools is also good as most of them possess adequate intelligence and achievement motivation.

• ***Infrastructural facilities***

Table 1
Infrastructural availability as per RTE Norms

Infrastructural components		**RTE norms for Infrastructural Facilities**		
			Yes	**No**
All Weather building	i	At least one classroom for every teacher	71	29
	ii	An office cum store cum Head Teacher's room	82	18
	iii	Barrier-free access (ramps, handrails)	42	58

	iv	Separate toilets for boys and girls	82	18
	v	Safe and adequate drinking water facility for all children	100	0
	vi	A kitchen where mid-day meal is cooked in the school	76	24
	vii	Playground	77	23
	viii	Arrangements for securing the school building by boundary wall or fencing	47	53
Teaching learning equipment		Shall be provided to each class as required	100	0
Library		There shall be a library in each school providing newspapers, magazines and books on all subjects including story-books.	35	65*

*A separate room was not available for library, but reading material was available.

Table 2
Quality aspects of Infrastructure

Infrastructure	**Quality in schools (% of schools)**		
	Good	***Average***	***Poor***
Building	65	23	12
Floor	76	18	6
Condition of classroom	41	53	6
Boundary wall	47	0	53
Playground	65	12	23
Ramp	42	47	11
Furniture for teacher	100	0	0
Furniture for students	82	18	0
Cleanliness of drinking area	82	18	0
Cleanliness of toilets	64.8	17.6	17.6
Quality of door/windows	94	6	0
Quality of blackboard	53	47	0
Condition of electrical appliances	88	12	0
Light and Ventilation	100	0	0

Five schools (29%) fulfilled all the ten norms and two schools (12%) had nine facilities as given in the RTE act. In addition, fours schools (23.5%) had eight infrastructure facilities and one school had six facilities out of ten. There were three schools (18%) where five facilities were available and one school was having only four facilities out of ten. It was found that only two norms (i.e., safe and adequate drinking water facility and teaching learning equipment) were fulfilled by all the schools while some of the facilities (such as library, proper boundary wall, full ramps for barrier free access for physically challenged, etc.), were missing in a large number of schools (as shown in Table 1). Pertaining to the quality of infrastructure, it was observed that the condition of buildings was good in 65% schools, average in 23% schools and poor in 12% schools. Out of these, one school was not having its own building but was being run from a rented house. The boundary wall was found in a good condition in 47% schools and poor in 53% schools. As far as the classrooms are concerned, it was observed that in 41% schools, classrooms were in good condition as these had adequate and well maintained furniture for both the teachers and students. The classrooms had good quality blackboards, proper electrical fittings, were well lit and ventilated. There was not a single school where quality pertaining to drinking area i.e. cleanliness of drinking area, door, window, and blackboard, condition of electric material (well fitted and not broken) was found poor. Cleanliness of toilets (18%) and condition of playgrounds (23%) as well as ramps (11.76%) were found to be in a poor state as these were not maintained atall.

Regarding the overall input indicators of quality education, out of 17 elementary schools, nine schools had sufficient input for quality education related with teachers, as required number of teachers were appointed in all the schools (mostly on regular basis and some on contractual or under some schemes) and all of them had qualification according to the prescribed norms. Besides this, most of them possessed favourable attitude towards teaching. More specifically, in 13 schools, the attitude towards teaching was found favourable and therest were neutral. Further, the quality pertaining to learners indicated that more than 65% students in all 17 schools were found to have average or above average level of intelligence. As far as achievement motivation of the student is concerned, it was found that in 11 schools, more than 60% students possessed average or above average motivation. On the contrary, there were three schools where more than 60% students had low level of achievement motivation. For infrastructure facilities, 12 schools had six or more than six facilities out

of 10 as per RTE (Table 1) and four schools lacked sufficient facilities.

On analysing the data of individual schools on all the aspects taken together, it was found that in two schools out of 17, the quality of teachers, learners and infrastructure was up to the desirable standards. Along with these, in five other schools, quality related to all the input indicators was satisfactory to a large extent. In rest of the schools, there were issues with one or the other factors, i.e., in some schools proper infrastructure was not available, in other schools, achievement motivation and intelligence among a large number of students was in below average category, or the teachers lacked favourable attitude.

Overall, for input indicators, it may be said that less than 50% schools of Himachal Pradesh (sampled in the present study) had all the input indicators (i.e.,teachers, students and infrastructure) of satisfactory quality for imparting quality education and rest of the schools had some deficiencies.

Process Indicators

Modes of curriculum transaction

During observations, it was found that the teachers regularly took classes but the methodologies used by the teachers were not appropriate, as they used traditional methods of book reading followed by little explanation and writing new concepts and difficult words and their meanings on the board. A few teachers asked some questions also. None of the teachers in any school was found to use any innovative or learner-centred strategies for teaching.

The investigator tried to confirm his observations, i.e., whether this was the only mode being used in schools, or if the teachers used other methods and strategies also, which were missed by the investigator during observations. For this, the investigator conducted focus group discussions with students. During focus group discussion, students told that the teachers used to read the text, translate it, give meaning of the difficult words and then ask the students to read aloud. In all the classes, teachers used to spend the first few minutes asking about the previous day's homework. Then the teachers taught the day's lesson and gave homework. Most of the students reported that in Science and Math classes, the teachers used the blackboard to teach them; while in language classes, the blackboard was not much used. Students also reported that the teachers checked the class work of the monitor and then asked them to check the class work of other students.

Problems faced by teachers in teaching learning process

The problem that was most frequently mentioned by the teachers (25%) was related to students' behaviour in teaching-learning process, 14% teachers reported problems related

with the infrastructure, 16% teachers reported problemswith respect to administration. About 19% teachers mentioned that they lacked motivation for the job due to various reasons. Along with these, 12% teachers reported that they faced problems due to tasks other than teaching and 13% teachers were disturbed with parents' behaviour. With regards to interpersonal relationships, only one percent teachers complained to have poor relationship with the colleagues. Besides these, many teachers faced different kinds of problems in schools related to the availability of time, parents' behaviour and tasks other than teaching, which affect the teaching learning process.

Output Indicators

The learning outcomes of the students of Class VIII were assessed by administering tests for Functional Mathematical Ability, Functional Knowledge, Awareness about Civic Functionaries, Rights and Duties, and Language Proficiency (Hindi and English). The scores obtained by the students were graded according to the CBSE norms and the percentages of students with different grade levels were found out.

Table 3
Achievement levels of students in Functional Mathematical Ability, Functional Knowledge, Awareness about Civic Functionaries, Rights and Duties

Marks%	Achievement Levels (CBSE grading system)	Percentage of students in different categories of achievement levels in three tests		
		Functional Mathematics	***Functional Knowledge***	***Civic Awareness***
91–100	Super	0	0	0
81–90	Best	0.45	0	0.9
71–80	Very Good	0.45	1.34	7.62
61–70	Good	2.69	8.97	4.93
51–60	Fine	2.69	19.73	3.59
41–50	Average	7.17	22.87	12.11
33–40	Below average	9.42	20.18	8.52
21–32	Needs improvement	20.18	17.49	25.56
0–20	Not Satisfied	56.95	9.42	36.77

Functional mathematical ability means the ability to use mathematical functions in routine tasks and contexts and in the world of work. Learners who are functional with mathematics are able to use and

apply the mathematics they know to address the problems that arise in their life and work (Functional Skill Support Programme, 2008).

In the test of Functional Mathematics,most of the students showed very poor performance. Only 14% students exhibited average or above average ability for Functional Mathematics and nine percent passed the test but scored below average. Out of 223 students, only 23% students passed and the remaining 77% could not pass this test.

Functional Knowledge covers day-to-day general knowledge of the things, matters and concerns. General awareness about self and surroundings focuses on basic knowledge which is helpful for individuals in daily life.

For Functional Knowledge Test, it was found that more than half of the sample possessed reasonable knowledge which is useful in day-to-day life as 53% students scored average or above average and though 20% students passed the test but were not having adequate functional knowledge. Remaining 27% could not even pass this test.

Civic Awareness is concerned with the content ofthat the citizens are ought to know about government, civic life, constitution and the processes of government and the role of an individual as a citizen. It is very important to help children to be responsible members of a civil society (Riley,1997).

It was found that in the test of Awareness about Civic Functionaries, Rights and Duties, large number of the students (62%) showed very poor performance. In all, 38% students passed the test and out of these, about 29% students obtained average or above average scores. To conclude, it may be said that most of the students are not much aware about civic functionaries, rights and duties of citizens.

Language proficiency is the ability of an individual to speak or perform in an acquired language. For the present study, the language proficiency of Class VIII students was assessed for Hindi and English language on two skills, viz. Writing and reading. For assessing the writing skills, the investigator selected three topics (i.e., My village, My school and Aim of my life) on which students were required to write paragraphs. The students had to write one paragraph in Hindi and another in English. For assessing the reading skills, paragraphs were selected from the language books of NCERT of Class VIII. The investigator gave 10 lines for reading.

Table 4
Hindi language proficiency among 8th Graders (in percentage)

Levels of language Proficiency	Reading Proficiency	Writing Skill			
		Spelling	***Grammar***	***Sequencing of ideas***	***Thought fulness***
Good	86	28	10	02	02
Average	12	55	73	58	28
Poor	02	17	17	40	70

Table 5
English language proficiency among 8th Graders (in percentage)

Levels of language Proficiency	Reading Proficiency	Writing Skill			
		Spelling	***Grammar***	***Sequencing of ideas***	***Thought fulness***
Good	33	45	01	01	01
Average	53	32	31	22	11
Poor	14	23	68	77	88

It was found that most of the students possessed average proficiency for spellings and grammar in Hindi language but performed poorly in the cognitive aspect of writing, i.e., generation of ideas and its sequencing. While in language proficiency in English, most of the students performed poorly in grammar, sequencing of ideas and thoughtfulness. As far as reading is concerned, most of the students possessed good reading skills in Hindi language. On contrary, most of the students possessed average reading skills in English language.

To summarise the outcomes in five subject areas mentioned above, it was found that 77.13% students (172 out of 223) in Functional Mathematics, 26.91% (43 students) in Functional Knowledge and 62.33% (139 students) in Awareness about Civic Functionaries, Rights And Duties could not even score passing marks (33%). In other words, expect for Functional Knowledge where about 73% got at least passing marks (33%), in the other two tests only a few students got through, i.e., 23% in Functional Mathematics and 38% in Awareness about Civic Functionaries, Rights and Duties. For language proficiency, most of the students scored average in Hindi language and poor in English language.

Classification of students based on performance in different tests

Besides analysing the number of students in different grade categories on different tests, the investigator also evaluated the performance of each student individually on three tests (Functional Mathematics, Functional Knowledge and Awareness about Civic Functionaries, Rights and Duties). The data has been illustrated in Figure 1.

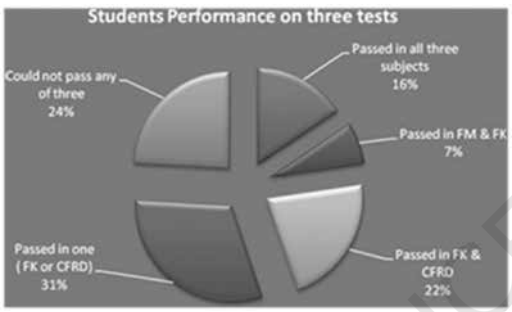

Figure 1: Students' performance in three tests

As shown in Figure 1, there were only 16% students who got at least passing scores on all the three tests, whereas 24% could not even pass any of the three. Remaining 60% students scored passing marks in at least one out of the three tests. Maximum number of students (31%) passed in one test only (either Functional Knowledge or Awareness about Civic Functionaries, Rights and Duties). Rest of the students passed in two out of three tests, i.e., seven percent in Functional Mathematics and Functional Knowledge, whereas 22% in Functional Knowledge as well as Awareness about Civic Functionaries, Rights and Duties. In other words, it may be said that the performance of most of the students was not up to the mark.

Overall quality of education in schools (with respect to input, process and output indicators)

- Out of 17 schools, not even a single school was found wherein all the three quality aspects, i.e., input, process and output, have a satisfactory level.
- There were four schools out of 17, wherein all the input indicators of quality education (except for modes of curriculum transaction) were meeting the norms.
- None of the schools showed satisfactory process and output indicator of quality. In all the schools, teachers used traditional modes of teaching and most of the students possess low level of Awareness about Civic Functionaries, Rights and Duties, competence for using mathematics related to life situations and poor language proficiency for English but did not have sufficient functional knowledge and proficiency to read and write Hindi language.

Discussion of Results

The results of the present study showed that in most of the schools, basic input indicators were satisfactory to an extent as there were required number of teachers with adequate educational qualification

as per norms, and had desirable attitude for teaching. Along with this, most of the students have adequate intellectual level and achievement motivation and school infrastructure especially, school building, proper classrooms with sufficient furniture, safe drinking water, separate toilets for boys and girls, etc., were also available in most of the schools. Despite the sufficient basic inputs, the desired output was not achieved as most of the students were not able to apply their mathematical knowledge to real life situations, had insufficient functional knowledge and lacked in their awareness about civic functionaries and were deficient in writing skills in Hindi and English both.

The poor achievement levels of students in all the subjects have been evidenced in researches (Aggarwal and Chugh, 2003; Ahmed, 2013; Goyal, 2007; Kumar, 2015; Mehta, 2008; Teamlease Services, 2007; Thakur, n.d.) and many reports (ASER, 2012, 2014; DISE 2012–13; SSA, 2009; NAS, 2017). Not much change has been observed since then as latest reports also indicate similar results. According to ASER (2016), 55% students of Class VIII cannot read simple sentences in English. Of those who can read these sentences, only about two-thirds know the meaning of the content. In Mathematics also, only 43.2% can divide a 3 digit number by a 1 digit number, something that is usually taught in Class II. As per NAS 2017, the performance of Himachal Pradesh has been found comparable to national average. In 2017 NAS report, Himachal Pradesh elementary school students scored 59% in comparison to 56% national average in language, 35% vs 42% for mathematics, 43% vs 44% in science and for social science the percentage remains equal at 43. Only simple items could be responded by the students, performance of the students on items covering the topic 'Ratio and Proportion and relationship' was also low. In Social Science, a large number of students did not know about Civics especially our Constitution, Judicial System, Parliamentary Government, etc. The findings of the present study also coincide with these findings of NAS as well as with the findings of a survey by SSA, cited in Himachal Watcher (April 17, 2015) that 74 percent of Class VIII students did not have class appropriatecompetence.

It was also found that most of the teachers were facing various problems related to parents' behaviour, availability of time, students' behaviour and extra workload. Teachers have to do a lot of clerical work such as, to maintain the register related to funds and MDM, etc., which put a lot of pressure on the teachers. This seemed to affect their capacity to teach and as a consequence, learning outcome of the students has decreased. Regular PTA meeting and awareness programmes for parents must be organised; rules and regulations by the government

must be taken into consideration for working hours and workload of the teachers. Administrative positions should be instated in the school according to the requirement of the school so that the teaching learning activities run smoothly.

There are a number of home related factors which influence the students' learning (Kingdon, 1998), but were not included in the present study. The parents of most of the students in rural government schools are not much educated. Thus, expecting much from them is unrealistic, i.e., it cannot be expected from them to teach their wards.

Conclusion and Suggestions

Quality in education is the most talked about topic in both developed and developing countries among researchers, academicians and policy-makers. There are sufficient reasons to conclude that the situation of quality of education is almost same in many countries around the globe. It can be assumed that many children leave school without having developed sufficient basic literacy skills (Fredriksson, 2004). Government should emphasise more on learning rather than schooling. This shift from schooling to learning would mean a shift in focus from inputs to learning outcomes. Cuesta, Glewwe and Krause (2015) write that it can be achieved only by changing the way schools are run. Policymakers as well as researchers have to collectively work for this.

The findings of the present study indicated that the input indicators of quality related with learners (intelligence and achievement motivation), teachers (qualification, status and attitude towards teaching) and school infrastructure, teacher–taught relationship were of satisfactory level to a large extent in most of the schools still learners' outcome was not satisfactory. The unsatisfactory output may be attributed to the process indicators, especially to the modes of curriculum transactions which lacked child-centredness.

On the basis of findings of the present study, the researchers suggest that there is dire need to change the teaching methodology being used by teachers as results showed that them ethodsused for curriculum transaction are teacher -centred. Zakaria, Chinand Daud(2010) have also suggested that the process of education should not only focus on transacting rules, definitions and procedures for the learners to cram, but should also involve them as active participants. Greitzer(2002) talked about training teachers in teaching methodology which is more learner oriented and encourage active participation of children in the learning process. Hesson and Shad(2007) talked about promoting interest, analytical research, critical thinking and enjoyment among children. Providing training to teachers and specific

in-service training programmes for child centred teaching methodology would improve the practical knowledge, ability and skills amongst udentsand their preparedness for life. The teacher should get regular appointment and be provided with all the required facilities and their other problems may be resolved by the administrations othat their motivation may not lower down. As parents are not literate, hence, it becomes the duty of teachers to orient the parents on how they can support their wards by sending them to the school regularly and by providing them sufficient time at home to do their assigned homework and also have a constant contact with teachers to have a check on the progress of their wards.

It may be said that quality cannot improve by itself. National Policy of Education 1986 and 1992 suggested that quality of education requires multi-pronged and strategic reforms in teacher training, improvements in the facilities and infrastructure in schools, teachers' motivation and a change in the style of teaching to make each student learn.

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