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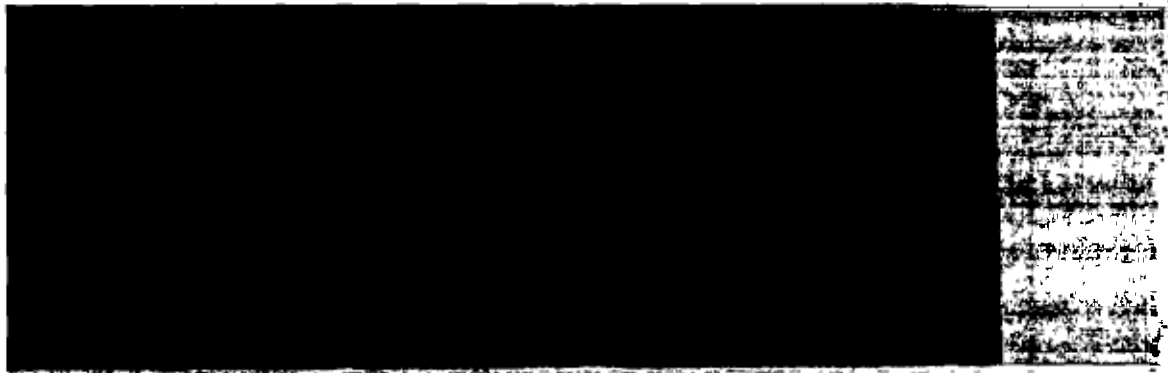
SOCIO-ECONOMIC UNITS, KERALA
KERALA WATER AUTHORITY
DUTCH-DANISH SUPPORTED WATER & SANITATION PROJECT

Coordinating Office:

Post Bag 6519, Vikas Bhavan P.O., Trivandrum-695 033

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INTERNATIONAL REFERENCE CENTRE
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*AN EVALUATION AND ASSESSMENT REPORT OF
PRE-TESTING THE BOOK ON 'WATER'*

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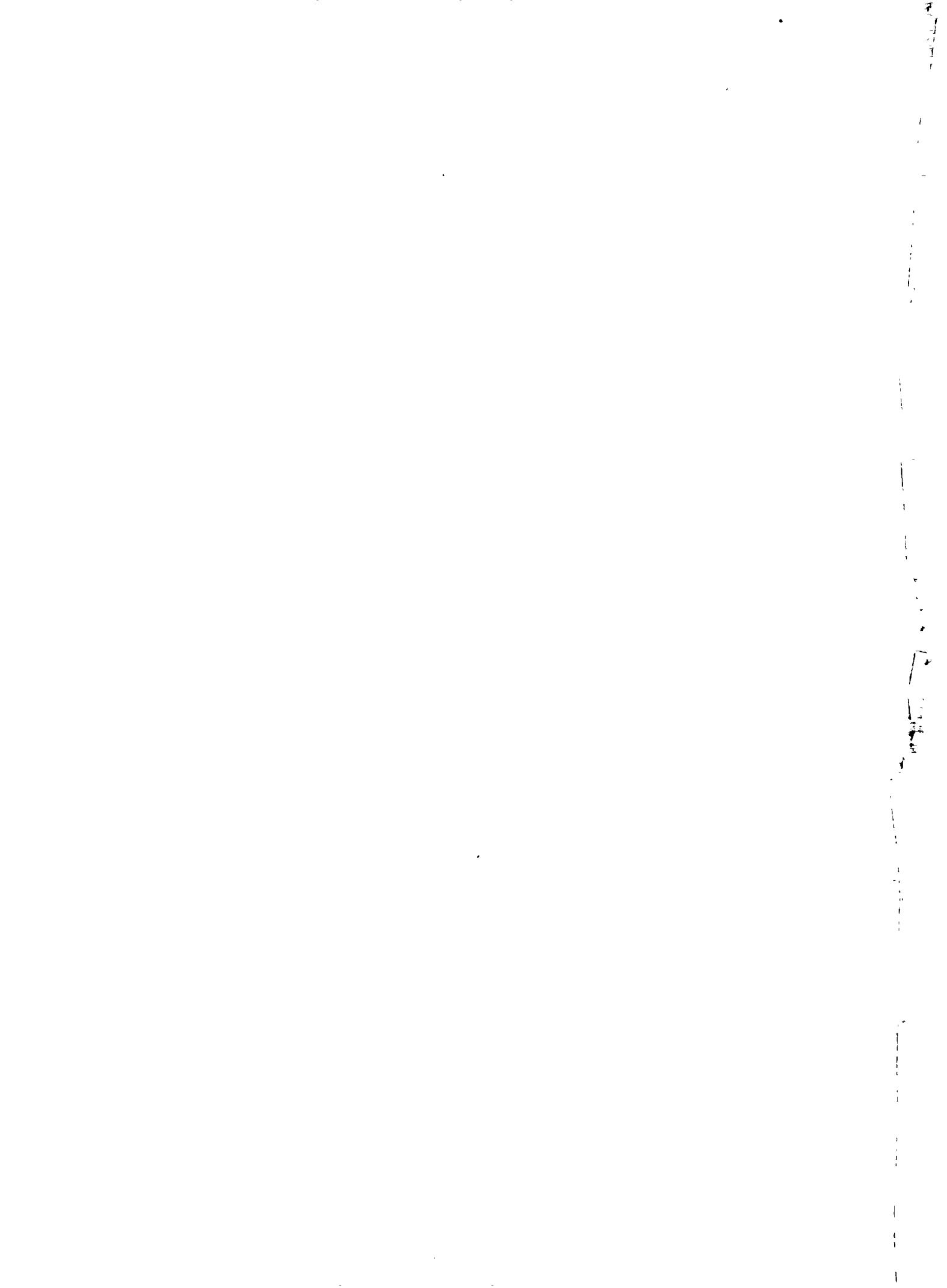
By Manacaud Sukumaran Nair MA, B.Ed.



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DRAFT

(For Restricted
Circulation only).

AN EVALUATION AND ASSESSMENT REPORT OF

PRE-TESTING THE BOOK ON WATER.

1989.

(EMBLEM)

Prepared by:

MANACAUD SUKUMARAN NAIR MA, B.Ed.

Sponsored by

SOCIO-ECONOMIC UNITS (KERALA)

KERALA WATER AUTHORITY

(DUTCH-DANISH SUPPORTED WATER SUPPLY AND SANITATION PROJECT)

CO-ORDINATING OFFICE

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TELEX (435) - 379.

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ANNEXURES

1. Programme for Training of school teachers.
2. The school selected for the programme.
3. Numbers of students and their standards.
4. Standard of life of the students.
5. Name teachers selected for the programme.

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PREFACE

The book "WATER" was developed by the Socio-Economic Unit, Calicut in collaboration with the State Institute of Education, Kerala. A project report was prepared by me for pre-testing the book at the request of Mr.K.Balachandra Kurup, Executive Co-ordinator of the SEU. The project report was approved and presented to the D.P.I by the SEU for permission to conduct the pre-test of the book in a few selected schools in the State. The D.P.I accorded sanction for the programme as per order No. M4/125759/88 dt. 7.12.1988. At the request of the SEU, the Government of Kerala placed my services at the disposal of SEU for a period of three months to co-ordinate the pre-test programme as per G.O.ET/265/88/dt.23.1.89.

Though the project report had envisaged the services by two persons including myself to conduct the pre-test of the book, I had to complete the work all by myself. I was able to accomplish the task successfully within the stipulated time with the whole-hearted co-operation extended by all the three units and the Co-ordinating Office of the SEU.

I would like to place on record my sincere thanks to all the members on the staff of the SEU and to the Headmasters and teachers of the schools concerned who had shared the task to its fulfilment and am glad to present this report.

Manacaud Sukumaran Nair
H.S.A
Govt.Model High School
Trivandrum.

1-6-1989.

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R E P O R T

Planning the Programme of Pre-test.

The target of the programme was to get the book "WATER" pre-tested in 18 selected schools, 6 each from the SEU Units Calicut, Trichur and Quilon and to train 36 teachers, two each from a school to introduce the book in the class and to evaluate the achievement of the children. It was decided to get these teachers trained at a workshop to conduct the programme in their respective schools.

Training programme of the teachers.

The training programme was organised for teachers at the auditorium of Hotel Hyson, Calicut from 15.2.1989 to 16.2.1989, according to a specific time table. (Vide Annexure I). Out of the 36 teachers selected from the 18 schools to attend the training programme only 33 from 17 schools participated- 11 from Calicut unit, 10 from Trichur unit, and 12 from Quilon unit (vide Annexure II). The training programme of teachers was monitored by the Socio-Economic Unit, Calicut. The training classes were engaged by the following persons.

No.	Name and Designation	Subject handled.
1.	Dr.A.Achuthan (Calicut University)	Teachers role in water conservation, chapters discussion and water-borne diseases. Objective of the workshop water purification process. How to teach Book on Water and pre-test techniques.
2.	Richard Benza (Mass Media Officer, Malapparam Dist).	
3.	O.T.Remadevi (SEU, Calicut).	
4.	G.Ramachandran (Asst.Executive Engineer, KWA).	
5.	Manacaud Sukumaran Nair.	

The participants were oriented to the contents of the book duly supported by necessary enrichment material. They were also exposed to the various processes of participation of water for drinking purposes. Moreover they were given opportunity to see the working of various types of hygienic latrines designed and installed by the Socio-Economic Unit,



Calicut in 2 schools and some houses.

A previously developed questionnaire was distributed to the participants to be administered to the children in their schools to test their previous knowledge before exposing the book to them. The participants were also given sufficient copies of the book 'WATER' for distribution to the children.

The participants were instructed to conduct the pre-test to assess the previous knowledge of the children on 18.2.1989 in all the 17 schools.

A time schedule of one month was prescribed for covering the contents of the book in the schools by the children. Specific instructions were also given to the participants to facilitate the learning of the material by the children in the style of a supplementary reader. The implementation of the programme in schools was proposed to be monitored by Mr. Manacaud Sukumaran Nair.

The teachers were asked to handle the experimental book named 'Water' in the 17 schools without hampering the normal circular work prescribed by the Education Department. They were given freedom to handle the book finding extra curricular time or utilising free periods.

The participants were promised to be given a ready made evaluation tool in time for assessing the achievement of children after their exposure to the book 'WATER'. The post test was decided to be conducted before 20th March, 1989 with prior intimation to the children as well as the teachers.

Implementation of the Programme.

In all, 821 children of Std.V were selected from the 17 schools to experiment with the book 'WATER'. All these 821 children were subjected to the pre-test as planned and supplied with copies of the book 'WATER'. The duly filled in questionnaires collected by the concerned

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SE Units were transmitted to Co-ordinating Office for necessary analysis by the monitoring officer Mr. Manacaud Sukumaran Nair.

The teachers, preparing their own time table according to local contingencies without hindrance the curricular work introduced the experimental book to the children. The learning of the book continued for about 30 days between 10th February, 1989 and 19th March, 1989.

The material for the post-test questionnaire developed by the monitoring agency with the help of SEU staff, in the meantime was printed and supplied to the schools before 19th March, 1989. The post-test was conducted in the schools by the teachers between 20th and 28th March, '89.

The questionnaires answered by the children were collected from all the 17 schools personally by the monitoring agency for further study. At the sametime, while collecting the answer scripts of children from each school a separate questionnaire was given to the concerned teachers so as to gather their response to the book and the programme. These response sheets were directed to be send to the monitoring agency by post.

The evaluation sheets received from various level numbered as follows.

Though 821 children were selected under the project and administered the pre-test only 676 of them have turned valid as many of the remaining 145 have either taken the pre-test only or the post test only, without appearing the pre-test. So much so only the 676 response sheets received from the children who had taken both the tests have been subjected to further study (vide Annexure III & IV). If the 33 teachers who have been supplied with questionnaires to record their views only 28 have responded. These response sheets have also been analysed. (Vide Annexure V).

Though it had been planned to visit the schools to monitor the programme personally, the monitoring agency was forced to cancel the



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visit for want of availability of the time tables from the schools
in time.

EVALUATION

The materials relied on for evaluation are:

1. 676 response sheets received from the children who had taken both the pre- and post test.
2. 28 response sheets from the teachers.

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ANALYSIS OF PRE-TEST

95.4% of the children were forced to possess elementary knowledge about clean water, water-borne diseases, water pollution and purification of water. At the same time the general academic standard of 6.13% of them, was found to be below average (vide Annexure IV).

The questionnaire response of these children could be analysed as follows:

Question 1. How do we feel thirsty?

No. and % answered correctly.	No. and % answered partly correct	No. % of ignorant.
188 - 27.8%	12 - 1.78%	476 - 70.4%

Question 2. What is the source of water?

336 - 50%	175 - 25.8%	165 - 24.4%
-----------	-------------	-------------

277 children (41%) gave the answer that the water obtained from nature could be used as such. But according to 25.9% of the children the water collected from nature cannot be used as such since it should contain impurities.

Question 3. How is rain caused?

598 - 88.5%	-	78 - 11.5%
-------------	---	------------

Out of these 598 children 42 (7.02%) stated that rain water contained impurities and hence it could not be consumed. Remaining 556 (92.98%) answered that rain water could be used directly.

Question 4. How river water polluted?

171 - 25.3%	202 - 29.9%	303 - 44.8%
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489 (72.3%) of children have the opinion that if a factory is set up near heir house, the water in that area would set polluted. 374 children (55.93%) rote as follow:

Stagnant water promotes breeding of mosquitose, flies etc. which is a dangers to public health.

Question: What are the water-borne diseases?

No. and % answered correctly	No. and % answered partly correct	No. and % ignorant.
116 - 17.15%	66 - 9.76%	496 - 73.09%

Question: How could water purified for drinking purposa?

213 - 31.5%	162 - 24%	301 - 44.5%
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Question: Pipe water is valuable - What is the reason?

241 - 35.65%	-	435 - 64.35%
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Question: Water is precious natural wealth. Why?

297 - 43.93%	85 - 12.57%	382 - 43.5%
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CHAPTER WISE ACHIEVEMENT

Chapter No.	80% and above correct answers given	60% to 79%	40% to 59%	Below 40%
Chapter I	8.6%	12.7%	13%	65.7%
Chapter II	9.5%	10.6%	11.47%	68.43%
Chapter III	8.7%	12.8%	6.4%	72.1%
Chapter IV	5%	20%	25%	50%
Chapter V	5.2%	8.5%	14.6%	71.7%
Chapter VI	6.7%	9.8%	11.25%	72.25%
Chapter VII	5.4%	7.3%	9.52%	77.78%
Average	7%	17.67%	13.03%	62.3%

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Evaluation on the basis of Post-test.

The objectives of teaching the book "Water" were explained to the teachers and students before introducing it to them. It was advised that the students also should be made to understand the aim of learning the book.

In the preface the main objectives of teaching the book has been highlighted as enlightening the children about the importance of clean water in maintaining health. The first question in the post-test material was based on this point. The response of the children to it has been founded as follows:

Those who understood the objectives	=	264 (39%)
Blank answer paper	=	4
wrong answers	=	408 (60%)

The response of the remaining question in chapter wise is analysed and tabulated as follows:-

CHAPTER I - WATER

Question: How much drinking water we need daily for maintaining health?

No. and % given correct answers.	No. and % given partly correct answer	No. and % ignorant.
589 - 87%	-	87 - 13%
Question: Underground water is comparatively pure - Why?		
350 - 57.13%	10 - 1.45%	226 - 47.42%
Question: How is rain caused?		
537 - 79.43%	-	139 - 20.57%

Question: What is new method adopted for installation taps?

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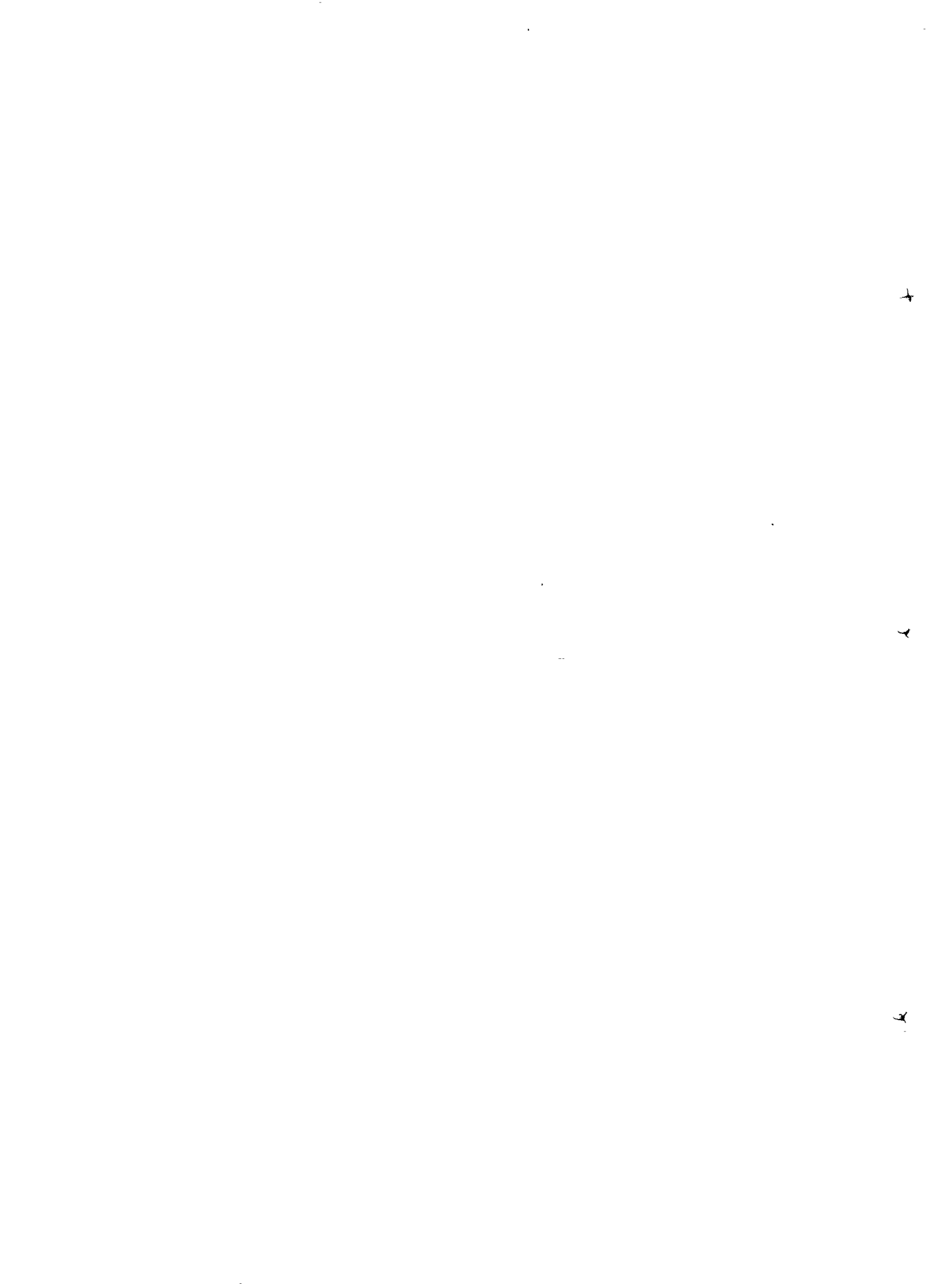
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139 - 20.5%	28 - 3.18%	509 - 76.32%	
	Before Teaching	After Teaching	Achievement (+) or (-)
80% and above given correct answers.	8.6%	10.3%	+ 1.7%
60% to 79%	12.7%	17.9%	+ 5.2%
40% to 59%	13%	31.59%	+18.59%
Below 40%	65.7%	40.21%	-25.49%

The question How is rain caused?

Note: 85.5% of the children knew the correct answer before learning the book. But only 79.43% ie 537 children only answered correctly even after teaching the subject with the aid of illustrations. The subject which they know before hand, when target with the aid of illustration and pictures. 20% of them give wrong answers. This must be the result of confusing illustrations. The standard of the Vth std. students is not sufficient to understand the illustration given in the book. The result demands considerable improvement to the illustrations.

The students did not get a clear idea about the method adopted to locate the proper place for instllation of water supply taps. The two illustrations given in the book do not convey any idea about t is aspect at all. If illustration are inevitable a serious of them is to be re-designed and introduced in the book a fresh. If it is not possible the existing illustrations is to be lifted from the book.



CHAPTER II

How does water get contaminated?

No. and % of children given correct answers	No. and % of children given partly correct answers	No. and % ignorant.
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Question: Is rain water pure? Write reasons also?

396 - 58.58%	-	280 - 41.42%
--------------	---	--------------

Question: How the water in the channels get impure?

229 - 33.13%	-	447 - 66.87%
--------------	---	--------------

Question: There is a proverb - Running water does not contain impurities, Is it correct?

489 - 72.3%	-	187 - 27.7%
-------------	---	-------------

Question: How well water gets impure? Say 3 reasons also.

539 - 79.73%	57 - 8.43%	70 - 11.84%
--------------	------------	-------------

Question: How tap water get contaminated?

306 - 45.27%	126 - 17.75%	244 - 36.08%
--------------	--------------	--------------

Question: How the impurities of the water in ponds could removed?

167 - 24.7%	-	509 - 75.3%
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Question: Why water from the tube wells and wells are pure?

221 - 35.65%	-	455 - 64.35%
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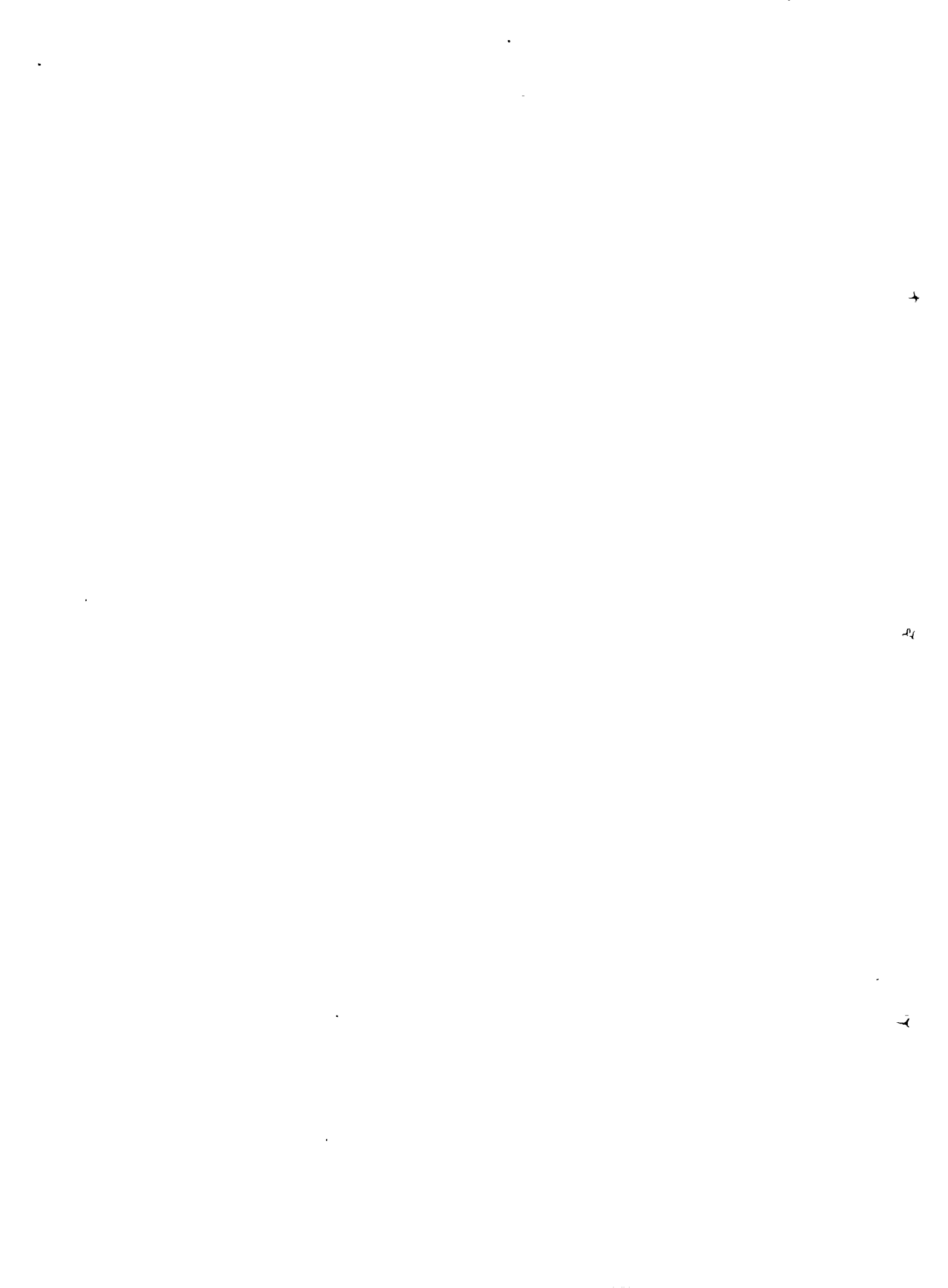
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CHAPTER II

	Before teaching	After teaching	Achievement (+) or (-)
80% and above given correct answers	9.5%	14.7%	+ 5.2%
60% to 79%	10.6%	18.4%	+ 7.8%
40% to 59%	11.47%	26.79%	+11.32%
Below 40%	68.43%	40.11%	-28.32%

CHAPTER III

No. and % of children given correct answers	No. and % of children given partly correct answers	No. and % ignorant
Question:- Which is most necessary for existence of life?		
422 - 62%	78 - 11.53%	176 - 26.47%
Question:- Only clean vessels should be used to handle water - why?		
429 - 63.46%	-	247 - 36.54%
Question:- Which is the best vessel to keep drinking water?		
460 - 68.04%	-	216 - 31.96%
Question:- How we could store the water for drinking purposes?		
220 - 32.54%	-	456 - 67.46%
Question:- How drinking water is to be preserved in schools?		
361 - 53.4%	-	315 - 46.6%



CHAPTER III

	Before teaching	After teaching	Achievement (+) or (-)
80% and above given correct answer	8.7%	28.6%	+ 19.9%
60% to 79%	12.8%	30.9%	+ 18.1%
40% to 59%	6.4%	22.67%	+ 16.27%
Below 40%	72.1%	17.63%	- 54.27%

CHAPTER IV

WATER AND DISEASES

No. and % of children given correct answers	No. and % of children given partly correct answer	No. and % of children ignorant
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Question: Where are the water-borne diseases?

277 - 40.98%	216 - 31.95%	183 - 27.07%
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Question: What is the main reasons for contamination of food?

508 - 71.15	-	168 - 24.85%
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Question: Which are the diseases spread by mosquitose?

624 - 92.3%	-	52 - 7
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Question: Name 3 diseases caused by impure water.

394 - 58.28%	-	282 - 41.72%
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Question: Which are the ideal drinks to be given for diarrhoea disease?

517 - 76.48%	-	159 - 23.52%
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CHAPTER IV

	Before Teaching	After teaching	Achievement
80% and above children given correct answer	50%	14.6%	+ 9.6%
60% to 79%	20%	34.5%	+14.5%
40% to 59%	25%	33.9%	+ 8.9%
Below 40%	50%	17%	- 33%

CHAPTER VHow water is purified.

Question: Write the easiest way to purify well water.		
No. and % given correct answer	No. and % given partly correct answer	No. and % ignorant.
265 - 39.25%	-	411 - 60.75%

Question: Write the process of purification of water in big cities.

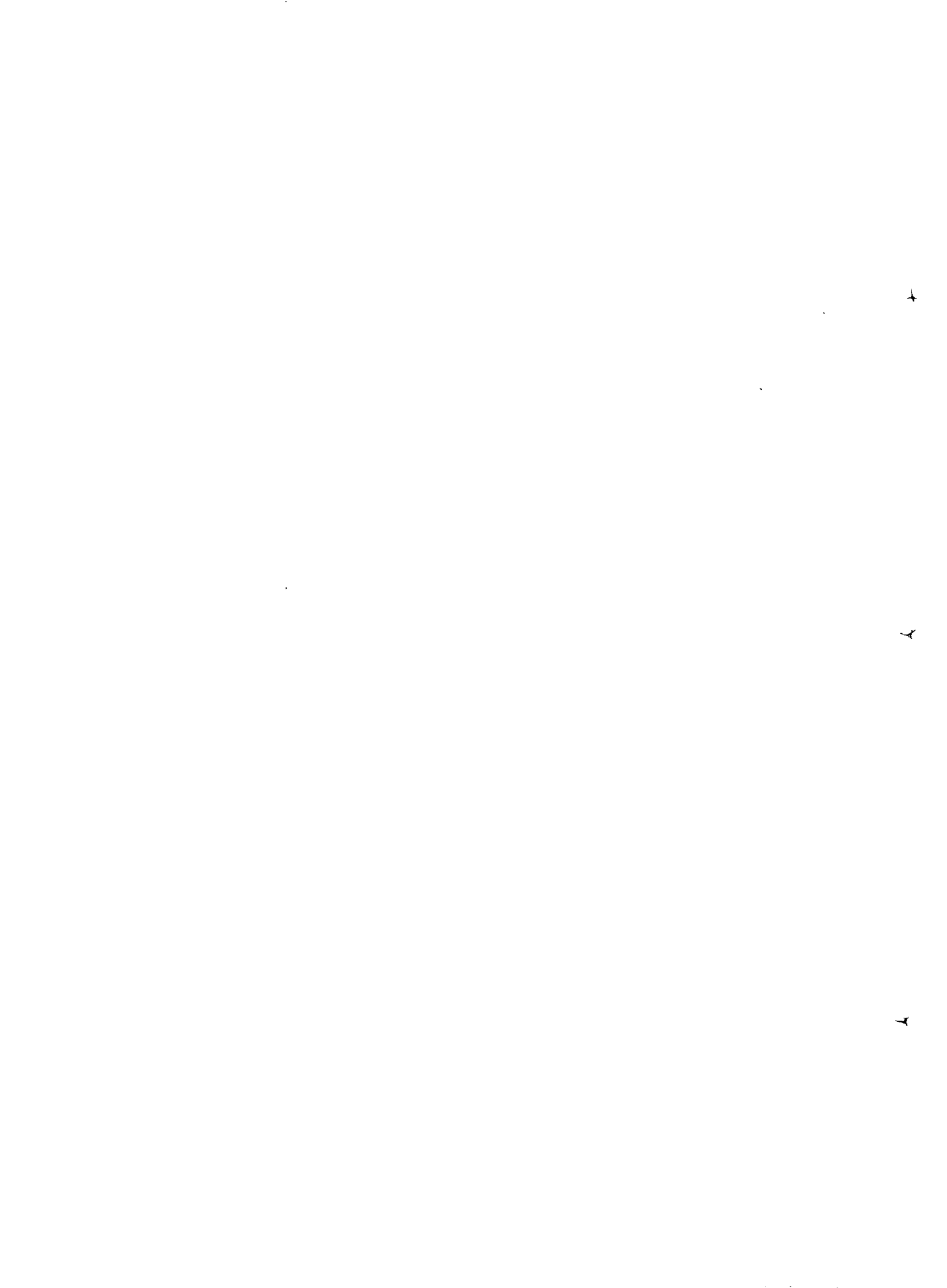
175 - 25.85%	44 - 6.5%	457 - 67.6%
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Question: How water is purified in houses?

259 - 38.32%	55 - 8.13%	362 - 53.55%
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CHAPTER V

	Before teaching	After teaching	Achievement
80% and above	5.2%	6.8%	+ 1.6%
60% to 79%	8.5%	12.4%	+ 3.9%
40% to 59%	14.6%	15.26%	+ 0.66%
Below 40%	71.7%	65.54%	- 6.16%



CHAPTER VI

Question: Pipe water should not be wasted. Why?

No. and % of children give correct answers	No. and % of children given partly correct answers	No. and % ignorant
169 - 24.1%	-	507 - 75.9%

Question: How pipe water is misused?

372 - 55%		304 - 45%
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Question: How can the misuse of water be prevented from the taps in your home?

247 - 36.53%		429 - 63.47%
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CHAPTER VI

Before teaching After teaching Achievement

80% and above given correct answers	6.7%	9.8%	+ 3.1%
60% to 79%	9.8%	12.69%	+ 2.89%
40% to 59%	11.25%	16.05%	+ 4.8%
Below 40%	72.25%	61.46%	-10.79%

CHAPTER VII

Save water to save life.

Question: Who plays the major role in contaminating water?

No. and % of children given correct answers	No. and % of children given correct answer	No. and % ignorant.
400 - 59.17%	-	276 - 40.83%

Question: Bleaching powder is to be used for purifying well water true or false?

462 - 68.34%	-	214 - 31.66%
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Question: Water is the boon of our mother nature - Is it correct?

247 - 36.53%		429 - 63.47%
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Question: Saving water is saving.

233 - 34.46%		443 - 54%
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CHAPTER VII

	Before teaching	After teaching	Achievement
80% and above	5.4%	10.6%	+ 5.2%
60% to 79%	7.3%	18.8%	+11.5%
40% to 59%	9.52%	13.6%	+ 4.08%
Below 40%	77.78%	57%	-20.78%

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CHAPTER WISE ANALYSIS AT A GLANCE

Standard	Chapter I			Chapter II			Chapter III			Chapter IV			Chapter V			Chapter VI			Chapter VII		
	BT %	AT %	A %	BT %	AT %	A %	BT %	AT %	A %	BT %	AT %	A %	BT %	AT %	A %	BT %	AT %	A %	BT %	AT %	A %
80% and Above	8.6	10.3	+ 1.7	9.5	14.7	+9.2	8.7	28.6	+19.9	5	14.6	+9.6	5.2	6.8	+1.6	6.7	9.8	+3.1	5.4	10.6	+5.2
Between 60% to 79%	12.7	17.9	+5.2	10.6	18.4	+7.8	12.8	30.9	+18.1	20	34.5	+14.5	8.5	12.4	+3.9	9.8	12.69	2.89	7.3	18.8	+11.5
Between 40% to 59%	13	31.59	+18.59	11.47	26.79	+15.32	6.4	22.67	+16.27	25	33.9	+8.9	14.6	15.26	+0.66	11.25	16.05	4.8	9.52	13.6	+4.08
Below 40%	65.7	40.21	-25.49	68.43	40.11	-28.32	72.1	17.83	-54.27	50	17	-33	71.7	65.54	-6.16	72.75	61.46	-10.79	77.78	57	-20.78

BT : Before Teaching

AT : After Teaching

A : Achievement.



ACHIEVEMENT IN GENERAL

Chapter No.	Before Teaching	After Teaching	Difference
Chapter I	34.3%	59.79%	25.49%
Chapter II	31.57%	59.89%	28.32%
Chapter III	27.9%	82.17%	54.27%
Chapter IV	50%	83%	33%
Chapter V	28.3%	34.46%	6.16%
Chapter VI	27.75%	38.6%	10.79%
Chapter VII	22.22%	43%	20.78%



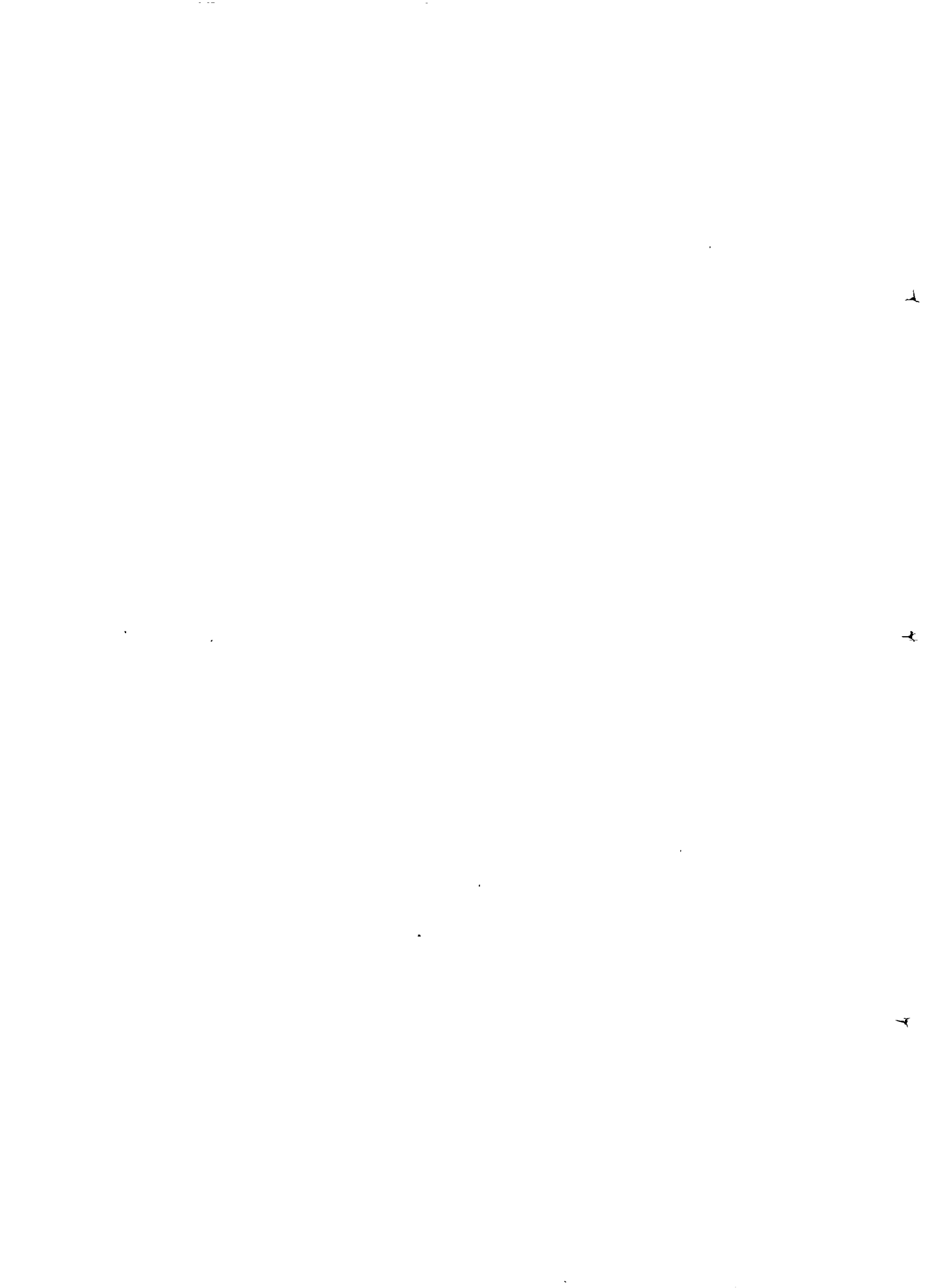
General opinion of the children about the

Book - "WATER"

Some questions were asked about the book in general.

A few samples of such questions are reproduced below with the response of the children.

Question	Responses	Findking
<p>1. Do you like this book?</p> <p>Yes - 100%</p>	<p>1. Easy to understand</p> <p>2. Could study about all the aspects of water.</p> <p>3. Beautifully illustrated</p> <p>4. Simple language.</p> <p>5. Much to understand.</p> <p>5. Interesting.</p> <p>6. Salt and sugar have been illustrated in the book in wrong colour.</p>	<p>Though 100% of the children have given encouraging response One child has keenly observed that salt and sugar have been illustrated in the book in wrong colour.</p>
<p>2. Can you understand the contents of the book by self study?</p>	<p>Yes - 80%</p>	<p>80% answered in the affirmative. But it has not reflected in their answer.</p>
<p>3. Which part of the book is most interesting to you?</p>	<p>The most interesting parts of the book are the story of venue and the house of Amina Umma.</p>	<p>Through the Character Venue they have learned that water is not be wasted</p>



<p>4. Which is the most attractive illustrations in the book.</p>	<ol style="list-style-type: none">1. Clean and neat house.2. Amina's House3. Rain4. Contamination of the river.5. Contamination of pond water.6. Venue watering Plankten.7. Cleaning the ear.	<p>There is no unanimous answer.</p>
<p>5. Is this book roused any interest in other students.</p>	<ol style="list-style-type: none">1. Yes2. The members of the house also shown interest to read it.	<p>This book was roused an interest in the other students also. They borrow and read it. The members of their houses also shown interest in reading this book.</p>

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TEACHERS RESPONSE

Response Sheets have been received from 28 teachers. They have properly assessed the book and recorded their experiences and views. A few samples are reproduced.

Question 1. Whether the book could be understood by children without help ?

Response:- Yes - 21 (75%)

Only some portions - 6 (21.42%)

Cannot be understood 1 only

Question 2. Which is the most interesting chapter.

Response:- 6th chapter - 8 teachers - 28.57%
2nd " - 8 " - Do
4th " - 8 " - Do
3rd " - 7 " - 25%
5th " - 4 " - 14.29%

Some have given more than one chapter as interesting.

Question.3 Were the students actively participating in the class room ?

Response :- Yes - (100%)

Question 4. Whether the illustrations of the book helpful useful for explaining the ideas?

yes - 24 Teachers. (85.17%)

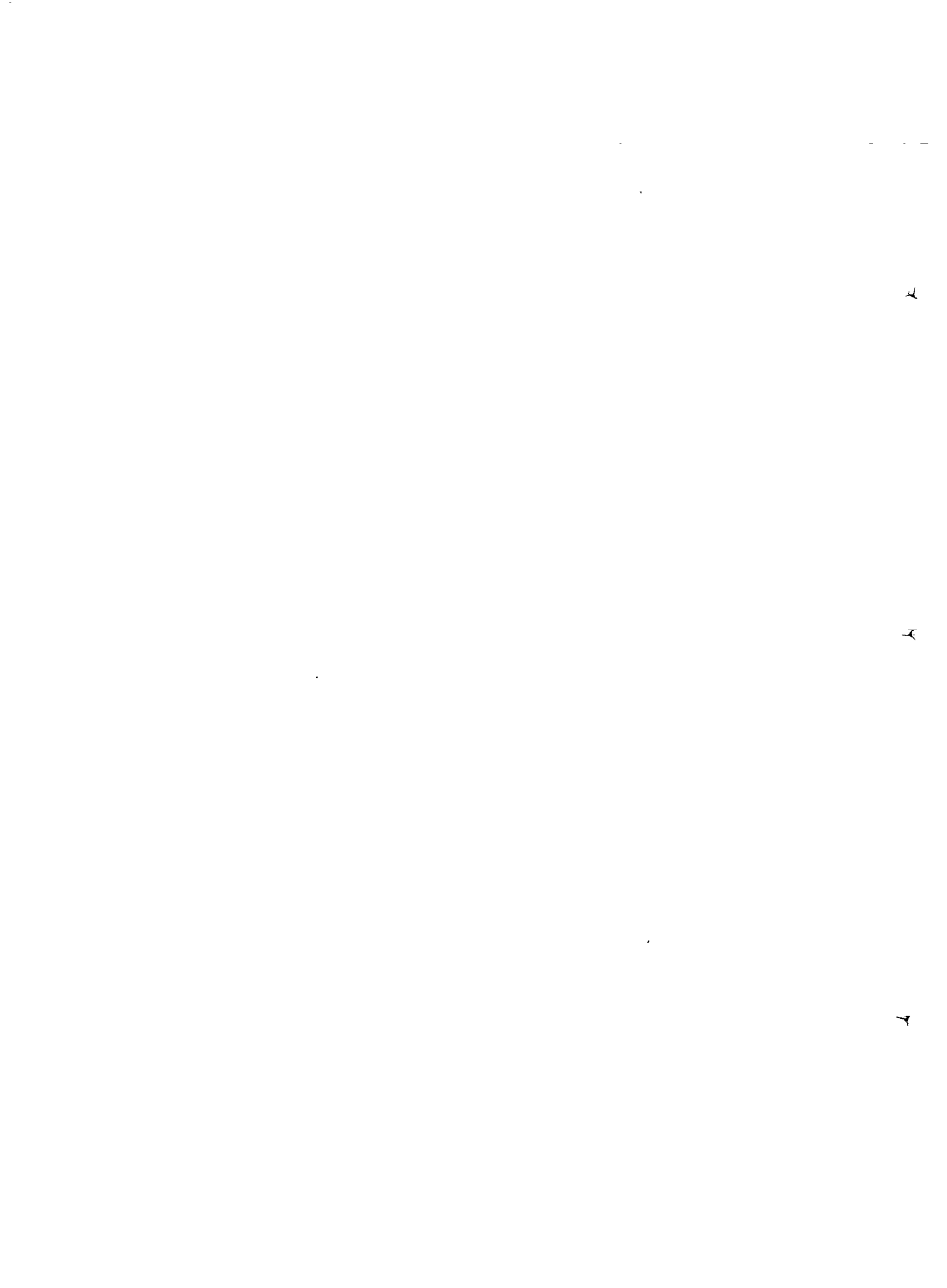
Some not helpful - 4 Teachers (14.28%)



Assessment of the illustrations by Teachers:-

They have given their opinion in detail. No alternations are required in them - 6 Teachers. (24.42%). The other 22 have suggested alternations of different kinds. They are:-

1. The pictures showing how ponds and rivers get polluted are not clear and nothing could be made out from them.
2. The process of water purification illustrated do not convey any idea. (78.58% Teachers are of this opinion)
3. The picture showing how rain is caused (ie water cycle) also is difficult for students to understand. (The answers given by the children also prove this).
4. Picture of pollution of water in well - colour combination of the picture highly confusing and misleading.
5. Salt and sugar are wrongly coloured.
6. The picture illustrating inauguration of water supply schemes is against the current social spirit. The officers and the public are shown seperately.
7. The picture that shows how ponds get polluted, has a man watching women taking bath from a hide out. This gets a highly objectionable model for the children. A picture of a well protected ~~and~~ pond also is required, side by side.
8. Finding the location to install the tap is not clear from the illustration. The picture conveys no sense.
9. The picture of a dirty pot does not look dirty.
10. Chapter 4 - students cleaning their hands before lunch. The colour of water in the picture is yellow.
11. The illustrations of sales of watermelon near school is not a common scene throughout Kerala.
12. How diseases germs enter the body - The illustrations do not convey any sense.



- 24 -

TEACHER'S VIEWS ON THE USEFULNESS

THE BOOK

No	Chapter	Very well grasped <i>Well presented</i>		Difficult to grasp		Very difficult to grasp	
		Number	%	Number	%	Number	%
1	1	27	96.4	-	-	-	-
2	2	28	100	-	-	-	-
3	3	25	89.29	2	7.14	1	3.57
4	4	17	60.17	7	25	4	14.28
5	5	6	21.43	18	64.28	-	-
6	6	24	85.71	1	3.57	-	-
7	7	24	85.71	1	3.57	-	-

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Same opinion in the percentage of students - Statement.

No	Chapter	100% under stands	80 to 100% "	60 to 80% "	40 to 60% "	40 to 20% "	No one under stands
1	1	17.86%	57.14%	14.29%	10.71%	-	-
2	2	28.57%	32.14%	28.58%	10.71%	-	-
3	3	25%	46.12%	14.24%	10.71%	-	-
4	4	10.71%	21.62%	28.58%	25%	-	-
5	5	-	7.14%	32.19%	22.14%	28.58%	-
6	6	25%	39.29%	10.71%	-	-	-
7	7	38.71%	28.58%	14.24%	7.14%	-	-



Behavioral Changes in the children induced by the book as
observed by the teachers:-

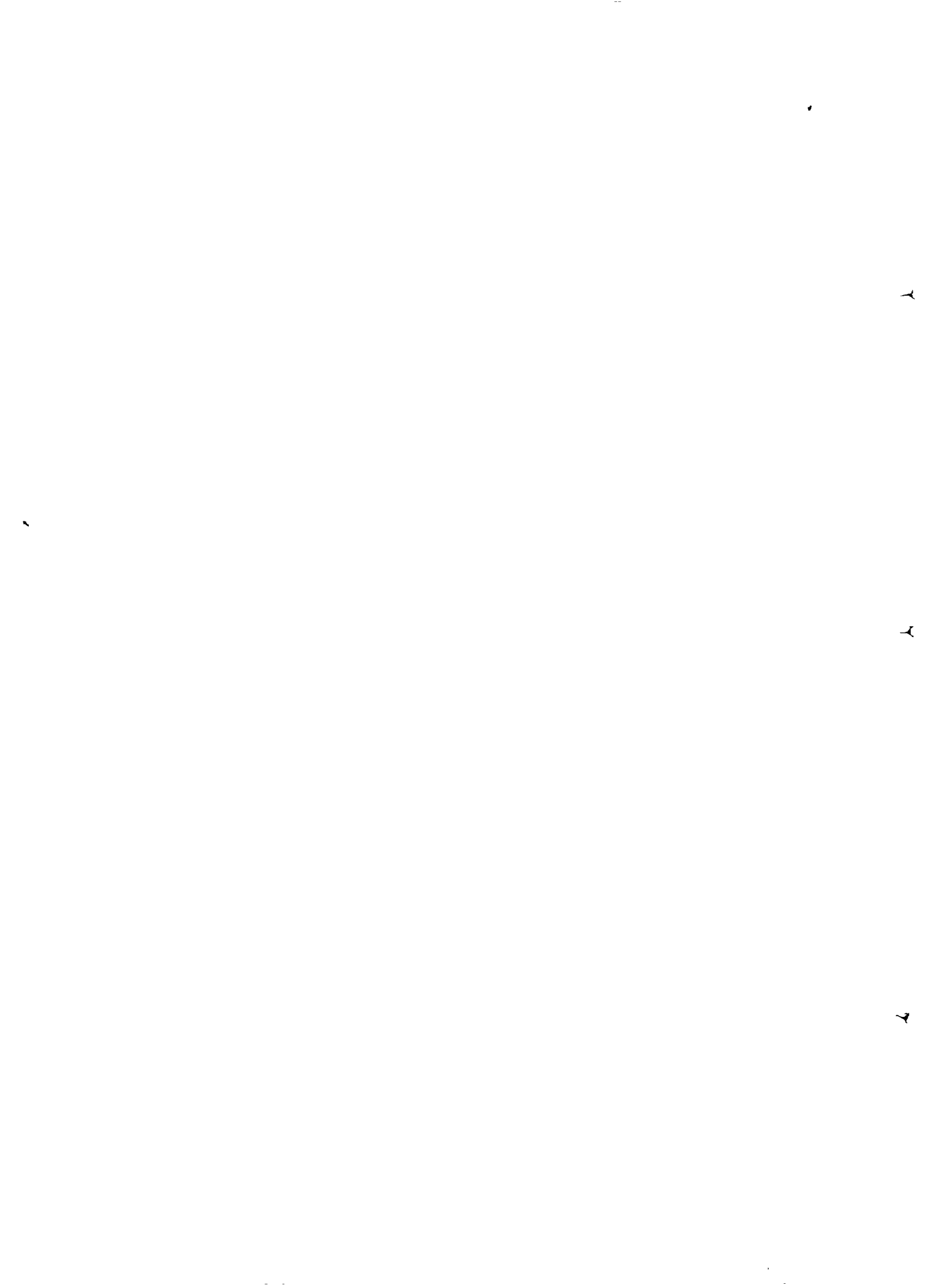
A good number of teachers were of the opinion that the following changes could be observed in the children after hearing the book 'water'.

1. Children have developed an awareness to keep drinking water clean.
2. Lead a hygienic life.
3. Careful to drink clean water only
4. Take bath every day and clean the surrounding.
5. Do not misused pipe water
6. Care to use latrines.
7. Dispense with unhygienic practices.

How the Teachers have been enriched by the book.

The teachers in general are found to have gained new knowledge about the following:-

1. How to purify river water
2. Difficulties caused by scarcity of water
3. How water could be purified at home.
4. Precaution against dehydration by diarrhoea - Oral de hydration therapy.



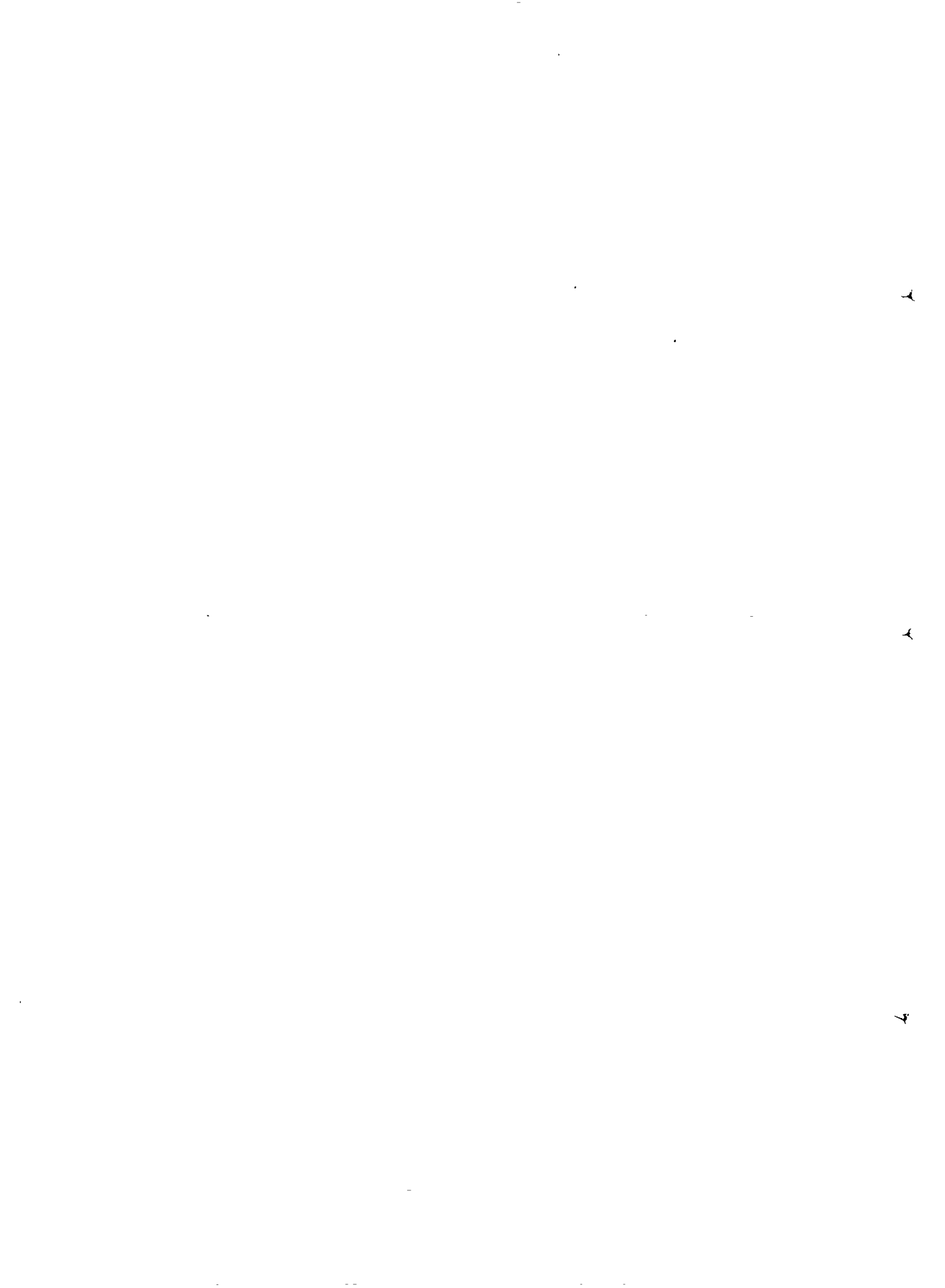
How the book should be enriched ?

According to the teachers, the book must contain more ideas on:

1. How the waste water from bath rooms could be used for watering. Vegetable garden and small farms.
2. Worm diseases.
3. Prevention is better than cure.
4. Use of foot-wear.
5. The loss of balance of nature causes water scarcity
6. Importance of protection of forests
7. Children must be self-reliant to clean the urinals and surroundings of schools.
8. The process of purifying river water is to be re-written with considerable improvement.
9. Changing the washes of taps when required must be clarified.

Additional illustrations required.

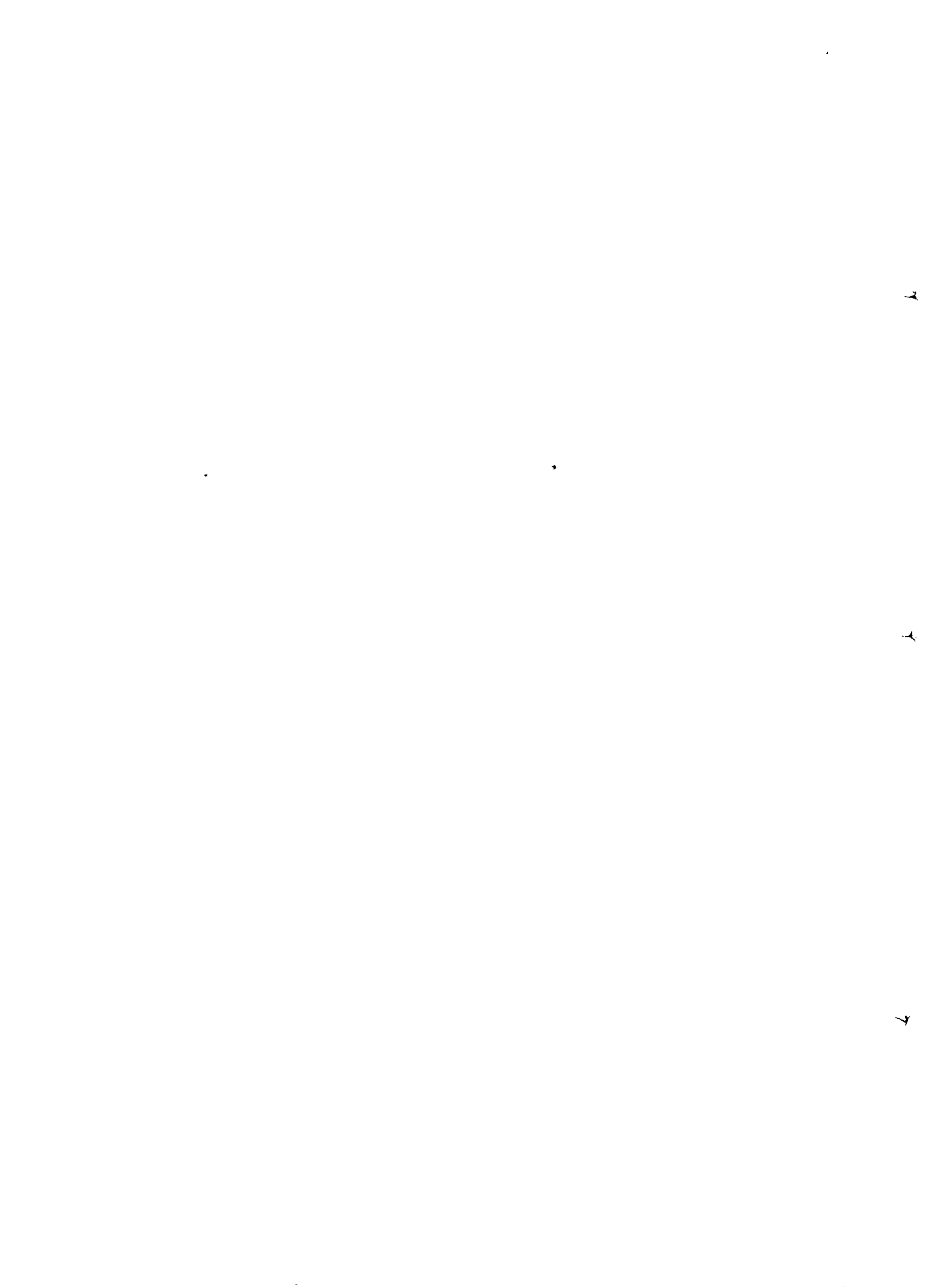
1. Worm-infection-Hook Worm , tape worm.
2. Polio-different aspects.
3. Purifying river water - illustrations and chart



IMPROVEMENT TO THE BOOK

Ten teachers (35.71%) are of the opinion that the book needs considerable improvement. The following are their suggestions.

1. After the preface contents of the book should be given.
2. The pages of the book must be numbered.
3. Fourth chapter to be condensed.
4. Fifth chapter to be re-written.
5. Repetition to be avoided. The importance of pure water is given in three chapters. The chapters deal with diseases (Eg. chapter 4 and 7 deal with cholera).
6. Pictures must project themes common for the children all over Kerala.
7. Inclusion of some cartoons will make the book more interesting to students.



Recommendations of the Monitoring Agency.

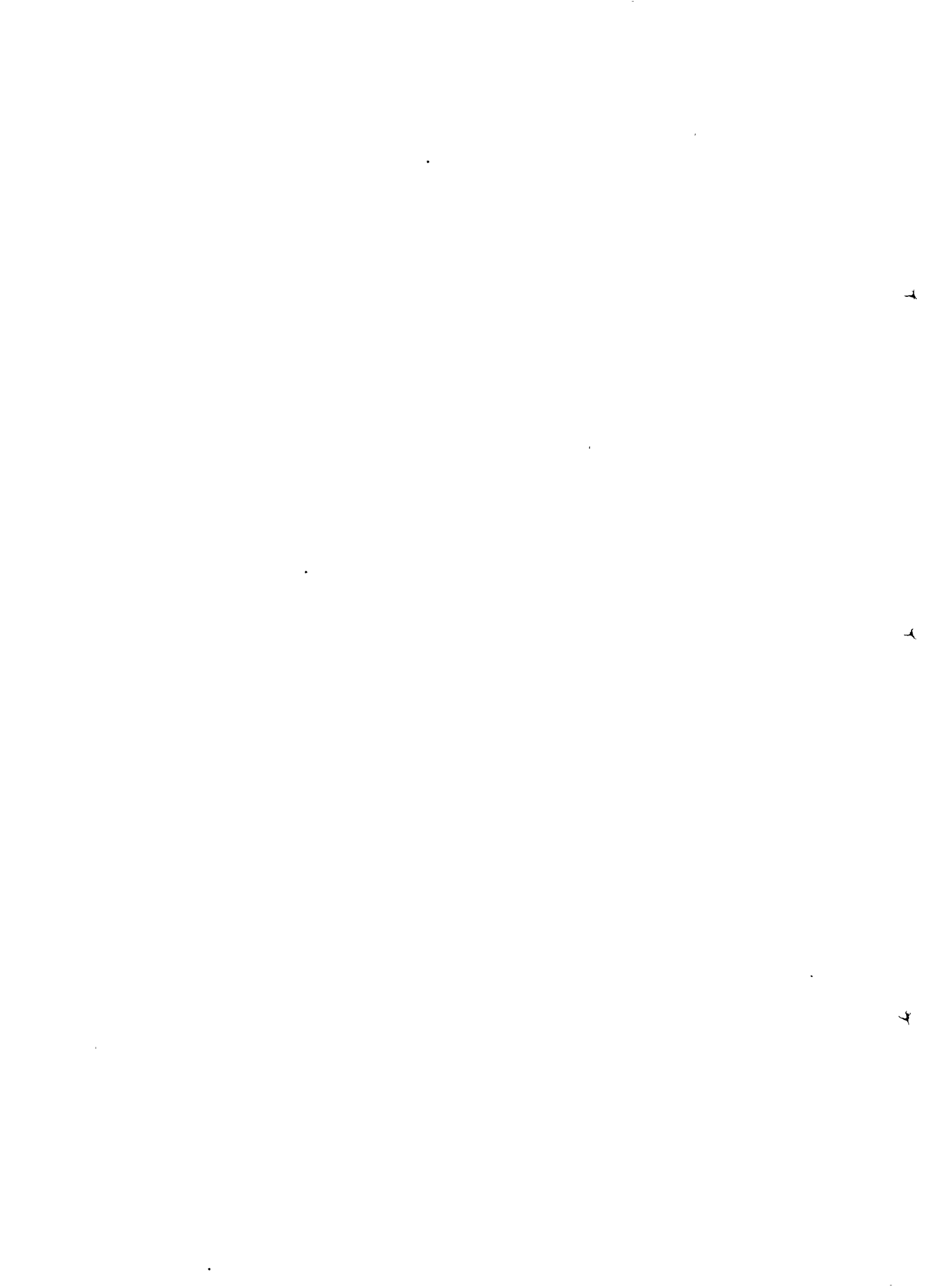
There is similarity between the opinions of the children and the teachers. The answer papers are the students have proved that the teachers. The answer papers of the students have proved that the evaluation of the chapters of the book and that of the standard are more or less correct. The modification and alteration of the book are to be made on the basis of the observations given above.

On a very close scrutiny it is seen that there is something wrong with the editing of the book. Repetition is the main defect. The subject water is dealt with in the first chapter. The same is found in the second and seventh chapters. This is to be eliminated. The mostly required item for the sustenance of life is water, is one chapter. In another chapter the first place is given to air and water comes as a second one. The answer papers show this statement has caused confusion among the students. A careful editing is required before the next re-print of the book, avoiding such contradictory statements and the other suggestions given elsewhere.

I am of the view of that the re-edited and improved version of the book may be supplied to all the members of the student Health Clubs free of cost so that its message may reach down to all levels.

MANACAUD SUKUMARAN NAIR.





Chapter's Discussion

11.00 - 12.00

: Mr. Richard Benzer
Mass Media Officer
Malappuram Dist.

12.00 - 1.00

: Chapter discussion continues

1.00 - 2.00

: Lunch break

2.00 - 2.45

: Pretesting techniques
Sri. Manacaud Sukumaran Nair
Govt. Model High School
Trivandrum.

2.45 - 3.15

: Slide Presentation

3.15 - 5.15

: Water purification process *G. Ramachandran*
(Discussion and visit to Treat- *(Asst. Ex: Engineer*
ment plant, Mavoor) *(CWA)*

16th February 1989

8.00 - 11.00

: Field visit
Institution and Household Sanitation
and Water Standposts.

11.30 - 12.30

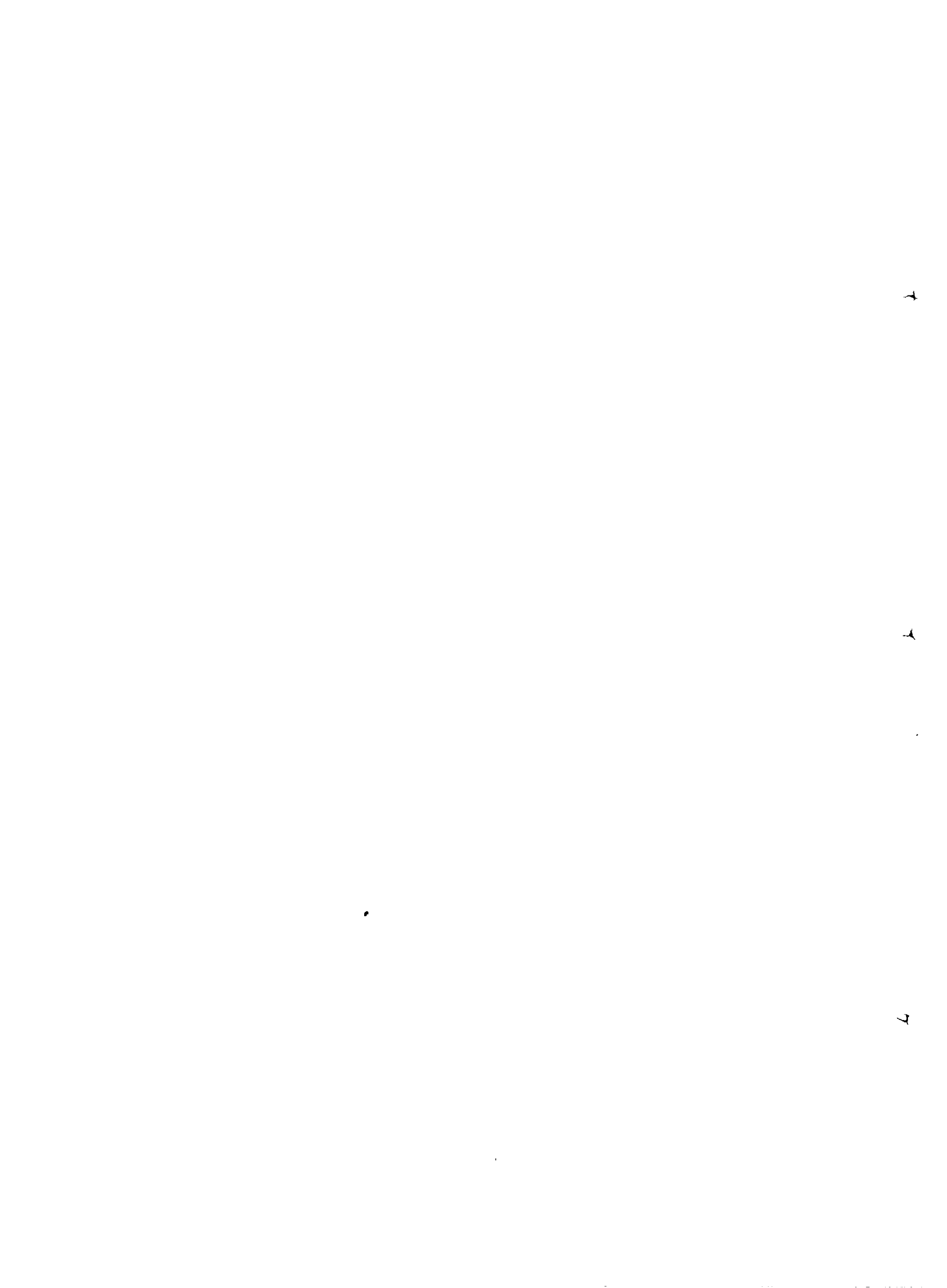
: Discussion

12.30 - 1.30

: Lunch

1.30 - 3.00

: Concluding session



Annexure II

The Schools which were selected for the Pre-test of the book on "WATER".

Seventeen schools were selected from the area of activities of the SEU for pre-test and assessment of the values gained thereby.

SEU, CALICUT

1. KOODALI HIGH SCHOOL, KOODALI PANCHAYAT, CANNANORE DISTRICT.
2. SANKARA VILASAM U.P. SCHOOL, KANTIRODE, MUNDERI PANCHAYAT, CANNANORE DT.
3. KOYA HAJI MEMORIAL U.P. SCHOOL, KARUVANTHURUTHI, FAROKE PANCHAYAT, CALICUT DISTRICT.
4. EZHUTHACHAN MEMORIAL A.U.P.S. , RAMANATTUKARA PANCHAYAT, CALICUT DT.
5. GOVT. U.P. School, Thavanoor, Thavanoor Panchayat, Malappuram Dt.

Contd.7

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Annexure III

Nos of Students and their standards

Students selected from schools for pre-test
and their standards:-

1. Koodali High School

5th standard B.DM.	—	42 students
Marks scored more than 80%..		2
Between 60 & 79%		6
50 & 59%		3
40 & 49%		2
Below 40%		29

Total		42
		=====

2. Sankara Vilasam UPS Kanjmode

5th standard A DM. 34 students

Marks scored above 80%	-	NIL
Between 60 and 79%		2
50 " 59%		2
40 " 49%		1
Below 40%		29

Total		34

7

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6. K.V.U.P. School, KAKKIDIPPURAM ,ALAMKODU PANCHAYAT,
MALAPPURAM DT.

SOCIO-ECONOMIC-UNIT,(CENTRAL), TRICHUR

7. ST. ANNES CONVENT U.P. SCHOOL, EDATHURUTHY PANCHAYAT
TRICHUR DT.

8. GOVT. U.P. SCHOOL, KARUPPADANNA ,VELLANGALLOR PANCHAYAT,
TRICHUR DT.

9. SOCCORSA CONVENT HIGH SCHOOL, KOTTAKAL, MALA PANCHAYAT,
TRICHUR DT.

10. GOVT U.P. SCHOOL, VELLANGALLOOR PANCHAYAT, TRICHUR DT.

11. GANDHI SMARAKA HIGH SCHOOL, ASHTAMICHIRA, MALA PANCHAYAT,
TRICHUR DT.

SOCIO-ECONOMIC-UNIT (SOUTH), QUILON

12. GOVT. MOHAMMADAN U.P.S. KOLLAKADAVU, CHERIYANADU PANCHAYAT,
ALLEPPEY DT.

13. HIGH SCHOOL IRUMPANANGODU, EZHUKONE PANCHAYAT, QUILON DT.

14. MAR THOMA HIGH SCHOOL, ARUMURIKKADE, EZHUKONE PANCHAYAT
KUNDARA EAST, QUILON DT.

15. M.G.D. HIGH SCHOOL FOR BOYS KUNDARA PANCHAYAT, QUILON DT.

16. GOVT. HIGH SCHOOL, VAKKAM, VAKKAM PANCHAYAT.

17. ST. JOSEPH'S HIGH SCHOOL, ANJENGO, TRIVANDRUM DT.

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3. Koyahaji Memorial UPS Karuwanthuruthi5th standard BDM 40 students

More than 80%	--	Nil
Between 60 & 79%		2
" 50 & 59%	--	3
" 40 & 49%	--	3
Below 40%		32

		40

4. Ezhuthachan Memorial UPS Ramanattukara

5th standard ADM 37 Boys

More than 80%	--	4
Between 60 & 79%	--	5
" 50 & 59%	-	4
" 40 & 49%	-	5
Below 40%	-	19

		37

5. Govt.U.P.S.Thavannur.

5th Standard ADM 37 students

80% and more	-	3
60% and 79%	-	7
50% and 59%	-	5
40% and 49%	-	9
Below 40%	-	13

Total 37

4

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6. K.V. U.P.S Kakkidippuram

5th Standard A DM. 27 Boys

80% and more	-	Nil
60% and 79%	!	4
50% and 59%	-	3
40% and 49%	+	2
Below 40%	-	18
		<hr/>
		27
		<hr/>

7. St. Anne's U.P.S, Edathuruthy.

5th Standard 56 Students.

80% and more	-	3
60% and 79%	-	19
50% and 59%	-	7
40% and 49%	-	4
Below 40%	-	23
		<hr/>
		56
		<hr/>

8. Govt.U.P.S.Vellangalloor.

5th Standard A.Dn. 33 Students.

Details of marks not available.

9. Govt.High School, Karupadanna.

5th Standard C.Dn 42 students.

80% and above	-	~ 4
60% and 79%	-	2
50% and 59%	-	1
40% and 49%	-	5
Below 40%	-	34
		<hr/>
		42
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10. S.C.G.High School, Kottakkal, Mala.

5th Standard A.Dn 57 Students.

80% and above	-	2
60% and 79%	-	6

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50% and 59%	-	2
40% and 49%	-	9
Belo 40%	-	38

		57
		=====

11. Gandhi Smaraka High School, Ashtamichira.

5th Standard B.Dn.	48 Students.
80% and above	- 1
60% and 79%	- 5
50% and 59%	- 1
40% and 49%	- 9
Below 40%	- 32

	48
	=====

12. Govt. Mohamadan U.P.S, Kollakkadavu.

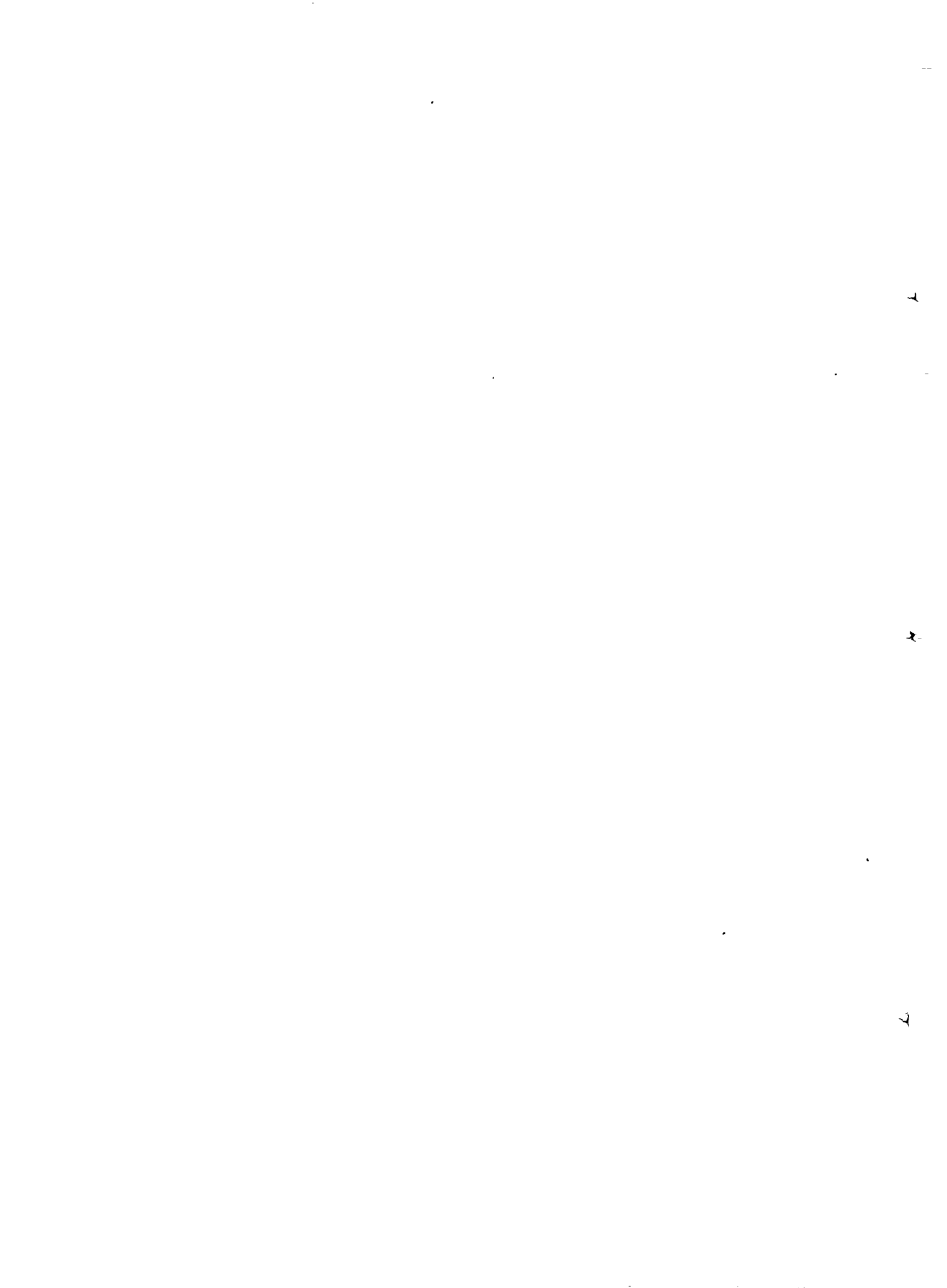
5th Standard C.Dn	40 Students.
80% and more	- 2
60% and 79%	- 2
50% and 59%	- 2
40% and 49%	- 8
40% and below	- 26

	40
	=====

13. High School, Irumbanangadu.

5th Standard A.Dn	29 Students.
80% and more	- 2
60% and 79%	- 2
50% and 59%	- 4
40% and 49%	- 1
40% and below	- 20

	29
	=====



14. Marthoma High School, Arumurikkada, Kundara.

5th Standard A.Dn.	40 students.	
80 students and more	-	1
Between 60% and 79%	-	4
50% and 59%	-	4
40% and 49%	-	5
40% and below	-	26

		40
		=====

15. M.G.D.High School, Kundara.

5th Standard A.Dn.	55 students.	
80% and more	-	Nil
60% and 79%	-	4
50% and 59%	-	6
40% and 49%	-	4
40% and below	-	41

		55
		=====

16. Govt.High School, Vakkom

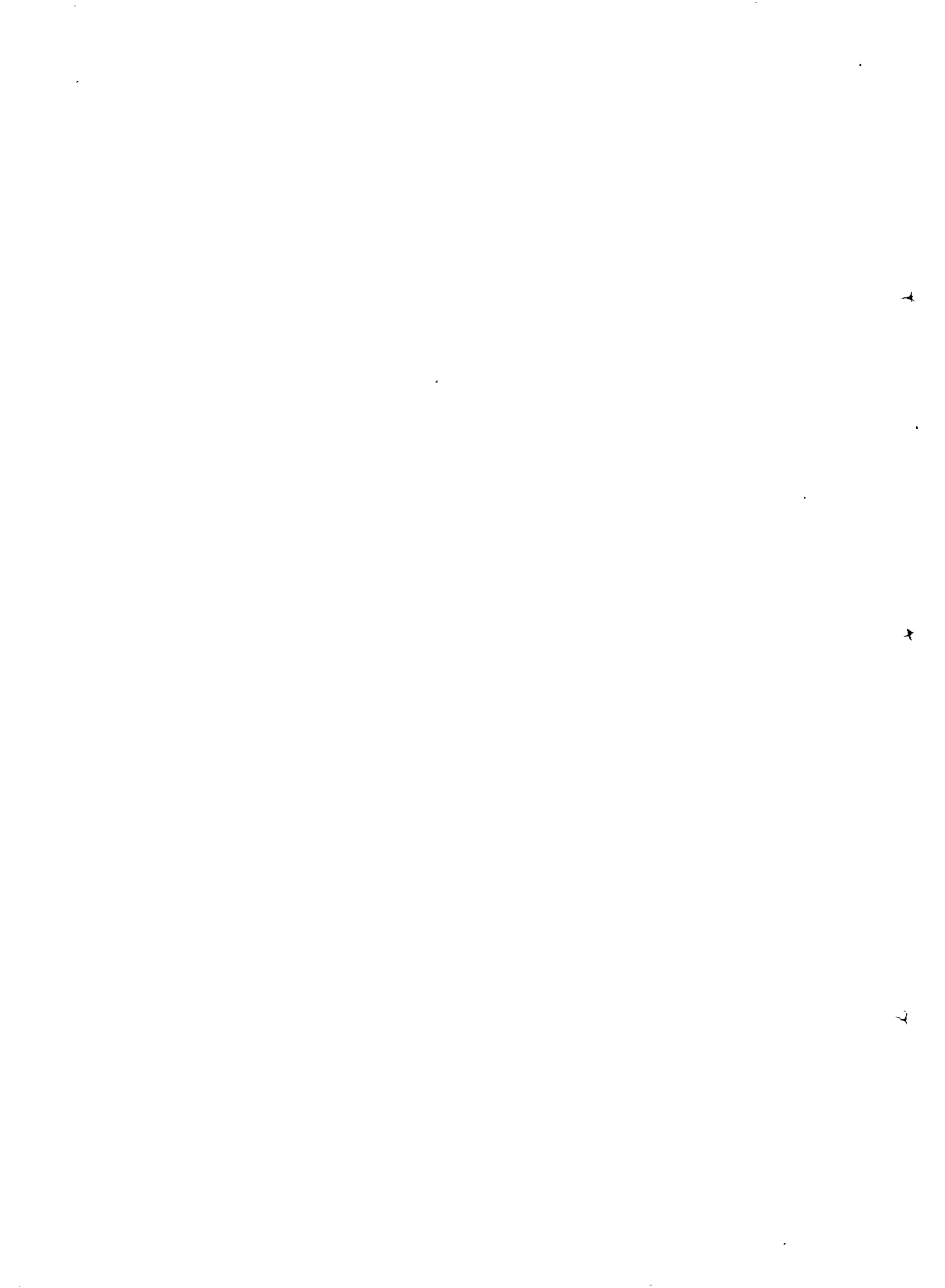
5th Standard A.Dn.	21 Students.	
80% and more	-	1
60% between 79%	-	1
50% and 59%	-	5
40% and 49%	-	6
Below 40%	-	8

		21
		=====

17. St.Josephs High School, Anjengo.

5th Standard A.Dn. 38 Students.
Marklist not available.

The participants among students who attended in the priliminary test and pre-test were 676. Of the 676 students, there are 71 students whose mark details were not available. An analysis of the performance of the balance 605 students are given below.



Those who scored marks above 80%	-	21 (3.47%)
Between 60% and 79%	-	73 (11.73%)
" 50% and 59%	-	52 (8.6%)
" 40% and 49%	-	73 (12.07%)
Below 40%	-	388 (64.13%)

It requires special attention to the fact that among the total students selected for pre-test, 64.13% were of the standard below average.



Sanitation.

Those who have latrins at house	-	485 (71.75%)
Open defecation	-	191 (28.25%)
Of these 191, those who use poromboke lands	-	62 (32.5%)
Those who use places around their residences	-	54 (28.3%)
Do use the fields	-	29 (15.2%)
Those use places other than referred above.	-	46 (24%)
Of the 676 students those who take bath daily.	-	557 (82.4%)
119 students do not take bath daily.		
The reasons for not taking bath daily are:		
1. Non availability of water.	-	20 (16.8%)
2. They had no time for it	-	15 (12.6%)
3. Because they have to attend religion classes in Madrassas	-	10 (8.4%)
4. Laziness	-	4 (3.36%)
5. Ill health	-	80 (67.2%)

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ANNEXURE - IV

Standard of Life, Availability of Water and
Sanitation facilities of the students.

Total number of students who live in rural area	-	565 (97.19%)
Those who live in urban area	-	19 (2.81%)
Those who live in Thached houses	-	182 (26.92%)
Those who live in Triled houses	-	381 (56.36%)
Those who live in sheet thached houses	-	13 (1.92%)
Those who live in terraced houses	-	100 (14.8%)
Those who living in Coloneys	-	148 (21.89%)
Living in individual (seperate) houses	-	578 (78.11%)

Availability of Drinking Water.

The answers for the question "from where you take water for household use" are given below:

getting from house connection taps and own wells	-	20 (2.96%)
Those who have own pipe connection	-	177 (26.18%)
Those who have own wells	-	378 (55.91%)
From the wells of neighbours	-	13 (1.92%)
From public taps	-	113 (16.71%)
Public wells, tube wells and tanks etc.	-	100 (14.8%)

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Annexure # 1

Normal

TEACHERS Selected
SELECTED FOR THE Program

-8-7

From 17 Schools 33 teachers were selected for Pre test programme. Names given below.

1. Mr. T. Unnikrishnan, Koodali High School, Koodali.
2. Mr. M.M. Padmanabhan, " "
3. Mr. V. Gangadharan, Sankara Vilasam U.P.S, Kanjirode.
4. Mr. M. Jayaprakash " "
5. Mr. Koya Moideen Kutty, K.H.M.; U.P.S. ,KARUVANTHIRUTHY
6. Mr. P.K. Balan " "
7. Mr. M. Bhagyachandran, AEA U.P.S. Ramanattukara
8. Mr. K. Dasan " "
9. Mr. O.R. Narayanan Kutty, GOVT. U.P.S, Thavanoor.
10. Mr. K.P. Suryanarayanan, K.V.U.P.S., Kakkidipuram
11. Mr. A. Shahul Hameed " "
12. Sr. Devotta, St. Annes C.U.P.S. Edathuruthy
13. Sr. Jyothy " "
14. Smt. V.K. Pushpavathi, Govt. U.P.S. Vellangalloor.
15. Smt. A.R. Elizabeth " "
16. M.M. Kanakamani, Govt. H.S. Karupadanna.
17. K. Parukkutty " "
18. Sr. Sherly P.U. Seccorsa Convent H.S. Kottakkal
19. Sr. Kunjlu P.P. " "
20. E.N. Padmavathy, Gandhi Smaraka H.S. Ashtamichira.
21. E.A. Valsalakumari " "
22. Mr. B. Sambasiwan H.S. , Irumpanangadu
23. Mr. T.N. Haridasan " "
24. Mr. P. Mathew Paniker, Marthoma High School, East, Kundara.
25. Mr. M. John " "
26. Mr. O.M. Panicker, MGD Boys High School, Kundara
27. Mr. Geevarghese Panicker " "
28. Mr. M. Sadasivan Pillai, Govt Mohamadan UPS, Kollakadavu

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29. Mr. T.K. Basheer Kutty, Govt. Mohamadan UPS, Kollakadavu.

30. Mr. N. Rajamoni Govt, H.S., Vakkom.

31. Mr. Pushparajan " "

32. Mr. K. Baiju, St. Joseph's High School, Anjengo

33. Mr. S.V. Jayaram " "

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12
Standard of the teachers.

One post graduate, eight qualified teachers with B.Ed after graduation, four pre-degree and TTC holders, sixteen SSLC and TTC holders. Of the 28 only seven worked under Govt. 21 were from private schools and four of them were sisters from Convents.

Length of their services.

More than 15 years	-	15 (53.58%)
Below 10 years & 14 years	-	5 (17.85%)
Below 9 years	-	8 (28.57%)

From this it is clear that the teachers selected were competent for the job. So their opinions are to be taken at their face value.

[REDACTED]

[REDACTED]

