સંશોધન સારાંશ

RESEARCH ABSTRACT

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જિલ્લા શિક્ષણ અને તાલીમ ભવન, મહેસાણા

વર્ષ: 2024-25

અનુક્રમણિકા

મહેસાણા

સંશોધન સારાંશ

2018-19

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Gujarat Educational Research and Training Council, Gandhinagar

Integrated District Institute of Education and Training, Mehsana

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Guidance

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Year 2024 – 25

Introduction

In the year 2024-25 Inspired Gujarat State Education Department and Gujarat Educational Research and Training Council, Gandhinagar and District Education and Training Bhavan of Mehsana, Under the guidance of V.D. Adhiyol Sir (Principal of DIET Mehsana), during the year 2018-19 to 2023-24, research work was carried out by District Education and Training Bhavan, Mehsana under various subjects and matters in Mehsana district.

A humble attempt has been made here to compile a summary of this study and present it to you all, which will serve as a guide to all your colleagues in the field of education. And it will be an inspiration for the teachers of the district.

Congraulations to the researchers, teachers of the district who provided necessary information in the research and also who guided the research.

Dr. Devangi M.Patel

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DIET, Mehsana.

District Institute of Education and Training, Mehsana

List of researches conducted during the year 2018 – 2019

No.	Research Title	Researcher
1	Survey of academic achievement of students of standards four, six and seven of Mehsana district under GAS (Gujarat Achievement Survey)	S.C.Rabari
2	Educational achievement of children of primary schools in Mehsana district	S.C.Rabari
3	A case study of 'Mitrashala program'	S.C.Rabari
4	A case study of 'Mitrashala program'	Baldevbhai S. Desai
5	A study of the effectiveness of the 'Mitrashala program' implemented in schools with C and D grades in Mehsana district	Baldevbhai S. Desai
6	Structure of simplified educational program and its effectiveness in the context of teaching difficult learning outcome number SST807 of social science subject of standard 6.	Baldevbhai S. Desai
7	Readability of the standard 7 English textbook.	Dr. Dipati A. Trivedi
8	Study of academic and co-curricular achievement of students of B.N. High School (Primary School) of Vadnagar Taluka and Umri Primary Schools of Satlasana Taluka under the 'Mitrashala Program'.	Dr. D.S. Chaudhari
9	A case study of Taleti Primary School, Mehsana Taluka, Mehsana District	P. I. Patel
10	A case study of 'Mitrashala Program' of Mehsana and Jotana talukas	Seema R. Yadav
11	Structure and testing of a simplified educational program in the context of studying the difficult learning outcome number M318 of Mathematics subject of Standard-3	Anil Vekariya
12	A case study of Visnagar Primary School-3, Visnagar Taluka, Mehsana District	Anil Vekariya
13	Structure and Trial of Simplified Educational Program in the Context of Study of Difficult Science and Technology Subject of Standard-7, Number "SCI703"	Devangiben M. Patel
14	Adoptive School-Sarvodaya Primary School, Ta.Becharaji – A case study	Devangiben M. Patel

1. Research Title: Survey of academic achievement of students of standards four, six and seven of Mehsana district under GAS (Gujarat Achievement Survey)

Researcher's Name: **S.C.Rabari**

Designation : Senior Lecturer, District Education and Training Bhawan, Mehsana

Research Year : 2018-19

Research Mentor : Principal, District Education and Training Bhawan, Mehsana

Introduction

In the twenty-first century, we have set the goal of quality education for all. To achieve this goal, under the inspiring leadership of GCERT-Gandhinagar, the District Education and Training House has been continuously working for the universalization of quality primary education. To check the effectiveness of these efforts, it is necessary to conduct continuous achievement surveys. With the aim of knowing the current level of educational achievement and subject-wise hard learning outcomes of the state and district, GCERT-Gandhinagar and District Education and Training Bhavan can organize need-based in-service training programs, 6 achievement surveys have been conducted from the year 1998-99 to date.

GAS-2019 was organized under the guidance of GCERT, Gandhinagar. The CMDE branch of District Institute of Education and Training, Sabarkantha conducted a survey of the academic achievement of students of Std. 4, 6 and 7 in a total of 11 subjects.

Objectives of the study

• To study the academic achievement of students of Std. 4, 6 and 7 in the entire district, each taluka and subject wise.

• To identify the subject wise hard learnig outcomes of Std. 4, 6 and 7.

• To examine the effect of gender and region on the academic achievement of students of Std. 4, 6 and 7.

Method:- Survey Method

Design of the study

For data collection, three field investigators were appointed per school in the sampled schools. The test was conducted by them and after the test was completed, all the test

materials were returned. All the OMR sheets were scanned at the DIET level and computer software developed by GCERT, Gandhinagar was used for analyze this data.

Area and Sample

Out of the total schools in Mehsana district, 61 are in standard 4, 61 are in standard 6 and 51 are in standard 7. Thus, a total of 173 schools from 10 talukas of Mehsana district were selected.

Equipment- Test papers were prepared by GCERT, Gandhinagar.

Data Collection-

Three field investigators were appointed per school in the sampled schools for data collection. The test was conducted by them and after the completion of the test, all the test materials were returned. All the OMR sheets were scanned at the diet level. Computer software developed by GCERT, Gandhinagar has been used for analyze the data.

Findings

1. In GAS-2019, the average achievement of students of standard 4, 6 and 7 studying in Mehsana district was 60.73%. While the average achievement of students of standard 4, 6 and 7 studying in the entire state was 58.12%.

2. In GAS-2019, the highest average achievement was seen in Gujarati subject of standard 4, 66.48% at the state level. While at the district level, the highest average achievement was seen in Gujarati subject of standard 4 at 69.93%. Also, the lowest average achievement at the state level was seen in Science subject of standard 7 in GAS-2019 at 46.14% and at the district level also, it was seen in Science subject of standard 7 in GAS-2019 at 46.00%.

Educational Outcomes

Teaching of hard learning outcomes of the textbook can be easily taught through Power Point, charts, and audio-visual aids. For that, subject matter experts at the department level should prepare materials based on hard learning outcomes and organize such training.

2. Research Title: “Academic Achievement of Primary School Children of Mehsana District”

Researcher's Name: **S.C. Rabari**

Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Research Year: 2018-19

Research Mentor : Principal, District Education and Training Bhavan, Mehsana

Introduction

Ministry of Human Resource Development National Council of Educational Research and Training, New Delhi, Sarva Shiksha Abhiyan, Gujarat Educational Research and Training Council, Gandhinagar and District Education and Training Bhavans conduct various types of educational research from time to time. National Achievement Survey is one of them.

Keeping these things in mind, GCERT Gandhinagar has organized a mock test in all the District Education and Training Bhavans of the state in the schools included in NAS-2017 to ensure that the students get proper experience in the upcoming NAS-2017. This report is to check the academic achievement of children studying in standard 3, 5 and 8 in Mehsana district. Based on these results, it is to check what kind of confusion students and teachers feel. Understanding the type of various difficulties faced by students of standard 3, 5 and 8 in various subjects will help in improving the quality of education. Teachers can be assisted in teaching assignments in subjects such as Gujarati, Mathematics, Environment, Social Science, and Science and Technology.

Objectives-

- To know the academic status of students studying in standard- 3, 5 and 8 at the district level.
- To know the standard-wise and subject-wise hard learning outcomes of students studying in standard- 3, 5 and 8 at the district level.

Study Questions

Method- Survey Method

Design of the Study

A test was conducted by the field investigator in the selected schools. And the OMR of 173 schools was scanned. After scanning this OMR, its CSV file was created. Which was converted into 0 and 1 in EXCEL SHEET. The average, standard deviation were

found by the computer program. Then the hard learning outcome was found. And the T ratio was found.

Area and Sample

Students studying in 61 schools of standard 3, 61 schools of standard 5 and 51 schools of standard 8 of Mehsana district in the year 2017

Tool – Apparatus prepared by GCERT, Gandhinagar.

Data Collection Process

A test was conducted by the field investigator in selected schools of 10 talukas of Mehsana district. And OMR of 173 schools were scanned. After scanning this OMR, its CSV file was created. Which was converted into 0 and 1 in EXCEL SHEET. The average, standard deviation was found by a computer program. Then the learning difficulty was found. And the T ratio was found.

Data Analysis-

The average, standard deviation was found by a computer program. Then the learning outcomes were found. And the T ratio was found.

findings-

- The average academic achievement score of all students in standard-3, 5 and 8 of Mehsana district is 59.80% based on the achievement test. While the average academic achievement score based on NAS-2017 is 62.7%. The average academic achievement score of students in the NAS-2017 academic achievement test is seen to be higher.
- 65.57% is seen in Gujarati subject of standard-5. While NAS-2017 the highest achievement is seen in Gujarati of standard-3 at 76.30%.

Educational Outcome-

- To organize the next trainings based on the hard learning outcomes seen in the academic achievement test in NAS-2017.
- To encourage teachers to do remedial work based on the hard learning outcomes achieved in different subjects.

3. **Research Title**: A case study of ‘Mitrashala’

Researcher's Name: S.C. Rabari

Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Research Year: 2018-19

Research Mentor Name: Principal, District Education and Training Bhavan, Mehsana

Introduction

Seeing the poor condition of primary schools, the government is taking various efforts to improve the condition of schools. As a part of this effort, the Mitra-shala program has been implemented. A school is accepted as a Mitrashala by an individual or an organization. The person has to take care of the ‘Mitrahala’ as the child is cared for by the parents. Information and guidance is given to the school. Financial and educational assistance is provided. In this program, the school is visited from time to time. Monitoring is done. Educational work is done with the children. Thus, an attempt is made to raise the educational level of the school and the child by providing all kinds of educational assistance.

GCERT, – Gandhinagar allotted schools in all the buildings with ‘D’ or ‘C’ grade in Gunotsav-7 among the schools in their district as ‘Mitrashala’. The lecturers were to visit, monitor and provide guidance in the Mitrashala. Each visit to the mitrashala was to be recorded online on the Virtual Classroom Project blog (virtualclassroomproject.blogspot.com). The lecturer was to make various efforts to improve his mitrashala and prepare a report on this work by conducting a case study of the same schools in the context of the educational outcomes suggested in the ‘Mitrashala Research’ conducted on the basis of Gunotsav-7/8. The research presented has been conducted on (1) Ghughla Primary School (2) Nutan Primary School selected for this work.

Objectives of the study

1) To conduct a case study of the school in the context of the educational outcomes suggested in the Mitrashala Research.

2) To obtain information about the establishment of the school, history of the school, details of the school staff, standards taught in the school with regard to the case study of the mitrashal.

3) To obtain information about the standard-wise number of students of the mitrashala’s average attendance.

4) Obtain details of the grades obtained by the school in the last five years in the Gunotsav, as well as information on special achievements.

Method:- A case study

Design of the study

1. Arrange a visit to the school.

2. Discuss with the head teacher and staff of the school about the case study of the school.

3. Make necessary notes through observation regarding the A case study of the school.

4. View, check and make necessary notes through observation regarding the A case study of the school.

5. Study, analyze and compare the results of Gunotsav-7 and 8 regarding the A case study of the school.

6. Prepare a report on the information of the school by studying the A case study of the school in the context of the educational outcomes suggested in the research on the A case study of the school.

Area and Sampless

1) Ghughla Primary School (2) Nutan Primary School Taluka-Kadi, District-Mehesana. Thus, children of two primary schools of Mehsana district have been taken in the sample of the Population.

Equipment – 1. Data of the results of Gunotsav-7 and 8 2. Checklist 3. Interview 4. Observation 5. Documentary materials 6. Observation sheet

Data collection procces

In the present study, the researcher visited two partner schools, met the headmaster, discussed with the teachers of the school and also made necessary notes by viewing, checking and observing the necessary documents regarding the A case study of the partner school. The necessary information was collected from the data obtained from the results of Gunotsav-7 and 8.

Data analysis- In the present study, average, percentage and qualitative analysis were used to analyze the information obtained.

Findings-

1. First Mitra School has classes from 1 to 8. In which 65 children are taught by four teachers. All these teachers were sufficiently qualified and experienced.

2. Second Mitra School has classes from 1 to 8. In which 177 children are taught by five teachers. All these teachers were sufficiently qualified and experienced.

3. In first Mitra School, the average attendance was 55 out of 65 students in March 2019. That is, the average attendance was 85%.

4. In first Mitra School, the average attendance was 51 out of 74 students in June 2019. That is, the average attendance was 69%.

5. Both the Mitra Schools had grades C or D in the last three years of the Gunotsav academic evaluation.

- There is an improvement/increase in the co-educational grade and overall grade of Gunotsav-7 of Mitrashala (School No. 48), compared to the co-educational grade and overall grade of Gunotsav-8. While the academic grade is the same.

- There is an improvement/increase in the co-educational grade, academic grade and overall grade of Gunotsav-7 of Mitrashala (School No. 105), compared to the co-educational grade, academic grade and overall grade of Gunotsav-8.

Educational Outcomes-

1. Out of the two Mitrashala, the academic grade of both the schools has improved. Hence, the Mitrashala program has been effective.

2. The lecturer should visit the schools as per the fixed plan and provide necessary guidance.

3. The District Institute of Education and Training should provide the necessary supplementary educational literature to the schools.

4. If teachers are assisted in their educational work by using educational tools in schools, the educational quality of the school can definitely improve.

4. **Research Title**: A case study of ‘Mitra-shala ‘

Researcher's Name: Baldevbhai S. Desai

Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Research Year: 2018-19

Research Supervisor: Principal, District Education and Training Bhavan, Mehsana

Introduction:

GCERT-Gandhinagar allotted schools in all the buildings in their district with ‘D’ or ‘C’ grade in Gunotsav-7 as ‘Friendship Schools’. The lecturers had to visit, monitor and provide guidance in the friendship schools. Each visit to the friendship schools was to be entered online on the Virtual Classroom Project blog (virtual classroom project.blogspot.com). The lecturer had undertaken various efforts to improve his Mitra Shala and had to prepare a report of this work by conducting a case study of the same schools in the context of the educational outcomes suggested in the ‘Mitra Shala Research’ conducted on the basis of Gunotsav 7. The present research has been conducted in this regard.

 Objectives of the research:

1. To conduct a case study of the school in the context of the educational outcomes suggested in the Mitra Shala Research.

2. To obtain information about the establishment of the school, history of the school, details of the school staff, standards taught in the school in the context of the Mitra Shala study.

3. To obtain information about the number of students in the standard-wise number of students of the Mitra Shala, average attendance.

4. To collect details of the grades obtained by the school in the Gunotsav in the last five years, as well as information about special achievements.

5. To obtain information about the facilities available in the school through public participation in Mitra Shala and to study the physical facilities of Mitra Shala.

6. To study the results of the Mitra School's Gunotsav- 7 and 8 and to know the status of the beloved child through analysis.

7. To know the opinions of the teachers in the context of the present study and to make useful suggestions for qualitative improvement.

 Research Methodology: The present research is of the case study type.

 Area: In the present study, one of the Mitra Schools funded by GCERT is included in the concerned Area. Concerned Area was selected as the sample in the present study.

 Selection of Sample: The sample of the present study was one of the Mitra Schools with ‘C’ or ‘D’ grade allotted by GCERT Diet in Mehsana district as mentioned below.

 Research Findings:

The information obtained during the study was analyzed and interpreted keeping in mind the objectives of the research and based on it, the following conclusions were drawn.

1. Mitrashala Ghumasan is conducting studies from standard 1 to 8. In which 13 teachers are teaching 440 children. All these teachers were sufficiently qualified and experienced.

2. In Mitra Shala Ghumasan, the average attendance was 340 students out of 440 students in March 2019. That is, the average attendance was 77.27%.

3. In Mitra Shala Ghumasan, the average attendance was 340 students out of 440 students in June 2019. That is, the average attendance was 77.27%.

4. In Mitra Shala Ghumasan, the average attendance was 129.41 students out of 340 students in June 2019. That is, the average attendance was 77.27%.

5. In the last three years, the academic evaluation of Mitra Shala Ghumasan was A C B.

6. Students of Mitra Shala Ghumasan participated in various competitions. The students of the school were selected at the CRC and zone level. But they did not achieve any success by being selected at the district, state or national level.

7. Mitra Shala Ghumasan primary school was seen to have received physical facilities from public donations.

8. Conclusions regarding the comparison of the results/grades of Gunotsav 7 and 8:

 The co-curricular grade and overall grade of Gunotsav 8 of Mitra Shala Ghumasan primary school are seen to have increased compared to the co-curricular grade and overall grade of Gunotsav-7. While there is an improvement in the academic grade as well.

 The academic grade of Gunotsav-7 of Mitra Shala Ghumasan primary school was C. While the academic grade of Gunotsav 8 has been B (improved).

9. Findings regarding the reading, writing and arithmetic status of students in Gunotsav 7.

 In the results of Gunotsav-7, the percentage of students who are selected in reading, writing and arithmetic (those who score 0 to 5 marks out of 10 marks) from standard-2 to 5 is 12.72%, 14.06% and 17.17% respectively in writing.

 In the results of Gunotsav-7, the percentage of standard-wise selectwd from standard-2 to 5 is 12.89%, 15.41%, 14.81% and 15.48% respectively.

10. Findings regarding the reading, writing and numeracy status of students in Gunotsav 8:

• In the results of Gunotsav - 8, the percentage of students from standard-3 to 8 (those who scored 0 to 5 marks out of 10 marks) in reading, writing and numeracy is 74.48%, 81.71.% and 57.91% respectively.

• In the results of Gunotsav - 8, the percentage of students from standard-3 to 8 in reading, writing and numeracy is 38.68%, 46.23%, 44.43%, 46.43%, 37.03%, and 39.06% respectively.

• In the results of Gunotsav - 8, Ghumasan Primary School, the average percentage of children who scored 0 to 5 marks out of 10 marks in reading, writing and numeracy from standard 3 to 8 is 12.89%, 15.41%, 14.81%, 15.48%, 12.34%, and 13.02%.

11. Conclusions regarding the opinion of teachers:

 Gunotsav program is a good program.

 Teachers get an opportunity to improve themselves.

 Teachers can know what are the errors, shortcomings or deficiencies of their school.

 Through the Mitrashala program, teachers got a lot of information and got an opportunity to create awareness towards Gunotsav.

 Under this program, the lecturer gave useful guidance. As well as provided inspiration and encouragement.

 Children's reading and writing

5. **Research Title**: Study of the Effectiveness of Mitrashala Program Implemented in C and D Grade Rawati School in Mehsana District

Researcher's Name: Baldevbhai S.Desai

Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Research Year: 2018-19

Research Supervisor: Principal, District Education and Training Bhavan, Mehsana

Introduction: The Gunotsav program has been implemented by the state government since 2009-10. The main objective of the Gunotsav program is to improve the educational quality of the work done in the school. In addition, it is also to check whether the physical facilities available in the school are being used properly at the school level to improve the educational quality. Through this program, each school is given a grade based on the work done by it. The school itself corrects the errors found in the Gunotsav and gets a better grade than the previous one in the second year. GCERT, Gandhinagar expected that the DIET would provide necessary guidance to the school to improve the educational quality of the school. For this, an adopted school program was implemented by each DIET. Under the adopted school program, the DIET's explanation provided the necessary guidance to the school to improve the quality. The present research was conducted to find out whether the educational quality of the school improved after the implementation of this program.

 Title of the research:

A study of the effectiveness of the Mitra Shala program implemented in a school with C and D grades in Mehsana district

 Objectives of the research:

The central part of the entire research work is the research objectives. Only after the objectives are clear can the research work be progressed. The presented research was carried out with specific objectives in mind. The objectives of the presented research were as follows.

 To compare the standard-wise, subject-wise marks obtained by the students of the adopted school in the 6th standard and the standard-wise subject-wise marks obtained in the 8th standard.

 To compare the grades obtained in the academic work of the adopted school in the 7th standard and the grades obtained in the academic work of the adopted school in the 8th standard.

 To determine the effectiveness of the adopted school program.

 To find out the reasons behind obtaining C and D grades for the government primary schools that obtained D- and C grades in the 2017 Gunotsav.

 To formulate a quality improvement program for the government primary schools that obtained C and D grades.

 To arrange necessary visits for the government primary schools that obtained C and D grades, to check the effectiveness of the instructions and guidance given during the visits.

 Research questions/hypotheses:

The research questions should be such that they serve as a guide to obtain information according to the purpose. In the present research also, the researcher formulated the following questions according to the purpose.

 Are the grades obtained in Grade 7 and Grade 8 in reading, writing and numeracy of the students of the adopted school similar?

 Are the grades obtained in Grade 7 and Grade 8 in literacy subjects of the students of the adopted school similar?

 Are the academic grades obtained in Grade 7 and Grade 8 of the adopted school similar?

 Is the academic grade obtained in Grade 7 and Grade 8 of the adopted school similar?

 Is the adopted school program effective?

Area of Study:

 The present research is related to primary education. The main objective of the present research was to find out the impact of academic and co-curricular activities at the school level on the academic quality.

 Research Type: The present research was conducted on an experimental basis, taking primary schools as the control group.

 Research Method: The present research followed the experimental research method.

 Area: The present research included all the schools in Mehsana district with C and D grades in Grade-7 as the scope.

 Sample Selection: Out of all these schools, two schools were given to the researcher as the adopted school as the sample.

 Research Findings:

 The students of Ghumasan Primary School scored 7.26 marks in the academic assessment of Grade-7, thus achieving B grade. In the academic assessment of Grade-8, they scored 7.64 marks, thus achieving A grade. Hence, it can be said that the academic achievement of the students of Ghumasan Primary School has increased. Thus, the adopted school program has been effective for Ghumasan Primary School.

 Students of Ghumasan Primary School have seen an increase in the academic achievements of students of Standard-6, 7 and 8 in literacy subjects in Standard-7 compared to Standard-7 in all subjects except Social Science of Standard-7 and Science of Standard-8. It seems that more academic achievement has been achieved in Standard-8.

 Students of Kasturba Scheduled Caste Primary School had obtained 3.65 marks in the academic evaluation of Standard-7, so achieving a D grade. Students of Kasturba Scheduled Caste Primary School had obtained 5.38 marks in the academic evaluation of Standard-8, thus achieving a C grade. Hence it can be said that the academic achievement of students of Kasturba Scheduled Caste Primary School has increased. Thus, the Adoption School Program has been effective for Kasturba Scheduled Caste School.

 Students of Kasturba Scheduled Caste School have achieved the lowest academic achievement in literacy subjects of Standard-6, 7 and 8 in Gunotsav-8 compared to Gunotsav 7. Apart from that, there seems to be a partial increase in the academic achievement of all the subjects.

Recommendations for Research: Research should be conducted by including more schools that get low grades in the Gunotsav under the Adopted School Program.

- Educational research should be conducted by integrating all subjects based on Learning Outcomes.
- Remedial education should be conducted by diagnosing the academic achievement of the students so that the grades of the school can be improved.

- Research should be conducted on the effectiveness of various teaching methods or techniques.
- Research should be conducted on quality improvement by conducting independent studies on reading, writing and numeracy.
- Research should be conducted by conducting exercises on Higher Order Thinking (HOT) questions other than textbooks.
- Research should be conducted on the extent to which the training received by the teachers is utilized in the classroom.

Educational Outcomes:

The academic grade of the adopted school has improved. Hence, the adopted school program has been effective.

- It is necessary that the lecturer goes to the school as per the fixed plan and provides the necessary guidance. If the necessary supplementary educational literature is provided to these schools through DIET, the teachers working in these schools will get some help and the educational quality of the school will definitely improve.
- A check list of the work to be done should be made and given to each school, so that the school and the teachers of the school can see whether each school is working properly or not.
- The Gunotsav program is not given importance due to the transfer of teachers to other schools, it is necessary that the Gunotsav result be considered as a criterion for the transferred teacher.

6. **Research Title**: Structure of simplified educational program in the context of teaching difficult learning points of social science subject of standard 6 and its effectiveness

Researcher's Name: Baldevbhai S. Desai

Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Research year: 2018-19

Research guide: Principal, District Education and Training Bhavan, Mehsana

Introduction:

GCERT had asked each DIET to allocate the hard learning outcomes found in NAS subject-wise and to design an educational program to simplify it and to try it out. The principal of the DIET asked the researchers to prepare a program to simplify the hard learning outcomes found in social science subject in the National Achievement Survey (NAS) conducted on children studying in primary schools of Mehsana district and try it out. When the principal asked them to prepare a program for simplifying the hard learning outcomes found in the subject of Social Science and to test it, they accepted it enthusiastically and decided to conduct the present research to design an educational program for simplifying the hard learning outcomes allocated by GCERT and determine its effectiveness.

Research Objectives:

The central part of the entire research work is the research objectives. Only after the objectives are clear, the research work can be progressed. The present research was conducted keeping in mind the specific objective. The main objectives of the present research were as follows.

- To design question bank for the subject of Standard-6 Social Science
- To test the question bank for the subject of Standard-6 Social Science.
- Class-6 Social Science Subject hard learning outcomes M606 “Structure of Simplified Educational Program and its Effectiveness in the Context of Teaching related to everyday life “Class-6 Social Science Subject hard learning outcome no. SST807
- Class-6 Social Science Subject hard learning outcome M606 “Structure of Simplified Educational Program and its Effectiveness in the Context of Teaching”
- To examine the effectiveness of the achievement achieved by the student through special educational program and traditional education.

Research Questions/Hypotheses:

Hypotheses are the eyes to see the problem scientifically. In one way, hypotheses are the key to solving the problem. Formulating a hypothesis gives the researcher a way to work. How to find information about the problem and how to see the relationships between the information is determined based on the hypothesis.

The present research is an experimental research, and the researcher has formulated a null hypothesis which is as follows.

(1) There will be no significant difference between the average scores obtained by the students of the experimental group (the group that learned the content through the prepared educational program) and the traditional group in the post-test.

Area of Research:

The present study was much related to the field of educational evaluation and testing.

Research Type: The present research was of a quantitative type.

Research Method: The present research followed the experimental research method.

Area : The present research was conducted on children studying in standard - 6 in a primary school in Mehsana district. Therefore, all the children studying in standard 6 in primary schools of Mehsana district were the Area of the present research.

Sample Selection: Children of standard 6 of Khawad and Vekra primary schools of Mehsana district were selected as the sample.

Findings of the Research:

The main findings of the present research were as follows.

(1) Structure and effectiveness of simplified educational program in the context of teaching hard learning outcomes “Social Science subject of standard 6 related to daily life SST.807 The educational program designed by the researchers with regard to the “Numbers” unit has been effective and if the educational program is implemented at the school level to teach the above learning outcomes, it can prove to be more effective than the traditional method.

(2) The students of the experimental group have achieved more achievement than the students of the traditional group in all three levels of achievement. However, among the students of both the groups, 100% of the students of the experimental group have achieved an achievement level of 35%. While 100% of the students of the traditional group have been able to reach the achievement level of 35%. Among the students of

both the groups, 100% of the students of the experimental group have achieved an achievement level of 50%. That is, 100% of the students of the experimental group have achieved more than 50%. While for the students of the traditional group this proportion is 40%. Among the students of both the groups, 93.33% of the students of the experimental group have achieved an achievement level of more than 75%. That is, 93.33% of the students of the experimental group have achieved more than 75% while only 6.66% of the students of the traditional group have achieved more than 75%.

Educational Outcomes:

(1) Difficult Learning Outcomes of the Social Science Subject of Standard 6, Hard Learning Outcomes no SST807. Structure and its Effectiveness of Simplified Educational Program in the Context of Teaching" were done under which the efforts made by the researcher were effective and it should be implemented at the school level.

(2) Similarly, for other difficult points found in NAS, an educational program should be designed by the DIET for simplification of the difficult points and it should be implemented at the school level.

(3) In-service training should be provided to teachers working in the field on how to implement the educational program in the classroom.

7.Research Title: Readability of 7th Standard English Textbook

Researcher's Name: Dr. Dipti A Trivedi

Designation: Junior Lecturer, District Education and Training Bhavan, Mehsana

Year of Research: 2018-19

Research Guide: Principal, District Education and Training Bhavan, Mehsana

A new textbook was prepared for classes 1 to 8 in Gujarat in 2010 under RTE. In which activities were designed in such a way that students get the opportunity to create knowledge, and opportunities for group work and pair work were made available in a special way and the habit of self-study was developed. Diversity of content was also taken into consideration. After the review, the textbooks became effective in the entire state in 2012. Along with this, a teacher's edition of each textbook was prepared. It was decided to check the readability of textbooks of all subjects implemented in Gujarat from the year 2012 by the Gujarat Council of Educational Research and Training (GCERT).

Objectives of the study:

The main objectives of the present research were as follows.

1, To determine the readability of the standard 7 English textbook with the help of Fry graph.

2, To design a close test to determine the validity of the readability of the standard 7 English textbook.

3, To check the validity of the readability of the standard 7 English textbook according to Fry graph with the help of close test.

Field and sub-field of research: The present study was very much related to the field of language education.

Research type:

The present research was carried out in relation to children. Therefore, the present research was a practical research as well as a quantitative type of research.

Research method

The present research was a survey type of research.

Area: The Area of the present research included government and private primary schools of Mehsana district as the Area of the present research.

Sample:-The Area of the present research included seven government and one private primary schools of Mehsana district as the Area of the present research, out of which four were rural and four were urban, a total of 100 boys and 100 girls from eight schools were included as a sample of 200 students.

Research findings:

The findings of the present research are as follows:

(1) The standard level of readability of the English textbook of standard-7 is standard 7 according to Fry chart. Therefore, it can be said that the language used in the English textbook of standard-7 is such that the student can read and understand it. Therefore, the language used for presenting the content in the English textbook of standard-7 is appropriate.

(2) In terms of readability of all six close tests, the student of standard 7 found test numbers 1, 3, 4 and 5 to be medium and numbers 2 and 6 to be difficult.

(3) The result of the cloze test shows that the language of the standard 7 English textbook was found difficult by the student.

(4) According to the Fry graph, the language of the standard 7 English textbook was found easy to understand by the child, but when the validity of the readability of the standard 7 English textbook according to the Frye graph was checked with the help of the close test, the result of the cloze test showed that the language of the standard 7 English textbook was difficult for the student of standard 7. Therefore, we can say that the result obtained from the Fry graph for the readability of the standard 7 English textbook is not valid.

Educational Outcome

(1) The textbook of English subject of Standard-7 should be reviewed once again by SRG Group (English).

(2) The opinions of teachers working in primary schools regarding the language of the textbook of English subject of Standard-7 should be taken.

8. Research Title:

A Study of Academic and Co-Academic Achievement of Students of B.N. High School (Primary School) of Vadnagar Taluka and Umri Primary School of Satlasana Taluka under the Mitrashala Program.

Researcher's Name: Dr. D. S. Chaudhary

Research Year: 2018-2019

Designation: Junior Lecturer, District Education and Training Bhavan - Mehsana

Research Guide; Principal, District Education and Training Bhavan - Mehsana

Is there any impact of the programs implemented by the government on the quality of primary education? Under which, two (2) schools have been assigned as Mitrashala (adopted schools) by GCERT, Gandhinagar with the aim of improving the educational quality in C and D grade schools. Under which this research has been undertaken to bring about as much change as possible in the quality of the school by the second Gunotsav and improve the grade.

Research Objectives

- To visit a friend school with a C grade in the context of Gunotsav-7 and study the academic achievement of the children.

- To visit a friend school with a C grade in the context of Gunotsav-7 and study the co-curricular achievement of the children.

Research Questions:

- To know the academic and co-curricular evaluation of Gunotsav-7 of the lower primary of the selected friend school with a C grade?

- To know the academic and co-curricular evaluation of Gunotsav-7 of the upper primary of the selected friend school with a C grade?

- To compare the results of Gunotsav-7 and Gunotsav-8 of the friend school with a C grade.

Research Area:

-Educational Measurement and Evaluation, Comparative Study

• **Research Type**: Survey Based

• **Research Method**: Experimental Method

• **Area**: Government and Granted Primary Schools of Mehsana District with C Grade in Gunotsav-7 of Mehsana District have been considered.

• **Selection of Sample**:

Two schools namely Umri Primary School of Satalasana Taluka of Mehsana District and B.N. High School (Primary) of Vadnagar Taluka have been taken as samples.

• **Research Findings**:

-The results of the educational evaluation of Gunotsav-8 were found to be higher than Gunotsav-7.

- Umri Primary School Karatabi, N. Vadnagar Primary School

in Gunotsav-8 showed good academic performance.

- In Gunotsav-8, the co-curricular performance of Umri Primary School was found to be better than that of B,N.Vadnagar Primary School.

- The academic grade of Umri School has been improved from C grade to B grade, while that of Jayarebi,N.Vadnagar Primary

School has been improved from B grade to A grade.

• Research recommendations:

• Organize a unit test for students.

• Make efforts to increase the evaluation of co-curricular activities.

• **Educational outcomes**:

A significant improvement has been seen in the academic grade of Mitra School.

More visits to Mitra School by Diet Lecturers are required.

It is necessary to plan for more schools in the district to come in A+ or A grade.

9.**Research Title**: A case study of Taleti Primary School, Mehsana Taluka, Mehsana District

Researcher's Name: P.I. Patel

Designation: Junior Lecturer, District Education and Training Bhavan, Mehsana

Research year: 2018-19

Research supervisor: Principal, District Education and Training Bhavan, Mehsana

For the quality improvement of primary education, various programs are organized by the Education Department in collaboration with all departments of the state government. One of these programs is the program - 'Gunotsav', the school is evaluated according to the matters decided in this Gunotsav program. The last Gunotsav-8 was organized in April - 2018. In view of the results obtained in the Gunotsav, with the auspicious intention of improving the educational quality in the schools with low grades and making the school the best school in terms of evaluating the entire aspect of the school, GCERT, Gandhinagar, gave two schools as adoptive schools to each lecturer of the District Institute of Education and Training. In this regard, the researcher had to work in the schools of Visnagar taluka of Mehsana district in the academic year 2017-18. The details of this are described in the research report of the mentioned academic year. In the year 2018-'19, it was suggested by GCERT, Gandhinagar that each lecturer should conduct 'A case study' of the Mitrashala (adopted) assigned to him as part of the research.

‘A case study’ means not only the study of an individual, but in A case study, the unit of study can also be an individual and can also be a family, group, community or institution. Taking an institution as a unit, starting from its past, compiling information about the current situation, its social contribution, the environment there, the advantages and disadvantages of the institution, its development or obstacle factors, etc., and presenting an integrated and comprehensive picture of it is called ‘A case study’ of that institution. In short, A case study means a detailed study of all aspects or matters touching an unit. In the present study, the researcher has selected a school in Mehsana taluka as an A case study.

Research Objectives:

The objectives of the present research were as follows.

1. To create a research apparatus for collecting information about the institutions included in the research.

2. To conduct a case study on various aspects of the Taleti Primary School (such as... physical, academic, institutional environment, past affairs, support received by the institution, long-term planning of the school).

Research Questions:/ Hypotheses:

1. To examine the progress of various aspects of the Taleti Primary School (such as... physical, academic, institutional environment, past affairs, support received by the institution, long-term planning of the school).

Area of Research and Sub-Area: The area of research was primary education and school management.

Research Type: The present research is a practical type of research.

Research Method: Among the descriptive researches, the present research is case study based in relational study.

Area: The Area of the present research was primary schools of Mehsana district.

Sample Selection: In the present research, schools were selected with the help of purposive sampling.

Research Findings:

The findings of the present study were as follows.

- All the staff in the school were qualified and highly qualified.
- Among the infrastructure, the school has primary facilities like mid-day meal shed, sound system, sports equipment, school compound wall.
- The school has become available with public participation for mid-day meal items. Apart from this, Tithi meals are also provided in the school several times.
- The school has presented its work in the science exhibition organized at the district level. In addition, it has also participated in the game of Kabaddi in the sports festival.
- Among the special achievements of the school, 6 students have got admission in Jawahar Navodaya Vidyalaya.

- The school has a mid-day meal shed for the students as well as sets of utensils for each student. Apart from this, there are sufficient tables and chairs.

- The attendance of students in the school is around 86-92%. Which is a noteworthy thing.

- The school visits the parents of the children who are absent from school and finds out the reasons for their absence from school through phone calls.

- The importance of Gunotsav that occur throughout the year in the school is explained to the students by the teachers in prayers. In addition, students read newspapers and prepare quizzes based on daily events and read them. Ghadiagaan is also performed.

Recommendations regarding research:

The recommendations in the present study were as follows.

- Efforts should be made to improve the school's Gunotsav grades. Academic achievements should be checked periodically and diagnostic and treatment programs should be done at a regular level in each standard.

- In order for irregular or absent children to come to school regularly, teachers should visit the parents or hold a parent meeting and convince them to send the children to school regularly every day.

- School teachers should provide encouragement so that more and more children from the school participate in district and taluka level competitions.

- In order for the school to get special public support from the villagers, the school teachers should do their best at the school level and earn the trust of the people. So that the school can get special support from the villagers.

- The school should organize various competitions, programs to develop the work skills of the children and maximum.

10.**Research Title**: A case study of Friend Schools of Mehsana and Jotana Talukas

Researcher's Name: Seema Ramashray Yadav

Designation: Lecturer, District Institute of Education and Training, Mehsana

Research Year: 2018 – 2019

Research Supervisor's Name: Dr. Gaurang C. Vyaspracharya, District Institute of Education and Training,Mehsana

Introduction:

The State Government has been conducting the Gunotsav Program since 2009-10. The main objective of the Gunotsav Program is to improve the educational quality of the work done in the school. Apart from this, it is also to check whether the Infracture available in the school are being used properly at the school level to improve the educational quality. Through this program, each school is given a grade based on the work done by it. The school itself corrects the errors found in the quality and gets a better grade in the second year than the previous one. GCERT, Gandhinagar expected that the DIET would provide necessary guidance to the school to improve the educational quality of the school. For this, the Mitra School program was implemented by each DIET. Under the Mitra School program, the DIET's expertise was provided to the school to improve the quality. After the implementation of this program, the educational quality of the school improved. In the following year, A case study of these schools, namely Gojaria Primary School and Shri Ramsarva Vidyalaya School, was conducted.

Research Objectives:

The present study was conducted keeping in mind the following objectives.

1. To study the objectives of the establishment of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

2. To know the objectives of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

3. To study the physical facilities of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

4. To obtain information about the officials who contributed to the development of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

5. To study the activities and works of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

6. To study the educational contribution of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

7. To study the financial resources of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

8. To study the special activities of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

9. To study the health activities of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School.

Research Questions:/ Hypotheses: The researcher conducted his research work by formulating the following questions in accordance with the objectives of the study.

1. Who and when was Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School established?

2. What was the objective behind the establishment of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School?

3. How are students admitted to Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School?

4. What are the school physical facilities provided to the students of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School?

5. What are the special activities of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School?

6. Who are the people who contributed to the development of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School?

7. What is the value chain of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School?

8. What are the teaching methods of the students of Gojaria Primary School and Shri Ramsarva Vidyalaya Primary School?

9. How is the health of children of Shri Ramsarva Vidyalaya Primary School?

Research Area and Sub-Area The field of the present research is primary education.

Research Type: The present research is a case study.

Research Method: Since the present research is a case study, information was collected through questionnaires and school visits.

Area: The present research covers the activities of Gozaria Primary School and Shri Ramsarva Vidyalaya Primary School. The field of the present research touches on educational matters. The school is associated with society. It is also a part of society. Its functions touch on the social sector. The field of the present research is sociology of education.

Sample Selection: A case study was conducted in both the schools of the Mitra School Research conducted in the year 2017-2018 as per the instructions of G. C. E. R. T. Gandhinagar.

Research Findings:

1. Establishment of Gozaria Primary School of Mehsana and Jotana Talukas on On 21/06/1991 and Shri Ramsarva Vidyalaya Primary School was established on 13/06/1958.

2. The objectives behind the establishment of both the primary schools of Mehsana and Jotana talukas are to provide all-round development of the students and free and compulsory education to the children of the age group of 6 to 14 years.

3. Admission of students in both the friend schools of Mehsana and Jotana talukas is given as per the government rules.

4. The infrastructure of both the Mitrashala of Mehsana and Jotana talukas are good.

5. The special activities of both the Mitrashalas of Mehsana and Jotana talukas include yoga, music education, exercise, children's assembly etc. throughout the year.

6. Both the friend schools of Mehsana and Jotana talukas are dependent on government grants.

7. School trips, cultural programs and celebrations of festivals.

11.**Title of the research**: “Structure of simplified educational program in the context of studying difficult learning outcomes of Mathematics subject of standard-3, serial number “M 318” and its trial”

Researcher's Name: Vekaria Anil B.

Designation: Lecturer, District Education and Training Bhavan, Mehsana

Research year: 2018-19

Research supervisor: Principal, District Education and Training Bhavan, Mehsana

Introduction:

In order to prepare an educational program in accordance with difficult learning outcomes in each district, no difficult learning outcomes are duplicated and an educational program in accordance with maximum difficult learning outcomes can be prepared, GCERT has asked each diet to allocate the difficult learning outcomes found in NAS standard-wise, subject-wise and design an educational program to simplify it and try it out. The principal of the DIET asked the researchers to prepare a program to simplify the difficult points found in Standard-3 Mathematics in the Achievement Survey (NAS) conducted on children studying in primary schools of Mehsana district and to test it. The researchers are working as experts in Mathematics and have also been guides for Mathematics textbooks, so they are well acquainted with the objectives of the Mathematics curriculum. Therefore, when the principal asked them to prepare a program to simplify the difficult points found in Mathematics and to test it, they accepted it and decided to conduct the present research to design an educational program for the simplification of difficult learning outcomes allocated by GCERT and determine its effectiveness.

Research Objectives:

The present research was also conducted keeping in mind a specific objective. In the present study, the researcher has set the following objectives.

1. To design a post-test for standard-3 mathematics subject

2. To conduct a post-test for standard-3 mathematics subject.

3. To design an educational program related to the content of standard-3 mathematics subject difficult learning outcome M318 “Finds and extends patterns for simple shapes and numbers”

4. To examine the effectiveness of the educational program for standard-3 mathematics subject difficult learning outcome M318 “Finds and extends patterns for simple shapes and numbers” on the achievement of students

5. To examine the effectiveness of the achievement achieved by the student through special educational program and traditional education.

Research Hypotheses:

The following null hypothesis was formulated in the present research.

Ho1 There will be no significant difference between the average scores obtained by the experimental and control groups in the post-test.

Research Area and Sub-Area: The present study was very much related to the field of educational evaluation and testing.

Research Type:

The present research was practical among the basic, practical and action research types.

Research Methodology: The present research followed the experimental research method.

Area: The present research was conducted on children studying in standard-3 in a primary school of Mehsana district. Therefore, all the children studying in standard-3 in a primary school of Mehsana district were the area of the present research.

Sample Selection: For the selection of the sample, it was decided to select one school from the primary schools managed by the District Panchayat Education Committee following the purposive sample selection method. The selection of the school was done following the random sample selection method in which first a list of primary schools managed by the District Panchayat Education Committee having more than 30 students in standard-3 and having two classes was prepared. The help of the computer MS Excel program was taken to select the school from this list. MS The school was selected using the RANDOM BETWEEN FUNCTION in the Excel program FORMULA.

Research Findings:

The main findings of the present research were as follows.

(1) The educational program designed by the researchers regarding the difficult learning outcomes “Find and extend patterns for simple shapes and numbers” and “Rice and

pattern games” unit has been effective and if the educational program is implemented at the school level to teach the above learning outcomes, it can prove to be more effective than the traditional method.

(2) The students of the experimental group have achieved more achievement than the students of the traditional group at all three levels of achievement. However, among the students of both the groups, 100% of the students of the experimental group have achieved the achievement level of 35%. While more than 92% of the students of the traditional group have been able to reach the achievement level of 35.

Among the students of both the groups, 100% of the students of the experimental group have achieved an achievement level of 50%. That is, 100% of the students of the experimental group have achieved more than 50%. While for the students of the traditional group, this proportion is 81.48%.

Among the students of both the groups, 96.29% of the students of the experimental group have achieved an achievement level of more than 75%. That is, 96.29% of the students of the experimental group have achieved more than 75%, while only 55.55% of the students of the traditional group have achieved more than 75%.

Research recommendations:

1. Research can be conducted on difficult learning outcomes based on specific surveys of other standards

2. Research can be conducted on difficult learning outcomes based on specific surveys of other subjects of other standards.

12.**Research Title**:

Case Study of Visnagar Primary School-3, Visnagar Taluka, Mehsana District

Researcher's Name: Vekaria Anil B.

Designation: Lecturer, District Institute of Education and Training, Mehsana

Research Year: 2018-19

Research Guide's Name: Principal, District Institute of Education and Training, Mehsana

Introduction

For the quality improvement of primary education, various programs are organized by the Education Department in collaboration with all departments of the State Government. One of these programs is the program - 'Gunotsava', the school is evaluated according to the matters decided in this Gunotsava program. The last Gunotsava-8 was organized in April - 2018. In view of the results obtained in the Gunotsav, with the auspicious intention of improving the educational quality in the schools with low grades and making the school the best school in terms of evaluating the entire aspect of the school, GCERT, Gandhinagar, gave two schools as adoptive schools to each lecturer of the District Institute of Education and Training. In this regard, the researcher had to work in the schools of Visnagar taluka of Mehsana district in the academic year 2017-18. The details of this are described in the research report of the mentioned academic year. In the year 2018-'19, it was suggested by GCERT, Gandhinagar that each lecturer should conduct 'A case study' of the friend (adopted) schools assigned to him as part of the research.

‘A case study’ means not only the study of an individual, but in A case study, the unit of study can also be an individual and can also be a family, group, community or institution. Taking an institution as a unit, starting from its past, compiling information about the current situation, its social contribution, the environment there, the advantages and disadvantages of the institution, its development or obstacle factors, etc., and presenting an integrated and comprehensive picture of it is called ‘A case study’ of that institution. In short, A case study means a detailed study of all aspects or matters touching an unit. In the present study, the researcher has selected a school in Visnagar taluka as an A case study.

Research Objectives:

The objectives of the present research were as follows.

1. To create a research apparatus for collecting information about the institutions included in the research.

2. To conduct a case study of various aspects of Visnagar Primary School-3 (such as... physical, academic, institutional environment, past affairs, help received by the institution, long-term planning of the school).

Research Questions:/ Hypotheses:

1. To examine the progress of various aspects of Visnagar Primary School-3 (such as... physical, academic, institutional environment, past affairs, help received by the institution, long-term planning of the school).

Field of Research: The area of research was primary education and school management.

Research Type: The present research is a practical type of research.

Research Method: Among the descriptive researches, the present research is based on case study in relational study.

Area: The Population of the present research was primary schools of Mehsana district.

Sample Selection: In the present research, schools were selected with the help of purposive sampling.

Research Findings:

The findings of the present study were as follows.

 All the staff in the school were qualified and highly qualified.

 Among the physical facilities, the school has primary facilities like mid-day meal shed, sound system, sports equipment, school compound wall.

 The school has become available with public participation for mid-day meal items. Apart from this, Tithi bhojans are also provided in the school several times.

 The school has presented its work in the science exhibition organized at the district level. In addition, it has also participated in the game of Kabaddi in the sports festival.

 Among the special achievements of the school, 6 students have got admission in Jawahar Navodaya Vidyalaya.

 The school has a mid-day meal shed for the students as well as sets of utensils for each student. Apart from this, there are sufficient tables and chairs.

 The attendance of students in the school is around 85-90%. Which is a noteworthy thing.

 The school visits the parents of the children who are absent from school and finds out the reasons for their absence from school through phone calls.

 The importance of celebrating festivals that occur throughout the year in the school is explained to the students by the teachers in prayers. In addition, students read newspapers and prepare quizz based on daily events and read them. Also, Ghadiagaan is also performed.

Recommendations regarding research:

The recommendations in the present study were as follows.

 Efforts should be made to improve the school's quality festival grades. Academic achievements should be checked periodically and diagnostic and treatment programs should be done at a regular level in each standard.

 In order for irregular or absent children to come to school regularly, teachers should visit the parents or hold a parent meeting and convince them to send the children to school regularly every day.

 School teachers should provide encouragement so that more and more children from the school participate in district and taluka level competitions.

 In order for the school to get special public support from the villagers, the school teachers should do their best work at the school level and earn the trust of the people. So that the school can get special support from the villagers.

 The school should organize various competitions, programs to develop the work skills of the children and maximum.

13**. Research Title:** Structure and Trial of Simplified Educational Program in the Context of Study of Difficult Science and Technology Subject of Standard-7, Number "SCI703"

Researcher's Name: Dr. Devangiben M. Patel

Designation: Lecturer, District Education and Training Bhavan, Mehsana

Research Year: 2018-19

Research Mentor: Shri V.D. Adhiyol, Principal, District Education and Training Bhavan,

Mehsana

Introduction:

The GCERT, Gandhinagar conducted a district-level achievement survey of primary school children and suggested preparing a specific remedial program for the simplification of the difficult points (content) found and trialing it. If the educational program prepared for the simplification of the difficult points is successful, then it can be considered for implementation at the state level. Therefore, in order to prepare an educational program in accordance with the difficult learning outcomes in each district, no difficult learning outcomes are duplicated and an educational program in accordance with the maximum difficult learning outcomes can be prepared, GCERT has been asked to allocate the difficult learning outcomes found in NAS standard-wise and create an educational program to simplify it. It was decided to conduct the present research to determine the effectiveness of the educational program allocated by GCERT to simplify the difficult learning outcomes.

Objectives of the research:

1. To create question bank for the Standard-7 Science and Technology subject

2. To test the question bank for the Standard-7 Science and Technology subject

3. To create the Standard-7 Science and Technology subject difficult learning outcomes SCI703. Classifies matter and organisms based on their properties/characteristics. To design an educational program related to the related content.

4. To examine the effectiveness of the educational program on the subject of Standard-7 Science and Technology, Hard Learning Outcome SCI703 "Classify Matter and Organisms Based on Their Properties/Characteristics." on the achievement of students

5. To examine the effectiveness of the achievement achieved by the student through the special educational program and traditional education

Research Questions:/ Hypotheses:

There will be no significant difference between the average scores obtained by the experimental and control groups in the post-test.

Research Area and Sub-Area:

The main area of the present research is primary education. While the sub-area was educational evaluation and testing.

Research Type:

The present research was of a practical type.

Research Methodology

The present research followed the experimental research method.

Population: All the children studying in standard-7 in primary schools of Mehsana district were the population of the present research.

Sample Selection:

School selection was done by following the random sample selection method. In which the following two schools were selected.

Rank School Name Number of Students Group Details

1 Saduthala Primary School 28 Experimental Group

2 Asajol Primary School 40 Conventional Group

Total Students 68

Research Findings:

1. The educational program designed by the researchers regarding the difficult learning outcomes “Classify substances and organisms based on their properties/characteristics.” and “Physical and Chemical Changes” unit has been effective and if the educational program is implemented at the school level to carry out the teaching work of the above learning outcomes, it can prove to be more effective than the traditional method.

2. The students of the experimental group have achieved more than the students of the traditional group in all three levels of achievement. However, among the students of

both the groups, 100% of the students of the experimental group have achieved the achievement level of 35%. While 100% of the students of the traditional group have been able to reach the achievement level of 35%. Among the students of both the groups, 100% of the students of the experimental group have achieved the achievement level of 50%. That is, 100% of the students of the experimental group have achieved more than 50 percent. While for the students of the traditional group this proportion is 40%. Among the students of both the groups, 93.33% of the students of the experimental group have achieved an achievement level of more than 75%. This means that 93.33% of the students of the experimental group have achieved more than 75% while only 6.66% of the students of the traditional group have achieved more than 75%.

Research Recommendations:

• A simplification program can be designed for teaching difficult learning outcomes in other subjects besides science and technology.

• A simplification program can be designed for teaching difficult learning outcomes of each standard.

Educational Outcomes:

1. Difficult learning outcomes “Classify objects and organisms based on their properties/characteristics.” And the educational program created by the researchers regarding the "Physical and Chemical Changes" unit has been effective, so this program should be implemented at the school level for the teaching of "Classifying substances and organisms based on their properties/characteristics." Learning outcomes.

2. Similarly, for other difficult points found in NAS, an educational program should be created by the Department to simplify the difficult points and it should be implemented at the school level.

3. In-service training should be given to teachers working in the classroom on how to implement the educational program in the classroom.

14**. Research Title**: Adoptive School-Sarvodaya Primary School, Ta.Becharaji – A case study

Researcher's Name: Devangiben M. Patel

Designation: Lecturer, District Education and Training Bhavan, Mehsana

Research Year: 2018-19

Research Mentor : Shri V.D. Adhiyol Principal, District Education and Training Bhavan,

Mehsana

Introduction:

Every institution, big or small, in society is seen to be committed to tackling the challenges of expanding knowledge in its own way. Educational institutions, which provide the necessary manpower for the development and progress of the nation, have a duty to be more proactive. Educational institutions have to provide individuals who can change their lifestyles, give the necessary turn to their behavior and conduct, and always keep their skills and abilities sharp in the changing social or economic situation. Where the quality of education has a direct influence on teachers, students, administrators, principals and society. And in places where there is a developed and intelligent class, development is seen to have taken place properly.

Such developed institutions and the students associated with them achieve a high position in society and contribute significantly to the development of society. Primary schools, which play a major role as the first step in instilling values in children, are an integral part of society. In the true sense, they are the temple of Saraswati.

Such primary schools, which instill values in children through various co-curricular activities along with education, are a beacon in society. The researcher has undertaken the present study to know the contribution of such institutions in building society and nation, in shaping the child's mind.

Objectives of the research:

1. To get a basic introduction to Sarvoday Primary School.

2. To study the structure of the educational staff of Sarvoday Primary School and their educational qualifications.

3. To study the SMC of Sarvodaya Primary School.

4. To study the academic and co-curricular grades obtained by Sarvodaya Primary School from Gunotsav 1 to 8.

5. To study the academic and co-curricular and other special activities organized in Sarvodaya Primary School.

6. To study the involvement of teachers and children in the academic and co-curricular and other special activities of Sarvodaya Primary School.

7. To study the physical facilities available in Sarvodaya Primary School.

8. To study public participation in Sarvodaya Primary School.

9. To study the group work planning of the students of Sarvodaya Primary School.

Research Questions:/ Hypotheses:

The following study questions were formulated for the present research.

1. When was Sarvodaya Primary School established?

2. What will be the structure of the educational staff of Sarvodaya Primary School and what will be their educational qualifications?

3. What will be the functions of the SMC of Sarvodaya Primary School?

4. What will be the academic and co-curricular grades obtained by Sarvodaya Primary School from Gunotsav 1 to 8?

5. What academic and co-curricular and other special activities will be organized in Sarvodaya Primary School?

6. How will be the involvement of teachers and students in the academic, co-curricular and other special activities of Sarvodaya Primary School?

7. What infrastructure will be available in Sarvodaya Primary School?

8. What will be the level of public participation in Sarvodaya Primary School?

9. What will be the group work planning of Sarvodaya Primary School?

Research Area and Sub-Area:

The area of the present research is primary education.

Research Type:

In the present study, information has been collected on how the institution has developed since its establishment till date. Therefore, this research is of a practical nature.

Research Method:

Out of the above research methods, case study method was used for the present research.

Area:

In the present research, a primary school with D grade of Mehsana district was accepted as the area.

Selection of Sample:

In the present research, Sarvodaya Primary School was accepted as the sample.

Research Findings:

• Sarvodaya Primary School, Ta.Becharaji was established on 09/03/1953.

• There are a total of 11 teachers working in Sarvodaya Primary School, Ta.Becharaji. Out of which 04 are male teachers and 06 are female teachers. 01 is the head teacher, 02 are male teachers and 02 are female teachers in lower primary, 03 are male teachers and 03 are female teachers in upper primary. Each teacher has sufficient educational qualification according to his level and subject option.

• The school runs in two shifts.. Monday to Friday school hours are 10.30 to 5.10 and Saturdays 6.50 to 11.30.

• Along with active and joyful educational work, regular beautiful prayer meetings, yoga, exercise and sports are organized in the school.

• Various activities are conducted under the Mathematical Science Club in the school. Language Club and Eco Club activities are also functioning.

• School entrance festival and girl education, Gunotsav, celebration of national festivals, cultural and annual programs, celebration of Teacher's Day, children's assembly are organized regularly. Activities like Kite Festival, Navratri program, Holi celebration, World Yoga Day, Swami Vivekananda Jayanti, birth anniversaries of other dignitaries and patriots, World Daughter's Day, Safety Week, School Cleanliness Week have been organized.

• Parent contact and parent meeting are organized regularly for irregular children.

• Health related Ayurvedic medicine camps, dental check-up camps, government-sponsored complete health check-up camps, measles.

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2019-20

District Institution of Education and Training, Mehsana
List of researches conducted during the year 2019-2020

No.	Research Title	Researcher
1	A study of Oral Reading Frequency and reading speed including comprehension of students of class 3 to 5 and class 6 to 8 of Tintodan Primary School of Vijapur Taluka and Akba Primary School of Becharaji Taluka of Mehsana District sequencely.	V.D.Adhiyol
2	A study on the use of Energized Text Books (ETB) during teaching-learning process by mathematics teachers of upper primary schools of Surendranagar district.	Dr. Pankaj I. Parmar
3	Shree Middle School Bajana Ta.Patadi – A Case Study.	Dr. Pankaj I. Parmar
4	A study of Oral Reading Frequency and reading comprehension of students of class 3 to 8 of Akshaysanskar Primary School of Vadhwan Taluka of Surendranagar District and Kaporiwadi Primary School of Morbi Taluka of Morbi District.	Dr. Pankaj I. Parmar
5	A study of the status of implementation of Pragya Approach in primary schools of Mehsana district.	S.C.Rabari
6	Simplified educational program and Structure and its effectiveness of std-5 ‘Sauni Aaspas’ in context of hard learning outcome No.E509.	S.C.Rabari
7	“A study on the use of Energized Text Books (ETB) by Mathematics-Science teachers of upper primary schools of Mehsana district during Teaching-Learning process”.	S.C.Rabari
8	Measurement of reading speed including oral reading frequency and comprehension of class 7th talented students of primary schools in Mehsana district.	S.C.Rabari
9	Measurement of Oral Reading Frequency and comprehension reading speed of students of class 3 to 5 and class 6 to 8 of primary schools in Visanagar and Unjha talukas of Mehsana district.	S.C.Rabari
10	Measurement of Oral Reading Frequency and Comprehension reading speed of class 3 to 5 and class 6 to 8 Students of primary schools in Vijapur and Mehsana Talukas of Mehsana district.	Baldevbhai S. Desai
11	Measurement of reading speed including oral reading frequency and comprehension of class 6th talented students of primary schools of Mehsana district.	Dr. Dipti A. Trivedi
12	A study of oral reading frequency and reading comprehension ability of students of Zahirpura Primary School (Class 3 to 5) of Vadnagar taluka and Gamanpura	Dr. D. S. Chaudhari

	primary chool (Class 6 to 8) of Mehsana taluka of Mehsana district.	
13	Simplified educational program and Structure and its trial of std-6 Mathematics in context of hard learning outcome No.M606.	Shri Prakashbhai I. Patel
14	A study of Oral Reading Frequency and Reading Comprehension skill of Class 3 to 8 students of Dharusana School, Visnagar taluka and Juna Devpura School of Vijapur taluka of Mehsana district.	Shri Prakashbhai I. Patel
15	Measurement of Oral Reading Frequency and Reading Speed including comprehension of Class 3 to 8 school students of Mehsana district.	Seema Ramashray Yadav
16	A study of Oral Reading Frequency and Reading Comprehension skill of students class 3 to 8 of Valampara school of Visnagar taluka and Vijapur Girls school of Vijapura taluka of Mehsana district.	Vekariya Anil B.
17	Measurement of Oral Reading Frequency and Reading Speed including comprehension of Class 3 to 5 and Class 6 to 8 students of primary schools in Becharaji and Mehsana Talukas ofMehsana district.	Dr. Devangiben M. Patel

1. **Research Title**: A study of Oral Reading Frequency and reading speed including comprehension of students of class 3 to 5 and class 6 to 8 of Tintodan Primary School of Vijapur Taluka and Akba Primary School of Becharaji Taluka of Mehsana District sequencely.

Name of the researcher : V. D. Adhiyol
Research year : 2019-2020
Designation : In-charge Principal and Senior Lecturer, District Institution of Education and Training, Mehsana
Name of the research guide: Dr. T. S. Joshi, Director. GCERT, Gandhinagar

Introduction

Among the four basic skills in language education, reading is an important skill. Which opens the door to knowledge for students. By studying the nature of the reading process, its reflections and definitions, we can say that comprehension lies at the center of reading activity. Reading without comprehension cannot be called reading. Therefore, it is necessary for a person who reads to have comprehension skills. The development of reading comprehension begins with primary education, after which it gradually develops through the education given in secondary schools and colleges. The task of developing reading comprehension is a challenge for teachers. So the role of the teacher is also indispensable in developing this skill. It is necessary that each child reads sentences correctly and with understanding. In the present time, Can students studying in primary school read correctly or not? If a student reads, does he read the alphabet ? Does he read the word ? Or does he read the sentence ? And if he can read the word or sentence, can he read with comprehension or not?, which was very important to know. Keeping all these factors in mind, the present research has been conducted with the aim of knowing the reading speed and comprehensive reading speed of class 3 to 5 students of Titodan Primary School of Vijapur taluka and class 6 to 8 of Akba Primary School of Becharaji taluka of Mehsana.

Problem Statement

"A study of Oral Reading Frequency and reading speed including comprehension of students of class 3 to 5 and class 6 to 8 of Tintodan Primary School of Vijapur Taluka and Akba Primary School of Becharaji Taluka of Mehsana District sequencely."

Research Objectives

The Research Objectives were as follows.

- To determine the oral reading frequency and reading speed including comprehension of students of primary section (class 3 to 5).

- To determine the oral reading frequency and reading speed including comprehension of students of upper primary section (class 6 to 8).
- To determine the oral reading frequency and reading speed including comprehension of students of class 3 to 8 based on gender.
- To determine the reading speed including oral reading and comprehension of students of class 3 to 8 on the basis of their social group (SC, ST, OBC and others)
- To determine the reading speed including oral reading and comprehension of students of class 3 to 8 with reference to the grades obtained in the examination of the previous class.
- To determine the number and proportion of students who are letter readers, word readers and sentence readers in different levels.

Research Questions

The questions of the present research were as follows.

- Will the oral reading frequency and comprehension of the students be found sufficient?
- Will the oral reading frequency and comprehension of the boys and girls be found sufficient?
- Will the oral reading frequency and comprehension of the students of SC, ST, OBC and other social groups be found sufficient?
- Will the oral reading frequency and comprehension of the students with higher grades in the examination of the previous class be found sufficient?
- Will the oral reading frequency and comprehension speed of students whose grades in the previous class examination be found sufficient ?
- What will be the number and proportion of students with A, B, C and D grades in the letter reading category?
- What will be the number and proportion of students with A, B, C and D grades in the word reading category?
- What will be the number and proportion of students with A, B, C and D grades in the sentence reading category?

Variables included in the research:

Independent variable:-

- Gender (boy – girl), Social group (SC, ST, OBC, OTHERS), Students of class 3 to 5 and class 6 to 8

Dependent variable:-

- Oral reading frequency, reading speed including comprehension

Research type

- The present research was a practical type of research.

Research method

- The survey method of research was used for the present research.

Importance of the research

The present research also has its own significance.

- This research will be useful to know the oral reading frequency of students.
- The reading speed of students including comprehension will be known.
- It will be useful for teachers to diagnose the reading ability of students.

Delimitations of the research

The research was limited to students studying in Gujarati medium at the upper primary level only.

In the present research, the same device was used for students from class 3 to class 5.

In the present research, the same device was used for students from class 6 to class 8.

Research limitations

The present research has been conducted to test the oral reading frequency and reading speed including comprehension of students from two primary schools under the control of the district panchayat of Vijapur and Becharaji talukas of Mehsana district.

Area:

The Area of the present research included all the students studying in class 3 to 8 (year 2019-2020) of Gujarati medium government schools of Vijapur and Becharaji talukas of Mehsana district.

Sample

The school given to the researcher, one class from 3 to 5 of Tintodan Primary School of Vijapur taluka and one class from 6 to 8 of Akba Primary School of Becharaji taluka of Mehsana district were selected for sample selection.

Research Method

The present research is based on survey research method.

Tool

The tools prepared by GCERT, Gandhinagar was used as the tool in the present research.

Data Collection

In the present research, data was collected by the lecturers of the District Education and Training Institites, working in various districts as per the guidance and guidelines given by GCERT, Gandhinagar.

For data collection, GCERT, Gandhinagar asked to visit the school on any two days from 17-2-2020 to 20-2-2020 and collect data on the reading speed and comprehension of students of class 3 to 5 on one day and 6 to 8 on the other day as per the guidelines. Accordingly, the lecturer visited the school for two days and collected data on the reading speed and comprehension of students.

Data Analysis

In the present research, percentage and average were calculated by keeping in mind the purpose. To do this calculation, the software and excel application prepared by Dr. Iqbalbhai Vohra, Lecturer, Diet, Ahmedabad City,were used.

Findings

The findings of the present research are as follows.

- The highest average oral reading frequency was observed in class 8, while the highest average reading speed including comprehension was observed in class 7.
- The lowest average oral reading frequency was observed in class 5, while the lowest average reading speed including comprehension was observed in class 3.
- The reading comprehension skills of upper primary section (class 6 to 8) were better than those of primary section (class 3 to 5). Also, the reading comprehension skills of class 7 were found to be higher than those of class 8.
- The highest average oral reading frequency was observed in class 8 girls, while the highest average reading speed including comprehension was observed in class 7 girls.
- The lowest average oral reading frequency was observed in girls of class 3, while the lowest average reading speed with comprehension was observed in girls of class 3.
- The reading comprehension skills and reading comprehension skills of boys and girls of upper primary section (class 6 to 8) were found to be higher than those of boys and girls of primary section (class 3 to 5).
- The highest average oral reading frequency was observed in students of general classes of class 8, while the highest average reading speed with comprehension was observed in students of general classes of class 7, which was 56.
- The lowest average oral reading frequency was observed in students of general classes of class 5, while the lowest average reading speed with comprehension was observed in students of OBC class of class 3.
- The highest average reading speed was observed in students of general classes of class 8, while the highest average reading speed with comprehension was observed in students of general classes of class 7.
- The reading skills and reading comprehension skills of OBC students in Class 5 were found to be higher than those of other classes in Class 5 and of students in Class 6 to 8 than those of general classes in Class 3 and 4.

- The highest average oral reading frequency was observed in students with A grade obtained in the previous class of Class 8, while the highest average reading speed including comprehension was observed in students with A grade obtained in the previous class of Class 7.
- The lowest average oral reading frequency was observed in students with C grade obtained in the previous class of Class 3, while the lowest average reading speed including comprehension was observed in students with C grade obtained in the previous class of Class 3.
- The reading comprehension skills and reading comprehension skills of the students of the A, B, C and D grades obtained before the primary section (class 3 to 5) were found to be high.
- Among the students of the primary section (class 3 to 5), the students were found to be at the C grade level in the letter reader category, i.e. 33.33 percent of the students could read letters.
- In the word reader category, 3.33 percent of the students were found to be at the B grade level and 23.33 percent of the students were found to be at the C grade level. Thus, a total of 33.33 percent of the students were found to be in the word reader category, i.e. 33.33 percent of the students could read words.
- In the sentence reader category, 3.33 percent of the students were found to be at the A grade level, 43.33 percent at the B grade level and 30.00 percent of the students were found to be at the C grade level. Thus, a total of 83.33 percent of students were found in the sentence reader category, i.e. 83.33 percent of students can read sentences.
- The percentage of students in the primary section (class 3 to 5) was found to be equal in all three levels of letter, word and sentence reader categories, i.e. students were found to be in equal proportion in the letter, word and sentence reading categories.
- The reading skills of the students in the primary section (class 3 to 5) were found to be weak.
- Among the students in the upper primary section (class 6 to 8), not a single student was found in the letter reader category.
- In the word reader category, 13.33 percent of students were found in grade B and 3.33 percent of students were found in grade C. Thus, a total of 16.66 percent of students were found in the word reader category, i.e. 16.66 percent of students can read words.
- In the sentence reading category, 10.00 percent students were found at the A grade level, 43.33 percent at the B grade level and 30.00 percent students at the C grade level. Thus, a total of 83.33 percent students were found in the sentence reading category., i.e. 833.33 percent students can read sentences.
- The reading skills of the students of the upper primary section (classes 6 to 8) were found to be relatively high.

2. **Research Title**: A study on the use of Energized Text Books (ETB) during teaching-learning process by mathematics teachers of upper primary schools of Surendranagar district.

Name of the researcher: Dr. Pankaj I. Parmar and Mr. Vimal U. Dangi
Designation: Senior Lecturer Lecturer, District Istitution of Education and Training , Mehsana
Research Year: 2019 – 20
Name of the research guide: Dr. D. A. Uchat, Dr. J. H. Pancholi and Dr. R. D. Muliya

Introduction

From the beginning of the academic year 2015-20, Energited Textbooks have been made available in all upper primary schools of the state for Mathematics and Science subjects from class 6 to 8. These textbooks are to be used properly by the teachers teaching Mathematics and Science. The present study has been conducted to find out how the Energited Textbook {{T) is currently being used by the teachers teaching Mathematics and Science.

Problem Statement:

'A study on the use of Energized Text Books (ETB) by Mathematics Science teachers of upper primary schools of Surendranagar district during teaching-learning work'

Research Objectives:

• To know about the sources of information about Energized Books in upper primary grades of Surendranagar.
• To know how Energized text books are used by upper primary teachers of Surendranagar.
• To know how often and during what period upper primary teachers of Surendranagar use Energized text books.
• To know about the purposes of using Energized text books by upper primary teachers of Surendranagar.
• To know what kind of materials are used by upper primary teachers of Surendranagar while using Energized text books.
• To know about the difficulties faced by upper primary teachers of Surendranagar while using Energized text books.
• To know about the help received by teachers through the use of Energized text books.
• To know the opinions of teachers regarding the use of Energized text books.

Study Questions:

• What is the knowledge of energized text books among upper primary teachers of the district?
• How will energized text books be used by upper primary teachers of the district?

• How often and during what period will the upper primary teachers of the district use energized text books?
• Will the upper primary teachers of the district know the purposes of using energized text books?
• What kind of materials will be used by upper primary teachers of the district while using energized text books?
• What difficulties will be faced by upper primary teachers of the district while using energized text books?
• Will teachers get help through the use of energized text books?
• Will teachers have specific opinions regarding the use of energized text books?

Research Area:
The research area for the present study can be included in the research area called Educational Technology and Teaching.

Research Type:
In the present research, the opinions of teachers were obtained and analyzed through statistical techniques with respect to various components. Thus, this research was a quantitative research in terms of data collection and analysis.

Area and Sample Selection:
The present research included mathematics and science teachers teaching in government upper primary schools of Surendranagar district in the year 2019-2020 as a sample.
As per the instructions given by Gujarat Educational Research and Training Council, Gandhinagar, 88 mathematics and science teachers working in government upper primary schools from 88 CRCs of Surendranagar district, teaching from class 6 to 8, were selected as a sample.
88 teachers were selected as a sample in a stratified random manner.

Research Methodology:
Survey method was used in the present research.

Findings of the study:
1. All teachers are familiar with textbooks containing QR codes in digital resources for learning and teaching.
2. Teachers have acquired knowledge of textbooks containing 26 codes themselves or through training classes.
3. Teachers use textbooks with QR codes as learning resources.
4. Teachers access textbooks with QR codes through mobile.
5. Teachers access textbooks with codes on their devices.
6. Teachers use textbooks with QR codes to access content by scanning the QR codes and exploring and playing the content on the Diksha application.
7. Teachers use textbooks and learning resources with QR codes once a week.

8. Teachers use resources with QR codes more during school hours.
9. Teachers prefer to use resources with QR codes more during school hours.
10. Teachers prefer to use resources with QR codes more during explaining subject concepts and to keep students engaged in the classroom.
11. Teachers use all kinds of materials from textbooks with QR codes.
12. Teachers have easy access to digital learning resources through textbooks with QR codes.
13. Teachers have to face more difficulties as it takes a long time to load digital learning resources through textbooks with codes.
14. Teachers have easy access to digital learning resources through textbooks with QR codes.
15. Teachers have easy access to letter learning resources through textbooks with QR codes.
16 Teachers have made their teaching work more fun and engaging through textbooks with QR codes.
17. Teachers have helped teachers meet the learning needs of students.
18. It has become easier for teachers to plan lessons better with the help of textbooks with QR codes.
19. Textbooks with QR codes have enabled teachers to increase their knowledge of the subject matter.
20. Textbooks with QR codes have made the learning process enjoyable and engaging for students.
21. Textbooks with QR codes have increased the interest of students in the learning process. 22. School teachers are aware of textbooks with QR codes.
23. Teachers of other subjects in the school want to use textbooks with QR codes.
24. Teachers prefer all types of learning materials such as animated video presentations, videos of experts explaining difficult topics, etc.
25. Teachers should provide information on the availability of internet services and the use of devices to enable students to use textbooks with QR codes.
26. Teachers should provide information on the availability of internet services and the use of devices to enable parents to use textbooks with QR codes.

Educational Outcomes:

• Training classes should be organized for teachers to get information about books with QR codes.
• Teachers should be guided to use textbooks with QR codes as learning resources.
• Teachers should be guided to get information about textbooks with QR codes through mobile, through their devices.
• Teachers should be guided to use textbooks with QR codes to scan the code to get the content and explore and play the content on the Diksha application.
• Teachers should be guided to use all types of resources with QR codes while explaining the subject concept and to keep students engaged in the classroom.
• Teachers should be planned so that textbooks with QR codes help meet the learning needs of students.

• Textbooks with QR codes can enable teachers to increase their knowledge regarding the subject.

Future Recommendations:

1. The effectiveness of textbooks with QR codes can be tested.
2. Study of the impact of textbooks with QR codes on students' learning interest.
3. Study of the impact of textbooks with QR codes on classroom processes.
4. Study of the review of textbooks of other subjects with QR codes.
5. Study of students' attitude towards textbooks with QR codes.

3. **Research Title**: Shree Middle School Bajana Ta.Patadi – A Case Study.
   Name of researcher: Dr. Pankaj I. Parmar
   Designation: Senior Lecturer
   Year of research: 2019 – 2020
   Name of research guide: Mr. Vimal U. Dangi, Senior Lecturer, DIET, Surendranagar

Introduction:

Educational institutions are an integral part of society. The contribution of educational institutions for the upliftment of society and the nation has always been significant. It has also become essential for our current educational institutions to work on life formation and culture instillation along with the knowledge of subject information. For the creation of a healthy and cultured society, the culture of excellent qualities like duty, morality, humanity, impartiality and regularity is needed in the life formation of a person. Fourth, the culture of culture instills self-confidence in students and the path of education or liberation becomes meaningful. Thus, many institutions that light the lamp of self-confidence in students and instill values such as nationality and character building are significant in the society. Primary schools, which play a major role as the first step in the culture instillation in children, are an integral part of the society. in the true sense,they are the temple of Saraswati.

Such primary schools, which instill values through various co-curricular activities along with education in children, are a beacon in the society. The researcher has undertaken the present study to know the contribution of such institutions in the construction of society and nation, in the formation of the child's mind.

Research Title:

Shri Middle School Bajana Ta. Patdi – Case study

Research Objectives:

(1) To get a basic introduction to Shri Middle School Bajana Ta. Patdi.
(2) To study the structure of the educational staff of Shri Middle School Bajana Ta. Patdi and their educational qualifications.
(3) To study the SMC of Shri Middle School Bajana.

(4) To study the academic and co-curricular grades obtained by Shri Middle School Bajana from Gunotsav 1 to 8.
(5) To study the academic and co-curricular and other special activities organized in Shri Middle School Bajana.
(6) To study the involvement of teachers and girls in the academic and co-curricular and other special activities of Shri Middle School Bajana.
(7) To study the infrastructure available in Shri Middle School Bajana.
(8) To study public participation in Shri Middle School Bajana.
(9) To study the group work planning of girls of Shri Middle School Bajana.

Research Questions:
(1) When was Shri Middle School Bajana established?
(2) What will be the structure of the educational staff of Shri Middle School Bajana and what will be their educational qualifications?
(3) What will be the functions of SMC of Shri Middle School Bajana?
(4) What will be the academic and co-curricular grades obtained from Shri Middle School Bajana Gunotsav 1 to 8?
(5) What educational, co-curricular and other special activities will be organized in Shri Middle School Bajana?
(6) How will the involvement of teachers and girls in the educational, co-curricular and other special activities of Shri Middle School Bajana be?
(7) What infrastructure will be available in Shri Middle School Bajana?
(8) What will be the level of public participation in Shri Middle School Bajana?
(9) What will be the group work planning of Shri Middle School Bajana?

Area of Research:

- The present study is a case study of an educational institution. The Area of work was limited to Shri Middle School Bajana. The study was conducted on the establishment of this school, infrastructure, educational, co-curricular activities of the school, various achievements, public cooperation, information about the principal and staff, efforts of SMC, principal, teachers and parents for school development, etc.

Type of Research:

- In the present study, information was collected on how the institution has developed from its inception to the present day. Therefore, this research is a practical case study.

Area and Sample:

- In the present research, Shri Middle School Bajana was accepted as the Area and sample.

Research Method:

- Out of the above research methods, case study method was used for the present research.

Research Findings:

- There are a total of 05 teachers working in Middle School Bajana. In which 02 are male teachers and 02 are female teachers. 01 is the head teacher, thus a total of 05 teachers are on duty. Each teacher has sufficient educational qualifications according to his level and subject option.
- School timings are from 13.30 to 5.30 in the morning
- The results of the school's Gunotsav 1 to 8 seem to have gradually improved.
- In Gunotsav-8, C has been obtained academically, B in co-curricular and B in overall grade.
- Along with active and joyful educational work, the school organizes regular beautiful prayer meetings, yoga, exercise and sports, children's fair and life skills children's fair.
- The school's work has also been represented at the state and district levels in the Mathematics-Science-Environment exhibition. Various activities are conducted under the Mathematics and Science Club in the school. Language Club and Eco Club activities are also functioning.
- Various games are organized in all classes during the last hour.
- School entrance festival and girl education, Gunotsav, celebration of national festivals, cultural and annual programs, celebration of Teacher's Day, children's assembly are organized regularly. Activities like World Yoga Day, Swami Vivekananda Jayanti, birth anniversary celebrations of other eminent personalities and patriots, World Daughter Day, Safety Week, School Cleanliness Week, Educational Tour, Children's Parliament are organized.
- Parent contact and parent meeting are organized regularly for irregular children.
- Health camps on Ayurvedic medicines, complete health check-up camps inspired by the government, Measles Rubella vaccination campaign etc. are organized.
- Taluka Primary Education Officer, Diet Liaison, BRC Coordinator, CRC Coordinator and other dignitaries have visited the school during various government programs.
- SMC is formed as per the rules.
- SMC meetings are held regularly and resolution books and minutes books are written regularly.
- Public support is received for school development.
- Parents are made aware of the progress of children. School development plan is prepared.

- Internal and statutory audit of SMC is done at the appointed time.
- SMC expense sheets are updated regularly.
- Expenditure is made as per financial rules. Report of expenditure made in SMC is presented in SMC meeting.
- School daily, SMC daily, ledger, all school daily, education fund daily are updated regularly.
- School items are recorded in the register and updated according to deadstock.
- Library books are put in deadstock and necessary planning is done.
- Necessary process is done for cancellation of cancelled or scrapped items.
- All school registers are systematically maintained and updated from time to time.
- Remedial work is done under Mission Vidya in class 6 to 8.
- Unit test and retest are conducted for class 6 to 8.
- Unit test marks in class 6 to 8 are filled on the portal.
- Students are included in external examinations like NMMS, scholarship, painting, Jawahar Navodaya.
- Teachers' timesheets and logbooks are filled.
- Children's scholarships are done online.
- Aadhaar data entry of all children of the school is done online.
- Children's daily attendance is submitted online on the portal.
- Mid-day meal statistics are regularly done online. Accordingly, the grade book is filled.
- Children are evaluated in the school periodically and recorded by each teacher according to the SCE sheets. Children's portfolio and necessary supports are maintained.
- Every week, children are given a different book to read in exchange for reading under the book festival running in the school. The review of the book read is presented in the prayer meeting.
- There is a system of greenboard and bulletin board in every classroom of the school. In which various information or artworks are frequently placed by the children.
- All the teachers use computers for educational purposes. Computers are used for all the administrative-statistical forms of the school, internet facility is available.
- Distance learning programs are shown on the Byseg channel for children of classes 6 to 8 as per the time table.
- Aquaguard clean water is available for drinking for all the children of the school. Cold water jugs are arranged in all the rooms.
- Water tank and toilets are cleaned regularly using appropriate materials.

- Adequate water is available in the toilets. There is a system for washing hands after use.
- Mid-day meal is prepared as per the weekly menu. The quality of the food provided under the M.B.O. scheme is checked by the teachers.
- The writing work done by the children is systematically checked and improved by the teachers. Literacy subjects are continuously assessed as per S.C.E.
- Different teams of children and teachers have been formed in the group work activities of the school. (1) Cultural Department (2) Mid-day Meal Department (3) Cleaning Department (4) Health Department (5) Water Department and (6) Environment Department. The work of all the teams changes in sequence after every 15 days.

Research Recommendations:

(1) By conducting individual studies of fully developed institutions, it is necessary to know how the complete development of the institution takes place and provide guidance to underdeveloped institutions by giving examples of developed institutions.

(2) Efforts should be made to transfer the best activities taking place in each institution or school to other schools.

(3) Appropriate steps can be taken for institutional achievement through individual studies of one's own institution.

(4) Teachers and students can be guided to participate in social activities and cultural activities.

(5) Principals and educational staff should work together to make more intensive efforts for the progress of the institution/school.

(6) Society and parents should provide support and public cooperation for the development of the school.

(7) Students should make maximum use of the facilities and cooperation available from the school and fulfill their duty to contribute to the upliftment of the society by building a bright career.

(8) Children should be given adequate guidance to move forward in their field of interest.

(9) The school should work hard to make progress in every field by comparing the results of the previous years of the school.

4. **Research Title**: A study of Oral Reading Frequency and reading comprehension of students of class 3 to 8 of Akshaysanskar Primary School of Vadhwan Taluka of Surendranagar District and Kaporiwadi Primary School of Morbi Taluka of Morbi District.

   Name of the researcher: Dr. Pankaj I. Parmar

   Designation: Senior Lecturer, District Institution of Education and Research, Mehsana

   Research year: 2019 – 20

   Name of the research guide: Mr. Vimal U. Dangi, Senior Lecturer, District Institution of Education and Research, Surendranagar

   Introduction:

   Among the four basic skills in language education, reading is an important skill. Which opens the door to the knowledge of the students. By studying the nature of the reading process, its replicas and definitions, we can say that the center of reading activity is comprehension. Reading without comprehension cannot be called reading. Therefore, it is necessary for the person who reads to have comprehension skills. The development of reading comprehension begins with primary education, after which it is gradually developed through the education given in secondary schools and colleges. The task of developing reading comprehension is a challenge for teachers. So the role of the teacher is also indispensable in developing this skill. It is necessary that every child reads sentences correctly with understanding. Can students studying in primary school read correctly or not? If a student reads, does he read the alphabet? Does he read the word? Or does he read the sentence? And if he can read the word or sentence, can he read with comprehension or not?, which was very important to know. Keeping all these factors in mind, the present research was conducted with the aim of knowing the reading speed and reading speed with comprehension of students of class 3 to 8 of primary school.

   Research Title:

   The title of the present study was worded as follows.

   A study of oral reading frequency and reading comprehension speed of students of classes 3 to 8 of Akshaya Sanskar Primary School of Wadhwan Taluka of Surendranagar District and Kaporiwadi Primary School of Morbi Taluka of Morbi District.

   Objectives of the study

   The objectives of the present study were as follows.

   1. To test the effectiveness of the Tools for measuring oral reading frequency and reading comprehension speed of primary school students.
   2. To study the oral reading frequency and reading comprehension speed of students.

3. To study the oral reading frequency in terms of the average, gender, and grade of the students in the next class examination according to the class.
4. To study the reading comprehension ability in terms of the average, gender, and grade of the students in the next class examination according to the class.
5. To examine the effect between the reading speed and reading comprehension speed of primary and upper primary students.

Research methodology and type

The present research was a practical type of research. And also the survey method of research was used.

Area

All the students studying in class 3 to 8 (year 2019-2020) of Gujarati medium government primary schools of the state of Gujarat were included as the Area of the present research.

Sample

In Akshay Sanskar Primary School – Wadhwan, 10 students from each class studying in class 3 to 5 were randomly selected as a sample. While in Kaporiwadi Primary School, 10 students from each class studying in class 6 to 8 were randomly selected as a sample. 10 students were randomly selected per class.

Findings of the study

The findings in the present study were as follows.
1. In Aksharsanskar Primary School – Vadhwan, the average of students of Class – 8 was seen to be the highest in terms of oral reading frequency and comprehension reading speed in Class 3 to 5.
2. In Kaporiwadi Primary School – Morbi, the average of students of Class – 8 was the highest in terms of oral reading frequency in Class 6 to 8. While in terms of comprehension reading speed, the average of students of Class – 7 was seen to be the highest.
3. In terms of gender, in Aksharsanskar Primary School – Wadhwan and Kaporiwadi Primary School – Morbi, the average of oral reading frequency and comprehension reading speed of girls was seen to be higher than that of boys.
4. In terms of grades, in Aksharsanskar Primary School – Wadhwan, the average oral reading frequency of students who got A grade and the average comprehension reading speed of students who got C grade were the highest in terms of grades obtained by students in the previous year in classes 3 to 5.
5. In Kaporiwadi Primary School – Morbi, the average oral reading frequency of students who got A grade and the average comprehension reading speed of students who got B grade were the highest in terms of grades obtained by students in the previous year.

Educational Outcomes

The educational outcomes in the present study were as follows.

- ❖ Planning can be done at the school level so that students get more and more oral reading practice right from the primary school level.
- ❖ Language readiness and enrichment-based training classes should be organized for language teachers at the district level to develop the reading speed of students.
- ❖ During school monitoring, lecturers should guide students based on reading speed. Also, the teacher should be given guidance wherever needed.

Recommendations

The recommendations in the present study were as follows.

- ❖ The present study was conducted keeping in mind only two schools. In the future, such a study can be conducted by selecting all the schools of a taluka.
- ❖ In the present study, oral reading and reading comprehension were conducted keeping in mind the school. In the future, the study can be conducted by targeting only one ability.

5. **Research Title: "Study of the status of implementation of Pragya approach in primary schools of Mehsana district."**

Name of the researcher: S. C. Rabari
Designation: Senior Lecturer, District Institution of Education and Research, Mehsana
Research year: 2019-20
Name of the research guide: Principal, District Institution of Education and Research, Mehsana

Introduction-

30 schools of Mehsana district were selected to study the status of 'pragnya abhigam' in primary schools of Gujarat state. The status of implementation of Pragya approach was studied based on the evaluation of whether the approach is implemented properly in the language and mathematics classes of class-1 and class-2 in the school.

Objective-

1. To study the status of implementation of Pragya approach in primary schools
2. To study the status of implementation of Pragya approach in primary schools in the context of the area
3. To study the physical status of Pragya approach in primary schools

4. To study the status of classroom management of Pragya approach in primary schools

5. To study the status of individual education of Pragya approach in primary schools.

Research questions –

• Questions based on the status of classroom management of Pragya approach:

• Questions based on the status of individual education of Pragya approach:

• Questions based on the status of student progress achieved with Pragya approach:

Methodology- Survey method

Research type- Practical

Study design

- Lecturers from all the District Education and Training institutes of Gujarat State and Pragya DRG visited randomly selected schools and observed the language and mathematics classrooms for the entire day and discussed with 3-3 students of class 1 and 2 selected from them and evaluated them and gave their opinions as per the statements given in the observation sheet and collected the information. The information was analyzed by average and percentage.

Area and Sample –

- 30 government schools of Mehsana district were randomly selected and 3-3 students of class 1 and 2 were randomly selected and taken as a sample from the total students studying in them.

Tools – The equipment was prepared by GCERT, Gandhinagar

Process of data collection

- To collect information under the present research work, school data certificate from the Gunotsav portal and face-to-face visit to the school, guidance, observation of educational work, conversation with staff etc. were used. The details of the equipment to be used in the present research work are as follows.
- Lecturers from all the District Education and Training institutes of Gujarat State and Pragya DRG will visit the randomly selected schools and observe the language and mathematics classrooms for the whole day and discuss with 3-3 students of class 1 and 2 selected from them and evaluate them and give their opinions as per the statements given in the observation sheet and collect the information.

Findings-

- In the classrooms of Pragya School, arrangement of learning cards according to the ladder, unit, information about the availability of TLM and availability and ease of content were found to be good in Gujarati and Mathematics subjects.
- Seating arrangement of students as per study cards, ability of students to show their place in the learning ladder, number of students in study cards and self-study books as per the learning ladder, updated notes in the student progress register and notes about the work done, proper checking of self-study books by the teacher, knowledge about the ability of students to answer questions under the previous card (content), relatively good condition was seen in Gujarati and Mathematics subjects in schools.
- Relatively poor condition was seen in Gujarati and Mathematics subjects in schools regarding the activity of students helping each other in self-study and evaluation groups.

Educational Outcomes-

- In all Pragya schools, seating arrangements should be arranged according to ideal group division and Pragya classes should be conducted as per the fixed schedule.
- In mathematics, it is very rare to see a teacher giving individual education to a student in a teacher-supported group in schools. This should be improved.

6. **Research Title:** Simplified educational program and Structure and its effectiveness of std-5 'Sauni Aaspas' in context of hard learning outcome No.E509.

- **Name of the researcher:** S.C. Rabari
- **Designation:** Senior Lecturer, District Institution of Education and Research, Mehsana
- **Research Year:** 2019-20
- **Name of the research guide:** Principal, District Institution of Education and Research, Mehsana

Introduction

- The educational achievement survey of primary school students from Std-6 to 8 conducted by GCERT, Gandhinagar at the district level suggested preparing a specific remedial program for the simplification of the difficult points (content) found and trying it out. If the educational program prepared for the simplification of the difficult points is successful, then it can be considered for implementation at the state level. Thus, an educational program should be prepared and tested for the simplification of the difficult points of different classes and subjects from each diet and if it is successful, its state-wide implementation can improve the

educational quality, and the findings of the research can be useful in education in the true sense.

- This diagnostic and therapeutic process is very important for the success of the work. To improve the educational quality, it is necessary to continuously evaluate the teacher at the school level and based on the evaluation, the teacher should make necessary changes in his educational work so that the quality of education can be improved.
- Research Title: “Class-5 Structure and effectiveness of simplified educational program in the teaching context of difficult learning of the subject around everyone E509”

Objectives of the study

- To create an educational program related to the content related to the difficult points (see, learn experiences- unit-16 (sixteen)).
- To examine the impact of the educational program on the achievement of students.
- To compare the achievement of the student through special educational program and traditional education.

Methodology- Experimental method

Area and sample

- 29 children of class A and 22 children of class B studying in class-5 of Shihin Lower Primary School of Mehsana district.

Tools- Self-designed achievement test was designed.

Data collection process

The main purpose of the present research was to check the effectiveness of the educational program prepared for the simplification of the difficult point and to compare the effectiveness of this program with the effectiveness of the traditional method. Therefore,before the trial of the experimental program and the traditional program, a pre-test was taken by the students and after the trial, a post-test was taken by the students. The average of the marks obtained by the students in this test was calculated, the class deviation was found and the t-value was calculated.

In the present research, the average, class deviation and t-value were calculated from the information obtained for the analysis of the data.

Findings-

- The achievement of the students of the experimental group in the post-test is higher, that is, the educational program prepared for the See, Know and

Experience unit was effective. And the implementation of this educational program can increase the achievement of the students.

- The educational program prepared by the researcher regarding the See, Know and Experience unit has been effective and if the educational program is implemented at the school level, it can prove to be more effective than the traditional method.
- The achievement of the male students of the experimental group in the post-test and the female students of the experimental group in the post-test is similar, that is, the educational program prepared for the See, Know and Experience unit is the same for both the groups. Therefore, it can be said that the gender of the students did not have an effect on the relationship between the teaching method and the academic achievement of the environmental subject.

Educational Outcome-

- The educational program prepared for the See, Know and Experience unit has been effective, so it would be useful to implement this program for education at the school level.
- Similarly, for other difficult points found in NAS, an educational program should be designed by the Diet to simplify the difficult points and it should be implemented at the school level.
- In-service training should be given to teachers working in the classroom to know how to implement the educational program in the classroom.

7. **Research Title: "A study on the use of Energized Text Books (ETB) by Mathematics and Science teachers of upper primary schools of Mehsana district during teaching and learning"**

Name of the researcher: S.C. Rabari
Designation: Senior Lecturer, District Institution of Education and Research, Mehsana
Research year: 2019-20
Name of the research guide: Principal, District Institution of Education and Research, Mehsana

Introduction-

From the beginning of the academic year-2019-20, e-material related to various subjects given in the textbooks of Mathematics and Science of Classes 6 to 8 has been made available on an experimental basis in the state of Gujarat with the help of QR codes. For this, teachers can scan the QR code given in the textbooks with the help of their mobile, tablet or computer and see the e-material attached to that subject on the screen. They can also show it to the children so that the children can easily develop proper understanding. These types of textbooks are known as Energized Textbooks (ETB).

From the beginning of the academic year 2019-20, the textbooks for Mathematics and Science subjects from Class 6 to 8 in all upper primary schools of the state have been made Energized Textbooks. These textbooks are to be used properly by teachers teaching Mathematics and Science. The present study has been conducted with the aim of knowing how Energized Textbooks (ETB) are currently being used by teachers teaching Mathematics and Science.

Objectives-

1. To know about the sources of information about Energized Text Books among upper primary teachers of the district.
2. To know how Energized Text Books are used by upper primary teachers of the district.
3. To know how often and during what period upper primary teachers of the district use Energized Text Books.
4. To know about the purposes of using Energized Text Books by upper primary teachers of the district.

Research Questions –

1 Are Energized Text Books (ETB) familiar among upper primary teachers of Mehsana district?
2 What are the reasons for the lack of introduction of Energized Text Books (ETB) among upper primary teachers of Mehsana district?
3 Where are the sources of information about energized text books among upper primary teachers of Mehsana district?
4 How are energized text books used by upper primary teachers of Mehsana district?

Methodology- Survey method

Research type- Practical

Study design- Design of the study

Area and sample –

93 teachers teaching Mathematics/Science/Math-Science in Gujarati medium government schools of Mehsana district from class 6 to 8 (year 2019-2020) were included.

Tools – Prepared by GCERT, Gandhinagar

Process of data collection

In the present research, a training class was organized at the District Education and Training Building, Mehsana, functioning in the district, as per the guidance and

guidelines given by GCERT, Gandhinagar, in which this questionnaire was filled by the teacher trainees. Thus, the information was collected.

Findings-

1. 92 percent of teachers were familiar with DIKSHA APPLICATION / ETB / QR code-containing textbooks Statement 4 in digital resources.
2.Statement 29 Except you, all the teachers of the school knew about DIKSHA APPLICATION / ETB | 32 percent of all teachers were aware of the textbooks with QR code.
3.Statement 5 Among the reasons for not being familiar with DIKSHA APPLICATION / ETB / QR code-containing textbooks, 5 percent were found to be the habit of teaching through books in the school, equipment is not available / compatible / not working. 4 percent were not confident in using computers / internet / electronics equipment., 3 percent did not have information on how to use them. Reasons like these were found.

Educational Outcome-

- To reach the expected achievement, the District Education and Training Department should make a systematic plan so that DIKSHA APPLICATION / ETB / QR code-containing textbooks are used in digital resources.
- In order for teachers to play an effective role in classroom teaching, they should be trained to use various teaching-learning methods and computer/internet/electronics equipment.

8. **Research title:-** Measuring the reading speed of gifted students of class 7 of primary schools of Mehsana district with oral reading frequency and comprehension.

Name of Researcher: S.C. Rabari
Designation: Senior Lecturer, District Institution of Education and Research, Mehsana
Research Year: 2019-20
Name of Research Guide: Principal, District Institution of Education and Research, Mehsana

Introduction

Education Department is planning to celebrate the current year 2019-20 as ‘Language Year’. Under the 'Reading Campaign' started in the second semester of the year 2019-20, special emphasis is being given to teachers to improve and develop the reading skills of children in all schools of the state through language training. During the year 2018-19, children who were studying in class 5, 6 and 7 and who are studying in class 6, 7 and 8 respectively this year, who have consistently performed well by scoring 75% or more marks in both the semester and year-end tests in the three subjects Gujarati, Mathematics and Science, have been declared as talented students by the Education Department. There is a plan to measure the oral reading frequency

and reading speed with comprehension of such talented students. Can these students studying in primary school read properly or not? If a student reads, is he a letter reader? Is he a word reader? Or is he a sentence reader? And if he is a word or sentence reader, can he read with comprehension or not? Which is very important to know. As a result, the research presented by the researcher has been conducted on gifted students of class 7 of primary schools of Mehsana district.

Objective-

• To know the correlation between the reading speed of gifted students and the reading speed with comprehension.
• To study the reading speed of gifted students with respect to their gender and the reading speed with comprehension.
• To study the reading speed of gifted students with respect to their social group and the reading speed with comprehension.

Research questions

• What will be the average reading speed of gifted students?
• What will be the average reading speed with comprehension of gifted students?
• Is there any correlation between the reading speed of gifted students and the reading speed with comprehension?
• Is there any correlation between the oral reading frequency of gifted students (social group) and the reading speed with comprehension of the student?

Methodology- Survey method

Research Type- Practical

Study Design

Data were collected by measuring the reading speed and reading speed with comprehension of the sample of talented students on this particular day.

Area and Sample –

41 students from 15 schools were selected from 10 clusters of Visnagar taluka. Number of students present during the survey 38.

Tools – GCERT, Gandhinagar prepared tools for measuring reading speed and reading speed with comprehension for classes 6 to 8. A total of two Tools were prepared for classes 6 to 8, one for measuring reading speed and one for measuring reading speed with comprehension.

Data Collection Process

The 38 talented students present in the sample were seated in a separate room and after giving necessary instructions, one by one students were called and

data on reading speed was collected. For this, the students were called and asked to read the reading material. The student had to read this reading material for four minutes. The number of words the student read in four minutes was noted by the lecturer. If the student finished reading the reading material before four minutes, then the time at which he finished reading the reading material was noted by the lecturer. Along with this, according to the way the student read the reading material, whether the student was a sentence reader, a word reader or a letter reader, it was also noted. In addition, it was noted whether the student had a good (A), average (B) or low (C) level of reading in the category of sentence reader, word reader or letter reader. In this way, information about the reading speed of all the students was collected.

Conclusions-

1. The average of oral reading frequency of gifted students (116) and the average of reading speed including comprehension (40) has been found, the correlation coefficient between oral reading frequency of gifted students and reading speed including comprehension has been found to be -0.038. That is, a negative correlation is seen. Hence it can be said that there is no relationship between oral reading frequency of students and reading speed with comprehension of students.
2. In terms of gender of gifted students, the oral reading frequency of boy students was 114 and reading speed including comprehension was 43, while the oral reading frequency of girl students was 118 and reading speed with comprehension was 39.
3. In terms of gender of gifted students, the correlation coefficient between oral reading frequency and reading speed including comprehension has been found to be -0.084 in gifted boy students, 0.14 in gifted girl students, so it can be said that in the case of both boy and girl students, there can be a very small relationship between oral reading frequency and reading speed including comprehension.
4. The t-value between oral reading frequency of gifted boy and girl students is 0.22 and the t-value between reading speed including comprehension is 0.24. Thus, there is no significant difference in oral reading frequency and reading speed including comprehension of gifted boy and girl students.

Educational Outcome-

• Reading speed with comprehension of gifted students was found to be low, therefore, educational strategy trainings for it should be planned and implemented by District Education Training Institute and SSA.
• Guidelines for increasing the reading speed and comprehension of gifted students, and literature for this purpose should be prepared for children and distributed to teachers.

9. **Research Title: -**Oral reading frequency and comprehension reading of students of class 3 to 5 and class 6 to 8 of primary schools of Visnagar and Unjha talukas of Mehsana district.
Name of the researcher: S.C. Rabari
Designation: Senior Lecturer, District Education and Training Building, Mehsana
Research Year: 2019-20
Name of the research guide: Principal, District Education and Training Building, Mehsana.

Introduction

Reading is the highway to knowledge acquisition. Man can make life easier through reading in his life work, not only that, but also through reading one can gain a vast store of knowledge. Through which the ability to comprehend meaning also develops.

The importance of reading and its comprehension has been universally accepted in the overall personality development of a person, so it is essential for children studying in primary schools to have the ability to do these things.

In order to get a picture of the ability of children studying in primary schools in this regard, GCERT, Gandhinagar has asked all the lecturers of the District Institue of Education and Training to conduct a research to check the oral reading frequency and comprehension reading speed of children studying in class 3 to 5 and class 6 to 8.

Objective-

1. To study the oral reading frequency and comprehension reading speed of students of class - 3 to 5 and class - 6 to 8.
2. To study the oral reading frequency and comprehension reading speed of students of class - 3 to 8 based on their gender.
3. To know the correlation between oral reading frequency and reading comprehension speed of students of class – 6 to 8 with the grade of the previous class examination.
4. To study the reading range of students of class – 3 to 8 in different levels in the context of oral reading.

Methodology- Survey method
Research type- Practical
Study design-

Oral reading frequency and reading comprehension speed of the students were tested. The information obtained regarding which was recorded in the prescribed form. All this information was collected in the software provided by GCERT, Gandhinagar. Thus the information collected was of numerical type.

Area and Sample –

The Aithor Primary School of Unjha Taluka and Bhandu Kumar Primary School of Visnagar Taluka

Tools –

Data Collection Process

While starting the reading at the same time, a stopwatch was started in the mobile and the stopwatch was continued till the last student finished reading. As the student finished reading and raised his hand, the Student ID of the person who raised his hand was recorded in the Lap sr.No. in the order of raising his hand. At the end of the reading of the last student, lap was selected in the stopwatch and then stop was selected. In this way, the time taken by ten students against the lap no. was recorded from the stopwatch.

As soon as the students finished their assignments, they were asked to raise their hands and take the sheet for the reading comprehension questions placed next to them after informing them and to put the paragraph sheet they had with them upside down. In RSCQ-1/2, they were instructed to select the correct option from the options given below each question and mark the correct one with a tick. For this, only one option will be correct, according to which only one option has to be marked as correct and to change the selected answer, mark 'x' on the correct mark and select another option by marking it as correct. This was also stated. After the students wrote the answers in this way, all the comprehension tests were taken back.

Conclusions-

- The reading speed with comprehension of the students in class 6 to 8 was found to be weaker than that of class 3 to 5.
- The oral reading frequency and reading speed with comprehension of the boys and girls of all the classes were found to be average.
- Among the sentence readers, the oral reading frequency of the students of class 6 was the highest, while the lowest speed was seen in class 4.
- Among the sentence readers, the reading speed including comprehension of the students of class 8 was the highest, while the lowest speed was seen in class 3.

Educational Outcomes-

- The District Institue of Education and Training should make systematic plans to reach the expected achievement in oral reading frequency and reading speed including comprehension.
- Teachers should be trained in various teaching methods and techniques so that they can play an effective role in classroom teaching.

10. **Research Title:** Measuring the reading speed with oral reading and comprehension of students of classes 3 to 5 and 6 to 8 of primary schools of Bijapur and Mehsana talukas of Mehsana district.

Researcher's name: Baldevbhai S. Desai

Designation: Senior Lecturer, District Institution of Education and Research, Mehsana

Research year: 2019-20

Research guide's name: Principal, District Institution of Education and Research, Mehsana

Introduction:

Reading is the highway to knowledge acquisition. Man can make life easier through reading in his life's work, not only that, but also through reading one can gain a vast store of knowledge. Through which the ability to comprehend meaning is also developed.

Reading is an art. Reading ability is essential for effective oral expression and writing as well as for making the education process effective and up-to-date. Moreover, reading is of great importance for contact with society in life and for expressing one's thoughts. A student's career depends on meaningful reading. The main basis of comprehension and quality in all subjects is also on reading and the richer the mother tongue is, the more the student's comprehension can become. That is why knowing how the reading and comprehension ability of the students is the first step in their reading development.

Therefore, the researcher randomly allocated The Forward Primary School of Vijapur Taluka and Sanskar Primary School of Mehsana Taluka by GCERT, Gandhinagar in Mehsana district, one primary school each in both the talukas, that is, 2 (two) primary schools, namely, one each in Class 3 to 5 and Class 6 to 8? The present research was conducted to verify the reading speed and reading comprehension ability of children studying in Class 3 to 5 and Class 6 to 8 respectively.

Research Objectives:

- To study the reading speed with oral reading and comprehension of students of classes 3 to 5 and 6 to 8.
- To study the reading speed with oral reading and comprehension of students of classes 3 to 8 based on their gender.
- To know the correlation between the reading speed and reading comprehension of students of classes 4 to 8 with their grades in the next class examination.
- To study the reading range of students of classes 3 to 8 in different levels in terms of oral reading.

Field and sub-field of the research:

- The fields of the present research are- primary education, language education and educational testing and evaluation.

Research Type:

- The present research is a practical type of research.

Research Methodology:

- The present research is based on a survey study of descriptive research method.

Area:

- All the students studying in class-3 to 8 in the year 2019-'20 in the granted primary schools of the District Panchayat in Mehsana district are the Area of the present research.

Sample Selection: The Forward Primary School of Bijapur Taluka for class-3 to 5 and Sanskar Prathmik School of Mehsana Taluka for class-6 to 8 were randomly selected and allocated by GCERT, Gandhinagar, among the primary schools of the District Panchayat of Mehsana district.

Research findings:

- The main findings of the present research were as follows.
- The highest reading speed of 107 words per minute was observed in students of class-7, while the highest reading speed with comprehension of 28 words per minute was observed in students of class-5.
- The lowest oral reading frequency was 46 words per minute in students of class-3. While the lowest reading speed with comprehension of 24 words per minute was observed in students of class-7.
- The average oral reading frequency of students of class-3 to 5 was 69 words per minute. While the average oral reading frequency of students from class 6 to 8 was 99 words per minute.
- The average reading speed with comprehension of students from class 3 to 5 was 18 words per minute. While the average reading speed with comprehension of students from class 6 to 8 was 31 words per minute.
- The effect of gender of students is seen on reading speed. No significant difference is seen between the reading speed of boys and girls in all classes.
- In class-4 and class-5, the effect of gender is seen on reading speed with comprehension, that is, in class-4, the reading speed with comprehension of girls is higher than the reading speed with comprehension of boys. In all classes except Class-4 and Class-5, there is no significant difference between the reading speed of boys and girls with comprehension, so it can be said that the reading speed

of boys and girls with comprehension is the same in all classes except Class-4 and Class-5.

- The average reading speed with comprehension of OBC class students of Class-6 was 104, while the highest average reading speed with comprehension was 55 for SC class students of Class-8.
- The lowest average reading speed with comprehension of OBC class students of Class-3 was 41, while the lowest average reading speed with comprehension was 9 for OBC class students of Class-3.
- The value of the correlation between the grade obtained by the student in the next class and the oral reading frequency is 0.68. Which shows a high correlation. Therefore, it can be said that the higher the grade of the student in the next class, the higher his oral reading frequency will be.
- For reading speed with comprehension, the correlation value between the grade obtained by the student in the previous class and reading speed with comprehension is 0.76. Which shows a high correlation. Therefore, it can be said that there is a correlation between the student's grade in the previous class and reading speed with comprehension.

- In primary section, the percentage of letter readers was 20.00, the percentage of word readers was 6.67 and the percentage of sentence readers was 73.33. Thus, 30.00 students of primary section were found at the level of letter readers and word readers.
- Among the students found at the level of word readers, 1 student had the skill of reading words with correct pronunciation with proper intonation at the A grade level and 1 student had the skill of reading words with more than necessary spacing between the pronunciation of letters in a word at the B grade level.
- All the students found at the level of sentence readers read sentences with proper intonation at the A grade level. They had the skill of reading correctly. Thus, the reading skill of primary section students was found to be good.
- In the upper primary section, 2 students could read letters at the level of A grade and 1 student at the level of C grade at the level of letter readers. Thus, their percentage was found to be 9.99 but the percentage of word readers was not found.
- At the level of sentence readers, 25 students at the level of A grade and 2 students at the level of B grade read the sentences fluently with proper ascent and descent and had the skill of reading correctly. Thus, the reading skill of the students of the upper primary section was found to be good.

Recommendations regarding research:

- The following recommendations are made with regard to the findings of the research:
- Since the students of class - 3 to 8 have an average achievement level in oral reading frequency and unsatisfactory achievement in reading speed with comprehension, systematic plans should be made to ensure that the students reach a high achievement level in both the indicated matters.
- In order to develop more capacity in oral reading frequency and reading speed with comprehension of students, a suitable environment should be created at the school level and necessary programs should be organized.
- It seems necessary for teachers to make students study intensively in this regard at the school level.
- Under the guidance of GCERT, Gandhinagar, the District Institue of Education and Training should prepare necessary study-teaching materials for the purpose of developing oral reading frequency and reading speed with comprehension of students in Gujarati subject and it seems necessary to provide intensive training to the teachers in that subject.
- Effective observation and guidance seems necessary for the fruits of this subject training given to the teachers to reach the students in the classroom.

11. **Research Title: "Measurement of oral reading frequency and reading speed including comprehension of talented students of class 6 of primary schools of Mehsana district"**
Researcher's name: Dr. Dipti A Trivedi
Position: Junior Lecturer, District Education and Training Building, Mehsana
Year of research: 2019-2020
Research guide's name: Principal, District Education and Training Building, Mehsana

Introduction:

The foundation of primary education is reading, writing and arithmetic. Out of these three skills, if a child acquires reading skills, he can learn and acquire anything well. Among the various language skills, it is very inevitable and necessary that reading skills develop well in children. If the reading and comprehension skills of students are good, then their achievement in other subjects is also excellent. Reading and comprehension is a complex process that involves ideas. It can be a great source of knowledge for a person. It is essential that students gain mastery in this basic matter. As part of its primary requirement, it is very important that the teacher gives maximum practice to the students.

The current year 2019-20 is planned to be celebrated as 'Language Year' by the Education Department. Under the 'Reading Campaign' started in the second semester of the year 2019-20, special emphasis is being given to teachers to improve and develop the reading skills of children of all schools in the state through language training. During the year 2018-19, children who were studying in class 5, 6 and 7 and who are studying in class 6, 7 and 8 respectively this year, who have consistently performed by scoring 75% or more marks in both the semester and year-end tests in the three subjects Gujarati, Mathematics and Science, have been declared as talented students by the Education Department. There is a plan to measure the oral reading frequency and reading speed with comprehension of such talented students. Can these students studying in primary school read properly or not ? When a student reads, is he a letter reader ? Is he a word reader? Or is he a sentence reader? And if he is a word or sentence reader, can he read with comprehension or not? Which is very important to know. As a result, the research presented by the researcher has been conducted on talented students of class 6 of primary schools of Mehsana district.

Research Objectives

The focus of the entire research work is the Research Objectives. Only after the purpose is clear, one can move forward in a specific direction. The present research was also conducted keeping in mind specific objectives.

• To know the correlation between the reading speed of talented students and the reading speed including comprehension.

• To study the oral reading frequency and reading speed including comprehension in the context of the sexuality of talented students.

• To study the oral reading frequency and reading speed with comprehension of gifted students in the context of social groups.

• To study the oral reading frequency and reading speed with comprehension of gifted students in the context of different levels of reading categories.

1.6 Research Questions

• What will be the average oral reading frequency of gifted students?

• What will be the average reading speed with comprehension of gifted students?

• Will there be any correlation between the reading speed of gifted students and the reading speed with comprehension?

• Will there be any correlation between the oral reading frequency of gifted students (social groups) and the reading speed with comprehension of the student?

• According to the reading category of a gifted student, what will be the average reading speed of a student with comprehension and the student's oral reading frequency? How many students will belong to which reading category?

1.7 Variables included in the research

The variables for the present research were as follows.

- ❖ Independent variable

1. Gender (boy and girl)
2. Grade obtained in the previous class (A+, A, B, C, D, E)
3. Reading category (letter reader, word reader, sentence reader)

❖ Dependent variable

1. Oral reading frequency
2. Reading speed including comprehension

1.8 Field of research

The main purpose of the present research was to test the oral reading frequency and reading speed including comprehension of talented students, therefore the present research touches more on the field of primary education and language education among the various fields of research.

1.9 Type of research

The present research was of a practical type.

1.10 Research method

Survey method was used for the present research.

1.11 Importance of the research

The present research also has its own unique importance.

• This research will be useful to know the oral reading frequency of students.
• The reading speed of students including comprehension will be known.
• It will be useful for teachers to diagnose the reading ability of students.
• Students can be divided into letter readers, word readers and sentence readers and based on that, individual remedial work can be carried out.

1.12 Delimitation of the research

- The present research is limited to only the talented students of class 6 among the talented students selected at the state level of class 6, 7 and 8 from government primary schools of the district.

1.13 Limitation of the research

- The Tools designed by GCERT for students of class 6 to 8 was used for the present research.
- Only 43 talented students of class 6 were selected as the sample for the present research, but due to the absence of students on the due date of the research, this research was conducted on only 39 out of 43 students.
- The present research was conducted by GCERT with the sample selected subjects present at DIET-Mehesana during the date fixed.

12. **Research Title:** Study of the oral reading frequency and reading comprehension of the students of Zahirpura Primary School (grades 3 to 5) of Vadnagar Taluka and Gamanpura Primary School (grades 6 to 8) of Mehsana Taluka og Mehsana district.

Name of the researcher; Dr. D. S. Chaudhary

Research year: 2019-2020

Designation: Junior Lecturer, District Education and Training Building, Mehsana

Name of the research guide; Principal, District Education and Training Building-Mehsana

Introduction:

The government has implemented a project of reading, writing, and arithmetic. Remedial education has been added as a related work. The aim is to improve the reading, writing, and arithmetic of the students through two months of intensive remedial education, then how is the improvement in the speech of the students through remedial education? How is their reading speed and meaningful speed? The present research has been conducted with the aim of checking its current status.

Research Objectives:

- To determine the speaking speed of the students of the primary section including oral reading frequency and reading comprehension.
- To determine the speaking speed of the students of the upper primary section including oral reading frequency and reading comprehension.
- To determine the speaking speed of the students of the primary section including oral reading frequency and reading comprehension by class and category.

Research Questions:

- Will the students' oral reading frequency and reading comprehension be found sufficient?
- Will the speed of speech including Kumar and Kanya as well as category wise oral reading frequency and reading comprehension be found sufficient?
- What will be the number and proportion of students with grade A, grade B, grade C in letter reading as well as word reading and sentence reading categories?

Area of Research:

Primary Education

Research Type:

- It can be considered a practical type of research.

Research Method:

- Experimental method, survey study based

Area:

- Primary schools of Mehsana district are included.

Sample Selection:

- 10 students were selected randomly from each class of the school allotted to the researcher in a planned manner. Thus, 30 from class 3 to 5 and 30 from class 6 to 8 were selected as a total of 60 students as a sample.

Research findings:

- The highest average oral reading frequency was observed in class 8 and the highest average reading speed with comprehension was observed in class 4.
- The highest average oral reading frequency was observed in class 3 and the highest average reading speed with comprehension was observed in class 7.
- The highest average oral reading frequency was observed in class 4 of girls and the highest average reading speed with comprehension was observed in class 4 of boys.

Research recommendations:

- Concrete programs should be organized to improve oral reading skills in class 3 of primary section and reading comprehension skills in class 7 of upper primary section.
- Steps should be taken to improve the reading comprehension skills of general category students of class 7 and 3.

Educational outcomes:

GCERT The purpose of the process of finding out the reading speed of students, including reading comprehension and comprehension, using reading materials created and classized by the Institute, was to improve reading, writing, and arithmetic.

13. **Research Title:** "Structure and testing of a simplified educational program in the context of studying the difficult learning outcome of the mathematics subject of class-6 "M606"

Name of the researcher: Shri Prakashbhai I. Patel
Designation: Junior Lecturer, District Education and Training Building, Mehsana
Year of research: 2019 – 2020
Name of the research guide: V.D. Adhiyol, E.Ch. Principal, DIET-Mehsana

Introduction

GCERT, Gandhinagar has also been conducting an achievement survey of children studying in primary schools in Gujarat state every alternate year since 1999. An important purpose of this achievement survey is to know the difficult points at the district level, class-wise and subject-wise.

In the year 2017, NAS was conducted with the help of GCERT under the guidance of NCERT. Its results were prepared by NCERT. NCERT also informed about the academic achievement level of children of class 3, class 6 and class 8, as well as the difficult learning disabilities of class by subject.

GCERT asked each DIAT to design an educational program to simplify the difficult learning disabilities found in NAS by class by subject and to try it out. The principal of DIAT asked the researchers to prepare a program to simplify the difficult points found in Mathematics of class-6 in the Achievement Survey (NAS) conducted on children studying in primary schools of Mehsana district and to try it out. Therefore,

it was decided to design an educational program to simplify the difficult learning disabilities allocated by GCERT and to conduct the present research to determine its effectiveness.

Research Objectives

In the present study, the researcher has set the following objectives.

1. To design an answer test for the mathematics subject of class-6
2. To test the answer test for the mathematics subject of class-6.
3. To design an educational program for the difficult learning outcome of class-6 mathematics subject M606 “Solve the problems of addition and subtraction of fractions and decimal fractions associated with daily life.” To design an educational program regarding the related content
4. To examine the effectiveness of the educational program on the achievement of students
5. To examine the effectiveness of the achievement achieved by the student through special educational program and traditional education.

Research Hypothesis

The following null hypothesis was formulated in the present research.

Ho1 There will be no significant difference between the mean scores obtained by the experimental and control groups in the post-test.

Research Area

The present study was very much related to the field of educational evaluation and testing.

Research Area

The present research was conducted on children studying in class-6 in a primary school in Mehsana district. Hence, all the children studying in class-6 in a primary school in Mehsana district were the Area of the present research.

3.3 Sample Selection

The selection of schools was done by following the random sample selection method in which first a list of primary schools managed by the District Panchayat Education Committee with more than 30 students and two classes in Class-6 was prepared. The help of the MS Excel program of the computer was taken to select the school from this list. The school was selected by using the RANDOM BETWEEN FUNCTION in the MS Excel program FORMULA.

Research Methodology

In the present research, a two-group answer test type experimental plan was followed.

Tools

In the present research, a 25-mark test was designed and used for the content included in the study output on the “Fractional numbers and decimal numbers” unit of Class-6. The test is given in the appendix.

Main findings of the research

The main findings of the present research were as follows.

(1) The difficult learning outcome “Solve the problems of addition and subtraction of fractions and decimal fractions associated with daily life.” and “Fractional numbers and decimal numbers” The educational program designed by the researchers has been effective and if the educational program is implemented at the school level to teach the above learning outcomes, it can prove to be more effective than the traditional method.

(2) The students of the traditional method group and the experimental method group have not achieved an achievement level of 35%, that is, none of the students of both the groups could reach the achievement level of 35%. The students of the experimental group have achieved an achievement level of 50% That is, 50 percent of the students in the experimental group have achieved more than 50 percent. The students in the traditional method group and the experimental method group have not achieved the achievement level of 75-80, that is, 80 percent of the students in either group have not been able to reach the achievement level of 75%. However, 60.71 percent of the students in the experimental group have achieved more than 75 percent, while only 7.4 percent of the students in the traditional group have achieved more than 75 percent.

Educational implications of the research

(1) Difficult learning outcomes for simple shapes and numbers “Solve addition-subtraction problems of fractions and decimal fractions associated with everyday life.” And the educational program designed by the researchers regarding the “Fractional numbers and decimal numbers” unit has been effective, therefore this program should be implemented at the school level for the teaching of “Solve addition-subtraction problems of fractions and decimal fractions associated with everyday life.” Study outcomes.

(2) Similarly, for other difficult points found in NAS, an educational program should be designed by the Department for the simplification of difficult points and it should be implemented at the school level.

(3) In-service training should be given to teachers working in the classroom on how to implement the educational program in the classroom.

14. Research Title: A study of the oral reading frequency and reading comprehension ability of students of class 3 to 8 of Dharusana School of Visnagar Taluka and Juna Devpura School of Vijapur Taluka of Mehsana District.

Name of the researcher: Shri Prakashbhai I. Patel
Designation: Lecturer, District Institution of Education and Research, Mehsana
Year of research: 2019 – 2020
Name of the research guide: V.D. Adhiyol, E.Ch. Principal, DIET-Mehsana

Introduction

Reading is one of the four basic skills in language education. Which opens the door to the knowledge of the students. By studying the nature of the reading process, its replicas and definitions, we can say that the center of reading activity is comprehension. Reading without comprehension cannot be called reading. Therefore, it is necessary for the person who reads to have comprehension skills. The development of reading comprehension starts from primary education, after which it gradually develops through the education given in secondary schools and colleges. The task of developing reading comprehension is a challenge for teachers. So the role of the teacher also remains indispensable in developing this skill. It is important for every child to read sentences correctly and with the society. In the present time, can students studying in primary school read correctly or not? If a student reads, does he read the alphabet? Does he read the word? Or does he read the sentence? And if he can read the word or sentence, can he read with comprehension or not?, which was very important to know. Keeping all these factors in mind, the present research was conducted with the aim of knowing the reading speed and reading speed with comprehension of students of class 3 to 8 of primary school.

Objectives of the Study

The objectives of the present study were as follows.

1. To prepare an Tools for measuring oral reading frequency and reading speed including comprehension of students of primary and upper primary sections of primary schools.
2. To study the oral reading frequency and reading speed including comprehension of students.
3. To study the oral reading frequency and reading speed including comprehension of students based on their gender, area and social group.
4. To study the oral reading frequency and reading speed including comprehension of students in the context of their grades in the next class examination.
5. To study the reading range of students from class 3 to 8 in the context of different levels.
6. To examine the effect between the reading speed and reading speed including comprehension of primary and upper primary students.
7. To examine the effect of the reading speed and reading speed including comprehension of students in the context of gender, area and type of management.

Study Hypothesis

The null hypothesis in the present study was as follows.

1. There will be no significant difference between the average scores of oral reading frequency of boys and girls studying in primary school from class 3 to 8.
2. There will be no significant difference between the average scores of reading speed including comprehension of boys and girls studying in primary school from class 3 to 8.
3 There will be no significant difference between the average scores of oral reading frequency between students from class 3 to 5 and class 6 to 8.
4. There will be no significant difference between the average scores of reading speed including comprehension between students from class 3 to 5 and class 6 to 8.

Research Method and Type

The present research was a practical type of research. And also the survey method of research was used.

Area

The Area of the present research included all students studying in class 3 to 8 (year 2019-2020) of Gujarati medium government and private schools in the state of Gujarat.

Sample

From the selected schools, 10 students from each class studying in class 3 to 5 of Dharusana School in Visnagar taluka were randomly selected as a sample. While 10 students from each class studying in class 6 to 8 of Juna Devpura School in Vijapur taluka were randomly selected as a sample. 10 students per class were randomly selected.

Tools

In the present study, the oral reading frequency and reading comprehension test prepared by GCERT Office, Gandhinagar was used as the tools.

Study Findings

The findings of the present study were as follows.

1. In Dharusana School of Visnagar Taluka and Juna Devpura School of Vijapur Taluka, the average of students of Class-4 was seen to be the highest in terms of oral reading frequency and comprehension reading speed in Classes 3 to 5.
2. In Dharusana School of Visnagar Taluka and Juna Devpura School of Vijapur Taluka, the average of students of Class-7 was seen to be the highest in terms of oral reading frequency in Classes 6 to 8 and in terms of comprehension reading speed in Classes – 8.

3. In terms of gender, the average oral reading frequency of girls in Dharusana and Old Devpura Primary Schools was found to be higher than that of boys. While the average reading speed with meaning was found to be higher for boys than for girls.
4. In Dharusana School, the average oral reading frequency and reading speed with meaning were found to be highest for students who got A grade in terms of the grades obtained by students in the previous year.
5. In Old Devpura School, the average oral reading frequency and reading speed with meaning were found to be highest for students who got A grade in terms of the grades obtained by students in the previous year.

Educational outcomes
1. Plans can be made at the school level so that students get more and more oral reading practice from the lower primary school level itself.
2. Language readiness and enrichment-based training classes should be organized for language teachers at the district level to develop the reading speed of students.
3. During monitoring, the lecturers should guide the students based on reading speed. Also, the teacher should be guided wherever necessary.

15. Research Title: Measurement of oral reading frequency and reading speed including comprehension of students of classes 3 to 8 of schools in Mehsana district.
Name of the researcher: Seema Ramashray Yadav
Designation: Lecturer, District Institution of Education and Research, Mehsana
Research year: 2019 –2020
Name of the research guide: Shri V.D. Adhiyol, Principal, District Institution of Education and Research,Mehsana

Introduction:

Today's era is the Google era. Students can get any information themselves from Google, but language is an important medium to learn any subject, be it mathematics or science. Whatever the language may be, only if they can read and understand it, understanding can be developed and they can become proficient in any subject. Reading is one of the four basic skills in language education. Which opens the door to knowledge for students. By studying the nature of the reading process, its replicas and definitions, we can say that comprehension lies at the center of reading activity. Reading without comprehension cannot be called reading. Therefore, it is necessary for the person who reads to have comprehension skills. The development of reading comprehension begins with primary education, after which it gradually develops through the education provided in secondary schools and colleges. The task of developing reading comprehension is a challenge for teachers. So the role of the teacher is also indispensable in developing this skill. Keeping all these factors in mind, the present research has been conducted with the aim of knowing the reading speed and reading speed including comprehension of students of classes 3 to 8 of primary schools in Mehsana district.

Research Objectives:
The objectives of the present study were as follows.

- To study the oral reading frequency and reading speed including comprehension of students of primary and upper primary sections of primary schools.
- To study the oral reading frequency and reading speed including comprehension based on the gender of the students.
- To study the oral reading frequency and reading speed including comprehension in the context of the grades of the students in the next class examination.
- To study the reading range of students from class 3 to 8 in the context of different levels.
- To examine the effect between the reading speed and reading speed including comprehension of primary and upper primary students.

Research Hypotheses:

- There will be no significant difference between the average scores of oral reading frequency of boys and girls of class 3 to 5.
- There will be no significant difference between the average scores of oral reading frequency of boys and girls of class 6 to 8.
- There will be no significant difference between the average scores of reading speed including comprehension of boys and girls of class 3 to 5.
- There will be no significant difference between the average scores of reading speed including comprehension of boys and girls of class 6 to 8.
- There will be no significant difference between the average scores of oral reading frequency between students of class 3 to 5 and class 6 to 8.
- There will be no significant difference between the average scores of reading speed including comprehension of students of class 3 to 5 and class 6 to 8.

Research Area and Sub-Area:
Classroom Process and Educational Field in Primary Education.

Research Type: The present research is a practical type of research.
Research Method: Survey method has been used for the present research.

Area:
Government school students studying in Std 3 to 8 (year 2019 - 20) of Gujarati medium government schools of Mehsana district.

Sample Selection: Selected students of only two primary schools, namely, Swala Primary School of Visnagar taluka for Std 3 to 5 and Akliyara Primary School of Satlasana taluka for Std 6 to 8, studying in Std 3 to 8 (year 2019 - 20) of Gujarati medium government schools of Mehsana district.

Research Findings: Based on the analysis and interpretation of the data in the previous chapter, the following conclusions have been obtained.

- In class 3 to 5, the oral reading frequency and reading speed with comprehension of class 5 were found to be higher.
- In class 6 to 8, the oral reading frequency and reading speed with comprehension of class 7 were found to be higher.
- In class 3 to 8, the reading speed with comprehension of those who have high oral reading frequency is also found to be higher.
- In class 3 to 8, the average oral reading frequency of students who got A grade and the average reading speed with comprehension of students who got B grade were found to be higher than those who got B grade.
- In class 3 to 5, the average oral reading frequency and reading speed with comprehension of students who read sentences were found to be higher than those who read words.
- In class 6 to 8, the average oral reading frequency and reading speed with comprehension of students who read sentences were found to be higher than those who read words.
- The average oral reading frequency and average reading speed with comprehension of students of class 6 to 8 are higher than that of students of class 3 to 5.

Research recommendations:

After conducting the present research, the following research can be done in the future.

- Research can be done for oral reading frequency and comprehension speed for languages other than Gujarati.
- Research can be done for oral reading frequency and comprehension speed for secondary school students.
- Research can be done for oral reading frequency and comprehension speed for other students.

Educational outcomes:

In class 3 to 8, oral reading frequency and comprehension speed were found to be higher.

In class 3 to 8, those whose oral reading frequency is higher have also been found to have higher reading speed with comprehension. Based on the results, the implementation of a specific educational program will increase reading speed and comprehension speed.

16. **Research Title: A study of oral reading frequency and reading comprehension ability of students of class 3 to 8 of Valampara School of Visnagar Taluka and Vijapur Kanya School of Vijapur Taluka of Mehsana District.**

Researcher's name: Vekaria Anil B.
Designation: Lecturer, District Institution of Education and Research, Mehsana
Research year: 2019-20
Research guide's name: Principal, District Institution of Education and Research, Mehsana

Introduction:

Among the four basic skills in language education, reading is an important skill. Which opens the door to students' knowledge. By studying the nature of the reading process, its replicas and definitions, we can say that comprehension lies at the center of reading activity. Reading without comprehension cannot be called reading. Therefore, it is necessary for a person who reads to have comprehension skills. The development of reading comprehension starts from primary education, after which it gradually develops through the education given in secondary schools and colleges. The task of developing reading comprehension is a challenge for teachers. So the role of the teacher also remains indispensable in developing this skill. It is important for every child to read sentences correctly and with the society. In the present time, can students studying in primary school read correctly or not? If a student reads, does he read the alphabet? Does he read the word? Or does he read the sentence? And if he can read the word or sentence, can he read with comprehension or not?, which was very important to know. Keeping all these factors in mind, the present research was conducted with the aim of knowing the reading speed and reading speed with comprehension of students of class 3 to 8 of primary school.

Research Objectives:

The objectives of the present study were as follows.

1. To prepare an Tools for measuring oral reading frequency and reading speed including comprehension of students of primary and upper primary sections of primary schools.
2. To study the oral reading frequency and reading speed including comprehension of students.
3. To study the oral reading frequency and reading speed including comprehension of students based on their gender, area and social group.
4. To study the oral reading frequency and reading speed including comprehension of students in the context of their grades in the next class examination.
5. To study the reading range of students from class 3 to 8 in the context of different levels.
6. To examine the effect between the reading speed and reading speed including comprehension of primary and upper primary students.

7. To examine the effect of the reading speed and reading speed including comprehension of students in the context of gender, area and type of management.

Research Questions:/ Hypotheses:

The null hypothesis in the present study was as follows.

1. There will be no significant difference between the average scores of oral reading frequency of boys and girls studying in primary school from 3rd to 8th class.
2. There will be no significant difference between the average scores of reading speed including comprehension of boys and girls studying in primary school from 3rd to 8th class.
3 There will be no significant difference between the average scores of oral reading frequency between students from 3rd to 5th class and 6th to 8th class.
4. There will be no significant difference between the average scores of reading speed including comprehension of students from 3rd to 5th class and 6th to 8th class.

Research Area and Sub-Area: The present study was very much related to the field of language education.

Research Type: The present research was a practical type of research. And also the survey method of research was used.

Research Methodology:

The present research followed the survey method of research.

Area: All students studying in Gujarati medium government and private schools of Mehsana district from class 3 to 8 (year 2019-2020) were included as the Area of the present research.

Sample Selection: In the present study, Valampara School of Visnagar taluka and Vijapur Kanya School of Vijapur taluka under Mehsana District Panchayat were selected for the sample using stratified random sampling method.

Research Findings:

The findings of the present study were as follows.

1. In Valampara School of Visnagar taluka and Vijapur Kanya School of Vijapur taluka, the average of students of class 5 was found to be the highest in terms of oral reading frequency and comprehension reading speed in classes 3 to 5.
2. In Valampara School of Visnagar Taluka and Vijapur Girls' School of Vijapur Taluka, the average of students of Class 8 was seen to be the highest in terms of oral reading frequency and comprehension reading speed in classes 6 to 8.
3. In terms of gender, the average of oral reading frequency and comprehension reading speed of girls of Valampara Primary School was seen to be higher than that of boys. While in Vijapur Girls' School only girls were selected as a sample.
4. In Valampara School, the average of oral reading frequency and comprehension reading speed of students who got A grade in the previous year was seen to be the highest in terms of grades obtained by students

5. In Vijapur Girls' School, the average of oral reading frequency and comprehension reading speed of students who got A grade in the previous year was seen to be the highest in terms of grades obtained by students.

Recommendations for Research:

The recommendations in the present study were as follows.

1. The present study was conducted considering only two schools. In the future, such a study can be conducted by selecting all the schools of a taluka.
2. The present study was conducted considering oral reading and reading comprehension skills in schools. In the future, the study can be conducted by targeting only one ability.

Educational Outcomes:

The educational outcomes in the present study were as follows.

1. Plans can be made at the school level so that students get more and more oral reading practice from the lower primary school level.
2. Language readiness and enrichment-based training classes should be organized for language teachers at the district level to develop the reading speed of students.
3. During school monitoring, lecturers should guide students based on reading speed. Also, teachers should be given guidance wherever necessary.

17. **Research Title:** Measurement of oral reading frequency and reading speed with comprehension of students ofclasses 3 to 5 and classes 6 to 8 of primary schools of Becharaji and Mehsana talukas of Mehsana district.
Researcher's name: Devangiben M. Patel
Designation: Lecturer, District Education and Training Building, Mehsana
Research year: 2019-20
Research guide's name: Shri V.D. Adhiyol, Principal, District Education and Training Building,Mehsana

Introduction:

The importance of reading and its comprehension has been universally accepted in the overall personality development of an individual, so it is essential for children studying in primary schools to have the ability in this regard.

In order to get a picture of the ability of children studying in primary schools in this regard, GCERT, Gandhinagar has asked all the lecturers of the District Institue of Education and Training to conduct a research to verify what is the oral reading frequency and reading comprehension speed of children studying in class 3 to 5 and class 6 to 8.

Therefore, the researcher randomly allocated by GCERT, Gandhinagar in Mehsana district, Karansagar Primary School in Becharaji taluka and Dediasan GIDC Primary School in Mehsana taluka, one primary school each, i.e. 2 (two) primary

schools: What is the reading speed and reading comprehension ability of children studying in class 3 to 5 and class 6 to 8 respectively? The present research was conducted to verify this.

Research Objectives:

1. To study the oral reading frequency and reading speed with comprehension of students of classes 3 to 5 and 6 to 8.
2. To study the oral reading frequency and reading speed with comprehension of students of classes 3 to 8 based on their gender.
3. To know the correlation coefficient between the oral reading frequency and reading speed with comprehension of students of classes 3 to 8.
4. To study the reading range of students of classes 3 to 8 in different levels in the context of oral reading.

Research Questions:/ Hypotheses:

1. What will be the oral reading frequency and reading speed including comprehension of students of class-3 to 5 and class-6 to 8?
2. What will be the oral reading frequency and reading speed including comprehension of students of class-3 to 8 based on their gender?
3. What will be the correlation coefficient between the oral reading frequency and reading speed including comprehension of students of class-3 to 8?
4. What will be the reading speed of the reading category of students of class-3 to **8 at different levels in terms of oral reading?**

Research Area and Sub-Area:

The areas of the present research are primary education, language education, educational testing and evaluation.

Research Type:

The present research is a practical type of research.

Research Method

The present research is based on a survey study of descriptive research method.

Area:

The Area of the present research is all the students studying in class-3 to 8 in the primary schools of the district panchayat in Mehsana district in the year 2019-20.

Sample Selection:

10 children from each class from class-3 to 8, i.e. a total of 60 children, have been selected. In Karansagar Primary School, out of a total of 30 children from class-3 to 5, there are 13 boys and 17 girls. While in Dediasan GIDC Primary School, out of a total of 30 children from class-6 to 8, there are 20 boys and 10 girls.

Research Findings:

The findings of the present research are as follows:

- **Findings regarding the oral reading frequency and reading speed with comprehension of students of class-3 to 5 and class-6 to 8:**

1. The highest oral reading frequency of 81 words per minute was observed in students of class-7, while the lowest oral reading frequency of 27 words per minute was observed in students of class-3. The average oral reading frequency of students of class-3 to 5 was observed as 42.67 words per minute, while the average oral reading frequency of students of class-6 to 8 was observed as 85.19 words per minute.
2. The highest reading speed with comprehension of 16 words per minute was observed in students of class-7, while the lowest reading speed with comprehension of 4 words per minute was observed in students of class-3 and 5. The average reading speed with comprehension of students from class 3 to 5 was 7.59 words per minute, while the average reading speed with comprehension of students from class 6 to 8 was 15.51 words per minute.

- **Findings regarding oral reading frequency and reading speed with comprehension based on gender of students from class 3 to 8:**

1. The highest average achievement in oral reading frequency from class 3 to 5 was seen in class 4 girls at 53, while the lowest average achievement was seen in class 4 boys at 16.
2. The highest average achievement in reading speed with comprehension from class 3 to 5 was seen in class 4 girls at 13, while the lowest average achievement was seen in class 4 boys at 1.
3. The highest average achievement in oral reading frequency from class 6 to 8 was 108 in class 8 girls, while the lowest average achievement was 45 in class 8 boys.
4. The highest average achievement in reading speed including comprehension from class 6 to 8 was 17 in class 7 girls, while the lowest average achievement was 5.86 in class 6 boys.
5. The highest average achievement in oral reading frequency from class 3 to 8 was 108 in class 8 girls, while the lowest average achievement was 16 in class 4 boys.
6. The highest average achievement in reading speed including comprehension from class 3 to 8 was 17 in class 7 girls, while the lowest average achievement was 1 in class 4 boys.
7. There is no significant difference between the oral reading frequency of boys and girls in all classes from class 3 to 8. Therefore, it can be said that the oral reading frequency of boys and girls is the same in all classes from class 3 to 8.
8. There is no significant difference between the reading speed of boys and girls including comprehension in all classes from class 3 to 8. Therefore, it can be said that the oral reading frequency of boys and girls is the same in all classes from class 3 to 8.

Recommendations for research:

1. In addition to government schools, the oral reading frequency and reading speed with comprehension of students of private primary schools can be studied.
2. In addition to Gujarati, such a study can be conducted in other languages like Hindi and English.

Educational Outcome:

1. Since students of class 3 to 8 have medium achievement level in oral reading frequency and unsatisfactory achievement in reading speed with comprehension, systematic plans should be made to ensure that students reach high achievement level in both the indicated subjects.
2. In order for students to develop more capacity in oral reading frequency and reading speed with comprehension, a suitable environment should be created at the school level and necessary programs should be organized.
3. It seems necessary for teachers to make students study intensively in this regard at the school level.
4. Under the guidance of GCERT, Gandhinagar, the District Institue of Education and Training should prepare necessary study-teaching materials for the purpose of developing oral reading frequency and reading speed with comprehension of students in Gujarati subject and it seems necessary to provide intensive training to teachers in that subject.
5. Effective supervision and guidance are necessary for the fruits of this thematic training provided to teachers to reach the students in the classroom.

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2020-21

District Education and Training Bhavan, Mehsana

List of researches conducted during the year 2020 – 2021

No.	Research Title	Researcher
1	Study of Educational innovative experiments undertaken in Naginapura primary school of Jotana Taluka, Bhalesara(Vad) and Sundhiya Kumar Primary school of Vadnagar Taluka of Mehsana district for educational work during the Corona period	V.D.Adhiyol
2	“Educational innovative experiments undertaken by teachers of Mehsana district for educational work during the Corona period – “One-person study”	Dr. Pankaj I. Parmar
3	Educational innovative experiments undertaken by teachers of Mehsana district for educational work during the Corona period – "One-person study"	Dr. Pankaj I. Parmar
4	Educational innovative experiments undertaken by teachers of Unjha Taluka for educational work during the Corona period – One-person study	S. C. Rabari
5	Educational innovative experiments undertaken by teachers of Kadi Taluka for educational work during the Corona period – One-person study	Baldevbhai S. Rabari
6	"Educational Innovations Conducted by Teachers of Bijapur Taluka for Educational Work During the Corona Period - One Person Study"	Dr. Dipti A. Trivedi
7	A study of innovative experiments undertaken by teachers for educational work during the Corona period.	Dr. D.S. Chaudhari
8	“Educational innovative experiments undertaken by teachers of Satlasana Taluka for educational work during the Corona period – “One Person Study”	Prakashbhai I. Patel
9	Educational innovative experiments undertaken by teachers of Kheralu taluka for educational work during the Corona period – One-person study	Seema Ramashray Yadav
10	Educational innovative experiments undertaken by teachers of Becharaji Taluka for educational work during the Corona period – One-person study	Vekariya Anil B.
11	Educational innovative experiments undertaken by teachers of Mehsana taluka for educational work during the Corona period – One-person study	Dr. Devangiben M. Patel

District Education and Training Bhavan - Mehsana

Research Abstract

1. **Researcher:** V. D. Adhiyol

   Research Year: 2020-2021

   Designation: Senior Lecturer, District Education and Training Bhavan - Mehsana

   Research Mentor: Dr. Gaurang Vyas, Principal, District Education and Training Bhavan – Mehsana

Introduction:

The Gujarat Educational Research and Training Council, Gandhinagar decided to conduct an individual study of the state's all District Education and Training Bhawans regarding the innovative experiments of educational performance in the state's primary schools during the lockdown period. As part of this operation, Senior Lecturer of District Education and Training Bhavan, Mehsana V. D. As Adhiyol is also connected with this work, an individual study was conducted by getting information about the work done in Naginpura Primary School of Jotana taluka and by visiting the place.

Title of Study

Naginpura of Jotana taluka of Mehsana district, Bhalesara (Vad) of Vadnagar taluka and Sundhia Kumar Primary School

Objectives of the study

There is a purpose behind every activity we do. Every action of human life is not without a purpose. Research should not be without a purpose if it is to be made from a scientific point of view. If the objectives of the research work are clear, it becomes a guide for the researcher. It becomes a proper direction of the research and leading to the right topic wise conclusions. Keeping this in mind, the researcher set the following objectives for the present research study.

The objectives of the present research are as follows.

1. Naginpura Primary School of Jotana, Bhalesara (Vad) Primary School and Sundhia Kumar Primary Schoolof Vadnagar. Creating an information letter to get information about the innovative experiments done in the school during the corona period of Vadnagar.

2. Naginpara Primary Schoolof Jotana, Bhalesara (Vad) Primary School and Sundhia Kumar Primary School of Vadnagar. During the visit to Vadnagar, get information about the new experiments done in the school for educational purpose and study them.

3. Naginpura Primary School of Jotana, Bhalesara (Vad) Primary School and Sundhia Kumar Primary School of Vadnagar. During the visit to Vadnagar to know the improvement in the educational level of primary schools in terms of the programme.

Study Questions:-

The following study questions were formulated for the present study.

1. What programs have been conducted in Naginpura Primary School during Corona period, Jotana taluka, Bhalesara (Vad) Primary School and Sundhia Kumar Primary School, Vadnagar taluka?

2. Will the level of education of Naginpura Primary School of Jotana taluka, Bhalesara (Vad) Primary School and Sundhia Kumar Primary School of Vadnagar taluka improve after visit?

3. Will the Visit of Naginpura Primary School of Jotana taluka, Bhalesara (Vad) Primary School and Sundhia Kumar Primary School of Vadnagar taluka school be effective?

Research Area:

The present research is related to primary education and innovative pedagogy.

Research type: The present research is about the improvement of the innovative experiments carried out by the teachers for the educational work of the children during the corona period and is of a practical type.

Research method: A survey method is used in the present study. In the present study, interview form and personal interview were conducted to collect data.

Area: The area of the present research is all the primary schools in Mehsana district during Corona where innovative experiments/efforts were carried out for the education of children.

Demonstration selection: Naginpura Primary School of Jotana Taluka and Sundhiya Kammar Primary School and Bhalesara (Vad) Primary School of Vadnagar Taluka of the district are selected as samples.

Research findings: Based on the analysis and classification of data done in Chapter 4 in the present study, the research findings are

- The study observed variation in the number of students, duration, educational experience, and area of the schools that implemented the innovation experiment.
- Reasons behind conducting an innovative experiment include parents' and children's attitudes towards educational programs broadcast online.
- Inattentiveness, irregularity in children's academic work and homework and students' interest in co-curricular activities and interests were low which were the main reasons.
- The objectives behind conducting the new experiment were to motivate and encourage children to do academic work regularly and the students themselves to learn science through experiments.
- The educational exchanges or educational practices that took place during the innovative experiment included the creation of My Slate, Street School, Learning Center Study App, understanding of Diksha App and QR Code, checking homework with the help of WhatsApp, awareness about online education, understanding of various subjects and educational work for children through the

Bal Abhayaranya channel, organizing a virtual science fair, and distributing science books.

- Among the difficulties/problems encountered during the innovation experiment in the schools were mainly lack of educational awareness among children and parents, difficulty in communication and how to guide.
- During the new experiment, all the schools tried to solve the problem by providing the children with the help of technology and face-to-face guidance.
- The results obtained during the experiment could make the educational process of children more interesting. Enthusiasm among the school teachers, children and parents increased so that the program achieved good results.
- The usefulness of innovative experiments in the world of education, these experiments for teachers in the world of education such as online education, children and parent awareness as well as the effectiveness of science experiments will definitely be useful for other schools. The specialty of innovative experiments is that these experiments have received representation at the district and state levels.

Recommendations regarding the present study

- Following are the research recommendations made by the researcher in the present research study.

- In the present research, the experiments carried out in the 3 schools that conducted the new experiment can be studied about the new experiments done in the schools being studied.
- A study can be conducted regarding the new experiments that have been encouraged both standard and subject wise.
- A comparative study of various experiments conducted in all the schools of the district can be carried out.

Educational outcomes:

- Continuous teaching, remedial work and assessment should be emphasized through innovative experiments to keep the students connected with the continuous educational flow in the corona epidemic.
- It is very important that the schools in which the new experiments are carried out are visited and encouraged by the officials of the district and state levels.
- District and state level should document innovative experiments undertaken by schools.
- Guidance should be provided by conducting research on the difficulties faced in carrying out new experiments and their solutions.

2. **Researcher**: Dr. Pankaj I. Parmar
Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana
Research Year: 2020-2021
Research Mentor: Dr. D.S. Chaudhary
Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Introduction:

Such primary schools, which instill values in children through various co-curricular activities along with education, are a beacon in the society. The present study has been conducted to find out the unique contribution of teachers working in such institutions in building society and nation, in shaping the child's mind, who have made unique contributions in the field of education by conducting innovative experiments and trying out new techniques for student development, even in these difficult times when the global pandemic of Corona has taken hold in all directions, for the development of students.

Research Title:

“Educational innovative experiments undertaken by teachers of Jotana taluka for education work during the Corona period – “One-person study”

Objectives of the research:

The central part of the entire research work is the objectives of the research. Only after the objectives are clear can one move forward in a specific direction. The present research was also conducted keeping in mind the following objectives.

(1) To get a basic introduction to working teachers.

(2) To study the educational qualifications of teachers who are experimenting with innovation.

(3) To study the SMC of each village.

(4) To study the academic and co-curricular and other special activities organized in the school of each teacher.

(5) To study the involvement of teachers, students and parents in academic and co-curricular and other special activities.

(6) To study public participation.

Research Questions:

The following research questions were formulated for the present research.

(1) What activities did the teachers do?

(2) How did they do educational work during the Corona period?

(3) What were the reasons/motivating factors for conducting the innovative experiment?

(4) What were the objectives?

(5) How was the entire process of the experiment?

(6) What is the current status of the experiment?

(7) Difficulties encountered during the experiment

(7) How were the problems solved?

(8) Results/outcomes obtained during the entire experiment

Research Area and Sub-Area:

The present study is a case study of a teacher working in an educational institution. The area of work was limited to his school. The study was conducted on the physical, academic, co-curricular activities of the school, various achievements, public cooperation, information of the principal and staff, SMC for school development, efforts of the principal, teachers and parents etc.

Research Type:

The present research was of practical and case study type.

Research Method:

A case study was conducted for the present research. Therefore, interview and survey methods were used in this research.

Area:

In the present research, the researcher, keeping in mind the limitations and the subject, selected teachers working in primary schools of Jotana taluka as the area.

Selection of Sample:

The sample for the present research was selected through purposive sampling. Five innovative teachers from Chalasan primary school, Jotana taluka of Mehsana district who had undertaken innovative experiments to ensure that the education of children in their area of work did not deteriorate were selected.

Research findings:

Keeping in mind the COVID-19 situation, Pankaj Harshadbhai Nadia, Hemant Gurjar, Diptiben Joshi, Deepak Patel as well as Ravi B. Patel and Naginpura team have used online quizzes, webinars on various subjects, online education using Google, street education and other means for education by teachers during lockdown and vacation.

Teachers were able to make written material available to students in digital format from school and home. Even when children were not coming to school, teachers were present and could guide students through video/audio visual technology. Teachers who could not come to school due to unforeseen reasons provided online education. Street education was done by going to the children's neighborhoods, and those who did not have TV facilities were also provided with dish and TV facilities through public support. Children were taught the positive use of mobile-social media or computers. Teachers and students were able to make maximum use of technology in education.

• Thus, in addition to active and enjoyable teaching work, regular beautiful prayer meetings, yoga, exercise and sports, Balmela and life skills Balmela are organized in the school of these teachers.

• The school's work has also been represented at the state and district levels in the Mathematics-Science-Environment exhibition. Various activities are conducted under the Mathematics Science Board in the school. Language Board and Eco Board related activities are also functioning.

• Parents are contacted regularly for children. And awareness is given and understanding is given regarding home learning.

• Camps on health-related Ayurvedic medicines

• Corona-related guidance, complete health check-up camps inspired by the government, measles rubella vaccination campaigns, etc. programs are organized.

• SMC is also taken into confidence and their help is also taken and their co-operation is also received.

• Public support is received for school development.

• Parents are made aware of the progress of the children. A school development plan is made.

• Remedial work is done in standard 6 to 8.

• Unit test and re-test of standard 6 to 8 are conducted.

• Unit test marks of standard 6 to 8 are filled on the portal.

• Students are included in external examinations like NMMS, scholarship, painting, Jawahar Navodaya. And guidance is also given online in this regard.

• Distance education program is shown to children of standard 6 to 8 from the Byseg channel as per the time table. Also, children and parents are guided in this regard.

• The academic work done by the children is systematically checked and improved by the teachers. Also, literacy subjects are continuously evaluated online as per SCE through various online quizzes and other techniques.

• Regular efforts are made to ensure that children remain oriented towards education by providing continuous educational guidance to them through social media such as Microsoft Teams and WhatsApp groups.

Recommendations for future research:

(1) By conducting case studies of fully developed institutions, it is necessary to know how the complete development of an institution takes place and provide guidance to underdeveloped institutions by giving examples of developed institutions.

(2) Efforts should be made to transfer the best activities taking place in that institution or school to other schools.

(3) Appropriate steps can be taken for institutional achievement through case studies of one's own institution.

(4) Teachers and students can be guided to participate in social and cultural activities.

(5) Principals and academic staff should work together to make more intensive efforts for the progress of the institution/school.

(6) Society and parents should provide support and public cooperation for the development of the school.

(7) Students should make maximum use of the facilities and cooperation available from the school and contribute to the upliftment of the society.

(8) Children should be given adequate guidance to move forward in their field of interest.

(9) The school should work hard to make progress in every field by comparing the results of the previous years of the school.

(10) The members of the SMC should create awareness among the parents by joining hands with the school principal and teachers to ensure that the attendance rate of the children in the school is regular.

(11) Innovative experiments should be implemented by the teachers in the school and in the classrooms. Efforts should be made to remove the educational gap by conducting action research.

(12) Students and parents should be guided so that the children can make maximum educational use of social and electronic media in this difficult time.

(13) Continuous interaction should be maintained with the children through various social media so that they remain attached to education.

Educational Outcome:

Currently, keeping in mind the COVID-19 situation, online quizzes, webinars on various subjects, knowledge seminars are being successfully conducted during the vacation and

all these experiments are worth taking forward in a better way. Education gives us a chance to improve and improves us, so we need to bring changes in the teaching and learning method as per the current times.

• Now, even when there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result in education.

• We can increase the use of science and technology in education! Along with classroom education, we can also continue digital education as supporting material!

• In our school-college education, the course (syllabus) does not change every year. Therefore, we can make written material available to the students in digital format.

• We can put the materials of science-math-social science and history in a format that is easily accessible to the student on a permanent basis.

• Question bank can be made available online.

• We should not give lectures through video in every class of the school, but every school should have two audio-visual rooms, where there are pre-recorded lectures of excellent teachers, when a teacher is absent in the school, students can be guided through such digital lectures during free hours.

• Schools can bring the option of online along with offline on a permanent basis. This option is useful to compensate for the educational work of the absent student.

• School administrators can also benefit teachers by allowing online education to teachers who are absent or unable to come to school due to unforeseen reasons.

• Children can be taught the positive use of mobile-social media or computer devices.

• Actually, only one thing is important and that is education. We have given so much importance to the physical presence of the student or teacher on the spot, that education has been pushed to the back burner! This needs to change now.

• The use of technology in classroom education needs to be increased. Teachers and professors should send their recorded lectures to the students in advance and experiments should also be done so that only questions and answers are given in the classroom, eliminating the problems of the students.

• Under the National Education Policy 2020, teachers should make maximum use of technology in classroom education.

3. **Researcher:** Dr. Pankaj I. Parmar

Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Research year: 2020-2021

Research supervisor: Dr. Gaurang C. Vyas

Designation: Principal, District Education and Training Bhavan, Mehsana

Introduction:

Primary schools, which play a major role as the first step in instilling values in children, are an integral part of society. They are truly the temple of Saraswati.

Such primary schools, which instill values in children through various co-curricular activities along with education, are a beacon in the society. The present study was conducted to find out the unique contributions made in the field of education by teachers working in such institutions in society and nation building, in the formation of the child's mind, who, even in these difficult times when the global pandemic of Corona has taken hold in all directions, have conducted innovative experiments for student development, tried out new techniques, and made experiments related to home learning for student development.

Research Title:

“Educational innovative experiments undertaken by teachers of Mehsana district for teaching work during the Corona period – “One person study”

Research Objectives:

The central part of the entire research work is the research objectives. Only after the objectives are clear can one move forward in a specific direction. The present research was also carried out keeping in mind the following objectives.

(1) To get a preliminary introduction to working teachers.

(2) To study the educational qualifications of teachers practicing innovation.

(3) To study the SMC of each village.

(4) To study the academic and co-curricular and other special activities organized in the school of each teacher.

(5) To study the involvement of teachers, students and parents in academic and co-curricular and other special activities.

(6) To study public participation.

Research Questions:

The following research questions were formulated for the present research.

(1) What activities did teachers do?

(2) How did they do educational work during the Corona period?

(3) What were the reasons/motivating factors for undertaking the innovative experiment?

(4) What were the objectives?

(5) How was the entire process of the experiment?

(6) What is the current status of the experiment?

(7) Difficulties encountered during the experiment

(8) How were the problems solved?

(9) Results/outcomes obtained during the entire experiment

Area and Sub-Area of Research:

The present study is a case study of a teacher working in an educational institution. The scope of work was limited to his own school. The study was conducted on the physical, academic, co-curricular activities of the school, various achievements, public cooperation, information of the principal and staff, SMC for school development, efforts of the principal, teachers and parents, etc.

Research Type:

The present research was of practical and case study type.

Research Method:

A case study was conducted for the present research. Therefore, interview and survey methods were used in this research.

Area:

In the present research, the researcher, keeping in mind the subject and limitations, selected teachers working in primary schools of Mehsana district as the sample.

Sample Selection:

The sample selection for the present research was done through purposive sampling. 50 innovative teachers of Mehsana district who had undertaken innovative experiments to ensure that the education of children in their field of work did not deteriorate were selected.

Research Findings:

Keeping in mind the situation of COVID-19, about 50 teachers of the district used online quizzes, webinars on various subjects, online education using Google, street education and other means for education during the lockdown and vacation.

Teachers were able to make written material available to students in digital format for education from school and home. Even when children were not coming to school, teachers were present and could guide students through video/audio visual technology. Teachers who could not come to school due to unforeseen reasons provided online education. Street education was done by going to the children's neighborhoods, and those who did not have TV facilities were also provided with dishes and TV facilities through public support. In addition, children were taught the positive use of mobile-social media or computers by using various techniques. Teachers and students were able to make maximum use of technology in education.

• Thus, in the school of these teachers, along with active and joyful teaching work, regular beautiful prayer meetings, yoga, exercise and sports, children's fair and life skills children's fair are organized.

• The school's work has also been represented at the state and district levels in the Mathematics-Science-Environment exhibition. Various activities are conducted under the Mathematics and Science Board in the school. Language club and eco club activities are also working.

• Parents are contacted regularly for children. And awareness is given regarding home learning.

• Health camps on Ayurvedic medicines, Corona related guidance, complete health check-up camps inspired by the government, measles rubella vaccination campaign etc. are organized.

• SMC is taken into confidence and their help is also taken and their cooperation is also received.

• Public support is received for school development.

• Parents are made aware of the progress of children. School development plan is made.

• Remedial work is done in standard 6 to 8.

• Unit test and re-test of standard 6 to 8 are conducted.

• Unit test marks in standard 6 to 8 are filled on the portal.

• Students are included in external examinations like NMMS, Scholarship, Painting, Jawahar Navodaya. And guidance is also given online in this regard.

• Distance education program is shown to children of standard 6 to 8 from BISAG channel as per the time table. Also, children and parents are guided in this regard.

• The educational work done by the children is systematically checked and improved by the teachers. Also, through various online quizzes and other tools, literacy subjects are continuously evaluated online as per SCE.

• Regular efforts are made to keep the children oriented towards education by providing continuous educational guidance to the children through social media like Microsoft team and WhatsApp group etc.

Recommendations for future research:

(1) By conducting case studies of fully developed institutions, it is necessary to know how the complete development of the institution takes place and provide guidance to underdeveloped institutions by giving examples of developed institutions.

(2) Efforts should be made to transfer the best activities taking place in each institution or school to other schools.

(3) Appropriate steps can be taken for institutional achievement through case studies of one's own institution.

(4) Teachers and students can be guided to participate in social and cultural activities.

(5) Principals and academic staff should work together to make more intensive efforts for the progress of the institution/school.

(6) Society and parents should provide support and public cooperation for the development of the school.

(7) Students should make maximum use of the facilities and cooperation available from the school and contribute to the upliftment of the society by building a bright career.

(8) Children should be given adequate guidance to move forward in their field of interest.

(9) The school should work hard to make progress in every field by comparing the results of the previous years of the school.

(10) The members of the SMC should create awareness among the parents by joining hands with the school principal and teachers to ensure that the attendance rate of the children in the school is regular.

(11) Innovative experiments should be implemented by the teachers in the school and in the classrooms. Efforts should be made to remove the educational gap by conducting action research.

(12) Students and parents should be guided so that the children can make maximum educational use of social and electronic media in this difficult time.

(13) Continuous interaction should be maintained with the children through various social media so that they remain attached to education.

Educational Outcome:

Currently, keeping in mind the COVID-19 situation, online quizzes, webinars on various subjects, knowledge seminars are being successfully conducted during the vacation and all these experiments are worth taking forward in a better way. Education gives us a chance to improve and improves us, so we need to bring changes in the teaching-learning method as a whole according to the current times.

• Now, even when there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result in education.

• We can increase the use of science and technology in education! Along with classroom education, we can also continue digital education as supporting material!

• We do not change the course (syllabus) every year in school-college education. Therefore, we can make written material available to the students in digital format.

• We can put the materials of science-math-social science and history in a format that is easily accessible to the student on a permanent basis.

• Question bank can be made available online.

• We should not give lectures through video in every class of the school, but every school should have two audio-visual rooms, where there are pre-recorded lectures of excellent teachers, when a teacher is absent in the school, students can be guided through such digital lectures during free hours.

• Schools can bring the option of online along with offline on a permanent basis. This option is useful to compensate for the educational work of the absent student.

• School administrators can also benefit teachers by allowing online education to teachers who are absent or unable to come to school due to unforeseen reasons.

• Children can be taught the positive use of mobile-social media or computer devices.

• Actually, only one thing is important and that is education. We have given so much importance to the physical presence of the student or teacher on the spot, that education has been pushed to the back burner! This needs to be changed now.

• The use of technology in classroom education needs to be increased. Teachers and professors should send their recorded lectures to the students in advance and experiments should also be done so that only questions and answers are given in the classroom, eliminating the problems of the students.

• Under the National Education Policy 2020, teachers should make maximum use of technology in classroom education.

4. **Researcher's name:** S. C. Rabari

   Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

   Research year: 2020-21

   Research Guide name: Principal, District Institute of Education and Training, Mehsana

   Introduction

   Experiments have been conducted. Many have taught from house to house taking precautions against Corona. Many have taught by sitting students in the middle of the village. Street education has also been done. Many have taught by sending videos to mobile phones. Many have taught live online. Many have given guidance by calling groups in turn. Many have created a permanent YouTube channel and put the videos on the channel. Students can watch whenever they want to watch! All these experiments show that education can be given in many ways. Such efforts have also been undertaken by teachers in the field of higher education.

   In the present research, the researcher has conducted an individual study of teachers who have undertaken educational work or experiments with special

understanding during the Corona period to ensure that the education of students does not deteriorate.

Title of the research: 'Educational innovative experiments undertaken by teachers of Unjha taluka for educational work during the Corona period – A Case Study'

Research type: Practical type

Methodology- A case study method

Study Design

The researcher created a WhatsApp group of sample characters for data collection, discussed the experiment with them, and based on that, created a prescribed word file and collected information from them. Personal information of the teachers and their innovative experiments were collected in detail under 10 points.

Area and Sample

5 innovative teachers of Unjha taluka were selected.

Tool - For the present research, a fixed format was determined in a word file to collect information on the innovative experiments carried out by the teachers and sent to the teachers. In which the personal information of the teachers and detailed information on their innovative experiments was collected under 10 points.

Data collection process

The researcher created a WhatsApp group of the sample characters for data collection, discussed the experiment with them, and based on that, created a fixed word file and collected information from them.

Data analysis-

The data was analyzed and interpreted using descriptive statistics.

Objectives of the study:

- To study the factors that motivate teachers to undertake innovative experiments.
- To know the motives behind the innovative experiments undertaken by the teachers.
- To know how the innovative experiments undertaken by the teachers became useful in their teaching process.

Study Questions:

- What are the motives behind the innovative experiments undertaken by the teachers?
- How have the innovative experiments undertaken by the teachers become useful in their teaching process?

- ❖ What problems have the teachers encountered during the innovative experiments undertaken?
- ❖ What efforts have the teachers made to solve the problems encountered during the innovative experiments undertaken?

Research Findings:

- ➢ Issues like connectivity problem were solved.
- ➢ Home learning based issues were clarified.
- ➢ Children received face-to-face guidance and understanding.
- ➢ That problem did not arise due to following the Corona guidelines.
- ➢ Students got interested in education as they got face-to-face education at their homes.
- ➢ Started getting guidance based on various educational problems and difficult issues.
- ➢ Started getting education without fear of Corona due to implementation according to Covid guidelines.

- ❖ **Research Outcome:**

• Now even when there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result in education.

• We can increase the use of science and technology in education and continue digital education as supporting material along with classroom education.

• We do not change the course (syllabus) every year in school-college education. Therefore, we can make written material available to the students in digital format.

• We can put the materials of science-mathematics-sociology, history in a format that is easily accessible to the students on a permanent basis.

• Question bank can be made available online.

5. **Name of the researcher:** Baldevbhai S.Desai

Designation: Senior Lecturer, District Education and Training Building, Mehsana

Research Year: 2020-21

Name of the research Guide: Principal, District Institute of Education and Training, Mehsana

Introduction

Considering the Corona situation, the online education system in primary schools has been set up by the teachers and the main motto of that online education system has been kept as “School is closed, not education.” Through this motto, efforts are being made to conduct educational and evaluation activities and due to the dedication and commitment of the teachers, beautiful results have also been achieved. In this difficult situation, many teachers have undertaken innovative experiments with their own insight to ensure that the education of the students does not deteriorate. Taking precautions against Corona, many have taught from door to door. Many have taught by making students sit in the middle of the village. Street education has also been done. Many have taught by sending videos on mobile phones. Many have taught online live. Many have called groups and given guidance. Many have created a permanent YouTube channel and put it on the video channel. Students can watch it whenever they want to watch it! All these experiments show that education can be given in many ways. Such efforts have also been undertaken by teachers in the field of higher education.

In the present research, the researcher has targeted the teachers who have undertaken educational work or experiments with special insight during the Corona period to ensure that the education of the students does not deteriorate, and has conducted a case study of such teachers.

- **Title of the research:**

Educational innovative experiments undertaken by teachers of Kadi Taluka for educational work during the Corona period – an individual study

- **Objectives of the research:**

The central part of the entire research work is the objectives of the research. Only after the objectives are clear, can we move forward in a specific direction. The present research was also conducted keeping in mind the following objectives.

• To study the factors that motivate teachers to undertake innovative experiments.

• To know the motives behind the innovative experiments undertaken by the teachers.

• To know how the innovative experiments undertaken by the teachers became useful in their teaching process.

• To study the problems faced by the teachers during the innovative experiments undertaken.

• To know the efforts made by the teachers to solve the problems faced during the innovative experiments undertaken.

• To know how much the innovative experiments undertaken were helpful in the academic achievement of the students.

• To know how the innovative experiments undertaken can be useful in the world of education.

❖ **Research Questions/Hypotheses:**

The research questions of the present research were as follows.

• What are the factors that motivate teachers to undertake innovative experiments?

• What are the motives behind the innovative experiments undertaken by the teachers?

• How have the innovative experiments undertaken by the teachers become useful in their teaching process?

• What problems have the teachers faced during the innovative experiments undertaken?

• What efforts would the teachers have made to solve the problems encountered during the innovative experiments carried out?

• How much would the innovative experiments carried out have been helpful in the academic achievement of the students?

• How can the innovative experiments carried out be useful in the world of education?

❖ **Research area and sub-area:**

In the present research, teachers conducted educational innovative experiments or activities with special understanding to ensure that the education of students studying in standard 1 to 8 during the Corona period does not deteriorate, therefore, the present research touches more on the primary education field among the various fields of research.

❖ **Research type:** The present research was of a practical nature.
❖ **Research method:** The individual study method was used for the present research.
❖ **Area:** In the present study, the researcher, keeping in mind the limitations and the subject, the teachers working in primary schools of Kadi taluka as the scope of the present study.
❖ **Sample selection:** The sample for the present study was selected through purposive sampling. Five innovative teachers from Kadi taluka of Mehsana district were selected from among the teachers who have undertaken innovative

experiments to ensure that the education of students in their area of work does not deteriorate (some of these teachers have also presented their innovative experiments in the district-level innovation fair).

Research recommendations: Study of the opinions of subject teachers of various subjects regarding online training of DIKSHA portal.

• Comparative study of teachers' opinions towards online training and offline training

• Comparative study of teachers' opinions towards online innovation fair and offline innovation fair

• Study of teachers' attitudes towards online toy fair

• Study of innovative experiments undertaken by teachers for educational purposes in higher education institutions

• Study of the effectiveness of various educational programs implemented by the state government during the Corona period.

❖ **Educational Outcome:**

Currently, keeping in mind the COVID-19 situation, online quizzes, webinars on various subjects, knowledge seminars are being successfully conducted during the vacation and all these experiments are worth taking forward in a better way. Education gives us a chance to improve and improves us, so we need to bring changes in the teaching and learning method as per the current times.

- ❖ Now, even when there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result in education.
- ❖ We can increase the use of science and technology in education! Along with classroom education, we can also continue digital education as supporting material!
- ❖ In our school-college education, the course (syllabus) does not change every year. Therefore, we can make written material available to the students in digital format.
- ❖ We can put the materials of science-math-social science and history in a format that is easily accessible to the student on a permanent basis.
- ❖ Question bank can be made available online.
- ❖ We should not give lectures through video in every class of the school, but every school should have two audio-visual rooms, where there are pre-recorded lectures of excellent teachers, when a teacher is absent in the school, students can be guided through such digital lectures during free hours.
- ❖ Schools can bring the option of online along with offline on a permanent basis. This option is useful to compensate for the educational work of the absent student.
- ❖ School administrators can also benefit teachers by allowing online education to teachers who are absent or unable to come to school due to unforeseen reasons.

- ❖ Students can be taught the positive use of mobile-social media or computer devices.
- ❖ Actually, only one thing is important and that is education. We have given so much importance to the physical presence of the student or teacher on the spot, that education has been pushed to the back burner! This needs to change now.
- ❖ The use of technology in classroom education needs to be increased. Teachers and professors should send their recorded lectures to the students in advance and experiments should also be done so that only questions and answers are given in the classroom, eliminating the problems of the students.
- ❖ Under the National Education Policy 2020, teachers should make maximum use of technology in classroom education.

6. **Researcher's name: Dr. Dipti A Trivedi**

   Designation: Junior Lecturer

   Year of research: 2020-2021

   Research Guide name: Dr. Gaurangbhai Vyas

   Introduction:

Considering the Corona situation, the online education system in primary schools has been set up by the teachers and the main motto of that online education system is "School is closed, not education." Through this motto, efforts are being made to conduct educational and evaluation activities and due to the dedication and commitment of the teachers, beautiful results have also been achieved. In this difficult situation, many teachers have undertaken innovative experiments with their own insight to ensure that the education of children does not deteriorate. Taking precautions against Corona, many have taught from door to door. Many have taught by sitting children in the middle of the village. Street education has also been done. Many have taught by sending videos on mobile phones. Many have taught live online. Many have called groups and given guidance. Many have created a permanent YouTube channel and put them on the video channel. Students can watch it whenever they want to watch it! All these experiments show that education can be given in many ways. Such efforts have also been undertaken by teachers in the field of higher education.

In the present research, the researcher has targeted the teachers who have undertaken educational work or experiments with special understanding during the Corona period to ensure that the education of children does not deteriorate, and has conducted an individual study of such teachers.

Research Title:

The title of the present research is as follows.

''Educational innovative experiments undertaken by teachers of Vijapur taluka for educational work during the Corona period – an individual study''

Research Objectives:

The central part of the entire research work is the objectives of the research. Only after the objectives are clear, can we move forward in a specific direction. The present research was also conducted keeping in mind the following objectives.

• To study the factors that motivate teachers to undertake innovative experiments.

• To know the motives behind the innovative experiments undertaken by teachers.

• To know how the innovative experiments undertaken by teachers became useful in their teaching process.

• To study the problems faced by teachers during the innovative experiments undertaken.

• To know the efforts made by teachers to solve the problems faced during the innovative experiments undertaken.

• To know how much the innovative experiments undertaken were helpful in the educational achievement of children.

• To know how the innovative experiments undertaken can be useful in the world of education.

Research Questions:

The research questions of the present research were as follows.

• What are the factors that motivate teachers to undertake innovative experiments?

• What are the purposes behind the innovative experiments undertaken by teachers?

• How useful would the innovative experiments undertaken by teachers be in their teaching process?

• What problems would the teachers have encountered during the innovative experiments undertaken?

• What efforts would the teachers have made to solve the problems encountered during the innovative experiments undertaken?

• How helpful would the innovative experiments undertaken be in the educational achievement of children?

• How useful can the innovative experiments undertaken be in the world of education?

Field of Research:

In the present research, teachers carried out educational innovative experiments or activities with special insight to ensure that the education of children studying in standards 1 to 8 does not deteriorate during the Corona period, therefore, the present research touches more on the primary education sector among the various fields of research.

Research Type:

The present research was of practical type.

Research Method:

Case study method was used for the present research.

Area:

Teachers doing innovative educational work in primary and secondary schools of Vijapur taluka are the area of the present study.

Sample Selection:

The sample selection for the present study was done through purposive sampling. Five innovative teachers of Vijapur taluka of Mehsana district were selected from the teachers who had conducted innovative experiments in their respective areas of work to improve the education of children. Some of the teachers have also submitted their innovative experiments in the district level innovation fair.

Research findings:

• Teachers have made their teaching work possible with Google Classroom and Youtube channel.

• The class, material or assignment is announced through Stream section in Google Classroom.

• The material given to the students in Google Classroom has been released through the post of their questions.

• Their progress can be known through online test and offline test in Google Classroom.

• In Google Classroom, they get an idea of their subject weakness.

• From Youtube channel, students get education of every lesson with the help of modern technology.

• Different playlists have been created from Youtube channel so that students can watch the videos of those lessons as per their convenience.

Recommendations for the present study:

• Study of the opinions of subject teachers of various subjects regarding online training of DIKSHA portal

• Comparative study of the opinions of teachers towards online training and offline training

• Comparative study of the opinions of teachers towards online innovation fair and offline innovation fair

• Study of the attitudes of teachers towards online toy fair

• Study of innovative experiments carried out by teachers for educational purposes in higher education institutions

• Study of the effectiveness of various educational programs implemented by the state government during the Corona period.

Educational Outcome:

Currently, keeping in mind the situation of COVID-19, online quizzes, webinars on various subjects, knowledge seminars are being successfully conducted during vacations and all these experiments are worth taking forward in a better way. Education gives us a chance to improve and improves us, so we need to bring changes in the overall teaching and learning method according to the current times.

• Now, even when there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result.

• We can increase the use of science and technology in education! Along with classroom education, we can also continue digital education as a supporting material!

• We do not change the course (syllabus) every year in school-college education. Therefore, we can make written material available to the students in digital format.

• We can permanently put the materials of science-mathematics-sociology and history in a format that is easily accessible to the students.

• Question bank can be made available online.

• We should not give lectures through video in every class of the school, but there should be two audio-visual rooms in every school, where there are pre-recorded lectures of excellent teachers, when any teacher is absent in the school, students can be guided through such digital lectures during free hours.

• Schools can bring the option of online along with offline on a permanent basis. This option is useful for compensating for the educational work of absent students.

• School administrators can also benefit teachers by allowing online education to teachers who are absent or unable to come to school due to unforeseen reasons.

• Children can be taught the positive uses of mobile-social media or computer devices.

• Actually, only one thing is important and that is education. We have given so much importance to the physical presence of the student or teacher, that education has been pushed to the back burner! This needs to be changed now.

• The use of technology in classroom education needs to be increased. Teachers and professors should send their recorded lectures to the students in advance and experiments should also be done so that only questions and answers are asked in the classroom, eliminating the problems of the students.

• Under the National Education Policy 2020, teachers should make maximum use of technology in classroom education.

Conclusion: The present study concludes that the Corona period has proven to be a boon for teachers.

7. **Name of Researcher**; Dr. D.S. Chaudhary

Research Year: 2020-2021

Designation: Junior Lecturer, District Institute of Education and Training - Mehsana

Name of Research Mentor; Principal, District Institute of Education and Training-Mehsana

Introduction:

During the Corona period, students cannot come to school for educational work, since they have to study at home, students have mobile phones, TV at home. In such circumstances, home learning has been done in the context of insufficiency and has made a special contribution in the field of education. Since it is necessary to work in the difficult times of Corona, the information of the teachers who have done innovative experiments against all the challenges has been obtained and a personal study has been conducted.

Research Title:

A Study of Innovative Experiments Undertaken by Teachers for Educational Work during the Corona Period.

Research Objectives:

- To study the educational qualifications of teachers undertaking innovative experiments.
- To study the academic and co-curricular as well as special activities organised in the teacher's school.

Research Questions:

- How did teachers undertake educational work during the Corona period?

- Reasons for undertaking innovative experiments? -Difficulties encountered during the experiment?

Research area:

The area of the research was limited to the teacher working in the educational institution and his/her own school.

Research type:

This research is of practical type.

Research method:

This research is a case study, which is a form of qualitative research.

- **Selection of area and sample:**
- In the present research, 5 teachers working during the Corona period have been taken as sample.

- **Findings of the research:**
- The efforts of Nayanaben Suthar (Bhandupura) have yielded good success through social media.
- - It was found that Kokilaben (Kalkapura) went to the children's homes and did face-to-face educational work.
- - A new home school project was started by Manojbhai (Visnagar), which was found to be effective.
- - Educational information was exchanged through WhatsApp group by Rameshbhai (Chitrodipura).

Research Recommendations:

- Efforts should be made to transfer the excellent activities taking place in that institution or school to other schools.

- Society, parents, and teachers should provide public cooperation and support for the development of the school. For example, facilities for TV, set and home learning..

8. **Name of Researcher**: Prakashbhai I. Patel
Designation: Junior Lecturer, District Institute of Education and Training Mehsana
Research Year: 2020-2021
Name of Research Guide: Dr. Pankaj I. Parmar

Introduction:

If we think about it in the true sense, the Corona period has made us aware of doing something different from the traditional education system, and through the use of technology, we have been able to do many new experiments in education. Before Corona, our teachers and professors were using technology and modern tools only to the extent necessary. After Corona, teachers of all subjects have started using it. It is desirable that this new change is accepted wholeheartedly and used continuously. However, it would be considered a waste to marginalize our old education system.

Keeping in mind the Corona situation, the online education system in primary schools has been set up by teacher friends and the main motto of that online education system is "School is closed, education is not." Through this motto, efforts are being made to conduct educational and assessment activities. Due to the dedication and commitment of the teachers, beautiful results have also been achieved.

Research Title: "Educational innovative experiments undertaken by teachers of Satlasana taluka for educational work during the Corona period – "One-person study**"**

Objectives of the research:

- The central part of the entire research work is the objectives of the research. Only after the objectives are clear can we move forward in a specific direction. The present research was also conducted keeping in mind the following objectives.
- To study the factors that motivate teachers to undertake innovative experiments.
- To know the objectives behind the innovative experiments undertaken by teachers.
- To know how the innovative experiments undertaken by teachers became useful in their teaching process.
- To study the problems faced by teachers during the innovative experiments undertaken.
- To know the efforts made by teachers to solve the problems faced during the innovative experiments undertaken.
- To know how much the innovative experiments undertaken were helpful in the educational achievement of children.
- To know how the innovative experiments undertaken can be useful in the world of education.
- **Research Questions:**
- The research questions of the present research were as follows.
- What would be the factors that would motivate teachers to undertake innovative experiments?
- What would be the motives behind the innovative experiments undertaken by teachers?
- How would the innovative experiments carried out by the teachers have been useful in their teaching process?

- What problems would the teachers have faced during the innovative experiments carried out?
- What efforts would the teachers have made to solve the problems encountered during the innovative experiments carried out?
- How helpful would the innovative experiments carried out be in the educational achievement of the children?
- How would the innovative experiments carried out be useful in the world of education?
- **Research Area and Sub-Area:**
- In the present research, the teachers carried out educational innovative experiments or activities with special insight to ensure that the education of the children studying in standards 1 to 8 during the Corona period does not deteriorate, therefore, the present research touches more on the primary education field among the various fields of research. In addition, the research touches more on the teaching-learning process sub-area.
- **Research Type:**
- The present research was of a practical and individual study method type.
- **Research Methodology**
- A person study was conducted for the present research. Therefore, interview and survey methods were used in this research.
- **Area:**
- In the present research, the researcher, keeping in mind the limitations and the subject matter, selected teachers working in primary schools of Satlasana taluka as the area.

- **Selection of Sample:**

The sample for the present research was selected through purposive sampling. Five innovative teachers from Satlasana taluka of Mehsana district who had undertaken innovative experiments to ensure that the education of children in their area of work did not deteriorate were selected.

Research Findings:

Keeping in mind the situation of COVID-19, Megha Prajapati, Anjana Goswami, Bipin Darji, Kaushik R. Patel and Yash Joshi used technology for online quizzes, webinars on various subjects, online education through the use of Google and other means during the lockdown and vacation.
Teachers were able to make written material available to students in digital format for education from school and home. Even when children were not coming to school, teachers were present and could guide students through video/audio visual technology. Teachers who could not come to school due to unforeseen reasons provided online education. Children were taught the positive use of mobile-social media or computers. Teachers and students were able to make maximum use of technology in education.

Recommendations for future research:
• Study of the opinions of subject teachers of various subjects regarding online training of DIKSHA portal

• Comparative study of teachers' opinions towards online training and offline training
• Comparative study of teachers' opinions towards online innovation fair and offline innovation fair
• Study of teachers' attitudes towards online toy fair
• Study of innovative experiments carried out by teachers for educational purposes in higher education institutions
• Study of the effectiveness of various educational programs implemented by the state government during the Corona period.

- **Educational Outcome:**
- Currently, keeping in mind the COVID-19 situation, online quizzes, webinars on various subjects, knowledge seminars are being successfully conducted during the vacation and all these experiments are worth taking forward in a better way. Education gives us a chance to improve and improves us, so we need to bring changes in the teaching and learning method as a whole according to the current times.
- Now, even when there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result in education.
- We can increase the use of science and technology in education! Along with classroom education, we can also continue digital education as supporting material!
- We do not change the course (syllabus) every year in school-college education. Therefore, we can make written material available to the students in digital format.
- We can make science-math-social science-history materials permanently available in a format that is easily accessible to students.
- Question banks can be made available online.

• We should not give lectures through video in every class of the school, but every school should have two audio visual rooms, where there are pre-recorded lectures of excellent teachers, when a teacher is absent in the school, students can be guided through such digital lectures during free hours.
• Schools can bring the option of online along with offline on a permanent basis. This option is useful to compensate for the educational work of the absent student.
• School administrators can also benefit teachers by allowing online education to teachers who are absent or cannot come to school due to accidental reasons.
• Children can be taught the positive use of mobile-social media or computer devices.
• Actually, only one thing is important and that is education. We have given so much importance to the physical presence of the student or teacher, to the presence on the spot, that education has been pushed to the back seat! This needs to be changed now.
• The use of technology in classroom education needs to be increased. Teachers and professors should send their recorded lectures to the students in advance and experiments should be conducted in the classroom where only questions and answers are asked, and students' problems should be resolved.
• Under the National Education Policy 2020, teachers should make maximum use of technology in classroom education.

9. **Researcher's Name**: Seema Ramashray Yadav
Designation: Lecturer, District Institute of Education and Training Mehsana
Research Year: 2020 – 2021
Research Mentor's Name: Dr. Gaurang C. Vyas, Principal, District Institute of Education and Training, Mehsana

Introduction:

Keeping in mind the Corona situation, the online education system in primary schools has been set up by the teachers and the main motto of that online education system is “School is closed, education is not.” Through this motto, efforts are being made to conduct educational and evaluation activities and due to the dedication and commitment of the teachers, beautiful results have also been achieved. In this difficult situation, many teachers have undertaken innovative experiments with their own insight to ensure that the education of children does not get spoiled. Keeping the Corona precautions in mind, many have taught from door to door. Many have taught by making children sit in the middle of the village. Street education has also been done. Many have taught by sending videos on mobile phones. Many have taught online live. Many have called groups in turn and provided guidance. Many have created a permanent YouTube channel and put the videos on the channel. When the student wants to watch, watch them! All these experiments show that education can be given in many ways. Such efforts have also been undertaken by professors in the field of higher education.

- In the present research, the researcher has conducted an individual study of teachers who have undertaken educational work or experiments with special understanding during the Corona period to ensure that the education of children does not deteriorate.

Research Title:

Educational innovative experiments undertaken by teachers of Kheralu taluka for educational work during the Corona period – an individual study

- **Objectives of the research**: The central part of the entire research work is the objectives of the research. Only after the objectives are clear, can one move forward in a specific direction. The present research was also conducted keeping in mind the following objectives.
- To study the factors that motivate teachers to undertake innovative experiments.
- To know the motives behind the innovative experiments undertaken by teachers.
- To know how the innovative experiments undertaken by teachers became useful in their teaching process.
- To study the problems faced by teachers during the innovative experiments undertaken.
- To know the efforts made by teachers to solve the problems faced during the innovative experiments undertaken.
- To know how much the innovative experiments undertaken were helpful in the educational achievement of children.
- To know how the innovative experiments undertaken can be useful in the world of education.

Research Questions: The research questions of the present research were as follows.

- What are the factors that motivate teachers to undertake innovative experiments?
- What are the motives behind the innovative experiments undertaken by teachers?
- How have the innovative experiments undertaken by teachers become useful in their teaching process?
- What problems might the teachers have encountered during the innovative experiments they conducted?
- What efforts might the teachers have made to solve the problems encountered during the innovative experiments they conducted? How helpful would the innovative experiments carried out be in the educational achievement of children?
- How can the innovative experiments carried out be useful in the world of education?

Research area and sub-area: In the present research, teachers had undertaken educational innovative experiments or activities with special insight to ensure that the education of children studying in standards 1 to 8 did not deteriorate during the Corona period. Therefore, the present research touches more on the primary education sector among the various fields of research.
Research type: The present research was of practical type. Individual study was used in this research.
Research method: Interview and survey method were used in the present research.

Area: In the present study, the researcher, keeping in mind the limitations and the subject matter, selected teachers working in primary schools of Kheralu taluka as the area of the present study.
Sample Selection:
The sample for the present study was selected through purposive sampling. Five innovative teachers from Kheralu taluka of Mehsana district who had undertaken innovative experiments to ensure that the education of children in their area of work did not deteriorate were selected.
Research Findings: There has been a very good response from the children and their parents who were aware and excellent work has been seen. Even the unaware parents started getting general cooperation.
Due to the Corona pandemic period, this experiment has become very useful in the present time.
Keeping in mind the Corona situation, the online education system in primary schools has been set up by the teacher friends and the main motto of that online education system has been "School is closed, not education." Through this motto, efforts are being made to conduct activities regarding educational work and evaluation and due to the dedication and commitment of the teachers, beautiful results have also been achieved. In this difficult situation, many teachers have undertaken innovative experiments with their own insight to ensure that the education of children does not deteriorate. Keeping the Corona precautions in mind, many have taught from door to door. Many have taught by making children sit in the middle of the village. Street education has also been done. Many have taught by sending videos on mobile phones. Many have taught live online. Many have taken turns calling groups and providing guidance. Many have created a permanent YouTube channel and posted videos on the channel. Students can watch

whenever they want! All these experiments show that education has been provided in many ways, keeping in mind the Corona situation.

Research Recommendations:

- Study of the opinions of subject teachers of various subjects regarding online training of DIKSHA portal
- Comparative study of the opinions of teachers towards online training and offline training
- Comparative study of the opinions of teachers towards online innovation fair and offline innovation fair
- Study of the attitudes of teachers towards online toy fair
- Study of innovative experiments carried out by teachers for educational purposes in higher education institutions
- Study of the effectiveness of various educational programs implemented by the state government during the Corona period.

Educational Outcome:

- Currently, keeping in mind the situation of COVID-19, online quizzes, webinars on various subjects, knowledge seminars are being successfully conducted during vacations and all these experiments are worth taking forward in a better way. Education gives us a chance to improve and improves us, so we need to bring changes in the teaching and learning method as per the current times. Now, even when there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result.
- We can increase the use of science and technology in education. Along with classroom education, we can also continue digital education as a supporting material.
- We do not change the course (syllabus) every year in school-college education. Therefore, we can make written material available to the students in digital format.
- We can permanently put the materials of science-mathematics-sociology and history in a format that is easily accessible to the students.
- Question bank can be made available online.
- We should not give lectures through video in every class of the school, but there should be two audio-visual rooms in every school, where there are pre-recorded lectures of excellent teachers, when any teacher is absent in the school, students can be guided through such digital lectures during free hours.
- Schools can permanently bring the option of online along with offline. This option is useful for compensating for the absent student's academic work.
- School administrators can also benefit teachers by allowing online education to teachers who are absent or unable to come to school due to unforeseen reasons.
- Children can be taught the positive uses of mobile-social media or computer devices.
- Actually, only one thing is important and that is education. We have given so much importance to the physical presence of the student or teacher, to their presence on

the spot, that education has been pushed to the back burner! This needs to change now. The use of technology in classroom education should be increased. Teachers should send their recorded lectures to the students in advance and experiments should be done in the classroom so that only questions and answers are asked, and the problems of the students are solved.

- Under the National Education Policy 2020, teachers should make maximum use of technology in classroom education.

10. **Name of Researcher**: Vekaria Anil B.

Designation: Lecturer, District Institute of Education and Training Mehsana

Research Year: 2020-21

Name of Research Mentor: Principal, District Institute of Education and Training Mehsana

Introduction:

Keeping in mind the Corona situation, the online education system in primary schools has been set up by the teachers and the main motto of that online education system is “School is closed, not education.” Through this motto, efforts are being made to conduct educational and assessment activities and due to the dedication and commitment of the teachers, beautiful results have also been achieved. In this difficult situation, many teachers have undertaken innovative experiments with their own insight to ensure that the education of children does not deteriorate. Keeping the Corona precautions in mind, many have taught from door to door. Many have taught by sitting children in the middle of the village. Street education has also been done. Many have taught by sending videos on mobile phones. Many have taught online live. Many have called groups in turn and given guidance. Many have created a permanent YouTube channel and put it on the video channel. When the student wants to watch, he watches it! All these experiments show that education can be given in many ways. Such efforts have also been undertaken by teachers in the field of higher education.

In the present research, the researcher has conducted an individual study of teachers who have undertaken educational activities or experiments with special insight during the Corona period to ensure that children's education does not deteriorate.

Research Title:

‘‘Educational Innovative Experiments Conducted by Teachers of Becharaji Taluka for Educational Work During the Corona Period – A Case Study’’

Research Objectives:

- To study the factors that motivate teachers to conduct innovative experiments.
- To know the motives behind the innovative experiments conducted by teachers.
- To know how the innovative experiments conducted by teachers became useful in their teaching process.
- To study the problems faced by teachers during the innovative experiments conducted.
- To know the efforts made by teachers to solve the problems faced during the innovative experiments conducted.
- To know how much the innovative experiments conducted were helpful in the educational achievement of children.
- To know how the innovative experiments conducted can be useful in the world of education.

Research Questions:/ Hypotheses:

• What are the factors that motivate teachers to undertake innovative experiments?
• What are the motives behind the innovative experiments undertaken by teachers?
• How would the innovative experiments undertaken by teachers have been useful in their teaching process?
• What problems would the teachers have faced during the innovative experiments undertaken?
• What efforts would the teachers have made to solve the problems encountered during the innovative experiments undertaken?
• How helpful would the innovative experiments undertaken be in the educational achievement of children?
• How would the innovative experiments undertaken be in the educational world?

Research Area and Sub-Area: In the present research, teachers had undertaken educational innovative experiments or activities with special insight to ensure that the education of children studying in standard 1 to 8 did not deteriorate during the Corona period, therefore, the present research touches more on the primary education sector among the various fields of research..

Research Type: The present research was of a practical nature.

Research Method: The case study method was used for the present research.

Area: In the present study, the researcher, keeping in mind the subject and limitations, selected teachers working in primary schools of Becharaji taluka as the area of the present study.

Sample Selection The sample for the present study was selected through purposive sampling. Six innovative teachers from Becharaji taluka of Mehsana district who had undertaken innovative experiments to ensure that the education of children in their area of work did not deteriorate (some of these teachers have also presented their innovative experiments at the district-level innovation fair) were selected.

Research Findings:

- Now that there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result.
- We can increase the use of science and technology in education! Along with classroom education, we can also continue digital education as a supporting material!
- In our school-college education, the course (syllabus) does not change every year. Therefore, we can make written material available to the students in digital format. We can put the materials of science-math-social science and history in a format that is easily accessible to the student on a permanent basis.
- Question bank can be made available online.
- We should not give lectures through video in every class of the school but every school should have two audio visual rooms, where there are pre-recorded lectures of excellent teachers,

Recommendations for research:

- Study of the opinions of subject teachers of various subjects regarding online training of DIKSHA portal
- Comparative study of the opinions of teachers towards online training and offline training
- Comparative study of the opinions of teachers towards online innovation fair and offline innovation fair
- Study of the attitudes of teachers towards online toy fair
- Study of innovative experiments carried out by teachers for educational purposes in higher education institutions
- Study of the effectiveness of various educational programs implemented by the state government during the Corona period.

Educational Outcome:

• Schools can bring the option of online along with offline on a permanent basis. This option is useful to compensate for the educational work of absent students.
• School administrators can also benefit teachers by allowing online education to teachers who are absent or unable to come to school due to unforeseen reasons.
• Children can be taught the positive uses of mobile-social media or computer devices.
• Actually, only one thing is important and that is education. We have given so much importance to the physical presence of the student or teacher, that education has been pushed to the back seat! This needs to be changed now.
• The use of technology in classroom education needs to be increased. Teachers and professors should send their recorded lectures to the students in advance and experiments should also be done so that only questions and answers are given in the classroom, and the problems of the students are solved.
• Under the National Education Policy 2020, teachers should make maximum use of technology in classroom education.

11. **Name of Researcher:** Dr. Devangiben M. Patel
Designation: Lecturer, District Institute of Education and Training Mehsana
Research Year: 2020-21
Name of Research Supervisor: Dr. G.C. Vyas, Principal, District Institute of Education and Training
Mehsana

Introduction: Keeping in mind the Corona situation, the online education system in primary schools has been set up by teacher friends and the main motto of that online education system is “School is closed, no education”. Through this motto, efforts are being made to conduct educational and assessment activities and due to the dedication and commitment of the teachers, beautiful results have also been achieved. In this difficult situation, many teachers have undertaken innovative experiments with their own insight to ensure that the education of children does not get spoiled. Taking precautions against Corona, many have taught from door to door. Many have taught by making children sit in the middle of the village. Street education has also been done. Many have taught by sending videos on mobile phones. Many have taught live online. Many have called groups in turn and provided guidance. Many have created a permanent YouTube channel and put it on the video channel. Students watch it whenever they want to watch it. All these experiments show that education can be given in many ways. Such efforts have also been undertaken by teachers in the field of higher education.
In the present research, the researcher has conducted an individual study of teachers who have undertaken educational activities or experiments with special insight during the Corona period to ensure that children's education does not deteriorate.

Research Title:

Educational Innovative Experiments Conducted by Teachers of Mehsana Taluka for Educational Work during the Corona Period – A Case Study
Research Objectives:

• To study the factors that motivated teachers to conduct innovative experiments.
• To know the motives behind the innovative experiments conducted by teachers.
• To know how the innovative experiments conducted by teachers became useful in their teaching process.
• To know the efforts made by teachers to solve the problems encountered during the innovative experiments conducted.
Research Questions:/ Hypotheses:
• What are the factors that motivated teachers to conduct innovative experiments?
• What are the motives behind the innovative experiments conducted by teachers?
• How have the innovative experiments conducted by teachers become useful in their teaching process?
• What efforts have teachers made to solve the problems encountered during the innovative experiments conducted?
Research Area and Sub-Area:

- The main area of the present research is primary education. While the sub-area is the learning-teaching process.

  Research Type:
- The present research was a practical type of case study

  Research Method:
- Interview method was used for the present research.

  Area:
- In the present study, teachers working in primary schools of Mehsana taluka form the area of the study.

  Sample Selection:
- The sample for the present study was selected through purposive sampling. Five innovative teachers of the taluka, teachers of Mehsana taluka of Mehsana district, who have undertaken innovative experiments to ensure that the education of children in their area of work does not deteriorate, were selected.

  Research Findings:
- The findings of the present research were obtained as follows.
- During the Corona period, when students were doing home learning, a large number of
- Students were actively involved in teaching and co-curricular activities through mobile applications, YouTube videos, online quizzes, street education, and social media.

  Recommendations for research:
- The recommendations for future research are as follows.
- Study of the opinions of teachers of various subjects regarding online training of DIKSHA portal
- Comparative study of teachers' opinions on online training and offline training
- A comparative study of teachers' opinions on online innovation fair and offline innovation fair can be conducted.

Educational impact:

Even when there is no Corona, we can continue the positive effects of this Corona period and the changes in education as a result.

• In our school-college education, the curriculum does not change every year. Therefore, we can make written material available to the students in digital format.

• Question bank can be made available online.

• Every school should have two audio-visual rooms, where there are pre-recorded lectures of excellent teachers, when a teacher is absent in the school, students can be guided through such digital lectures during the practice class.

• Schools can bring the option of online along with offline on a permanent basis. This option is useful to compensate for the educational work of the absent student.

• Children can be taught the positive use of mobile-social media or computer devices.

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સંશોધન સારાંશ

2021-22

District Education and Training Building, Mehsana
List of researches conducted during the year 2021-2022

Sr.no.	Research title	Explorer
1	A study on vocabulary of Gujarati Language among 2 to 8 year old children of Mehsana of Vadnagar of Mehsana District	V.D.Adhiyol
2	“A study of the opinions of teachers of Vadnagar, Bijapur and Mehsana talukas regarding the current status of vocational education in the curriculum and textbooks”	V.D.Adhiyol
3	A Survey of Gujarat Achievement Survey (GAS-3) underlying Academic Achievement of Standard IX Students of Mehsana District	V.D.Adhiyol
4	A Study of the effectiveness of adherence training	Dr.Pankaj I parmar
5	A Study on the status of implementation of school-based holistic assessment	S.S.Rabari
6	A study of the vocabulary of children aged 2 to 8 years of Unjha taluka of Mehsana district	S.S.Rabari
7	A study of the vocabulary of children aged 2 to 8 years of Kadi Taluka	Baldevbhai Deasi
8	A study of the vocabulary of children aged two to eight years of Bijapur taluka of Mehsana district	Dr. Dipti A. Trivedi
9	A Study of SMC's activity in school management	Dr.D.S.Chaudhary Dr. Dipti A. Trivedi
10	A study of the vocabulary of children aged 2 to 8 years living in Satlasana Taluka"	Shree Prakashbhai I Patel
11	A Study of the status of Standard 3 students with regard to Basic Literacy and Numeracy (FLN)	Seema Ramashray Yadav
12	A Study of teachers' opinions regarding the new textbook for Standard 5 Environment subject implemented under RTE	Vekariya Anil B.
13	A study of the vocabulary spoken by children aged two to eight in Becharaji Taluka, Mehsana District	Vekariya Anil B.
14	A study of the vocabulary of children aged 2 to 8 living in Mehsana taluka	Dr.Devangi MPatel
15	Individual studies of schools that effectively implement efforts for holistic development	Dr.Devangi M Patel

1. **Researcher -VINODKUMAR D.ADHIYOL**

Research Year 2021 - 2022

Senior Lecturer , DIET, MEHSANA

Introduction:

In the present study under the guidance of Department of Education, Gujarat State and Gujarat Education Research and Training Council, Gandhinagar, a survey study has been conducted by obtaining information about the vocabulary of children aged between 2 and 8 years of primary level in Vanagar Taluka.

Research Title

Any problem is difficult to put into words. The problem should be carefully worded through the hypothesis so that one can think about what the research objective was.

A Study on Vocabulary of Gujarati Language among Children aged 2 to 8 years of Vadnagar Taluka f Mehsana District

Statement of the title:

In the present study, a survey study has been conducted on the vocabulary of Gujarati language among children of 2 to 8 years of Vadnagar taluka of Mehsana district. It includes words that children know. This study has been conducted based on the words used by children aged 2 to 8 years in a period of fifteen (15) days.

Objectives of the Study

The objectives of the present research are as follows.

1. To get information about the vocabulary of children of 2 to 8 years of Vadnagar taluka. . To find out about oral vocabulary of 8 year old children from Vadnagar Talukanar.

2. To get information about the vocabulary of 2 to 8 year old children of Kupar and Kanya caste of Vadnagar taluka.

Sub Objectives

1. To get information about 2 to 8 years vocabulary of rural and urban areas of Vadnagar taluka.

2. To get information about vocabulary of 8 year old children of Kumar and Kanya caste of Vadnagar taluka.

3.To get the information of local and vocabulary of other languages Gujarati, English, Hindi, of children of 2 to 8 years of age from rural and urban areas of Vadnagar taluka and Kumar and Kanya caste.

Delimitation of the Study:

Considering the time, effort and cost, the researcher has conducted a limited study only to know the vocabulary of children of 2 to 8 years in Mehsana district.

Limitations of the study:

1. To get information about 2 to 8 years vocabulary of rural and urban areas of Vadnagar taluka.

2. To get information about vocabulary of 8 year old children of Kumar and Kanya caste of Vadnagar taluka.

3. To get the knowledge of Gujarati, English, Hindi, of 2 to 8 year old children of Kumar and Kanya caste of rural and urban areas of Vadnagar taluka.

Acquiring knowledge about local and other language vocabulary. Limitation of the Study The researcher considering time, effort and cost only 2 to 8 year old children of Vadnagar taluka of Mehsana district.

Delimitation of the study

A study limited to learning vocabulary has been conducted over a period of fifteen days.

LIMITATION OF THE STUDY

In the present research, an attempt has been made to know about the vocabularyof rural and urban children of 2 to 8 years of Vadnagar taluka.

In the present research, an attempt has been made to increase the vocabulary of 2 to 8 year old boys and girls of Vadnagar taluk.

An attempt has been made to find out the information of oral vocabulary of 2 to 8 year old children during the period of 15 days in the selected taluka only through information sheets.

Research Area:

The presented research is related to primary education and language teaching.

Research type

The present research is of practical nature regarding vocabulary development and knowledge for language teaching development.

Research methodology

A survey method is used in the present study.

Population

In the present research, attempts were made to learn vocabulary from the children of 2 to 8 years of Gujarat state as a whole.

Selection of Sample

In the present research, 14 boys and girls between 2 to 8 years of age from Vadnagar taluka of Mehsana district have been randomly selected as a sample.

DATA COLLECTION PROCEDURE

In the present research the researcher has collected the data with the help of Diet lecturer and SARC coordinator for data collection.

Data Analysis Plan

In the presented literature, the data obtained through the data sheet has been analyzed and interpreted based on the data obtained.

Research findings

The findings of the present research were as follows.

- A total of (fourteen) 14 children aged 2 to 8 years were (seven) 7 children from rural areas and (seven) children from urban areas.
- In terms of using mobile phones, one girl of 2 (two) years old and two boys of three and four years old were not using mobile phones, while a total of 13 (eleven) children were using mobile phones with six girls and five boys. Thus, this study looked at the variation in the number of children, above, mobile use and area.
- Vocabulary of Gujarati, Hindi, English and local language of 2 to 8 year old children of Vadnagar taluka was highest in 8 year old girl and lowest in 4 year old boy. 1081 words of Gujarati language, 18 words of Hindi language, 48 words of English language and 44 words of vernacular language were found to have a total vocabulary of 11:1 words.

- Vocabulary of Gujarati, Hindi, English language was found to be less in Gujarati language than rural children in urban areas. Rural in Hindi language urban area Children's vocabulary was found to be low. In the vocabulary of the English language, the vocabulary of children from rural areas was not found, while the vocabulary of children from urban areas was found to be 48 words. Vocabulary of urban children was found to be less than that of rural children in local language.In terms of total words found, the vocabulary of urban children was found to be less than that of rural children.

- In the vocabularies of Gujarati, Hindi, English and vernacular languages, the vocabulary of girls was found to be more than that of Kumar in Gujarati language. Kumar's vocabulary was found to be more than that of girls in Hindi language. The vocabulary of girls was not found in the vocabulary of the English language, while the vocabulary of Kumar was found to be 48 words. Vocabulary of girls was found to be more than that of boys in local language.
- No difference was found between Kumar and Kanya vocabularies in terms of total words found.

2. Name of the researcher: - Vinodkumar D. Adhiyol,

Senior Lecturer, District Education and Training Institution, Mehsana

Year of research: 2021– 2022

Research supervisor: - Dr. G. C. Vyas,

Principal, District Education and Training Institution. Mehsana

Introduction

During the year 2021- 22, under the guidance of GCERT, Gandhinagar, a survey was conducted to know the current status of vocational education in textbooks and curricula in primary schools of Mehsana district with regard to NEP 2020 and to know the opinions of teachers of classes 6 to 8 of 65 primary schools selected in a sample of Mehsana district from classes 6 to 8.

Title

“A study of the opinions of teachers of Vadnagar, Vijapur and Mehsana talukas on the current status of vocational education in the curriculum and textbooks

Problem Statement

A survey was conducted by District Education and Training Bhavan, Mehsana, under the guidance of GCERT, Gandhinagar, to know the current status of vocational education in the curriculum and textbooks in primary schools of Vadnagar, Vijapur and Mehsana talukas, in which a survey of the opinions of a total of 65 teachers of standards 6 to 8 of Mehsana district was conducted.

Objectives of the study

The objectives of the present study were as follows.

1. To know the current status of vocational education in the curriculum and textbooks of standards 6 to 8.

2. To know the form in which vocational education has been included in the curriculum and textbooks.

3. To know how vocational education has been

integrated in the curriculum and textbooks of standards 6 to 8.

4. To know that vocational education is linked to learning outcomes in the textbooks of standards 6 to 8.

5. To know that vocational education is given a place in the textbooks of standards 6 to 8.

6. To know what activities are carried out at the school level to provide students with learning experiences for vocational education in the textbooks of standards 6 to 8.

7. To know that local professionals have been visited by students to carry out vocational education activities in the textbooks of standards 6 to 8.

8. To know the details of life skill-based activities organized in the school under the children's fair integrated with vocational education in the textbooks of standards 6 to 8.

9. To know whether any project work has been given to students regarding any profession to carry out vocational education activities in the textbooks of standards 6 to 8.

Variables of the study:

The variables selected for the present research are as follows.

Independent variable (1) Gender and educational qualification

Dependent variable Current status of vocational

education in the curriculum and textbooks of standards six to eight

Field of study

The present study was very much related to the field of primary education and curriculum.

Area of the study

The Area of the present study was limited to Gujarati medium primary schools of Mehsana district. The present study examined the current educational status of vocational education in the curriculum and textbooks of standards six to eight.

Limitations of the study

The limitations of the present study were as follows.

• In the present study, only teachers of Gujarati medium primary schools were selected in the sample.

Area:

The Area of the present study was Mehsana district. The present study included Gujarati medium primary schools of Mehsana district.

Sample Selection

The present research included 1006 primary schools of the entire district randomly selected by the study. In the sample, two teachers per CRC were selected from all the teachers of standards six to eight of the selected schools and information was obtained from maximum teachers of the district.

Thus, the sample included 1006 teachers of standards six to eight of the district.

Research Type

The present research can be considered as qualitative and quantitative type.

Research Method:

The research was based on the survey method.

Tool

In the present study, the apparatus was designed by making an open questionnaire about the current situation of the curriculum and textbooks regarding vocational education. In which information on two sections namely curriculum and textbook was sought through questions

Collection of Information

In the present research, information was to be obtained from teachers of standards six to eight under vocational education. In all the talukas of the district, information was obtained from the teachers of classes six to eight with the help of CRC and BRC coordinators about the current situation of vocational education.

Analysis of data

The purpose of the present research was to know the current situation of vocational education from the teachers of classes six to eight and to extract question-wise details based on the information provided by the teachers.

According to the information obtained based on the device, the questions designed for the present research were checked keeping in mind the variable like caste.

Findings of the research

The findings of the present study were as follows.

• Vocational education has been included in the curriculum of classes six to eight.

• In terms of the inclusion of vocational education in the curriculum of classes six to eight, the maximum number of 34 teachers stated it indirectly, 18 teachers stated it integratedly and 13 teachers stated it directly.

• In the context of integration of vocational education in the curriculum of standards 6 to 8, 34 teachers stated that vocational education has been integrated for knowledge/understanding, 16 teachers stated that vocational education has been integrated for skill building and 15 teachers stated that vocational education has been integrated for information.

• Vocational education has been included in the textbook of standards 6 to 8.

• In the context of integration of vocational education in the textbook of standards 6 to 8, 33 teachers stated that vocational education has been included indirectly, 19 teachers stated that vocational education has been included in an integrated form and 13 teachers stated that vocational education has been included directly.

• In the context of integration of vocational education in the textbook of standards 6 to 8, 32 teachers stated that vocational education has been integrated for knowledge/understanding, 24 teachers stated that vocational education has been integrated for skill building and 9 teachers stated that vocational education has been integrated for information.

• Vocational education has been integrated with learning outcomes in the textbook of standards 6 to 8.

• Vocational education has been linked to learning outcomes in the textbooks of standards 6 and 7 along with four units of standards 6 and 7 and one unit of standards 8.

• Vocational education has been given a place in the textbooks of standards 6 to 8.

• Regarding the provision of vocational education in the textbooks of standards 6 to 8, the teachers said only for the introduction of professions and information about vocational skills, while not a single teacher responded regarding the provision of vocational skill building. That is, the provision of vocational skill building has not been given a place in the textbooks of standards 6 to 8.

• It was stated that activities are being conducted at the school level to provide students with experiential learning for vocational education in the textbook in four units of standard 6, four units of standard 7 and one unit of standard 8.

• In the textbook of standard 6 to 8, 44 teachers have made local professionals meet with students to carry out vocational education activities in the textbook.

• It was stated that teachers have made local professionals meet with students to carry out vocational education activities in the textbook in one unit of standard 6, three units of standard 7 and one unit of standard 8.

• In the textbook of standard 6 to 8, life skill-based children's fair activities integrating vocational education are organized in schools in four units of standard 6, two units of standard 7 and three units of standard 8.

• 15 teachers said yes and 40 teachers said no to giving students any project work on a profession to carry out vocational education activities in the textbooks for standards 6 to 8.

3. **Name of the researcher: V. D. Adhiyol,**

   Senior Lecturer, District Education and Training Bhavan,Mehsana

   Year of research: 2021 – 2022

   Research supervisor:- Dr. G. C. Vyas, Principal, District Education and Training

   Bhavan, Mehsana

   Introduction:

   Ministry of Human Resource Development (MHRD), National Council of Educational Research and Training (NCERT), New Delhi, Samagra Shiksha Abhiyan (SSA) and Gujarat Council of Educational Research and Training (GCERT), Gandhinagar conduct various types of surveys and research at the national and state levels. National Achievement Survey was conducted at the national level during the year 2021. N.A.S. In order to provide students with the opportunity to practice, identify standard and subject-wise difficult points and check the achievement level of the children, the Gujarat Achievement Survey (GAS 3) was conducted at the state level in the year 2021 on students of standard IX. In order to enable GCERT, Gandhinagar and District Education and Training Bhavan to organize need-based in-service training programs, 6 achievement surveys have been conducted in the past from 1998-99 to date to know the current level of educational achievement and subject-wise difficult points of the district.

   During the year 2018-19, Gujarat Achievement Survey-1 was conducted across the state under the guidance of GCERT, Gandhinagar. During the year 2019-20, Gujarat Achievement Survey-2 (GAS-2) was conducted across the state under the guidance of GCERT, Gandhinagar on students of standard IV, VI and VII. A survey was conducted on the academic achievement of a total of nine subjects, namely two of standard four, three of standard six and four of standard seven, in a total of 150 primary schools across the district, selected in a sample of 15 schools from each taluka. On 16/10/2021, a survey was conducted to find out the academic achievement of standard nine students in the subjects of Language, Mathematics, Science and Technology and Social Science of 30 secondary schools selected in a sample of Mehsana district in the year 2021-22.

Title

“ Survey of Academic Achievement of Standard Nine Students of Mehsana District under Gujarat Achievement Survey (GAS-3)”

Problem Statement

Under the Gujarat Achievement Survey (GAS-3), a survey was conducted by GCERT, Gandhinagar to know the academic achievement of Gujarat State in the subjects of Language, Mathematics, Science and Technology and Social Science of Standard IX. Under it, a survey of the academic achievement of Standard IX students of 30 secondary schools of Mehsana district was conducted.

Objectives of the Study

The objectives of the research are the central part of the entire research work. The objectives of the present study were as follows.

1. To study the academic achievement achieved by the students of Standard IX of the district.

2. To study the academic achievement achieved by the students of Standard IX of the district subject wise.

3. To identify the difficult learning outcomes of Standard IX subject wise.

4. To examine the effect of gender on the academic achievement of the students of Standard IX.

5. To examine the effect of area on the academic achievement of the students of Standard IX.

6. To examine the effect of social group on the academic achievement of the students of Standard IX.

Hypotheses of the study

Before starting the research, the researcher makes logical predictions about what results will be obtained at the end of his research. This is called a hypothesis. A well-formed hypothesis becomes a guide according to the researcher.

The null hypotheses of the present research were formulated as follows.

1. There will be no significant difference in the average achievement test scores of standard nine students in terms of gender.

2. There will be no significant difference in the average achievement test scores of standard nine students in terms of area.

3. There will be no significant difference in the average achievement test scores of standard nine students in terms of social group.

Variables of the Study

The variables selected for the present research are as follows.

Sr.No.	Types of variable	variable	Variable ranks
1	Independent	Gender	1. Boys 2. Girls
		Area	1. Urban 2. Rural
		Social Group	1. General 2. OBC 3. SC 4. ST
2	Dependent	Academic achievement of class IX students	

Field of Study

The present study was very much related to the field of educational testing and evaluation.

Significance of the study

The significance of the present research is as follows.

• Subject wise academic achievements of class IX students will be obtained.

• Information about subject wise difficult points will be obtained.

• Children will get practice for the exam in the context of NAS examination.

• The effect of gender on the academic achievement of students will be obtained.

• The effect of area on the academic achievement of students will be obtained.

• The effect of social group on the academic achievement of students will be obtained.

• The proportion of students at the level of academic achievement of students will be obtained.

• The average subject wise achievement of class IX students of the entire district will be known. As a result, it will be convenient to organize need based training and remedial education at the school level in the subjects with low achievement.

• The subject wise results of students at the three levels of achievement i.e. 75%, 50% and 35% will be known at the district level. Due to which the expected achievement level of the district in which subject of standard IX could not be achieved can be known.

• The extent of difficult learning points of standard IX subject wise can be known at the district level. By comparing this information with the previous achievement survey, it can be checked whether the extent of difficult points has increased or decreased after changes in the curriculum and evaluation method and based on that, it will help to make necessary amendments in the curriculum and textbooks.

• The present survey will provide the difficult teaching results of the standard IX subject wise curriculum at the district level. Due to which, the District Education and Training Building will help in planning the training of the content at the district level and will help to improve the quality of classroom education by providing need-based training to the teachers.

• The information from the present achievement survey will provide guidance to the Education Inspectors, BRCs and CRCs of the District Education Officer's Office in conducting educational observation and classroom observation work and they will be able to guide the teachers to simplify the difficult learning process of the curriculum.

Area of the Study

The Area of the present study was limited to Gujarati medium secondary schools of Mehsana district. The present research examined the academic achievement of Gujarati, Mathematics, Science and Technology and Social Science subjects in Standard IX.

Limitations of the Study

The limitations of the present study were as follows.

• In the present study, only Gujarati medium secondary schools were selected as the sample.

Area:

The Area of the present study was Mehsana district. Area of the present study. The world included Gujarati medium secondary schools of Mehsana district.

Sample Selection

The sample of the present research included 30 secondary schools of the entire district randomly selected by GCERT, Gandhinagar. One class was selected from all the classes of Standard IX of the selected school in the sample and a maximum of 30 students were tested per school.

Thus, 750 students of standard IX from 30 secondary schools of the district were included in the sample.

Research Type

The present research can be considered as practical and quantitative type.

Research Method:

The present research was based on survey method.

Tools:

The present research was to check the achievement of students of class IX under GAS-3. As per the guidance and instructions of GCERT, Gandhinagar, the test was conducted in all the districts of the state by the District Education and Training Buildings with the help of field investigator friends. In which the achievement test was conducted to know the academic achievement of Gujarati, Mathematics, Science and Technology and Social Science subjects in class IX. Which was certified by GCERT, Gandhinagar.

The test paper of class IX had a total of 60 sections. In which 1 to 15 sections were of Gujarati subject, 16 to 30 sections were of Mathematics subject, 31 to 45 sections were of Science and Technology subject and 46 to 60 sections were of Social Science subject. In which one section was worth one mark, for a total of 60 marks. Which was to be completed within a time limit of 120 minutes.

While designing all the sections, special care was taken that the questions from the textbook did not only test the student's memory but also tested the student's understanding and application of that subject.

Data Collection

In the present research, for data collection, the test papers of the schools selected in the sample were brought to the Diet by the G.A.S.C. Coordinator of each Diet from the state level. After that, in the field investigator guidance meeting organized at the Diet, the field investigator who would be sent to conduct the test in each of the schools selected in the sample was given sufficient understanding about GAS-3 and the role of the field investigator and all the literature regarding the test was handed over to the respective field investigator in a sealed cover. The sealed cover contained a sheet showing the number of students according to the standard, appointment order, test papers, O.M.R. Sheets, field notes and guidelines regarding the test administration.

The test was implemented on October 16, 2021. The field investigators reached the respective schools at 7:30 am and conducted the test in a smooth manner by making necessary arrangements. As per the guidelines, they randomly selected one class from all the classes of standard IX of the respective school and followed the selection process from the children as per the register and tested a maximum of 30 children per class. In schools where the total number of children of that class was less than 30, all the children were selected for the test. The test was monitored by the Diet Liaison Officer and E.I./A.E.I. in each taluka. After the test was completed, all the literature was returned to the B.R.C. Bhavan at the taluka headquarters by

the field investigators and from there all the literature was collected at the Diet. As per the instructions of GCERT, Gandhinagar, all the OMR sheets were scanned taluka-wise at the Diet and based on that, CSV and EXCEL files of the district were generated.

Data Analysis

The purpose of the present research was to know the academic achievement of four subjects of class IX by caste, region and social group and to find out the difficult study results by subject. After implementing the test in 30 secondary schools of the district selected in the sample for GAS-3 test, the used and unused test papers of class IX and used and discarded OMR sheets as well as school-wise field notes were recovered. All the OMR sheets were scanned with a scanner machine at the DIET and the information was saved in jpg format. FORM SCANNER software was installed and in the sheet in which the dots of the answers given by the children were not showing red, a black line was set on the border of that sheet, although the proper result was not obtained, the dots that the children had filled in for the answer were manually ticked and made red. After that, its CSV file was generated. And from it, the data was converted to an EXCEL sheet. After that, the software created by Shri Iqbalbhai Vora, which was given in the workshop held at GCERT, Gandhinagar from 26/11/2021 to 30/11/2021, was installed in the computer and the data was run in it. Thus, the overall and subject-wise academic achievement score of the district for standard IX was obtained.

For the present research, the hypotheses were tested by finding the mean, standard deviation, t-value and significance level according to the hypotheses formulated keeping in mind the variables like caste, area and social group. Finally, the difficult points were determined for each subject included in the standard IX test to know what the students find difficult.

Research findings

1. The academic achievement of class IX students in Mehsana district is 45.32%.

2. The academic achievement of class IX Gujarati, Mathematics, Science Technology and Social Science subjects is 51.87%, 42.30%, 38.30% and 48.83% respectively.

3. The effect of gender is seen on the achievement of class IX students in Gujarati, Mathematics and Science Technology subjects. Which is in favor of girls, while the effect of gender is not seen on the achievement of social science subjects.

4. The effect of area is seen on the achievement of class IX students in Gujarati, Mathematics, Science Technology and Social Science subjects, which is in favor of students from rural areas.

5. The effect of social group is seen between the achievement of class IX SC and ST students, which is in favor of SC students. The effect of social group is seen between the achievement of SC and GEN students, which is in favor of GEN students. There is a social group effect between the achievement of ST and GEN students, which is in favor of GEN students. There is a social group effect between the achievement of OBC and GEN students, which is in favor of GEN students. While there is no social group effect between the achievement of SC and OBC and ST and OBC students.

6. In the achievement test of standard nine, students found Gujarati subject learning achievement number G0914, G0905, G0908 and Mathematics subject learning achievement number M0908, M0905, M0904, Science and Technology subject learning achievement number SCI0906, SCI0911. SCI0904, while Social Science subject learning achievement number S0956 was found difficult by the students.

7. The average academic achievement of class IX students was found to be 24.20% below 30%, 37.86% from 31 to 50%, 30% from 51 to 75% and 7.93% above 75%.

Educational implications of the research

• Need-based training and remedial education should be organized at the school level in low-achieving subjects.

• A simplified educational program should be made regarding difficult learning outcomes. This program should be implemented at the school level for the teaching of difficult learning outcomes.

• A simplified educational program should be created at the district level based on other difficult points related to the currently implemented curriculum and it should be implemented in all the schools of the district.

• After changing the curriculum and changing the evaluation method, whether the proportion of difficult points has increased or decreased should be checked and necessary amendments should be made in the curriculum and textbooks based on that.

• Teachers should be encouraged to create various teaching and learning materials keeping in mind the points-based learning outcomes.

• Efforts should be made to conduct research for the study of difficult learning outcomes and factors affecting academic achievement through the District Education and Training Building.

Recommendations for future research

• Survey of academic achievement of students of Mehsana district under Gunotsav

• Study of the effectiveness of difficult point based trainings in classroom education

• Study of the effectiveness of subject wise difficult point based diagnostic-remedial program

Study of the effectiveness of unit test on the academic achievement of students.

• Study of the effectiveness of ‘Vanchan Abhiyan’ program on the reading comprehension and reading speed of students.

• Study of the effectiveness of various programs implemented by the government on the academic achievement of students.

4. **Name of researcher: Dr. Pankaj I. Parmar**

Designation: Senior Lecturer

Year of research: 2021 – 2022

Name of research supervisor: Dr. Gaurang C. Vyas

Introduction

NISHTHA Teacher Training was organized by NCERT for government primary teachers and head teachers across the country. First of all, the KRP training of the state was organized for five days at Palitana Mukam. Training was given from NISHTHA Module 1 to 12 modules at Palitana Mukam. Training was given from one to five modules in the Leadership Module.

It was asked to organize NISHTHA (National Initiative For School Heads and Teacher Holistic Advancement) Teacher Training to be held during the year 2019-20. It was asked to organize the training class keeping in mind the number of teachers of Std. 1 to 2, Std. 3 to 5 and Std. 6 to 8.

When inviting teachers of taluka schools, 1 teacher from Std. 1-2 of one school, 1 teacher from Std. 3 to 5 of another school and Std. 3 to 5 of the third school. It was advised to invite teachers from different schools, 1 out of 6 to 8 teachers. And the venue of the training was advised to be kept between two talukas. In which 150 teachers should be divided and a total of four training classes should be organized. In these four classes, not more than six experts, 5 + 1 = 6, can be used. According to the KRP of (NCERT), different subject experts should be taken in all the four classes. The training should be organized for a total of five days. Pretest should be taken before the training and post test should be taken at the end of the training. Day to Day Reporting and Assignment, Individual Reflection From, Detailed Feedback about each Session Reflection From should be filled. The list of teachers present in the training should be prepared in English in Microsoft Excel in the mentioned form and emailed to gcert12@gmail.com within three days after the completion of the training.

Instructions were given to conduct the third phase of Nishtha Teacher Training in four phases as per the requirement.

First stage	January 6 to 10, 2020
Second stage	20 to 24 January 2020
Third stage	February 3 to 7, 2020
Fourth stage	February 10 to 14, 2020

Before the training, the information of the teachers who have received the training on the Nishtha portal is to be uploaded by the date shown in the table. The number of teachers who are to receive the training is to be sent to the BRC Coordinator immediately by the date shown in the table so that the list of teachers who will be present in the training can be prepared through MIS before the training and the BRC Coordinator prepares the list in the prescribed

format through the block district MIS and sends it to SSA Gandhinagar immediately. The BRC Coordinator is asked to immediately inform the numerical details of the teachers of the phase in which this information is to be uploaded.

3. Necessary instructions were given for the training of all phases.

• It will be necessary to organize it as per the number shown in the attached sheet.

• All the teachers from any school cannot be invited.

• Teachers will be selected from all three standards in the main training. 1 to 2, 3 to 5 and 6 to 8.

• Training classes have been shown for 150 teachers by training them together. They will have to train in separate units keeping in mind the teachers of different talukas.

• Among the KRPs and SRPs trained in Palitana and Gandhinagar, the necessary pairs of 5 KRPs and 1 SRP will be formed and the teachers will be trained in four phases in a phased manner.

• In the planning, the teachers of one taluka can be included in the training and all the teachers of the taluka can be trained.

• Each district shall submit its district's phase-wise plan of Nishtha training to G.C.R.T. by 2nd January.

• The teachers attending the training shall be provided with the training module.

• Pre-test before training and post-test at the end of training shall be conducted online by the MIS of the district/block.

• The Block MIS shall be present at the training venue and inform the D.P.C. of the good results.

18 activities of Nishtha teacher training shall be organized by G.C.R.T. under the instructions and guidance of MHRD and N.C.R.T. It was conducted from 5th October to 27th November 2020. 85 to 90% of the teachers in the state have successfully received the training. Some teachers could not get the training for any reason, so that no teacher would be deprived of the NISHTHA training. It was decided to start all 18 training modules in the form of NISHTHA courses on the Diksha platform for the period from 1st December to 31st December 2020. Teachers and headmasters of government-granted, K.G.B.V. Ashram schools, Kendriya Vidyalayas, Jawahar Navodaya Vidyalayas, Railway schools and Sainik schools as well as private schools will be able to join the training.

The NISHTHA training was organized in the entire state of Gujarat. 89297 primary school teachers were to be trained in face-to-face mode. Due to the Covid 19 pandemic, the training will be conducted in online mode through the Nishtha Course on the Diksha Platform. It has been decided to start training for primary school teachers in Gujarat from 5 October 2020 through the Nishtha Course for primary school teachers who have not undergone training.

Title of the study:

Study of the effectiveness of Nishtha training

The present research was also carried out keeping in mind a specific purpose. The main objectives of the present research were as follows.

(1) To study the general information of Nishtha training teachers of Mehsana district.

(2) To study the unit included in the Nishtha training module of Mehsana district.

Research questions

1. What is Nishtha? It includes some aspects.

2. Who will be selected in Nishtha leadership and Nishtha module.

3. What is the contribution of the selected Nishtha training in education in Nishtha training

Research area

The fields of educational research are very complex and fluid. The fields of educational research are also vast. The preparation of the researcher was from the field of academic research. Therefore, it can be said that the presented research was related to the field of study teaching skills related to education.

Research Type:

Survey Research

Research Method:

The researcher implements any method to test his research hypothesis or to get answers to the research questions. Thus, various methods for getting the solution are known as “research method”. This research method has emerged from the critical thinking or scientific method. The researcher has to carefully select the research method in the context of his investigation. Generally: The following research methods are prevalent.

(1) Survey (2) Historical Research (3) Person Study (4) Developmental Research (5) Experimental Research

The present research was conducted using the survey method.

Area and Sample:

The Area of the present research was offline training taken by the teachers of offline training in Mehsana district during the year 2019-20.

In the present study, 10 teachers from each taluka of Mehsana district were included in the sample of 100 teachers from 10 talukas.

Research Findings:

The following findings were obtained in the present study.

1. Most of the teachers were not trained in integrity and leadership for the first time. National Curriculum NCF 2005 is a very important document. It is very important to know it.

2. Teachers who participated in training in integrity leadership.

3. Keeping the above points in mind, the role of the NCF 2005 teacher can be taught to the students even outside the textbook.

4. Teachers with sincere leadership should be responsible for respecting the language, socio-cultural background of the home and creating a safe and inclusive environment for all children to enable them to exercise their fundamental right to education.

5. Students should be guided in developing personal and social qualities in the effective communication modules to provide real-life experiences.

6. Greeting students with enthusiasm and a smile upon entering the classroom is very useful in arts-integrated education.

7. Arts as a tool of pedagogy: Students who are learning outside the classroom participate in arts-integrated classrooms.

8. In the project work, 75% agreed and 6.66% disagreed. 18.33% found that the students had learned a comparative analysis of various aspects of childhood with their own experiences.

9. The term CCE was found to be 75% agreed, 18.33% disagreed and 6.66% neutral. It was found that all aspects of child growth and development were evaluated by 75%, 18.33% disagreed and 6.66% neutral.

10. During the teaching-learning process, individual evaluation is considered very necessary in the evaluation activities to evaluate the teaching outcomes holistically.

11. All teachers were required to be equipped with the necessary professional skills to use ICT.

12. In the context of India, 61.66% agreed, 16.66% disagreed and 21.66% were neutral in their responses to make the reading process easier.

13. Yoga should be started formally at the primary level. Formal yoga, exercises and activities should be done from 6 am. Early morning is the best time for yoga. However, it can also be done four to five hours after lunch.

14. The learner can learn better if he is taught using more than one sense.

15. Total Education Under the umbrella of Games – Games Grants Play India Play India Games are beneficial for children and the education system.

16. Mathematics should be integrated with language and environmental studies in teaching mathematics.

17. Early morning is the best time for yoga. However, it can also be done four to five hours after lunch.

18. My teachers/fellow students/friends, parents are the ones who tell me about my weaknesses.

19. Learners learn better if they are taught using more than one of their senses.

20. It is necessary to be equipped with the necessary professional skills to use ICT.

21. Is it necessary to use ICT to teach every subject?

22. In the context of Padhe Bharat Badhe Bharat, library resources have been used to facilitate the process of reading with understanding.

23. Sports Grants Under Samagra Shiksha (Khel India Khile India) Sports are beneficial for children and the educational system.

24. Caste-based violence is a serious problem for the development, education and health of adolescent girls in the country.

25. Regional songs/folk songs related to water are encouraged to be sung.

26. Language and environmental studies are integrated with mathematics in teaching mathematics.

27. Which two types of measurements on a scale do you make students observe: 0 to 180 and 180 to 0?

28. What is the difference between learning mother tongue and learning a second language? The stages of teaching are similar.

29. First, second and third languages can be taught effortlessly.

30. The child is encouraged to express himself and write based on pictures.

31. During the process of education, content, pedagogy and assessment are taught together.

32. At the upper primary stage, the concept of science should be guided by a disciplined approach.

33. Objects and living processes can be classified on the basis of observable properties.

34. At the upper primary level, the concept of examples from the NCERT science textbook is given.

35. Emphasis is given to the real workings of social and political life.

36. The globe of the earth is difficult to understand.

37. A small survey is conducted by presenting various questions and providing guidance to the students.

38. Mock parliament is organized in the school.

39. Leadership issues are discussed in detail to create a learning environment in the school.

40. The session is introduced by giving examples of individuals who have been successful leaders despite not having leadership responsibilities.

41. Responsibilities for the preparation and implementation of the school development plan are determined.

42. Guidance is given to provide opportunities for experiential learning and enjoyable learning to children.

43. Social science is an important part of general education in the early stages.

44. The subject of social science also includes the inculcation of other values such as goodwill, equality, justice, brotherhood, dignity and harmony.

45. Social science itself also contributes to the methods of scientific inquiry.

46. In geography, an understanding of the interdependence of different regions and countries is encouraged.

47. Pedagogical methods can be adopted for students to identify latitudes and longitudes on globes and world maps.

48. The teacher should talk to students in the local language to explain concepts in social sciences.

49. Students should be given the opportunity to use globes and maps frequently to identify latitudes and longitudes.

50. All lines of latitude are parallel to the equator.

51. A grid (square section) is the simplest method for representing spaces on a sphere or other surface.

52. The field of social science is based on a wealth of resources that enable students to understand various subjects in depth.

53. Arts integration means combining the study of arts with the study of different curricular areas.

54. Expressions such as dance, music, martial arts, magic, theater are also called.

55. While doing art, the learner has to go through the stages of observation, thinking, research, etc.

56. Art can be expressed only verbally.

57. In education, only subjects like mathematics, science, English, social science, Gujarati, Hindi are important. Art has no importance.

58. The teacher can play an important role in creating a healthy and safe atmosphere in the school.

59. The government should make strict laws for the safety and protection of children.

60. There should be information on sex education in the curriculum for awareness among children.

Educational Outcomes:

The educational outcomes of the present research are as follows.

1. Teachers who have undergone integrity and leadership training should be encouraged and guided to participate in integrity classes again.

2. Teachers should be guided to participate enthusiastically in the upcoming classes as well.

3. After the integrity leadership training is completed, teachers should be guided to use it more in the classroom and guide and encourage the students.

4. Primary school teachers should be encouraged to develop leadership modules and leadership qualities.

5. Use of technology It is necessary to use technology to make efforts to increase the use of technology in the classroom.

5. **Researcher's Name: S.C. Rabari**

Designation: Senior Lecturer, District Education and Training Building, Mehsana

Research Year: 2021-22

Research Mentor's Name: Principal, District Education and Training Building, Mehsana

Introduction

Evaluation, which is the most important aspect of the education sector, has led to a discussion on evaluation by the Education Commissions from time to time. After the implementation of Section 21 of the new national policy of 1986, the RTE-2009 Act, Continuous and Comprehensive Evaluation (Continuous and Comprehensive Evaluation) in short, CCE, which is also known as School Based Comprehensive Evaluation (SCE) in the state of Gujarat. In which evaluation is a continuous and comprehensive process. It is very important that the educational evaluation of the students is carried out continuously, not only for the success or failure of the student, but also for their progress in the right direction.

Till now, only formal written tests were given importance in evaluation. Whereas, in holistic developmental evaluation, the weightage of written tests has been reduced. There is a difference in the ability of children to understand, reason, absorb, and learn, depending on the classroom. Oral, written, practical, observation, checklist, local literature and grading scales are used as evaluation tools, keeping in mind the individual strengths of the children.

Different forms are included in the school comprehensive evaluation. In the primary education sector, the principals and teachers of the schools are trained in every district from GCERT, Gandhinagar Prerit and District Education and Training Building level. This evaluation model has been in existence since the year 2011.

Thus, do the principals and teachers understand the evaluation process? Are all the procedures of school comprehensive evaluation implemented properly at the school level? The present study has been conducted with the aim of knowing that. Keeping the above points in mind, the research has studied the status of implementation of SCE evaluation in primary schools of Mehsana district.

Title of the research:

“Study of the status of implementation of school comprehensive assessment”

Objectives-

(1) To study the implementation of the school comprehensive assessment program by principals.

(2) The effect of gender, area, educational qualification and educational experience on the scores of the checklist of implementation of school comprehensive assessment by principals

(3) To examine the effect of gender, standard of teaching work, area, educational qualification and educational experience on the scores of the checklist of implementation of school comprehensive assessment by teachers.

Hypotheses:

1. There will be no difference between the average scores obtained in the implementation of school comprehensive assessment by male and female principals.

2. There will be no difference between the average scores obtained in the implementation of school comprehensive assessment by principals with educational qualifications of PTC and B. Ed.

3. There will be no difference between the average scores obtained in the implementation of school-wide comprehensive evaluation of rural and urban principals.

4. There will be no difference between the average scores obtained in the implementation of school-wide comprehensive evaluation of male and female teachers.

5 There will be no difference between the average scores obtained in the implementation of school-wide comprehensive evaluation of teachers with educational qualifications of PTC and B. Ed.

Area of Research:

Since Mehsana district has been included in the present study, the Area of the study has included 100 principals and 200 teachers working in government primary schools of Mehsana district.

Type of Research:

The present research was conducted as a practical research.

Research Method: Survey Method

Study Design- In the study, the data was collected with the help of a self-designed questionnaire. After the data collection, the data was analyzed. In the present study, the frequency distribution of the obtained scores was prepared. Tables were prepared and calculated according to various variables. Descriptive statistics, average and t-value have been used to analyze the data obtained. In addition, a graphical representation has also been made.

Data Collection: In the study, the data was collected with the help of a self-designed questionnaire.

The data were analyzed using mean and t-value. In addition, a graphical presentation has also been made.

Conclusions-

1. Among principals, caste is a factor affecting the implementation of school-wide assessment.

2. There is a difference in the implementation of school-wide assessment with respect to the academic qualification of the principals.

3. There is a lot of difference in the awareness of school-wide assessment with respect to the area of the principals.

4. The caste of teachers is a factor affecting the implementation of school-wide assessment.

5. The educational qualification of teachers is a factor affecting the implementation of school-wide assessment.

6. There is a lot of difference in the awareness of school-wide assessment with respect to the area of the teachers in rural areas and urban areas.

Research results

- Implementation and awareness of the school evaluation can be used as an effective tool to measure the school comprehensive evaluation of principals and teachers

- Implementation and awareness of the school evaluation can be used as an effective tool to measure the school comprehensive evaluation of principals and teachers. So that quality education can be done in the school.

- Teachers can develop awareness and implementation of school comprehensive evaluation. Also, through evaluation sheets, the excellent work method of teachers can be known and students can be evaluated appropriately and effectively.

- Teachers can develop awareness and implementation of school comprehensive evaluation. Also, the grading method is excellent instead of scoring through evaluation sheets. Knowing that, teacher training can be organized.

6. **Name of the researcher: S. C. Rabari**

Designation: Senior Lecturer, District Education and Training Building, Mehsana

Research Year: 2021-22

Name of Research Supervisor: Principal, District Education and Training Building, Mehsana

Introduction

If the vocabulary of a child develops properly from the primary level, then the four important skills of language expression develop. How much and what is the vocabulary of a child at the primary level? What and how many words can the child speak in his home language, local dialect, Hindi and English? What is the effect of TV, mobile and technology on the child's mind? This is a humble attempt to find out. Gujarat Council of Educational Research and Training (GCERT), Gandhinagar has instructed the teachers of all the training institutes of the state to conduct this research in their talukas. Based on the data of the research conducted at each taluka level, it is expected that the district and then the state research will be conducted by collecting the information of each district. As part of which, the researcher conducted a study on the vocabulary of children aged 2 to 8 years of Unjha taluka of Mehsana district.

Title of the research: “Study of the vocabulary of children aged 2 to 8 years of Unjha taluka of Mehsana district”

Research Objectives

1. To know the age-wise vocabulary of children aged two to eight years.

2. To know the age-wise vocabulary of children aged two to eight years.

3. To know the gender-wise vocabulary of children aged two to eight years.

4. To know the area-wise vocabulary of children aged two to eight years.

Population- 14 children aged 2 to 8 years of Unjha taluka of the district

Research Method - Survey Method

Type of Research - Practical Research

Tool - An EXCEL SHEET was prepared by Gujarat Educational Research and Training Council, Gandhinagar as the instrument.

Research Design –

Information and data collection device are of great importance in research work.

The CRC coordinators and the parents of the children included in the sample were given an explanation of the objectives of the present study and were given a complete understanding of

how to collect data in accordance with the objectives and how to enter it day by day. Data entry was done in the excel sheet provided for data entry created by GCERT, Gandhinagar. In the present research, a separate sheet for each day up to 15 days was used as a device to record the words spoken by the child included in the appendix. Data collection – Data entry was done in the excel sheet provided for data entry created by GCERT, Gandhinagar. In the present research, a separate sheet for each day up to 15 days was used as a device to record the words spoken by the child included in the appendix.

Conclusions –

1. A 2-year-old child has a vocabulary of 83 words. While a 4-year-old child has a vocabulary of 982 words. And a 5-year-old child has a vocabulary of 101 words. Similarly, a 6-year-old child has 481 words and a 7-year-old child has 425 words.

2. A 2-year-old boy has a vocabulary of 83 words. While a 4-year-old boy has a vocabulary of 573 words. And a 4-year-old girl has a vocabulary of 409 words. Which is less than a boy. Thus, 101 and 137 words were found in 5- and 6-year-old boys. Similarly, the vocabulary of a 6-year-old girl and a 7-year-old boy has 344 and 425 words. Thus, the vocabulary of a boy has been found to be more than that of a girl.

3. A 2-year-old boy living in a rural area has a vocabulary of 83 words. While a 4-year-old boy living in a rural area has a vocabulary of 573 words. And a 4-year-old girl has a vocabulary of 409 words. While the vocabulary of boys aged 2, 5, and 6 is 83, 101 and 137 on average. While the vocabulary of girls aged 6 and 7 living in an urban area have 344 and 425 words.

Educational Outcome:

1 Parents should make more efforts to increase the vocabulary of their children.

2 Efforts should be made to familiarize the child with the names of animals, birds, household items, colors, various items of daily life and living organisms.

3 Efforts should be made to make the vocabulary of girls equal to the vocabulary of boys.

7. **Researcher's name: Baldevbhai S. Desai**

Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Research year: 2021-22

Research supervisor's name: Principal, District Education and Training Bhavan, Mehsana

Introduction

The language development of a child is seen to occur gradually. Keeping this in mind, the amount of vocabulary is decided in the language curriculum from pre-primary to primary education. Now, various media are presented to the child every day in printed form as well as in audio-visual form. In this era of information and communication, when communication tools are being used in abundance, whether there is any impact on the language development of the child becomes the subject of research. As an organization working in the field of education, if we think about the vocabulary of a child under the development of a child, it is very important to know how much vocabulary a child actually has at different ages from year 2 to 8. The present study was conducted keeping in mind the idea that this study can be very useful in designing an ideal language curriculum and making it smooth.

 Title of the research:

Vocabulary of children aged 2 to 8 years of Kadi Taluka – A study

 Research Objectives:

The present research was also carried out keeping in mind the specific purpose. The main objectives of the present research were as follows.

1. To study the general information of children of the age group of 2 to 8 years of Kadi taluka.

2. To study the Gujarati vocabulary of boys and girls of the age group of 2 to 8 years of Kadi taluka.

3. To study the English vocabulary of boys and girls of the age group of 2 to 8 years of Kadi taluka.

4. To study the Hindi and local dialect vocabulary of boys and girls of the age group of 2 to 8 years of Kadi taluka.

5. To study the vocabulary of boys and girls of the age group of 2 to 8 years of Kadi taluka.

 Research Questions/Hypotheses:

The questions for the present research were formulated as follows.

1. What is the general knowledge of children in the age group of 2 to 8 years of Kadi taluka?

2. How many Gujarati words will boys and girls in the age group of 2 to 8 years of Kadi taluka be familiar with?

3. How many English words will boys and girls in the age group of 2 to 8 years of Kadi taluka be familiar with?

4. How many Hindi and local dialect words will boys and girls in the age group of 2 to 8 years of Kadi taluka be familiar with?

5. How many words will boys and girls in the age group of 2 to 8 years of Kadi taluka be familiar with?

 Research Area and Sub-Area:

Since the present research aims to study the vocabulary of children, the present research can be called a research related to educational guidance.

 Research Type:

In the present study, the researcher wanted to study the Gujarati and English vocabulary of children of the age group of 2 to 8 years and interpret and analyze it numerically, therefore the present research can be called a practical and numerical research.

 Research Method: The present research can be called a survey method-based research.

 Area:

The Area of the present research includes children of the age group of 2 to 8 years of Kadi taluka.

 Sample Selection: In the present research, the apparatus prepared by GCERT, Gandhinagar was used as the apparatus, which is included in Appendix 1. This device provided a table to record the general information of the student as well as the words spoken by the student for 15 days, in which new words spoken by the child were to be recorded according to the days.

 Research findings:

The main findings of the present research were as follows:

 The vocabulary of Gujarati, Hindi, English and local language in children aged 2 and 4 years has a vocabulary of around 64 and 68 spoken words. While. The vocabulary of Gujarati, Hindi, English and local language in children aged 3 and 7 years has a vocabulary of around 123 and 212 spoken words.

 The vocabulary of Gujarati, Hindi, English and local language in children aged 6 years has a vocabulary of around 1012 spoken words. Which is the highest. And the vocabulary of an 8-year-old child has a vocabulary of around 58 words.

 A 3-year-old girl living in an urban area has a vocabulary of more spoken words than a 2-year-old boy living in a village. Similarly, a 6-year-old girl living in an urban area has a vocabulary of more spoken words than a 6-year-old boy living in a village.

 The spoken vocabulary of a girl living in an urban area is more than that of a 7-year-old boy and girl living in a rural area. While the spoken vocabulary of an 8-year-old girl in a rural area is 58.

 A 2-year-old boy in a rural area knows 64 words. While a 3-year-old girl in an urban area knows 123 words, similarly a 3-year-old boy in a rural area knows 68 words. Therefore, it can be said that a girl has a greater vocabulary than a boy.

 Looking at the statistics of the child's vocabulary, the vocabulary of a 6-year-old boy living in a rural and urban area was found to be around 140 words, while the vocabulary of a 6-year-old girl living in an urban area was found to be around 872 words, which is more.

 Thus, the vocabulary of a girl living in an urban area was found to be more than that of a 7-year-old boy and girl. Based on the above analysis, it can be said that in general, the vocabulary of urban girls was found to be more than that of rural boys and girls.

 A 2-year-old child has a total of 64 words in Gujarati, Hindi, English and local language sequences, 30, 8, 14 and 12. While a 3-year-old child has a total of 123 words in Gujarati, Hindi, English and local language sequences, 58, 4, 57, 2 and 2. While a 4-year-old child has a total of 68 words in Gujarati, Hindi, English and local language sequences, 42, 8, 9 and 9.

 Children of 6 years of age have knowledge of Gujarati language, Hindi language, English language and local language sequence words, 384,192,350 and 8 6, totaling 1012 words. Which has more vocabulary than children of all ages. Children of 7 years of age have knowledge of Gujarati language, Hindi language, English language and local language sequence words, 76,27,83,25 and 1, totaling 212 words.

 Children of 8 years of age have knowledge of Gujarati language, Hindi language, English language and local language sequence words, 15,13,15 and 15, totaling 58 words. While among all the above boys and girls, children of 6 years of age have more vocabulary knowledge.

 Research Recommendations:

The sponsor has presented recommendations for future research in the context of this study. Such as

 A study of Gujarati vocabulary of students of standard-2 of Mehsana district

 A study of Gujarati vocabulary of students of standard-2 to 5 of South Gujarat

 A study of Gujarati vocabulary of students of standard-2 to 5 of North Gujarat

 A study of Hindi vocabulary of students studying in standard-1 to 6 in Gujarat state

 A study of English vocabulary of students studying in standard-1 to 6 of Gujarat state

 A study of Gujarati and Hindi vocabulary of students of standard-2 to 5 of Central Gujarat

 Educational Outcome: The outcomes can be suggested as shown below from the study of the present research.

 Parents should make more efforts to increase the vocabulary of children.

 Efforts should be made to familiarize the child with the names of animals, birds, household items, colors, various objects of daily life and living organisms.

 Efforts should be made to make the vocabulary of girls equal to that of boys.

 Efforts should be made by the government, educational institutions, linguists, society and parents to increase the vocabulary of children to a great extent.

8. Name of the researcher: Dr. Dipti A. Trivedi

Position: Junior Lecturer

Year of research: 2021-2022

Name of the research guide: Dr. Gaurangbhai Vyas

Introduction

A person can be shaped through education. Personality can be shaped. And it becomes useful in a person's life knowingly or unknowingly. A child learns the most through imitation in the early years of life. The medium of expression of which is the mother tongue. In which the child can express his thoughts, expressions and feelings through words that he has by imitation. In which the child's vocabulary plays an important role. Among the various literacy subjects taught by the teacher at the school level, the child is most interested in the subject of language.

The style of presentation by the teacher, as well as his vocabulary, has an impact on the development of the child. A child's vocabulary can be developed through exposure to others. In the early years of life, a child is in contact with his family members. Keeping this in mind, the Gujarat Educational Research and Training Council - Gandhinagar at the state level found it appropriate to conduct the present research by keeping a record of the words spoken by children aged two to eight years in their daily routines in all districts of Gujarat during the period of Covid-19 and knowing the child's vocabulary and comprehension ability regarding language.

Title of the study

Study of the vocabulary of children aged two to eight years of Bijapur taluka of Mehsana Objectives of the study

5. To know the age-wise vocabulary of children aged two to eight years.

6. To know the age-wise vocabulary of children aged two to eight years.

7. To know the gender-wise vocabulary of children aged two to eight years.

8. To know the region-wise vocabulary of children aged two to eight years.

9. To know the vocabulary of children aged two to eight years, taking into account the Gujarati language, local dialects and languages other than Gujarati.

Questions under study

The questions of the present study were as follows.

1. How many words will boys and girls of the age group of 2 to 8 years of Bijapur taluka of Mehsana district be familiar with?

2. How many words will boys and girls from urban and rural areas of Bijapur taluka of Mehsana district between the ages of 2 and 8 be familiar with?

3. How many words of Gujarati language will children from the age of 2 to 8 in Bijapur taluka of Mehsana district be familiar with?

4. How many words of Hindi language will children from the age of 2 to 8 in Bijapur taluka of Mehsana district between the ages of 2 and 8 in Bijapur taluka of Mehsana district between the ages of 5 Main Research Area and Research Sub-Area

The present study was closely related to the field of language education.

Research Type

The present research was conducted with children. Therefore, the present research was a practical research as well as a quantitative type of research.

Research Method

Descriptive Method Under Survey Method

Area Worlddistrict

The Area of the present study will be children of the age group of 2 to 8 years living in Bijapur taluka of Mehsana district.

Sample Selection

The study was conducted on 14 children of the age group of 2 to 8 years living in Bijapur taluka.

Findings of the Research

1. In the present study, the average number of words spoken in different languages of children of the age group of 05 years of Bijapur taluka was the highest. While the average number of words spoken in different languages of children of the age group of 02 years was the lowest.

2. In the words spoken in different languages by children of the age group of 2 to 8 years, the vocabulary of girls was more than that of boys, that is, there was an effect of gender on vocabulary.

3. There was no effect of area on the vocabulary of different languages spoken by children aged 2 to 8 years.

4. The average of Gujarati language words of 2-year-old children was highest among boys and girls. While the average of other language vocabulary was highest among boys, the average of 5-year-old children was highest among boys. While the average of 8-year-old children was highest among girls.

5. Enriching the vocabulary can increase the creativity of children.

6. In addition, the effect of rich vocabulary is directly seen in the expression of the child's thoughts.

Recommendations for the present study

• Since vocabulary is very essential for the development of language learning in the early grades, the teacher should undertake diagnostic and remedial education in the early grades itself.

• The teacher should make intensive efforts to enhance the vocabulary of Gujarati language in all children in the age group of 2 to 8 years.

• Efforts should be made to increase the knowledge of Hindi, English, local language and other language words in all children in the age group of 2 to 8 years.

• Training programs related to vocabulary development in other languages including Gujarati should be undertaken by the District Education and Training Building.

Educational Outcomes

The educational outcomes in the present study were as follows.

1. In order to enrich the vocabulary of the child at the school level, one hour of reading of reference literature should be included in the school timetable.

2. In order to enrich the mother tongue of the children, teachers should create TLM for the children from the school level. Also, words from different languages should be used during teaching work.

3. In the prayer program held in the school, reading activities should be done by the school teachers and unfamiliar words should be introduced to the children with context.

4. The parents or guardians of the children should communicate more and more with the child so that the child gains mastery over the mother tongue.

5. Competitions should be organized at the school level so that the child can develop more and more skills and understand the importance of the mother tongue.

9. Name of the researcher: - Dr. D. S. Chaudhary and Dr. Dipti A. Trivedi, Junior

Lecturer, District Education and Training Bhavan, Mehsana

Year of research: 2021– 2022

Research supervisor: - Dr. G. C. Vyas, Principal, District Education and Training

Bhavan, Mehsana

Introduction:

The Ministry of Human Resource Development of India, the Sarva Shiksha Abhiyan (SSA) was implemented nationwide and universally from the year 2001. In order to make all government institutions from every state government to school and community level, as well as civil society organizations, committees like Village Education Committee (VEC), Village Construction Committee (VCWC), and Teachers' Board (PTA), and Matri Shikshan Board (MTA) were formed for direct supervision in the field of primary education.

As per Section 21 of the Right to Education Act, which came into force on 1/4/2010, a School Management Committee (SMC) consisting of elected representatives of the local authorities and parents or guardians of children enrolled in the school and teachers has been included in the schools at the grassroots level as an important link connecting the school and the society with the aim of obtaining public cooperation and public participation in the development of schools and improvement of the quality of education.

The aim of the research presented under EDN in the schools selected under the School Of Excellence Project during the year 2021-2022 is to know the activity of SMC members in terms of the physical environment of the school to the personal development of teachers and children. How much do the members of the School Management Committee contribute to school education and education improvement? How much does it contribute to the school process? To what extent do they voluntarily carry out such participation? What are the provisions of the

School Management Committee? How is the SMC constituted? What are the duties and responsibilities of the SMC? In which grade is the SOE affiliated school? What is the contribution of teachers in FLN and the cooperation of children and parents? The researcher aims to know the activism of SMC through such various questions.

Title of the study

Study of the activity of SMC in school management

Objectives of the study

1. To design a questionnaire to know the active role of the members of the SMC committee in school management.

2. To study the duties and responsibilities of the SMC committee in school management.

3. To study the composition of the SMC committee in school management.

4. To study the provisions of the SMC committee in school management.

Questions under study

1. How will the activity of the members of the SMC committee be in school management?

2. What will be the duties and responsibilities of the SMC committee in school management?

3. Will the SMC committee be formed properly in school management?

4. What will be the provisions of the SMC committee in school management?

Main research area and research sub-area

The main area of the present research is social process and the sub-area is administration and management in the field of education.

Research Type

The research presented was of the practical research type.

Research Method

Survey Method under Descriptive Method

Area

The SMC formed in all government primary schools of Mehsana district was the Area of this research.

Sample Selection

In the present research, 10 rural and 10 urban SMCs have been selected as the sample.

Research Findings

• All the SMCs under study have been established under the resolution of the Education Department of the Government of Gujarat.

• The number of female members in all the SMCs under study is 50 percent or more.

• Out of all the SMCs under study, 30 percent of the members have not taken SMC training.

• 85 percent of the SMC members have cooperated in the registration, admission and regularization of irregular children.

• 100 percent of the SMC members are aware of the cleanliness complex and health check-up program.

Recommendations regarding the present study

• All the members of the SMC should be trained.

• It is necessary for SMC members to be aware of the continuous and comprehensive assessment of children.

• It is necessary for members with special educational qualifications to be appointed in the composition of SMC.

Educational Outcomes

• It is proved by all the SMCs under study that due to the activity of SMC, the regularity of children in school increases.

• It is proved by all the SMCs under study that due to the activity of SMC, a definite impact is created on the level of education in the school.

and caste was found on the vocabulary of the child. Also, the effect of caste was mostly seen in children other than 2 years old.

5. The vocabulary of the children in Gujarati was found to be more than the vocabulary of other languages.

Educational implications:

1. The present study included only 2-2 children aged 2 to 8 years, but more children should be sampled for each age.

2. The present study was conducted to determine the vocabulary of children aged 2 to 8 years. This type of study can also be conducted for children of any age.

10. Researcher's name: Shri Prakashbhai I. Patel

Designation: Junior Lecturer, District Education and Training Building, Mehsana

Year of research: 2021 – 2022

Research supervisor's name: Dr. Pankaj I. Parmar, District Education and Training Building, Mehsana.

Introduction:

The development of any child's language depends on the richness of the child's vocabulary. At different stages of age, a child has a different vocabulary according to the child's experience and the environment he or she encounters. Not only does knowing how much and what type of vocabulary a child has at different stages of age become useful for the development of the child's language, but our understanding of the child's vocabulary according to age can also help in designing the curriculum for the language subject. The child's language development is seen to occur gradually. Keeping this in mind, the amount of vocabulary is decided in the language curriculum from pre-primary to primary education. NEP-2020 also asks to ensure that the child becomes proficient in reading, arithmetic and writing by the end of 3rd standard.

Usually, when a child enters school, he has some vocabulary which he has received from his family and friends. In the present times, technology like TV and mobile also helps in the development of the child's vocabulary. It was necessary to know scientifically how much and what kind of vocabulary a child has at each stage of age. Apart from this, it was also necessary to know whether caste, region and age play any role in the development of the child's vocabulary. GCERT, Gandhinagar decided to conduct research to find out the above matter. For this, the present research was conducted by the researcher to find out how much vocabulary children aged 2 to 8 years have in all the talukas of Gujarat state by GCERT, Gandhinagar.

Title of the study:

“Study of vocabulary of children aged 2 to 8 years living in Satlasana taluka”

Research objectives

1. To know the age-wise vocabulary of children aged 2 to 8 years.

2. To know the vocabulary of children in terms of age, caste and area.

(Age: 2 to 8, Caste: Boy, Girl, Area: Rural City)

3. To examine the effect of the child’s age, caste and area of residence on the child’s vocabulary

4. To know the vocabulary of children considering the local dialect and other languages other than Gujarati in addition to the Gujarati language.

Research questions

1. What will be the age-wise vocabulary of children aged 2 to 8 years of Satlasana taluka?

2. What will be the vocabulary of children in terms of age, caste and area of Satlasana taluka? (Age: 2 to 8, Gender: Boy/Girl, Area: Rural/City)

3. Does the child's age, gender and area of residence have an effect on the child's vocabulary?

4. What will be the vocabulary of children considering the Gujarati language, local dialect and other languages other than Gujarati in Satlasana taluka?

Research Area

The present research touched on the mental and emotional development of the student.

Research Type: Practical Research

Research Methodology:

The present research was a survey type of research.

Area and Sample:

The present research included all children aged 2 to 8 years living in Satlasana taluka as the Area.

The study was conducted on 14 children aged 2 to 8 years living in Satlasana taluka.

Research Findings

The findings of the present research were obtained as follows:

(1) The number of students who answered correctly all the steps required for calculating the sum process was 61.80%. That is, 38.22% of the students made mistakes at some point in the sum process.

(2) 90.31% of the students correctly solved the three-digit sum without a denominator.

(3) 84.06% of the students correctly solved the sum without a denominator that required the arrangement of the place. Since the students did not arrange the place correctly, they could not get the correct answer to the three-digit sum without a denominator. Otherwise, they would have solved the sum process correctly. If these students were given an understanding of only the arrangement of the place of the digits, then the sum without a denominator could be considered correct.

(4) 84.37% of the students correctly solved the sum with a denominator up to three digits. The students could not get the correct answer only because they did not place the denominator in the right place.

Otherwise, the process of addition was done by the students. If such students were given the understanding of placing the denominator in the correct place, they could do the examples of addition with three-digit denominator correctly.

(5) 81.56% of the students considered the sums that required arranging the place as correct. The students made mistakes in placing the denominator in the correct place. The students considered the addition example as incorrect due to the mistake in arranging the place of two digits. If such students were given the understanding of placing the denominator in the correct place and given the correct understanding of arranging the places of the digits, they could do the addition process correctly.

(6) 75.93% of the students calculated the practical examples based on the process of addition correctly. The students made mistakes in understanding the sum of the practical examples. It becomes necessary to check the language ability of such students.

Findings based on the subtraction process

(1) The percentage of students who gave the correct answer to all the steps required for calculating the subtraction process in all the given examples was 38.13%. That is, 61.87% of the students made mistakes at some point in doing all the given examples of subtraction.

(2) 79.06% of the students were successful in doing the subtraction examples without taking decimals up to three digits. 20.94% of the students could not do the subtraction process without taking decimals up to three digits.

(3) 75.63% of the students were doing the subtraction process without decimals up to four digits, which required arranging the place, correctly, i.e. 24.37%. The students were not doing the subtraction process correctly, which required arranging the place. The students were making mistakes in arranging the place. 11.25% of the students were not able to do the subtraction process correctly only because of not arranging the place of the digits correctly. If such students are given proper understanding regarding the arrangement of the place of the digits, they can do the subtraction process without decimals of four digits correctly.

(4) 68.44% of the students were doing the subtraction process correctly, which required taking tens of three digits. That is, 31.56% of the students were facing difficulty in doing the subtraction process, which required taking tens.

16.56% of the students were making mistakes in taking tens for the units place and in writing the number after taking tens in the tens place. Such 10.63% students were those who made mistakes only in taking tens in place of units or in writing the amount after taking tens. If such students are given an understanding about the process of taking tens and the amount to be written in the place from which the tens are taken after taking tens, they can do the subtraction process of taking tens up to three digits correctly.

(5) Only 56.56% students could do the subtraction process of taking tens up to three digits and in which the decimal place of a large number has one zero. That is, 44.44% students made mistakes in the above process.

25.94% students made mistakes in subtracting the hundredth place. While 18.44% students made mistakes in taking tens in place of units.

12.82% students made mistakes only in writing the number in the tens place after taking tens from the hundredth place. Apart from this, they were able to perform the subtraction process correctly when they had to take tens up to three digits and the tens digit of a large number was zero. If an understanding is given on how to do the process of taking tens from the digit of zero in the subtraction process, they can do the above subtraction process correctly.

(6) 56.56% of the students were able to calculate the practical example based on the subtraction process correctly, that is, 44.44% of the students made mistakes in doing this process.

17.19% of the students made mistakes in understanding the second part of the practical example based on the subtraction process. The language ability of such students should be tested.

19.06%, students made mistakes in the arrangement of terms. If such a student is given an understanding of the arrangement of terms, they can do the subtraction process correctly.

Findings based on the multiplication process:

(1) The number of students who gave the correct answers to the necessary steps of all the examples given to perform the multiplication process was 15.94%. That is, 84.06%, students made mistakes somewhere in the multiplication examples.

(2) 38.22% of students made mistakes in multiplying a two-digit number with a one-digit number.

(3) 36.25%, students made the highest mistake in multiplying the product with the tens digit of the numerator and adding the denominator. While 26.25%, students made the lowest mistake in placing the denominator in the multiplication process.

21.56%, students made mistakes in multiplying the product with the units digit. If they were given an understanding of what to write in the unit's place after multiplying a number with a number and how to add the denominator after multiplying the unit's digit of the product with the tens digit of the numerator, they would be able to perform the multiplication process correctly.

(4) Practical based on multiplication process 24.68%, students were doing it correctly i.e. 75.32%, students were making mistakes at some point in the steps required to calculate such examples correctly.

15%, students were not able to understand the practical examples based on multiplication process. The language ability of such students should also be checked.

Conclusions based on division process :–

(1) The number of students who gave correct answers to the steps required to perform the division process in all the given examples was 43 i.e. 13.44%, students were making mistakes at some point in the division process.

(2) 60.94% of the students were doing the process of dividing a three-digit number by a single-digit number correctly. That is, 39.06% of the students were making mistakes in doing this process.

25.63% of the students were making mistakes in dividing the dividend by the divisor. Which shows that the students were doing the basic operation of division incorrectly. It is necessary to give such students a proper understanding 21.88%, students made mistakes in bringing down the decimal point or the unit's digit of the divisor and hence their subsequent steps seemed to be wrong. If such students were given a proper understanding of the process of bringing down the decimal point or the unit's digit of the divisor after dividing and subtracting the divisor by the divisor, they would be able to do the division process correctly.

(3) The process of dividing a three-digit number by a two-digit number was done correctly by 50.94% of the students. That is, 49.06%, students made mistakes in doing this type of calculation.

(4) The process of dividing a four-digit number by a two-digit number was done incorrectly by 45.31% of the students, that is, 44.69%, students made mistakes in doing this type of example.

If the hundredth digit among the four digits of the divisor is zero, then the same result was reduced to 30.94% of the students giving the correct answer. That is, 69.06% of the students made mistakes in doing such examples.

If the division of the divisor by the divisor had to be started with the sum formed by the tens, hundreds and thousands digits of the divisor, then the possibility of the student making a mistake increased. For such an example of division, the students made mistakes in starting the division process itself. Overall, the students did not seem to have the necessary ability to calculate examples based on the division process.

(5) 22.81% of the students could calculate practical examples based on the division process correctly, that is, 87.19% of the students made mistakes at some stage of calculating practical examples based on the division process.

17.81%, students could not understand the sum of practical examples based on the process of division. It becomes necessary to check the language ability of such students.

Educational Outcome:

(1)Students were weak in performing the processes of multiplication and division. If a checklist of all the terms required to perform these two processes correctly is made and students keep evaluating their work according to the checklist at each step of the example while calculating

examples corresponding to these two processes, then they can do self-evaluation and can understand and eliminate their mistakes.of the process of division.

(2)Teachers should provide students with a thorough understanding of all the steps required for the process of multiplication and division within the classroom and should use group study, group discussion and tangible objects etc. during teaching.

(3) While providing students with an understanding of the four basic operations, attention should be drawn to the steps at which students usually make mistakes, which are necessary for successful completion of the four basic operations of mathematics. E.g. (Errors in addition in the process of addition, errors in taking tens in the process of subtraction and in writing the hundredth digit after taking tens, starting the multiplication process with the unit digit of the numerator in the process of multiplication or putting zero in place of the unit in the calculation while starting the multiplication process with the tens digit, etc.)

(4) The student should be given more practice in calculating practical examples based on the four basic operations of mathematics and the events that occur in daily life should be taken as sums.

(5) If possible, the difficulty faced by the student in the four basic operations of mathematics should be checked individually so that the remedial work of that student is easy.

(6) Research like the present research can be carried out for the students of the schools whose calculation results are given below in the Gunotsav and Gunotsav 2.0.

(7) A checklist should be prepared and given to the teachers teaching mathematics in every school, presenting the steps required for the process of addition, subtraction, multiplication and division, so that each teacher knows which steps to follow to perform these four processes correctly and the checklist should also show the mistakes students make at each step to complete the four processes.

(8) At the initial stage, efforts should be made to teach the operations of addition, subtraction, multiplication and division with the help of tangible objects.

(9) It should also be checked whether caste and region affect the understanding of the basic concepts of mathematics.

11. Researcher's Name: Seema Ramashray Yadav

Designation: Lecturer, District Education and Training Building, Mehsana

Research Year: 2021 – 2022

Research Mentor's Name: Dr. Gaurang C. Vyaspracharya, District Education and Training Building, Mehsana

Introduction:

Today's era is the Google era. Students can get any information from Google themselves, but language is an important medium for learning any subject, be it mathematics or science. Whatever the language may be, only if one can read and understand it, understanding can be developed and one can become an expert in any subject. Four basic skills are important in language education. Which open the doors of knowledge to students. The role of the teacher is also indispensable in developing this skill. Numeracy is very important in mathematics. Keeping all these factors in mind, the present research has been conducted with the aim of knowing the basic literacy and numeracy of students studying in Standard 3 (year 2021 - 2022) of 40 primary schools selected as Gujarati medium SOE 100 and 200 days in Mehsana district.

Title of the research:

Study of the status of standard 3 students with regard to basic literacy and numeracy (FLN)

Objectives of the research: The present research was conducted keeping in mind the following objectives.

 To study the status of standard 3 students with regard to basic literacy and numeracy (FLN) on the basis of reading, writing, and arithmetic.

 To study the status of standard 3 students with regard to basic literacy and numeracy (FLN) on the basis of gender.

 To study the status of standard 3 students with regard to basic literacy and numeracy (FLN) on the basis of area.

 To study the status of standard 3 students with regard to basic literacy and numeracy (FLN) on the basis of school type (SOE 100 and 200 days).

 To study the status of standard 3 students with regard to basic literacy and numeracy (FLN) on the basis of taluka.

 To study the status of Standard 3 students in terms of basic literacy and numeracy (FLN) based on the number of students.

 To study the status of Standard 3 students in terms of basic literacy and numeracy (FLN) based on three levels.

 To study the status of Standard 3 students in terms of Basic Literacy and Numeracy (FLN) on a monthly basis.

 To study the efforts made by teachers for the status of reading, writing, and arithmetic of Standard 3 students in terms of Basic Literacy and Numeracy (FLN).

Research Questions: Under the present research, the researcher tried to get answers to the following questions.

 What is the average of the reading, writing, and arithmetic status of Standard 3 students in terms of Basic Literacy and Numeracy (FLN)?

 What is the average of the status of Standard 3 students in terms of Basic Literacy and Numeracy (FLN) based on gender?

 What is the average of the status of Standard 3 students in terms of Basic Literacy and Numeracy (FLN) based on area?

 What is the average of the status scores of the students of Standard 3 in terms of basic literacy and numeracy (FLN) based on the type of school?

 What is the average of the status scores of the students of Standard 3 in terms of basic literacy and numeracy (FLN) based on the taluka?

 What is the average of the status scores of the students of Standard 3 in terms of basic literacy and numeracy (FLN) based on the number of students of Standard 3?

 What is the average of the status scores of the students of Standard 3 in terms of basic literacy and numeracy (FLN) based on the three levels?

 What is the average of the status scores of the students of Standard 3 in terms of basic literacy and numeracy (FLN) based on the month?

 Are the efforts made by the teachers effective for the status of the students of Standard 3 in terms of basic literacy and numeracy (FLN) in terms of reading, writing, and calculation?

 Research Area and Sub-Area: The area of the present research is Educational Status, Classroom Process and Survey.

 Research Type: The present research is an educational type of research.

 Research Methodology: The present research uses survey method.

 Area: The Area of the study is students studying in standard 3 of Gujarati medium primary schools of Mehsana district in the year 2021 - 2022.

 Sample Selection: Students studying in Standard 3 year 2021 - 2022 of 40 primary schools selected as Gujarati medium SOE 100 and 200 days of Mehsana district are included as sample selection.

 Research findings: With regard to basic literacy and numeracy (FLN), the status of Standard 3 students was found to be better in reading, writing and arithmetic than in writing.

With regard to basic literacy and numeracy (FLN), the status of girls was found to be better in writing and arithmetic than boys. While in reading, the status of boys was found to be better than girls.

 With regard to basic literacy and numeracy (FLN), the status of urban students was found to be better in reading, writing and arithmetic than in rural areas.

 Regarding Basic Literacy and Numeracy (FLN), the status of SOE 100 days was found to be better in reading, writing and arithmetic of standard 3 students based on the type of school (SOE 100 and 200 days) than SOE 200 days.

 Regarding Basic Literacy and Numeracy (FLN), the status of Unjha, Kheralu, Visnagar, Vadnagar and Mehsana was found to be better in reading, writing and arithmetic of standard 3 students based on the taluka.

 Regarding Basic Literacy and Numeracy (FLN), the status of 1 to 50 was found to be better in reading, writing and arithmetic based on the number of standard 3 students based on the ratio of 51 to 100.

 Regarding basic literacy and numeracy (FLN), the reading, writing and arithmetic status of standard 3 students was found to be the lowest in the preferred level, the average level was higher than the preferred level and the highest number was found in the good level.

 Regarding basic literacy and numeracy (FLN), the status of standard 3 students in January was found to be better in reading, writing and arithmetic compared to October.

 The efforts made by teachers for the status of standard 3 students in terms of basic literacy and numeracy (FLN) are effective.

 Recommendations for research: The status of students from standards 4 to 8 in terms of basic literacy and numeracy (FLN) can be known.

12. Researcher's Name: Vekaria Anil B.

Designation: Lecturer, District Education and Training Building, Mehsana

Research Year: 2021-22

Research Mentor's Name: Principal, District Education and Training Building, Mehsana

Introduction:

Due to the rapidly expanding horizons of knowledge, possibilities of using technology, increasing urbanization, privatization policy, challenges under the belt of development, erosion of values, threats to the environment and lack of information about it, and competitive environment, it was felt that the time was ripe to reconsider the education system once again. With the enactment of the Right to Education Act of 2009, there was a need to give space to its provisions in the education system. Even in the framework of primary education. Changes have come. Restructuring of the curriculum, which was considered primary from Std. 1 to 5 and upper primary from 6 to 8, became necessary. In the backdrop of new goals, new situation, new challenges, new perspectives, a new curriculum was needed and it became necessary to create a separate syllabus and textbook for each subject for the implementation of the sessional method in primary education.

Till now, primary education was available in Gujarat up to Std. 5. Similarly, Std. 5 has a different importance. There have been some changes in the presentation of the subject from Std. 8. Which are more related to secondary education. In fact, if any standard is to be considered the largest and most representative of lower primary education, then Std. 5 can be considered among them. Hence, the sponsor decided to conduct the present study, finding it necessary to compare the old curriculum of Std. 5 with the new curriculum.

Title of the research:

“A study of teachers’ opinions regarding the new textbook of Standard-5 Environment subject implemented under RTE”

Objectives of the research:

1. To know the opinions of teachers towards the approach inherent in the new and old curriculum of Standard-5 Environment subject.

2. To know the opinions of teachers towards the teaching methods used in the new and old curriculum of Standard-5 Environment subject.

3. To know the opinions of teachers towards the teaching techniques used in the new and old curriculum of Standard-5 Environment subject.

4. To know the opinions of teachers towards the study-learning material used in the new and old curriculum of Standard-5 Environment subject.

5. To know the opinions of teachers towards the teaching-evaluation used in the new and old curriculum of Standard-5 Environment subject.

6. To know the opinions of teachers towards the self-study work implemented in the new and old curriculum of the environmental subject of standard five.

Research Questions/ Hypotheses:

1. Teachers do not have specific opinions towards the approach inherent in the new and old curriculum of the environmental subject of standard five.

2. Teachers do not have specific opinions on the teaching methods used in the new and old curriculum of the environmental subject of standard five.

3. Teachers do not have specific opinions on the teaching methods used in the new and old curriculum of the environmental subject of standard five.

4. Teachers do not have specific opinions on the teaching-learning material used in the new and old curriculum of the environmental subject of standard five.

5. Teachers do not have specific opinions on the teaching-evaluation used in the new and old curriculum of the environmental subject of standard five.

6. Teachers do not have specific opinions on the self-study work used in the new and old curriculum of the environmental subject of standard five.

Research Area and Sub-Area

The present study can be said to touch the area of “Curriculum Reform and Curriculum Development”.

Research Type:

In the present study, teachers’ opinions were taken regarding the comparison of the new curriculum of Std. 5 Environment subject with the old curriculum. This information will prove to be practically useful, therefore, the present study can be said to be a practical research. Also, in the present study, teachers’ opinions were obtained regarding the comparison of the new curriculum of Std. 5 and the old curriculum. Here, the information was interpreted logically, qualitatively. Therefore, this research can be called qualitative research.

Research Method:

Survey method was used in the present study.

Area:

In the presented study, the sponsor included the primary schools of Mehsana district in the Area of the study.

Sample Selection:

From the Area: As a sample, teachers, head teachers, BRCs and CRCs teaching environmental subjects in government schools of 10 talukas of Mehsana district were randomly selected from 150 primary schools and 165 teachers, 133 head teachers and 25 BRCs and CRCs teaching environmental subjects in all those primary schools were selected as a purposive sample.

Research findings:

1. The new curriculum provides an opportunity for the child to create knowledge. There is Area for the child to develop as an independent individual and for the student to learn from his own experience according to his age level.

2. Compared to the old curriculum, the ERAC activities included in the new curriculum are effective, the use of local reference materials is excellent and the content is related to the students' prior knowledge.

3. Continuous comprehensive assessment in the new curriculum has not increased the teacher's workload.

4. The new curriculum emphasizes problem solving compared to the old curriculum. Also, the power of memorization has not been given priority in it.

5. In the new curriculum, the study work can be completed within the time limit. Also, there is a need for more preparation on the part of the teacher.

6. The methods used in the new curriculum are student-centered, innovative, interactive, and more focused on project work that enriches the learning-teaching process compared to the old curriculum.

7. The methods used in the new curriculum are better combined than the old curriculum and can make classroom work lively, and students can progress according to their own strength and pace.

8. The new curriculum has activities that students can do on their own and that can be done in the classroom compared to the old curriculum. By doing activities according to the curriculum, children are very interested and learning stops becoming dull and boring.

9. The new curriculum allows teachers to apply techniques that can make learning methods effective, and there are opportunities to use various techniques.

10. Compared to the old curriculum, the new curriculum has made an effort to teach the child new things based on previous knowledge and has given the child an opportunity to develop an investigative perspective.

11. It is appropriate that the number of pictures has been increased in the new curriculum compared to the old curriculum. These pictures and diagrams are in accordance with its text.

12. Compared to the old curriculum, in the new curriculum, children are motivated to use reference books in addition to textbooks and can use technology better.

13. Compared to the old curriculum, the needs of children who are lagging behind are met in the new curriculum, but the teacher does not get guidance on what to do specifically in the classroom to teach the content.

14. Compared to the old curriculum, the progress of a child's educational development can be measured better in the new curriculum. The personal progress of the student is encouraged and the inherent strength of the students can be tested better.

15. Compared to the old curriculum, the continuous and comprehensive evaluation system in the new curriculum is better, evaluation can be done along with the learning process. Evaluation can also be done through different activities. Also, the learning outcomes can be known through it.

16. Continuous comprehensive evaluation of the new curriculum makes it possible to cover every aspect of personality and also measures the values and life skills developed in the students.

17. Since the informal evaluation is centered in the new curriculum, the burden of examination is not on the student and credibility is maintained.

18. Compared to the old curriculum, the teacher does not have much ease in the evaluation plan of the new curriculum and his likes and dislikes are affected.

19. Compared to the old curriculum, the new curriculum provides the student with an opportunity to use the things learned in life after class education and to develop the student's reasoning, understanding and special skills in addition to the content.

20. Compared to the old curriculum, the new curriculum has been given in a way that stimulates the thinking power of the student and develops the habit of studying reference literature.

21. Compared to the old curriculum, the new curriculum has been given in a way that is diverse and allows the child to progress at his own pace.

Recommendations for Research:

1. At the end of the present study, the sponsor made the following recommendations for future research, keeping in mind the results of the research found in this field.

2. The present study included only selected schools from 10 talukas of Mehsana district. This study can also be conducted by obtaining samples from various districts of Gujarat state.

3. An extended device can be created by including other standards in the device created in the present study, and the present study can be conducted.

4. In all the subjects of Std. 5, only one standard can be included, and an in-depth critical or comparative study can be conducted by taking only one standard.

Educational Outcome:

1. Necessary changes should be made in the curriculum from time to time according to the changing situational circumstances in the present time.

2. It is also necessary to have special references available on what kind of activities the teacher can specifically carry out during the teaching process in the classroom.

3. Local literature is available for classroom study. Special planning is necessary to make it possible.

13. Name of the researcher: Vekaria Anil B.

Designation: Lecturer, District Education and Training Building, Mehsana

Research Year: 2021-22

Name of the research supervisor: Principal, District Education and Training Building, Mehsana

Introduction:

School is a small version of society. In which the medium of education can be considered the most important factor. Through which the personality of the individual can be shaped and it is useful in the life of a human being knowingly or unknowingly. In the early years of life, a child learns the most through imitation. The medium of expression of which is the mother tongue. In which the child can express his thoughts, expressions and feelings through words that he has through imitation. In which the child's vocabulary plays an important role. Even at the school level, among the various literacy subjects taught by the teacher, the child is most interested in the subject of language.

The style of presentation by the teacher, as well as his vocabulary, has an impact on the child's development. The child's vocabulary can be developed through the presentation made by others.

In the early years of life, a child is in contact with his family members. Keeping this in mind, it was found appropriate to conduct a research at the state level by the Gujarat Educational Research and Training Council - Gandhinagar, with the aim of knowing the vocabulary and comprehension ability of the child regarding language by keeping a record of the words spoken by children aged two to eight years in their daily routines during the COVID-19 period in all the districts of the state of Gujarat.

Title of the research:

A study of the vocabulary spoken by children aged two to eight years of Becharaji taluka of Mehsana district

Objectives of the research:

1. To know the age-wise vocabulary of children aged two to eight years.

2. To know the age-wise vocabulary of children aged two to eight years.

3. To know the vocabulary according to the gender of children aged two to eight years.

4. To know the vocabulary of children aged two to eight years, taking into account the Gujarati language, local dialect and other languages other than Gujarati.

Research Questions

1. To know the age-wise vocabulary of children aged two to eight years?

2. To know the age-wise vocabulary of children aged two to eight years?

3. To know the vocabulary of children aged two to eight years according to the gender of children aged two to eight years.?

4. To know the vocabulary of children aged two to eight years, taking into account the Gujarati language, local dialect and other languages other than Gujarati?

Research Area and Sub-Area: The present study was very much related to the field of language education.

Research Type: The present research was a practical and quantitative type of research.

Research Methodology: The present research is a qualitative research.

Population: The population of the present research will be children of the age group of two to eight years studying in Becharaji taluka of Mehsana district.

Sample Selection: Purposive random sample selection

Findings of the research:

1. In the present study, the average number of words spoken in different languages among children of the age group of six years of Becharaji taluka of Mehsana district was the highest. While the average of words spoken in different languages by children of the age group of two years was the lowest.
2. There was no effect of gender in the words spoken in different languages by children of the age group of two to eight years, that is, the effect was the same.
3. There was no effect of area in the words spoken in different languages by children of the age group of two to eight years, that is, the effect was the same.

4. The average of Gujarati language words spoken by eight-year-old boys and six-year-old girls was the highest. While the average of Gujarati language words spoken by two-year-old boys and girls was the lowest.
5. The highest number of words spoken by eight-year-old boys and girls was the highest.
6. Enriching the vocabulary of a child increases the creative power, in addition, the child can present his thoughts effectively through the medium of language.
7. Children can learn faster in their mother tongue than in other languages.
8. Practicing another language at the school level can increase the child's mastery of another language.

Recommendations for research:

1. A study can be conducted on the vocabulary of other languages.
2. A study can be conducted on the maximum number of words a child can speak.
3. A study can be conducted on the pronunciation of the vocabulary of languages based on age.

Educational implications:

1. The parents or guardians of the children should communicate with the child so that the child can master the mother tongue.
2. In order to enrich the child's vocabulary at the school level, one hour should be kept in the school plan for reading reference literature every fortnight.
3. At the school level, activities should be conducted so that the child gets practice in languages other than the mother tongue.
4. In the prayer program held in the school, the school teachers should conduct reading activities and the children should be introduced to unfamiliar words with context.
5. In order to enrich the mother tongue of children, teachers should create TLM for children from the school level.

14. Name of the researcher: Devangiben M. Patel
Designation: Lecturer, District Education and Training Bhavan, Mehsana
Research year: 2021-22
Name of the research mentor: Dr. G.C. Vyas, Principal, District Education and Training Bhavan, Mehsana

Introduction:

The development of any child's language depends on the richness of the child's vocabulary. At different stages of age, a child has a different vocabulary according to the child's experience and the environment he or she encounters. Knowing how much and what kind of vocabulary a child usually has at different stages of age is useful for the development of the child's language. The child's language development is seen to occur gradually. Keeping this in mind, the amount of vocabulary is determined in the language curriculum from pre-primary to primary education. For this, GCERT, Gandhinagar, assigned the task of knowing how much vocabulary children aged 2 to 8 years have in all the talukas of Gujarat state to the DIATs working in all the districts of Gujarat state to know how much vocabulary children aged 2 to 8 years have in the talukas included in their districts.

Title of the research:

Study of vocabulary of children aged 2 to 8 years living in Mehsana taluka

Objectives of the research:

1. To know the age-wise vocabulary of children aged 2 to 8 years.
2. To know the vocabulary of children in terms of age and gender.

   (Age: 2 to 8, Gender: Boy/Girl)

3. To examine the effect of the child's age and the area of residence of the child on the child's vocabulary (Age: 2 to 8, Area: Rural/Urban)
4. . To know the vocabulary of children considering the local dialect and other languages other than Gujarati in addition to Gujarati.

Research Questions:/ Hypotheses:

1. What will be the age-wise vocabulary of children aged 2 to 8 years of Mehsana taluka?

2. What will be the vocabulary of children in Mehsana taluka in terms of age and gender? (Age: 2 to 8, Gender: Boy, Girl)

3. Is there an effect of the child's age and the child's residential area on the child's vocabulary? (Age: 2 to 8, Area: Rural City)

4. What will be the vocabulary of children considering the local dialect and other languages other than Gujarati in addition to Gujarati in Mehsana taluka?

Research Area and Sub-Area:

Under the present research, an attempt was made to know the vocabulary of children aged 2 to 8 years of Mehsana taluka. In this regard, the present research touched on the mental and emotional development of the student.

Research Type:

The present research is of a practical nature.

Research Methodology:

An attempt was made to know the vocabulary that children know. Since no tricks or experiments were done in the present research to increase the vocabulary of children, the present research was a survey type of research.

Area:

The present research included all children aged 2 to 8 years living in Mehsana taluka as the Area.

Sample Selection:

The present research included a total of 14 children aged 2 to 8 years living in Mehsana taluka as the sample, 2 per standard.

Research Findings:

The findings of the present research were obtained as follows.

1. A child up to the age of 2 years usually has a vocabulary of around 140 to 160 words.

2. A child up to the age of 3 years usually has a vocabulary of around 180 words.

3. A child up to the age of 4 years usually has a vocabulary of around 230 words.

4. A child up to the age of 5 years usually has a vocabulary of around 260 words.

5. A child up to the age of 6 years usually has a vocabulary of around 270 to 290 words.

6. A child up to the age of 7 years usually has a vocabulary of around 300 words.

7. A child up to the age of 8 years usually has a vocabulary of around 380 to 400 words.

8. The vocabulary of a boy aged 2 and 7 years is 144 and 290 words respectively and the vocabulary of a girl is 163 and 314 words respectively. That is, here the girl has more vocabulary than the boy.

9. Boys aged 3,4,5,6 and 8 have a vocabulary of 180, 228, 260, 289 and 402 words respectively and girls aged 3,4,5,6 and 8 have a vocabulary of 175, 226, 255, 268 and 375 words respectively. That is, boys aged 3,4,5,6 and 8 have a greater vocabulary than girls aged 3,4,5,6 and 8.

10. An urban child aged 3 and 7 has a vocabulary of around 180 and 314 words respectively. While a rural child aged 3 and 7 has a vocabulary of around 175 and 290 words respectively. That is, an urban child aged 3 and 7 knows more words than a rural child.

11. An urban child aged 6 and 8 years has a vocabulary of around 268 and 375 words respectively. While a rural child aged 6 and 8 years has a vocabulary of around 289 and 402 words respectively. That is, a rural child aged 6 and 8 years knows more words than an urban child.

12. There is no noticeable difference in the number of words spoken in Hindi and English as the child ages.

13. Children aged 2, 4 and 5 speak about 20 local words, but children aged 6 to 8 speak about 8 local words. That is, as the child ages, he uses more local words.

14. The vocabulary of children in Gujarati was found to be more than the vocabulary of other languages.

Recommendations for Research:

1. The recommendations for future research are as follows.
2. 1. The present research included only 1-1 children aged 2 to 8 years, but now more children should be taken as a sample for each age.
3. 2. The present research was conducted to know the vocabulary of children aged 2 to 8 years. Such research should also be conducted for children of other ages.

Educational Outcome:

1. - The vocabulary of children from standard 2 to 8 can be known
2. - By knowing the vocabulary, literature can be created according to the level of the students
3. - Parents can know about the vocabulary of their children
4. - Future educational work can be carried out based on the vocabulary of children

15. Name of Researcher: Devangiben M. Patel

Designation: Lecturer, District Education and Training Bhavan, Mehsana

Research Year: 2021-22

Name of Research Guide: Dr. G.C. Vyas, Principal, District Education and Training Building, Mehsana

Introduction:

The development of any child's language depends on the richness of the child's vocabulary. At different stages of age, a child has a different vocabulary according to the child's experience and the environment he/she has. Knowing how much and what kind of vocabulary a child usually has at different stages of age is useful for the development of the child's language.

The child's vocabulary is seen to develop gradually. Keeping this in mind, the amount of vocabulary is determined in the language curriculum from pre-primary to primary education.

For this, GCERT, Gandhinagar, assigned the task of knowing the vocabulary of children aged 2 to 8 years in all the talukas of Gujarat state to the DIATs working in all the districts of Gujarat state to know the vocabulary of children aged 2 to 8 years in the talukas included in their districts.

Title of the research:

A case study of schools effectively implementing efforts for holistic development

Objectives of the research:

The objectives of the present study are as follows.

1. To study academic evaluation and co-curricular evaluation in school holistic evaluation.

2. To study opinions on formative evaluation in academic evaluation under school holistic evaluation.

3. To study opinions on end-of-semester evaluation in academic evaluation under school holistic evaluation.

4. To study opinions on self-study work in academic evaluation under school holistic evaluation.

5. To study opinions on personal and social qualities in co-curricular evaluation under school holistic evaluation.

6. To study opinions on students' attitudes in co-curricular evaluation under school holistic evaluation.

7. To study the opinions of students on literature in the areas of interest of co-curricular assessment under school holistic assessment.

8. To study the opinions of students on music and art in the areas of interest of co-curricular assessment under school holistic assessment.

9. To study the opinions of students on physical education and yoga in the areas of interest of co-curricular assessment under school holistic assessment.

10. To study the opinions of students on cultural activities in the areas of interest of co-curricular assessment under school holistic assessment.

11. To study the opinions of co-curricular activities in the areas of co-curricular assessment under school holistic assessment.

12. To study the opinions of work experience in the areas of co-curricular assessment under school holistic assessment.

13. To study opinions on the information on student progress from school-wide comprehensive assessment.

14. To study the opinions on changes in students' behaviors, special needs, skills, learning styles, current status, exam fear through school-wide assessment.

15. To study the opinions on the use of school-wide assessment in diagnostic and therapeutic work.

Research Questions:/ Hypotheses:

The questions of the present study are as follows:

1. What will be the opinions on formative assessment in educational assessment under school-wide assessment?

2. What will be the opinions on end-of-semester assessment in educational assessment under school-wide assessment?

3. What will be the opinions on self-study work in educational assessment under school-wide assessment?

4. What will be the opinions on personal and social qualities in co-curricular assessment under school-wide assessment?

5. What will be the opinions of students on the attitudes of students in the co-curricular assessment under the school holistic assessment?

6. What will be the opinions of students on literature in the areas of interest of students in the co-curricular assessment under the school holistic assessment?

7. What will be the opinions of students on music and art in the areas of interest of students in the co-curricular assessment under the school holistic assessment?

8. What will be the opinions of students on physical education and yoga in the areas of interest of students in the co-curricular assessment under the school holistic assessment?

9. What will be the opinions of students on cultural activities in the areas of interest of students in the co-curricular assessment under the school holistic assessment?

10. What will be the opinions of students on co-curricular activities in the co-curricular

assessment under the school holistic assessment?

11. What will be the opinions on the work experience in co-curricular assessment under the school-wide comprehensive assessment?

12. What will be the opinions on the information on the progress of students from the school-wide comprehensive assessment?
13. What will be the opinions on the changes in students' behaviors, special needs, skills, learning styles, current status, and exam fear from school-based comprehensive assessment?
14. What will be the opinions on the use of school-based comprehensive assessment in diagnostic and therapeutic work of students?

Research Area and Sub-Area:

The present research touches on the field of educational measurement and evaluation.

Research Type:
The present research is of a practical type.

Research Methodology:

Since the present study aims to study the current situation of the efforts made by the school in the all-round development of students in depth, the descriptive case study method has been considered the best to obtain information from various levels for the study of various aspects, the descriptive method or survey method has been selected.

Area:

In the present research, all the primary schools of Mehsana taluka, which are making efforts in the all-round development of students, were included as the Area here.

Sample Selection:

The sample of the present research is 50 government primary schools under the control of the District Panchayat Education Committee of Mehsana taluka of Mehsana district, out of which 10 were selected through planned random sampling method to fill the opinion questionnaire with the principal and teachers of the school.
10 principals and 50 teachers working in the selected schools were selected for the sample.

Research Findings:

The findings of the present research were obtained as follows.

1. The teachers of the school regularly conduct continuous and comprehensive evaluation.

2. The principal provides guidance regarding continuous and comprehensive evaluation.

3. Teachers use different methods for continuous and comprehensive evaluation.

4. Monitoring is done by the principal regarding continuous and comprehensive evaluation.

5. Continuous and comprehensive assessment forms are maintained.

6. Various efforts are made by the principal regarding continuous and comprehensive

assessment.

7. Various competitions are organized by the school for the overall development of the student.

8. Students register their participation for the overall development through SMC.

9. Co-curricular activities are celebrated on a special day for overall development.

10. Problems are faced by students who are constantly absent for the overall assessment.

11. Formative assessment is done regularly among the academic assessment for the overall assessment.

12. End-of-semester assessment is done regularly among the academic assessment for the overall assessment.

13. Self-study work is done regularly among the academic assessment for the overall assessment.

14. Personal and social qualities are examined among the co-curricular assessment for the overall assessment.

15. Co-curricular assessment for holistic assessment examines students' attitudes.

16. Co-curricular assessment examines areas of interest.

17. Co-curricular assessment for holistic assessment is based on participation in music and art activities.

18. Co-curricular assessment for holistic assessment is based on participation in cultural activities.

19. Co-curricular assessment for holistic assessment is based on participation in co-curricular activities and work experience activities.

20. Students' progress can be known based on holistic assessment.

21. Changes in students' behaviors can be known based on holistic assessment.

22. Students' individual and special needs can be known based on holistic assessment.

23. Students' special skills can be known based on holistic assessment.

24. Based on holistic assessment, individual learning style plans can be made for students.

25. Based on holistic assessment, parents and schools can know the current status of

students.

26. Based on holistic assessment, students' fear of exams is eliminated.

27. Based on holistic assessment, it helps to identify and guide students individually.

28. Based on holistic assessment, students' creativity develops.

29. Based on holistic assessment, it helps in diagnostic and therapeutic work of students.

Recommendations for research:

The recommendations for future research are as follows.

1. A study of the opinions of secondary school teachers on the effectiveness of school holistic assessment can be conducted.

2. How school holistic assessment affects psychological characteristics such as learning interest, self-confidence as a learner, and perseverance can be examined.

3. A study of the opinions of the students of D.L.Ed or B.Ed. colleges regarding the effectiveness of the evaluation system can be conducted.

4. A comparative study can be conducted regarding the effectiveness of school-wide comprehensive evaluation.

5. A study of the opinions of the lecturers of the District Education and Training Building regarding the effectiveness of school-wide comprehensive evaluation can be conducted.

6. A study of the opinions of the lecturers of the District Education and Training Building regarding the effectiveness of school-wide comprehensive evaluation can be conducted.

Educational Outcomes:

The educational outcomes of the present research were as follows.

• The principal should continuously monitor for continuous and comprehensive evaluation.

• The school inspector should also continuously check for continuous and comprehensive evaluation.

• Students who are constantly absent should be made to come regularly for continuous and comprehensive evaluation.

• The members of the SMC should also help in regularizing the students who are constantly absent.

• All records should be maintained by the school regularly and verification should be done regularly.

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સંશોધન સારાંશ

2022-23

District Institute of Education and Training, Mehsana

Study conducted under EDN Scheme, Year 2022–23

Sr.No.	Research Title	Name of Researcher
1	A survey of academic achievement of students of standards four, six and seven of Mehsana district under Gujarat Achievement Survey (GAS 4)	**V.D.Adhiyol**
2	Structure and testing of a simplified educational program in the context of studying the difficult learning outcome no. “M702” of Mathematics subject of Standard-7	**DR. Pankaj I. Parmar**
3	NAS's tough study guide for Class 7 Mathematics M 710 Students calculate profit-loss percentages and simple interest rates in everyday life. It includes logical practical problems. Design of a correctional program and its effectiveness.	**S.C.Rabari**
4	L.O M717: Calculates the area of squares and rectangles.	**B.S.Desai**
5	A study of the structure and effectiveness of a simplified educational program with reference to the difficult learning outcome no. M721 of the Mathematics subject of standard seven.	**DR. Dipti A. Trivedi**
6	Structure and testing of a simplified educational program in the context of studying the difficult learning outcome number “M705” of Mathematics subject of Standard-7	**P.I. Patel**
7	A study of the structure and effectiveness of a simplified educational program with reference to the difficult learning outcome number M801 of the Mathematics subject of standard 8.	**Seemaben R. Yadav**
8	A study of the structure and effectiveness of a simplified educational program with reference to the difficult learning outcome no. M721 of the Mathematics subject of standard seven.	**DR. Devangi M. Patel**

1. **Name of Researcher**: V. D. Adhiyol,

   Designation: Senior Lecturer, District Institute of Education and Training, Mehsana

   Name of Research Guide: Dr. G. C. Vyas, Principal, District Institute of Education and Training, Mehsana

   Introduction

   A survey was conducted on 22/12/2022 of the year 2022-23 to find out the academic achievement of students of standards four, six and seven of selected primary schools in Mehsana district in the subjects of Language, Mathematics, Environment, Science and Technology and Social Science.

   Title

   A survey of academic achievement of students of standards four, six and seven of Mehsana district under Gujarat Achievement Survey (GAS 4)

   Objectives of the Study

   The objectives of the present study were as follows.

   1. To study the academic achievement of students of standard four, six and seven of the district.

   2. To study the subject-wise academic achievement of students of standard four, six and seven of the district.

   3. To identify the subject-wise difficult learning outcomes of standard four, six and seven.

   4. To examine the effect of gender on the academic achievement of students of standard four, six and seven.

   5. To examine the effect of area on the academic achievement of students of standard four, six and seven.

   6. To examine the effect of social group on the academic achievement of students of standard four, six and seven.

   Hypotheses of study

   The null hypotheses of the present research were formulated as follows.

   1. There will be no significant difference in terms of gender between the average achievement test scores of male and female students of standards four, six and seven.

2. There will be no significant difference in terms of area between the average achievement test scores of students of standards four, six and seven.

3. There will be no significant difference in terms of social group between the average achievement test scores of students of standards four, six and seven.

4. There will be no significant difference in terms of social group between the average achievement test scores of students of social groups (SC, ST, OBC and General) of standards four, six and seven.

5. There will be no significant difference in terms of gender between the average achievement test scores of male and female students of standards four.

6. There will be no significant difference in terms of area between the average achievement test scores of students of standard four.

7. There will be no significant difference in terms of social group between the average achievement test scores of students of standard four.

8. There will be no significant difference in terms of social group between the average achievement test scores of students of standard four social groups (SC, ST, OBC and General) based on the dependent variable.

9. There will be no significant difference in terms of caste between the average achievement test scores of boys and girls of standard six.

10. There will be no significant difference in terms of area between the average achievement test scores of students of standard six.

11. There will be no significant difference in terms of social group between the average achievement test scores of students of standard six.

12. There will be no significant difference in the average achievement test scores of students of standard six (SC, ST, OBC and General) based on the dependent variable in terms of social group.

13. There will be no significant difference in the average achievement test scores of boys and girls of standard seven in terms of gender.

14. There will be no significant difference in the average achievement test scores of students of standard seven in terms of area.

15. There will be no significant difference in the average achievement test scores of students of standard seven in terms of social group.

16. There will be no significant difference in the achievement test scores of students of standard seven in terms of social group.

Variables included in the study

The variables selected for the present research are as follows.

Variables included in the research

Sr.No.	Variable type	Variable	Variable ranks
1	Independent	Gender	1. Boys 2. Girls
		Area	1. Urban 2. Rural
		Social Group	1. General 2. OBC 3. SC 4. ST
2	Dependent	Academic Achievement of students in Standard Four, Six and Seven	

Field of Study

Since the present study is related to the assessment of children, it can be clearly said that the present study was very much related to the field of educational testing and evaluation.

Importance of the Study

Each task has its own importance. The importance of the present research is as follows.

• Subject-wise academic achievements of standard four, six and seven students will be obtained.

• Information about subject-wise difficult points will be obtained.

• Children will get practice for the exam in the context of NAS examination.

• The effect of gender on the academic achievement of students will be obtained.

• The effect of area on the academic achievement of students will be obtained.

• The effect of social group on the academic achievement of students will be obtained.

• The proportion of students at the level of academic achievement of students will be obtained.

• The subject-wise average achievement of students of standard four, six and seven of the entire district will be known. As a result, it will be convenient to organize need-based training and remedial education at the school level in low-achieving subjects.

• The subject-wise results of students at the three levels of achievement, 75%, 50% and 35%, will be known at the district level. Due to which it will be known in which subject the expected achievement level could not be achieved in standard four, six and seven of the district.

• The ratio of the subject-wise difficult learning points of standard four, six and seven will be known at the district level. By comparing this information with the previous achievement survey, it will be possible to check whether the ratio of difficult points has increased or decreased after the changes in the curriculum and the evaluation method and based on this it will help to make necessary amendments in the curriculum and textbooks.

• The present survey will provide the difficult learning points of the subject-wise curriculum of standard four, six and seven at the district level. Due to which, the District Institute of Education and Training will be helped in planning the training of the subject at the district level and will help to improve the quality of classroom education by providing need-based training to the teachers.

• The information from the present achievement survey will provide guidance to the Education Inspectors, BRCs and CRCs of the District Education Officer's Office in conducting educational observation and classroom observation work and they will be able to guide the teachers to simplify the difficult learning process of the curriculum.

Area of the Study

The area of the present study was limited to Gujarati primary schools of Mehsana district. The present research examined the academic achievement of Gujarati, Mathematics, Environment, Science and Technology and Social Science subjects in standards four, six and seven.

Limitations of the Study

The limitations of the present study were as follows.

• In the present study, only Gujarati medium primary schools were selected as the sample.

Sample Selection

The present research included 300 primary schools of the entire district randomly selected by GCERT, Gandhinagar as the sample. One class was selected from all the classes of standard four, six and seven of the selected school in the sample and the test was taken of maximumm30 students per school.

Thus, students of standard four, six and seven of 300 primary schools of the district were included in the sample.

Research Type

Thus, the present research can be considered as practical and quantitative type.

Research Method

The present research was based on survey method.

Tools

The present research was to check the achievement of students of standard nine under GAS-3. As per the guidance and instructions of GCERT, Gandhinagar, the test was conducted in all the districts of the state by the District Institute of Education and Training with the help of field investigators. In which the achievement test was conducted to know the academic achievement of Gujarati, Mathematics, Science and Technology and Social Science subjects in standard nine. It was certified by GCERT, Gandhinagar.

Subject wise question number, total marks and duration of the test paper

Sr.No.	STD	Subject	Question number	Total Marks	Time
1	4	Gujarati	15	15	120 Minutes
2		Maths	15	15	
3		Environment	15	15	
4	6	Gujarati	15	15	120 Minutes
5		Maths	15	15	
6		Science and technology	15	15	
7		Social Sciences	15	15	
8	7	Gujarati	15	15	120 Minutes
9		Maths	15	15	
10		Science and technology	15	15	
11		Social Sciences	15	15	

Data Collection

In the present research, the test papers of the schools selected in the sample for data collection were brought to the DIET from the state level by the G.A.S. Co-ordinator of each DIET. After that, in the field investigator guidance meeting organized at the DIET, the field investigator who would be sent to conduct the test in each of the schools selected in the sample was given sufficient understanding about GAS-3 and the role of the field investigator was clarified and all the literature regarding the test was handed over to the respective field investigator in a sealed cover. The sealed cover contained a sheet showing the number of students as per the standard, appointment order, test papers, O.M.R. Sheets, field notes and guidelines regarding test administration.

The test was implemented on October 16, 2021. The field investigators reached the respective schools at 7:30 am and conducted the test in a smooth manner by making necessary arrangements. As per the guidelines, they randomly selected one class from all the classes of standard nine of the respective school and followed the selection process from the children as per the register and tested a maximum of 30 children per class. In schools where the total number of children of that class was less than 30, all the children were selected for the test. The test was monitored by the DIET Liaison Officer and E.I./A.E.I. in each taluka. After the test was completed, all the literature was returned to the B.R.C. Bhavan at the taluka headquarters by the field investigators and from there all the literature was collected at the DIET. As per the instructions of GCERT, Gandhinagar, all the OMRs were collected at the DIET. The sheets were scanned taluka-wise and based on that, CSV and EXCEL files of the district were generated.

Data Analysis

The purpose of the present research was to know the academic achievement of students of standard 4, 6 and 7 in four subjects by caste, area and social group and to find out the difficult study results by subject. After implementing the test in the primary schools of the district selected in the sample for GAS 4 test, the used and unused test papers of standard 4, 6 and 7 and the used and discarded OMR sheets as well as the school-wise field notes were recovered. All the OMR sheets were scanned with a scanner machine at the department and the information was saved in jpg format. After installing the FORM SCANNER software, in the sheet in which the dots of the answers given by the children were not showing red, a black line was set on the border of that sheet, although the proper result was not obtained, the dots that the children had filled in for the answer were manually ticked and made red. After that, its CSV file was generated. And from it, the data was converted to an EXCEL sheet. After that, the data was run based on the guidance given by Shri Khatribhai in the workshop held at

GCERT, Gandhinagar on 19/4/2023. Thus, the overall and subject-wise academic achievement score of the district for standard four, six and seven was obtained.

For the present research, the hypotheses were tested by finding the average, standard deviation, T-value and significance level according to the hypotheses formulated keeping in mind the variables like gender, area and social group. Finally, the difficult points were determined for each subject included in the test of standard four, six and seven to know what the students find difficult.

Research findings

1. The standard and subject-wise academic achievement of students of standard four, six and seven of Mehsana district was 51.91%.

2. The academic achievement of Gujarati, Mathematics and Environment subjects of standard four was 61.53%, 55.21%, and 61.70% respectively. While the total average academic achievement of standard four was 59.48%.

3. The academic achievement of Gujarati, Mathematics, Science and Technology and Social Science subjects of standard six was 53.34%, 42.26%, 51.85% and 43.39% respectively. While the total average academic achievement of standard six was 47.71%.

4. The academic achievement of Gujarati, Mathematics, Science and Technology and Social Science subjects of Standard 7 was 47.78%, 48.59%, 43.36% and 54.42% respectively. While the total average academic achievement of Standard 7 was 48.54%.

5. The effect of gender is seen on the achievement of students of Standard 4, 6 and 7 in Gujarati, Mathematics, Environment, Science and Technology and Social Science subjects. It is in favor of girls.

6. The effect of area is seen on the achievement of students of Standard 4, 6 and 7 in Gujarati, Mathematics, Environment, Science and Technology and Social Science subjects. It is in favor of students from rural areas.

7. The difference in the average based on the dependent variable (SC, ST, OBC and General) of students of Standard 4, 6 and 7 was seen among all four groups SC, ST, OBC and General. The SC social group had a significant difference with the ST, OBC and General social groups. The ST social group had a significant difference with the SC and General social groups. The OBC social group had a significant difference with the SC and General social groups. While the General social group had a significant difference with SC, ST and OBC social groups. The difference found in the SC, ST, and OBC social groups was in favor of the General social group. While the difference found in the General social group was in favor of the ST social group.

8. The effect of gender is seen on the achievement of the students of standard four in Gujarati, Mathematics, Environment, Science Technology and Social Science. Which was in favor of girls .

9. The effect of area is not seen on the achievement of the students of standard four in Gujarati, Mathematics and Environment.

10. Social group of students of standard four (SC, ST, OBC and General) the average difference based on the dependent variable was found between all four groups of SC, ST, OBC and General. The average difference of SC social group was found with ST and OBC social group. The average difference of ST social group was found with SC and General social group. The average difference of OBC social group was found with SC and General social group. While the average difference of General social group was found with ST and OBC social group. The difference found in SC social group was in favor of ST social group, the difference found in ST and OBC social group was in favor of General social group and the difference found in General social group was in favor of OBC social group.

11. The effect of gender is seen on the achievement of standard six students in Gujarati, Mathematics, Science Technology and Social Science. Which is in favor of girls .

12. The effect of area is seen on the achievement of standard six students in Gujarati, Mathematics, Science Technology and Social Science. It is in favor of students from urban areas.

13. Social group of standard six students (SC, ST, OBC and General) the average difference based on the dependent variable was seen between all four groups, SC, ST, OBC and General. The average difference of SC social group was seen with ST and General social group. The average difference of ST social group was seen with SC and OBC social group. The average difference of OBC social group was seen with ST and General social group. While the average difference of General social group was seen with SC and OBC social group. The difference found in SC social group was S.T. In favor of social group, the difference found in ST and General social group was in favor of OBC social group and the difference found in OBC social group was in favor of ST social group.

14. The effect of gender is seen on the achievement of standard 7 students in Gujarati, Mathematics, Science Technology and Social Science subjects. It is in favor of girls.

15. The effect of area is seen on the achievement of standard 7 students in Gujarati, Mathematics, Science Technology and Social Science subjects which is in favor of students from rural areas.

16. Social group of standard seven students (SC, ST, OBC and General) the average difference based on the dependent variable was found between all four groups SC, ST, OBC and General. The average difference of SC social group was found with ST and General social group. The average difference of ST social group was found with SC, OBC and General social group. The average difference of OBC social group was found with ST and General social group. While the general social group had an average difference with the SC, ST and OBC social groups. The difference found in the SC and general social groups was in favor of the ST social group, the difference found in the ST social group was in favor of the general social group and the difference found in the OBC social group was in favor of the ST social group.

17. In the achievement test of standard four students with Gujarati subject learning achievement number G409, Mathematics subject learning achievement number M410.3 and M401.12 and Environment subject learning achievement number EV404 and EV412 have found it difficult.

18. In the achievement test of standard six, students with Gujarati subject learning achievement numbers G611, G617 and G619, Mathematics subject learning achievement numbers M605.9, M604.1, M602.5, M619.7, M619.5, M605.2, M619.5, M604.2, M605.4, M610.9, M616, Science and Technology subject learning achievement numbers 6.06 and 6.03 and Social Science subject learning achievement numbers SS603, SS605, SS611 and SS612 have found it difficult.

19. In the achievement test of standard seven, students with Gujarati subject learning achievement numbers G712 and G719, Mathematics subject learning achievement numbers M702, M703.8, M711.1, M714 and M718.4, Science and Technology subject learning achievement number SC706 and Social Science subject learning achievement numbers SS704, SS708 and SS725 have found it difficult.

2. **Name of Researcher :** Dr. Pankaj I. Parmar

Designation: Senior Lecturer

Year of Research: 2022 - 2023

Research Guide Name: P. I. Patel

Introduction:

In order to successfully complete any work, that work should be evaluated and based on the evaluation, necessary changes should also be made in the future planning of the work. This diagnostic and remedial process is very important for the success of the work. The diagnostic and remedial process also plays an important role for the high quality of the work and this is a general rule for all types of work, whether this work is educational or non-educational. Here, if we talk only about improving the educational quality, then the education done at the school level should be continuously evaluated by the teacher and based on the evaluation, the teacher should make necessary changes in his educational work, only then the quality of education can be improved.

Generally, when a teacher prepares for an educational task, he/she considers the following things.

(1) Purpose (2) Content (3) Educational Materials (4) Educational Methodology: (5) Planning (6) Implementation (7) Evaluation

Research Title

Structure and Trial of Simplified Educational Program in the Context of Study of Mathematics Subject of Standard-7 with difficult learning outcome no. “M702”

Research Area: Mathematics Education

Research Objective: The present research was also conducted keeping in mind the specific objective. In the present study, the researcher has set the following objectives.

1. To design an answer test for Standard-7 Mathematics Subject.

2. To trial an answer test for Standard-7 Mathematics Subject.

3. Std-7 Mathematics Subject difficult Learning Outcome M702 “Develops understanding of multiplication and division of fractions.” To design an educational program related to the content.

4. Std-7 Mathematics Subject defficult Learning Outcome M702 “Develops understanding of multiplication and division of fractions.” To examine the effectiveness of the educational program on the achievement of the students.

5. To examine the effectiveness of the achievement obtained by the student through the special educational program and traditional education.

Area:

The results of any research cannot be applied to everyone. Similarly, different situations cannot be applied. Then it becomes necessary to know the area of the research.

In the present research, only students of standard-7 studying in primary schools of Mehsana district have been included.

Sample:

For the selection of the sample, it was decided to select one school from the primary schools managed by the District Panchayat Education Committee following the purposive sample selection method. The selection of the school was done following the random sample selection method, in which first a list of primary schools managed by the District Panchayat Education Committee with more than 30 students in standard-7 and two classes were prepared. From this list, the school was selected with the help of MS Excel program of the computer. The school was selected by using the RANDOM BETWEEN FUNCTION in the MS Excel program in the FORMULA.

Tools:

In the present research, a 25-mark test was designed and used for the content included in the study output of Standard-7 “Multiplication and Division of Fractions.” The test is attached.

Method of obtaining information:

The researcher personally visited the primary school and took the post-test at the end of the student’s educational program and collected information.

Data analysis:

The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on diagnosis. Not only that, there was also an aim to compare the two educational methods. Therefore, the average of the marks obtained by the students of the experimental group and the traditional group in the post-test was found and their T-value was found.

Conclusions:

The main findings of the present research were as follows.

(1) The educational program designed by the researchers regarding the difficult learning outcome “Develops an understanding of multiplication and division of fractions.” Unit has been effective and if the educational program is implemented at the school level to teach the above learning outcome, it can prove to be more effective than the traditional method.

(2) The students of the experimental group have achieved more achievement than the students of the traditional group at all three levels of achievement. However, among the students of both the groups, 100% of the students of the experimental group have achieved the achievement level of 35%. While 100% of the students of the traditional group have been able to reach the achievement level of 35%. Among the students of both the groups, 100% of the students of the experimental group have achieved the achievement level of 50%. That is, 100% of the students of the experimental group have achieved more than 50%. While for the students in the traditional group, this percentage is 39%. Among the students in both groups, the students in the experimental group have achieved a higher level of achievement.

Learning Outcome:

(1) The educational program designed by the researchers regarding the difficult learning outcome “Inculcates understanding of multiplication and division of fractions.” unit has been effective, so this program should be implemented at the school level for teaching this learning outcome.

(2) Similarly, for other difficult points, an educational program should be designed for simplifying the difficult points through diet and it should be implemented at the school level.

(3) In-service training should be given to the teachers working in the classroom on how to implement the educational program in the classroom

3. **Name of the researcher:** Dr. S. C. Rabari,

Designation: Senior Lecturer, District Education and Training Bhavan, Mehsana

Name of the research guide: Dr. G. C. Vyas, District Institute of Education and Training,Mehsana

Introduction:

District-wise, subject-wise and standard-wise difficult points were found under this study. To make each of these difficult points easier, a correctional program based on the difficult points of session-2 of G-SLES of each subject was also designed, and its effectiveness was studied.

In the present study, education through games and activities was used as a correctional program. In the present study, various games and activities based on the calculation of profit-loss percentage and simple interest rate were conducted as a correctional program based on the difficult points of standard 7 in primary school and the present study was conducted to check its effect on the academic achievement of the students.

Research Title:

Difficult learning points of NAS in Mathematics Subject of Standard-7 M 710 Students calculate the percentage of profit-loss and the interest rate of simple interest in daily life. Which includes logical practical problems. Design of a corrective program and its effectiveness

Research Area:

The present study was in the field of learning - teaching.

Research Objectives:

The objectives of the present study were as follows.

1. To know the difficult study outcomes of Mathematics Subject of Standard-7 of Mehsana district.

2. To prepare a corrective program based on various activities and games for the simplification of the difficult study outcomes of Mathematics Subject of Standard-7.

3. To check the effectiveness of the corrective program designed for the simplification of the difficult study outcomes of Mathematics Subject of Standard-7 in the context of the academic achievement obtained in the pre-test and post-test of the students.

Area:

The group from which the sample is selected for the experiment is called the population or the world. In the present research, the sample was limited to the students of standard 7 studying in the government Gujarati medium primary school of Kadi taluka.

Sample:

The group representing the characters selected for the experiment from the population is the sample. The present research was an experimental research. The school was selected by the sponsor purposefully. Under which Khawad Primary School, Khawad of Kadi taluka was selected. Twenty-twenty students of standard 7 were selected from this school as experimental and control groups, in which 16 students were present in the experimental group and 15 in the control group. The selection of who to keep in the experimental group and who in the control group was done on the basis of odd attendance sheet numbers and even attendance sheet numbers. Sixteen students in the experimental group were taught using a specific method and technique through audiovisual media, projects, classrooms, and objects, while fifteen students in the control group were taught using traditional teaching methods.

Tools:

Pre-test:

A pre-test of 10 marks and a post-test of total 10 marks were prepared from the chapter Profit and Loss of Standard 7 Mathematics.

Method of obtaining data:

Since the present research is an experimental research, to form two groups, the students were randomly arranged in odd and even order according to the attendance sheet. Two groups were determined, the control group and the experimental group. The students of the first order were divided into the experimental control group and the students of the second order into the control group.

After that, a pre-test was given to both the groups. The pre-test was prepared for 10 marks and the time for the test was kept as 30 minutes. This pre-test was based on the difficult study material which was asked in NAS. That question was prepared from the chapter Profit and Loss of the relevant Standard-7. The questions were of short answer type. The teacher gave clear instructions regarding the method of asking questions and answering. The test was taken in a completely fearless and intuitive environment.

After the pre-test, teaching work was carried out in both the groups for 6 days. Teaching work was done in the control group by the traditional method and in the experimental group by the special method.

On the last day of the experiment, the post-test was taken. The post-test was a tough learning exercise "Students calculate the percentage of profit-loss and the interest rate of simple interest." The test created from the relevant chapter "Profit-Loss" was of 10 marks and the test time was 30 minutes. There were 10 questions in the test.

Analysis of data:

In the present research, the achievement of the students was compared by taking the post-test of both the groups. The achievement test scores of both the groups are given in Appendix-3 and 4. By making a frequency expansion of these scores, their average, median and "t-value" have been found according to the statistical method.

Conclusions:

The findings of the present research are as follows.

1) When the experiment was implemented on the experimental group, there was an increase of 40 percent in them. The effectiveness of the experiment was seen.

2) If the control group was taught using the traditional method, their average scores were 35 percent higher in the post-test. Therefore, the traditional method can be said to be less effective.

Educational Outcomes:

1) The experiment for simplifying the difficult point was prepared with great effort. Their achievement has been as good as expected. Therefore, this can be said to be a suitable experiment for simplifying the difficult point.

2) When the experimental group and the control group have significant differences from the beginning, it becomes necessary to make both the groups equal. Otherwise, the expected results are not obtained.

4. **Name of the researcher:** B. S. Desai

Designation: Senior Lecturer, District Institute of Education and Training, Mehsana

Name of Research Guide: Dr. G.C. Vyas, District Institute of Education and Training, Mehsana

Introduction:

To successfully complete any task, that task should be evaluated and necessary changes should also be made in the future planning of the task based on the evaluation. This diagnostic and therapeutic process is very important for the success of the task. The diagnostic and therapeutic process also plays an important role for the high quality of the task and this is a general rule for all types of tasks. After this task, whether educational or non-educational, here we only talk about improving the quality of education, then the education at the school level should be continuously evaluated by the teacher and based on the evaluation, the teacher should make necessary changes in his educational work, only then the quality of education can be improved. Generally, when a teacher prepares for educational work, he considers the following things.

Research Title:

L.O M717: Calculates the area of a square and a rectangle.

Research Area:

The present research was related to the field of teaching skills related to primary education.

Research Objective:

The main objectives of the present research were as follows.

1. Hard learning outcome “Calculates the area of a square and a rectangle.” To design an educational program on the related content

2. To examine the impact of the educational program on the achievement of students.

3. To find the percentage of students who achieved at the level of 35%, 50% and 75% achievement

Area:

The learning outcome selected in the present research was of standard - 7, hence the students studying in standard - 7 in primary schools of Mehsana district were the area for the present research.

Sample:

The present research was as per the experimental research design. Hence any one school from the world was selected and L.O. M717- Calculates the area of a square and a rectangle." It was considered sufficient to implement the prepared educational plan based on the learning outcomes. For the selection of the sample, 50 students studying in standard 7 in Mokasan Primary School, Mokasan, Kadi Taluka, Mehsana District were included as a sample following the purposive sampling method.

Tools:

In the present research, a 30-mark test prepared on the unit "Calculates the area of a square and a rectangle" was used as the Tools.

Method of obtaining information:

The researcher conducted a pre-test of the students of Mokasan Primary School in Kadi Taluka, followed by the implementation of the educational program and finally the post-test.

Data analysis:

The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on the diagnosis. Therefore, the average, standard deviation and t value of the scores obtained by the students in the pre-test taken before the implementation of the educational program and the post-test taken after the implementation of the educational program were found.

Findings:

The main findings of the present research were as follows.

(1) The educational program designed by the researchers regarding the unit "Calculate the area of a square and a rectangle." has been effective and if the educational program is implemented at the school level to teach the above learning outcomes, then the achievement of the students can be increased.

(2) After the implementation of the educational work, all (100%) students were able to achieve more than 35% of the traditional passing level. While the percentage of students achieving more than 50% was found to be 46.00%. The percentage of students achieving more than 75% was found to be 54.00%.

Learning Outcomes:

(1) The educational program designed by the researchers regarding the unit “Calculate the area of a square and a rectangle.” has been effective. Therefore, this program is called "Calculating the area of squares and rectangles" at the school level. It should be implemented for the teaching of learning outcomes.

(2) Similarly, for other difficult points found in NAS, an educational program should be designed by the Diet for the simplification of the difficult point and it should be implemented at the school level.

(3) In-service training should be given to the teachers working in the field on how to implement the educational program in the classroom.

5. **Name of the researcher:** Dr. Deepti A. Trivedi

   Designation: Junior Lecturer, District Institute of Education and Training, Mehsana

   Name of the research guide: Dr. G. C. Vyas, District Institute of Education and Training, Mehsana

   Introduction:

   To prepare a specific remedial program for the simplification of the difficult point (content) found in the achievement survey of primary school children conducted at the district level by GCERT, Gandhinagar It was suggested to conduct a trial. If the educational program prepared for the simplification of the difficult points is successful, then it can be considered for implementation at the state level. Therefore, in every district, an educational program is prepared in accordance with the difficult learning outcomes, so that no difficult learning outcomes are duplicated and an educational program can be prepared in accordance with the maximum difficult learning outcomes. In order to do so, GCERT has allocated the difficult learning outcomes found in NAS-2021 standard-wise subject-wise to each diet and created an educational program to simplify it. It was asked to conduct a trial. It was decided to conduct the present research to determine the effectiveness of the educational program for the simplification of the difficult learning outcomes allocated by GCERT.

Research Title:

A Study of the Structure and Effectiveness of Simplified Educational Program with Reference to Standard 7 Mathematics Subject Hard Learning Outcome No. M707

Research Area:

The main area of the present research is primary education. While the sub-area was educational evaluation and testing.

Research Objective:

1. To design an answer test for Standard-7 Mathematics Subject.

2. To test the answer test for Standard-7 Mathematics Subject

3. To design an educational program for Standard-7 Mathematics Subject Hard Learning Outcome M707 “Understands algebraic expressions and subtracts their sums.” Related Subjects

4. To design an educational program for Standard-7 Mathematics Subject Hard Learning Outcome M707 “Understands algebraic expressions and subtracts their sums.” To examine the effectiveness of the educational program on the achievement of students

5. To examine the effectiveness of the achievement achieved by the student through special educational program and traditional education.

Area:

All the children studying in standard 7 in primary schools of Mehsana district were the population of the present research.

Sample:

Children studying in standard - 7 in 985 primary schools of Mehsana district were tested on L.O. M721 “Understands rational numbers and calculates using rational numbers in different situations.” It was a very difficult and time-consuming process to test the educational program prepared based on the hard learning outcomes. The present research followed the experimental research design. Hence, any one school was selected from the population and the subject Hard Learning Outcome M707 “Understands algebraic expressions and adds and subtracts them.” It was considered sufficient to implement the prepared educational plan based on learning outcomes. For the selection of the sample, 60 students studying in standard-7 at Dabhala Primary

School of Bijapur taluka of Mehsana district were included as a sample following the purposive sampling method.

Tools:

In the present research, the difficult learning outcomes as the Tools are "Understand algebraic expressions and add and subtract them." A 30-mark test prepared based on the method of obtaining data was used.

Method of obtaining data:

The researcher collected data by taking a post-test at the end of the educational program of the students of Dabhala Primary School of Vijapur taluka.

Data analysis:

The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on the diagnosis. Therefore, the average, standard deviation and t value of the scores obtained by the students in the pre-test taken before the implementation of the educational program and the post-test taken after the implementation of the educational program were found.

Research findings:

1. The educational program designed by the researchers has been effective in terms of the difficult learning outcome "Understands algebraic expressions and adds and subtracts their sums." and if the educational program is implemented in accordance with the above learning outcomes.

2. The students of the experimental group achieved more than the students of the conventional group on all three levels of achievement. However, among the students of both the groups, the students of the experimental group have achieved the achievement level of 35% and 100% of the students have achieved. Whereas 67% students of the traditional group have reached the achievement level of 35%.

3. Among the students of both the groups 100% of the students of the experimental group have achieved the achievement level of 50%. That is, 100% of the students in the experimental group have achieved more than 50%. Whereas for a traditional group student this percentage is 40%.

4. Among the students of both groups 93.33% of the students of the experimental group have secured above 75% achievement level. That is, 93.33% students of the experimental group have achieved more than 75% while only 6.66% of the students of the conventional group have achieved more than 75%.

Educational Outcomes:

• Hard learning outcomes “Understand algebraic expressions and subtract their sums. "Educational program designed by contextual researchers has been effective so this program should be implemented at school level.

• Similarly, for other difficulties found in NAS, an educational program should be designed and implemented at the school level for alleviation of difficulties through diet.

• In-service training should be provided to teaching staff in Afghanistan on how to implement the curriculum in the classroom.

6. **Researcher's name:** P.I. Patel,

Designation: Junior Lecturer, District Institute of Education and Training, Mehsana

Name of Research Guide: Dr. Pankaj I. Parmar

Introduction:

For any work to be successfully completed, that work should be evaluated and based on the evaluation, necessary changes should also be made in the future planning of the work. This diagnostic and therapeutic process is very important for the success of the work. The diagnostic and therapeutic process also plays an important role for the high quality of the work and this is a general rule for all types of work, whether this work is educational or non-educational. Here we only talk about improving the quality of education, then the education done at the school level should be continuously evaluated by the teacher and based on the evaluation, the teacher should make necessary changes in his educational work, only then can the quality of education be improved.

Generally, when a teacher prepares for educational work, the following things are taken into account.

(1) Purpose (2) Content (3) Educational Materials (4) Educational Methodology: (5) Planning (6) Implementation (7) Evaluation

Research Title:

Structure and Trial of Simplified Educational Program in the Context of Study of Standard-7 Mathematics Difficult Learning Outcome No. “M705”

Research Area: Mathematics Education

Research Objective: The present research was also conducted keeping in mind the specific objective. In the present study, the researcher has set the following objectives

1. To design a post-test of Standard-7 Mathematics

2. To trial a post-test of Standard-7 Mathematics.

3. Standard-7 Mathematics Difficult Learning Outcome M705 “Adds and divides large numbers using exponent form.” To design an educational program related to the related content

4. Standard-7 Mathematics Subject Hard Study Result M705 “Adds and divides large numbers using exponents.” To investigate the effectiveness of the educational program on the achievement of students

5. To investigate the effectiveness of the achievement achieved by the student through special educational program and traditional education.

Area:

The results of any research cannot be applied to everyone. Similarly, it cannot be applied to different situations. Then it becomes necessary to know the population of the research.

In the present research, only students of standard-7 teaching in a primary school of Mehsana district have been included.

Sample:

For the selection of the sample, it was decided to select one school from the primary schools run by the District Panchayat Education Committee following the purposive sampling method. The school was selected following the random sampling method, in which first a list of primary schools run by the District Panchayat Education Committee having more than 30 students and two classes in Standard-7 was prepared. The help of the MS Excel program of the computer was taken to select the school from this list. The school was selected by using the RANDOM BETWEEN FUNCTION in the FORMULA in the MS Excel program.

Tools:

In the present research, a 25-mark test was designed and used for the content included in the study output. The test is given in the appendix.

Method of obtaining data:

The researcher personally visited the primary school and conducted a post-test at the end of the student's educational program.

Data analysis:

The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on diagnosis. There was also an aim to compare the two educational systems. Therefore, the average of the marks obtained by the students of the experimental group and the traditional group in the post-test was found and their t-value was found.

Conclusions:

The main findings of the present research were as follows.

(1) Difficult learning outcome “Adds and divides large numbers using exponents.” The educational program designed by the researchers regarding the unit has been effective and if the educational program is implemented at the school level to carry out the teaching work of the above learning outcome, it can prove to be more effective than the traditional method.

(2) The students of the experimental group have achieved more than the students of the traditional group in all three levels of achievement. However, among the students of both the groups, 100% of the students of the experimental group have achieved the achievement level of 35%. While 100% of the students of the traditional group have been able to reach the achievement level of 35%. Among the students of both the groups, 100% of the students of the experimental group have achieved the achievement level of 50%. That is, 100% of the students of the experimental group have achieved more than 50% achievement. While for the students of the traditional group this proportion is 40%. Among the students of both the groups, the students of the experimental group have achieved a higher achievement level.

Educational Outcome:

(1) The difficult learning outcome “Adds and divides large numbers using exponential form.” The educational program designed by the researchers regarding the unit has been effective, so this program should be implemented at the school level for teaching this learning outcome.

(2) Similarly, for other difficult points, an educational program should be designed for simplifying the difficult points through diet and it should be implemented at the school level.

(3) In-service training should be given to the teachers working in the classroom on how to implement the educational program in the classroom.

7. **Researcher's name:** Dr. Devangiben M. Patel

   Designation: Lecturer, District Institute of Education and Training, Mehsana

   Research Supervisor's name: Dr. G. C. Vyas, District Institute of Education and Training, Mehsana

   Introduction:

   GCERT, Gandhinagar conducted a district-level achievement survey of primary school children and suggested preparing a specific remedial program for the simplification of the difficult points (content) found and testing it. If the educational program prepared for the simplification of the difficult points is successful, then it can be considered for implementation at the state level. Therefore, in order to prepare an educational program in accordance with the difficult learning outcomes in each district, no difficult learning outcomes are duplicated and an educational program in accordance with the maximum difficult learning outcomes can be prepared, GCERT has asked each diet to allocate the difficult learning outcomes found in NAS-2021 standard-wise subject-wise and design an educational program to simplify it and test it. It was decided to conduct the present research to design an educational program to simplify the difficult learning outcomes allocated by GCERT and determine its effectiveness.

   Research Title:

   Study of the Structure and Effectiveness of the Simplified Educational Program with Reference to the Difficult Learning Outcome Number M721 of Standard 7 Mathematics

   Research Area:

   The main area of the present research is primary education. While the sub-area was educational evaluation and testing.

Research Objectives:

1. To design a post-test for Standard-7 Mathematics

2. To test the post-test for Standard-7 Mathematics

3. To design an educational program related to the difficult learning outcome of Standard-7 Mathematics M721 “Understands about rational numbers and calculates using rational numbers in various situations.”

4. To examine the effectiveness of the educational program on the achievement of students regarding the difficult learning outcome of Standard-7 Mathematics M721 “Understands about rational numbers and calculates using rational numbers in various situations.”

5. To examine the effectiveness of the achievement achieved by the student through special educational program and traditional education

Area:

All the children studying in Standard-7 in a primary school in Mehsana district were the population of the present research.

Sample:

Following the purposive sampling method for sample selection, two groups of 30 students each studying in standard-7 of Lakhvad Primary School of Mehsana taluka of Mehsana district were included as a sample.

Tools:

In the present research, a 30-mark test prepared based on “Understands rational numbers and calculates using rational numbers in various situations.” was used as the instrument.

Method of obtaining data:

The researcher collected data by taking an answer test at the end of the educational program of the students of Lakhvad Primary School of Mehsana taluka.

Data analysis:

The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on diagnosis. Therefore, the average, standard

deviation and t value of the scores obtained by the students in the answer test taken by the traditional group and the experimental group after the implementation of the educational program were found.

Research Findings:

• The educational program designed by the researcher regarding the difficult learning outcome M801, “Generalizes the properties of addition, subtraction, multiplication and division of rational numbers through patterns/examples and gives a simple form using the properties.” has been effective and if the educational program is implemented at the school level to teach the above learning outcome, it can prove to be more effective than the traditional method.

• The students of the experimental group have achieved more achievement than the students of the traditional group in terms of achievement level. However, among the students of both the groups, the students of the experimental group have achieved 72% achievement level and 100% students. While 100% students of the traditional group have been able to reach the achievement level of 55%.

• Thus, among the students of both the groups, the students of the experimental group have achieved 17% more achievement than the students of the traditional group. So it can be said that the educational program designed by the researcher has been effective.

Learning Outcomes:

1. The educational program designed by the researcher regarding the difficult learning outcome “Understands about rational numbers and calculates using rational numbers in different situations.” has been effective, so this program should be implemented at the school level.

2. Similarly, for other difficult points found in NAS, an educational program should be designed by the Diet to simplify the difficult points and it should be implemented at the school level.

3. In-service training should be given to teachers working in the field on how to implement the educational program in the classroom.

8. **Researcher's name**: Dr. Devangiben M. Patel

Designation: Lecturer, District Institute of Education and Training, Mehsana

Research Guide Name: Dr. G. C. Vyas, District Institute of Education and Training, Mehsana

Introduction:

GCERT, Gandhinagar conducted a district-level achievement survey of primary school children and suggested preparing a specific remedial program for the simplification of the difficult points (content) found and testing it. If the educational program prepared for the simplification of the difficult points is successful, then it can be considered for implementation at the state level. Therefore, in order to prepare an educational program in accordance with the difficult learning outcomes in each district, so that no difficult learning outcomes are duplicated and an educational program can be prepared in accordance with the maximum difficult learning outcomes, GCERT has asked each diet to allocate the difficult learning outcomes found in NAS-2021 standard-wise, subject-wise, and design an educational program to simplify it and test it. It was decided to conduct the present research to design an educational program to simplify the difficult learning outcomes allocated by GCERT and determine its effectiveness.

Research Title:

A Study of the Structure and Effectiveness of Simplified Educational Program with Reference to Standard 7 Mathematics Subject Hard Learning Outcome No. M721

Research Area:

The main area of the present research is primary education. While the sub-area was educational evaluation and testing.

Research Objectives:

1. To design an answer test for Standard-7 Mathematics Subject

2. To test an answer test for Standard-7 Mathematics Subject

3. To design an educational program with respect to the Standard-7 Mathematics Subject Hard Learning Outcome M721 “Understands about rational numbers and calculates using rational numbers in different situations.”

4. To design an answer test for Standard-7 Mathematics Subject Hard Learning Outcome M721 “Understands about rational numbers and calculates using rational

numbers in different situations." To examine the effectiveness of the educational program on the achievement of students

5. To examine the effectiveness of the achievement achieved by the student through special educational program and traditional education

Area:

All the children studying in standard-7 in the primary school of Mehsana district were the scope of the present research.

Sample:

Following the purposive sampling method for the selection of the sample, two groups of 30 students each studying in standard-7 of Lakhvad Primary School of Mehsana taluka of Mehsana district were included as a sample.

Tools:

In the present research, the instrument used was "Understands about rational numbers and calculates using rational numbers in various situations." A 30-mark test prepared based on rigorous learning outcomes was used.

Method of obtaining data:

The researcher collected data by taking an answer test at the end of the educational program of the students of Lakhvad Primary School of Mehsana taluka.

Data Analysis:

The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on diagnosis. Therefore, the mean, standard deviation and t value of the scores obtained by the students in the post-test taken by the traditional group and the experimental group after the implementation of the educational program were found.

Research Findings:

1. The educational program designed by the researcher has been effective in terms of the difficult learning outcome "Understands rational numbers and calculates using rational numbers in different situations." and if the educational program is implemented at the school level to teach the above learning outcome, it can prove to be more effective than the traditional method.

2. The students of the experimental group have achieved more achievement than the students of the traditional group in all three levels of achievement. However, among the students of both the groups, the students of the experimental group have achieved 100% of the achievement level of 35%. While 75% of the students in the traditional group have been able to reach the achievement level of 35%.

3. Among the students in both the groups, 100% of the students in the experimental group have achieved an achievement level of 50%. That is, 100% of the students in the experimental group have achieved more than 50%. While for the students in the traditional group, this proportion is 40%.

4. Among the students in both the groups, 93.33% of the students in the experimental group have achieved an achievement level of more than 75%. That is, 93.33% of the students in the experimental group have achieved more than 75% while only 6.66% of the students in the traditional group have achieved more than 75%.

Educational Outcome:

1. The educational program designed by the researcher regarding the difficult learning outcome “Understands about rational numbers and calculates using rational numbers in various situations.” has been effective, so this program should be implemented at the school level.

2. Similarly, for other difficult points found in NAS, an educational program should be designed by the DIET to simplify the difficult points and it should be implemented at the school level.

3. In-service training should be given to teachers working in the classroom on how to implement the educational program in the classroom.

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સંશોધન સારાંશ

2023-24

District Education and Training Institute, Mehsana

Research Summary Year 2023 – 24

Study	Title Researcher	Name
1	Students of Standard 7 are poor in independent writing.”	V. D. Adhiyol
2	Study of the structure and effectiveness of simplified educational program with reference to the difficult learning outcomes of Science and Technology subject of Standard-7, No. SC711	D.M.Patel
3	Structure of a reform-oriented educational program based on the difficult learning objective of Mathematics subject of standard-6, number M604.2 and its trial	P.I.Patel
4	Study of the educational effects of gender equality on girl education in Mehsana district	Dr.S.C.RABARI
5	Structure of a simplified educational program in the context of teaching the difficult learning objective of Social Science subject of standard-7, number SS705 and its effectiveness	B.S.DESAI
6	Study of the reasons for dropout in primary schools of Mehsana district.	B.S.DESAI P.I.PATEL DR.D.A.TRIVEDI
7	Structure and trial of simplified educational program in the context of teaching of difficult learning subject H703 of Hindi of standard 7	Seema Ramashray Yadav
8	Study of the achievement of best schools and schools achieving low results based on GSQAC grading of Mehsana district	Seema Ramashray Yadav Dr. Devangi M. Patel
9	Structure and effectiveness of simplified educational program in the context of teaching of difficult learning subject EV410 of environment of standard-4	Dr.S.C.RABARI
10	Study of the academic achievement of students of standard four and seven of Mehsana district under Gujarat Achievement Survey (GAS-5)	Dr. Devangi M. Patel
11	Structure of simplified educational program and its trial in the context of studying difficult learning outcome number “M719” of Mathematics subject of standard-7	Dr. Pankaj I. Parmar

1. **Researcher's Name: V. D. Adhiol**

Designation: Senior Lecturer

Research Mentor's Name: Dr. G. C. Vyas, Principal, DIET-Mehesana

Introduction :

Ministry of Human Resource Development (MHRD), National Council of Educational Research and Training (NCERT), New Delhi, Samagra Shiksha Abhiyan (SSA) and Gujarat Council of Educational Research and Training (GCERT), Gandhinagar conduct various types of surveys and research at the national and state levels.

GAS 4 (Gujarat Achievement Survey) was conducted at the state level during the year 2022-23 and National Achievement Survey (NAS) was conducted at the national level during the year 2021. The findings of this survey and the learning outcomes that are lacking in it, G 716 (independent writing in Gujarati subject in Standard 7. (Story, poem, riddle, various letters, essay writing, report, incident or event) This research was conducted based on learning outcomes and independent writing.

Title

“ Students of Standard 7 have difficulty in independent writing. “

Problem Statement

Objectives of the Study

The objectives of the research are the central part of the entire research work. The objectives of the present study were as follows.

1. Among the learning outcomes that are lacking in GAS 4 (Gujarat Achievement Survey) and National Achievement Survey, G 716 (independent writing in Gujarati subject in Standard 7. (Story, poem, riddle, various letters, essay writing, report, incident or event) Based on learning outcomes, for students of Standard 7 to be able to write independently To design the program and test it on an experimental basis.

2. To examine the effectiveness of the independent writing program on the students of standard 7 in terms of gender (boys and girls).

3. To examine the effectiveness of the independent writing program on the students of standard 7 in terms of social group (SC, ST, OBC and General).

Study Hypotheses

Before starting the research, the researcher makes logical predictions about what results will be obtained at the end of his research. Which is called a hypothesis. A well-formed hypothesis becomes a guide according to the researcher.

The null hypotheses of the present research were formulated as follows.

1. There will be no significant difference in terms of gender (boys and girls) between the average scores of the implementation of the independent writing program among the boys and girls of standard 7. .

2. There will be no significant difference between the mean scores of the implementation of the independent writing program among male and female students of standard 7 with respect to social group (SC, ST, OBC and General).

3. There will be no significant difference between the mean scores of the pre-test and post-test of the implementation of the independent writing program.

Variables included in the study

The variables selected for the present research are as follows.

Ordinal	Variable Type	Variable	Levels of Variable
1.	Independent Gender	Gender	(1) Boy (2) Girl
		Social Group	(1) General (2) OBC (3) SC (4) ST
2	Authority Independent	Writing Program	

Field of Study

Since the present study is related to the assessment of children, it can be clearly said that the present study was very much related to the field of language education in language education.

Population of study

The Area of the present study was limited to a total of three Gujarati medium primary schools, two in Kadi taluka and one in Becharaji taluka of Mehsana district. In the present research, the achievement of independent writing ability in Gujarati subject in independent writing in standard seven was tested.

Limitations of the Study

The limitations of the present study were as follows.

• In the present study, only three Gujarati medium primary schools were selected as the sample.

Population

The Area of the present study was Mehsana district. Area of the present study. The world included Gujarati medium primary schools of Kadi and Becharaji talukas of Mehsana district.

Sample Selection

A total of 3 primary schools of the entire district were randomly selected by the researcher, two from Kadi taluka of Mehsana district and one from Becharaji taluka. The effect of the independent writing program on a total of 75 students of standard seven of three schools was tested by selecting one class from all the classes of standard seven of the selected school in the sample.

Thus, 75 students of standard seven of 3 primary schools of the district were included in the sample.

Research Type

The present research can be considered as a practical and quantitative type.

Research Method

The present research was based on experimental method.

Tools

The present research was to test the writing ability of standard seven students. As per the guidance and instructions of GCERT, Gandhinagar, an independent writing program was developed by the District Education and Training Building, Mehsana to know the achievement of independent writing ability. A total of six stages were developed in this device.

Data Collection

In the present research, the details of the scores in the independent writing program implemented by the schools selected in the sample for data collection were brought to the District Education and Training Building, Mehsana and school-wise information was obtained with the help of these scores. A total of six stages were implemented for a total of 12 days, two days for each stage, and information was obtained based on the scores of the pre- and post-tests.

Data Analysis

For the present research, the hypotheses were tested by finding the mean, standard deviation, t-value and significance level according to the hypotheses formulated keeping in mind the variables like gender. Finally, to find out which steps are difficult for students in the independent writing program, the difficult steps were determined based on the program implemented in standard seven.

Research findings

Based on the present research, the following conclusions were drawn.

1. After the implementation of the independent program, the lowest percentage of the average scores of the pre- and post-tests after the implementation of the independent

program were 223 (14.61%) and 216 (19.33%) under content and conceptual continuity and writing process, while the highest percentage was observed in the text under

2. 398.50 (22.30%).

3. The achievement of the independent writing program of a total of six steps was 19.64%.

4. According to the six steps included in the program prepared for independent writing, the scores of the students were as follows: Reasonable collaborative effort for independent writing 20.36%, Increase in sentence writing speed – consistency 21.04%, Coherence in writing / writing structure 22.30%, Use of language fluency and language variety 30.23%, Content and conceptual consistency 14.61% and Writing process 19.33% and the average score of the entire independent writing program for the six steps was 19.64%.

5. The last two steps of the writing program

6. Use of language fluency and language variety and

7. Writing process were found to be difficult for the students.

8. The effect of gender and social group variables was observed on the average score obtained in the independent program.

9. There was a significant difference between the mean scores of pre-test and post-test of boys and girls.

10. There was a significant difference between the mean scores of pre-test of students belonging to social groups (SC, ST, OBC and General). There was no significant difference between the post-test scores.

Educational implications of the research

• Need-based training in writing skills and remedial education should be organized at the school level.

• A simplified educational program should be made regarding difficult learning outcomes. This program should be implemented at the school level for the teaching of difficult learning outcomes.

• A simplified educational program should be designed at the district level based on other difficult points related to the currently implemented curriculum and it should be implemented in all the schools of the district.

• After changes in the curriculum and assessment methods, it should be checked whether the amount of difficult points has increased or decreased and necessary amendments should be made in the curriculum and textbooks based on that.

• Teachers should be guided to create various teaching and learning materials keeping in mind the learning outcomes based on difficult points.

• Study of difficult learning outcomes and factors affecting academic achievement

Recommendations for future research

• Survey of academic achievement of students of Mehsana district under independent writing

• Study of the effectiveness of difficult point based trainings in independent writing in classroom education

• Study of the effectiveness of difficult point based diagnostic-therapeutic program in language education

• Study of the effectiveness of ‘Reading Campaign’ program on students’ reading comprehension and reading speed.

• Study of the effectiveness of various programs implemented by the government on students’ academic achievement.

2. Name of the researcher: Dr. D.M.Patel

Designation: Lecturer

Name of the research supervisor: Shri V.D.Adhiyol

1. **Introduction**

In order to prepare an educational program in accordance with the maximum difficult learning outcomes in each district, each District Education and Training Building was asked by GCERT to design an educational program to simplify the difficult learning outcomes found in the Gujarat Achievement Survey (GAS) by allocating them standard-wise and subject-wise. The researcher is working as a professor in the District Education and Training Building and since he is associated with teacher training, the researcher designed an educational program to simplify the difficult learning outcomes allocated by GCERT, Gandhinagar for the subject of Science and Technology of Standard-7 and to determine its effectiveness.

2. **Research Title**

A Study on the Structure and Effectiveness of Simplified Educational Program with Reference to the Difficult Learning Outcome SC711 of Science and Technology Subject of Standard-7

3. **Research Objectives**

The objectives of the present research are as follows.

• To design a simplified educational program based on the difficult learning outcome SC711 derived in the Science subject of Standard-7.

• To test the simplified educational program on the students included in the sample of Standard-7.

• To design a pre- and post-test to check the effectiveness of the simplified educational program on the students included in the sample of Standard-7.

• To check the effectiveness of the simplified educational program on the students included in the sample of Standard-7 on their academic achievement.

4. **Research Hypothesis**

The null hypothesis in accordance with the objectives of the study was formulated as follows.

• Null Hypothesis-1 There will be no significant difference between the average of the pre-test and post-test scores of the students of Standard 7.

• Null Hypothesis-2 There will be no significant difference between the average of the pre-test scores of the girls and boys of Standard 7.

• Null Hypothesis-3 There will be no significant difference between the average of the post-test scores of the girls and boys of Standard 7.

• Null Hypothesis-4 There will be no significant difference between the average of the pre-test and post-test scores of the boys of Standard 7.

• Null Hypothesis-5 There will be no significant difference between the average of the pre-test and post-test scores of the girls of Standard 7.

5. **Significance of the Research**

Since the present study is useful in many ways, its significance can be shown as follows.

Regarding the usefulness of the students

• This study will prove to be useful in making the children think mentally.

• This study will prove useful in understanding the content and solving the questions based on that content with high intelligence.

• This study will be helpful in making difficult learning outcomes easier for children.

 Regarding the usefulness of teachers

• The teacher will be able to take necessary efforts regarding the selected learning outcomes.

• It will help in identifying the needs of the students and selecting and implementing the learning-teaching processes.

• In relation to the selected learning outcomes of the students, measures can be taken to find out the obstacles and remove them.

6. **Population :**

In the present research, students studying in standard-7 in Gujarati medium primary schools of Mehsana district form the Area of the present research.

7. **Sample Selection**

In the present study, 40 students of Vadosan, Mehsana were purposively selected from among the Gujarati medium government primary schools of Mehsana taluka.

8. **Research Area**

The present research touches upon the field of primary education and science education.

9. **Type of Research**

In the present research, the researcher has tried to measure its effectiveness on the students of standard-7 by structuring a simplified educational program based on the difficult learning outcomes derived in standard-7 science subject. Hence, the present research is of practical type.

10. **Research Method**

The experimental research method was used in the present research.

11. **Variables included in the research**

The variables selected for the present research are as follows.

Sequence Variable Variable Type

1 Simplified Educational Program Independent

2 Academic Achievement System

3 Standard, Area, Content, Time Controlled

4 Gender Variable

12.**Tools**

The researcher designed a pre-test, simplified educational program, and post-test to measure academic achievement based on the difficult learning outcomes serial number SC711 to find out the shortcomings (difficult matters) in the selected content.

13. **Data Collection**

Where can a representative sample of the world be found? Considering such issues, the researcher collected data by giving pre-test and post-test from the subjects included in the sample of Vadosan Primary School of Mehsana Taluka, which was selected from the Gujarati medium government schools of Standard-7 in Mehsana Taluka. Here, only one group was taken by the researcher.

14. **Data Analysis**

Since the present research work is of an experimental type as well as a corrective one, the validity of the hypotheses formulated was tested through mean, standard deviation and t-value.

15. **Research Findings**

The findings of the present research were as follows.

1. A great improvement has been seen in the post-test of the students of standard 7 compared to the pre-test.

2. There is equality in the marks obtained by the girls and boys of standard 7 in the pre-test.

3. There is equality in the marks obtained by the girls and boys of standard 7 in the post-test.

4. Pre-test of the boys of standard 7

5. A significant improvement has been seen in the post-test of girls of standard 7 compared to the pre-test.

16. **Educational outcomes**

• The simplified educational program designed by the researcher regarding the difficult learning outcome SC711 should be implemented in other schools.

• A simplified educational program based on other difficult points related to the current curriculum should be designed at the district level and it should be implemented in all the schools of the district.

• In-service training should be given to teachers working in the department on how to implement the simplified educational program in the classroom.

• Children can be oriented towards learning science by adopting different teaching methods.

• Children should be familiarized with information related to prior knowledge regarding the new unit.

• Children should be given sufficient time to ask questions and the questions should also be explained in depth.

• The concept of each subject should be clearly explained.

• Appropriate planning should be made to provide developmental experiences to children.

17. **Recommendations for future research**

• Based on the present research, it was recommended to conduct future research on the following topics.

• Study of the effectiveness of the subject-wise critical point-based diagnostic-therapeutic program regarding GAS and NAS

• Study of the effectiveness of the ‘Gyankunj Project’ on the academic achievement of students.

• Study of the effectiveness of the ‘Schools of Excellence’ program on the achievement of learning outcomes of students.

• Study of the effectiveness of the FLN program on the reading, writing and arithmetic skills of children.

• Study of the effectiveness of various programs implemented by the government on the academic achievement of students.-Study can be conducted under the structure and trial of the program for the development of scientific and mathematical creativity.

3. Name of the researcher: P.I.Patel

Designation: Lecturer

Name of the research guide: Dr.G.C.Vyas, Principal, DIET-Mehesana

1. **Introduction**

Considering the results obtained in DLI, GAS-4, SAT -1 (21-22) by GCERT Gandhinagar, each DIET has been allocated according to the number of lecturers of various subjects. Under which, it was considered appropriate to conduct the present study by DIET-Mehesana with the aim of conducting research on the subject of Mathematics, considering the difficult learning outcome number M604.2, with the aim of structuring the program and implementing it among the students.

2. **Research Title**

Structure of a simplified educational program in the context of studying the difficult learning outcome number “M604.2” of the Mathematics subject of Standard-6 and its trial

3. **Research Objectives**:

The objectives of the present study were as follows.

(1) To structure a simplified program based on the difficult learning outcome number M604.2 of the Mathematics subject for the students of Standard-6.

(2) To structure a test based on the difficult learning outcome number M604.2 of the Mathematics subject for the students of Standard-6.

(3) To test the effectiveness of the test designed based on the difficult learning outcome number M604.2 of the Mathematics subject for the students of Standard-6.

4. **Research Hypotheses**

In order to test the hypotheses statistically, the researcher formulated the following null hypotheses.

During the experiment, there will be no significant difference between the average scores of the test and the post-test scores obtained before the implementation of the program designed based on the M604.2 rigorous study of mathematics for students of standard-6.

5. **Significance of the Research**

The significance of the present study can be presented as follows:

- Through the present study, students will be able to understand various issues of chapters such as understanding the number line in mathematics, showing integer numbers on the number line, etc.

- Through the present study, they can gain an understanding of the number line in mathematics

6. **Population:**

In the present research, students studying in standard-6 in Gujarati medium primary schools of Mehsana district during the year 2023-24 were included as the Area.

7. **Sample Selection**:

In the present study, the researcher randomly selected Bechar Primary School, T. Becharaji, Mehsana district as the sample.

8. **Field and Type of Research:**

While the present study was a practical type of research. Practical research is carried out to solve a current problem. The purpose is not to increase knowledge, but to put theory or rules into practice.

9. **Research Method**

The present study was an experimental research method.

10. **Tools:**

In the present research, the students of standard-6 mathematics subject are informed about various concepts based on difficult points such as understanding of number line, showing integer numbers on number line, etc. and clarify the concept. Keeping that in mind, the teaching plan was prepared by the sponsor. The plan was made for four hours. For which the teaching work was done by the sponsor. Based on which the pre-test and post-test were prepared. The test was of 25 marks. In which the students had to answer the given questions. In which questions like short answer questions, solving puzzles were included. Each question was worth 01 mark. A time of 1 hour was allotted for giving feedback in the test.

11. **Data collection:**

Prior approval of the school principal was taken to get the feedback of the students on the device designed in the present study. After that, the purpose of testing the students in the school and the exercises designed on its basis were divided into groups and data was collected accordingly. Teaching work was done. Lecture method and teacher's experience were combined during the teaching work.

12. **Data analysis:**

In the present study, a pre-test and post-test designed by the sponsor were given. Since the mean difference in the response scores given by the students is to be compared, the t-test of statistics will be done with the help of computer-based program SPSS.

13. **Findings of the Research**

The findings of the present study were as follows.

- The academic achievement of the students taught through the hard-point based program of Mathematics of Standard-6 was found to be significantly more effective than the traditional method.

- The students were able to easily understand the complex concepts in Mathematics like understanding the number line, showing integer numbers on the number line, etc.

- The child can understand the content at his own pace.

- The students can understand the subject quickly through practice or repetition during the teaching work of Mathematics.

- The students get the opportunity to express their ideas, that is, creativity can be developed.

14. **Educational Outcomes:**

The educational outcomes of the present study were as follows.

- Based on the findings obtained at the end of the experiment conducted in the present research, it can be said that the program prepared based on the difficult points of Mathematics of Standard-6 was effective in terms of the academic achievement of the students.

- If the educational program is also structured for the teaching of other complex or difficult topics of Mathematics, the academic achievement of the students can be increased.

15. **Recommendations for future research**

Based on the experiences of the researcher's experiment, the researcher has pointed out some future researches so that such researches can be done more and more in the future, which are as follows.

- The present research is limited only to the government primary school of Mehsana district. In the future, such research can be conducted by selecting a larger sample.

- Such exercises can be given for units of subjects other than mathematics and their effectiveness can be checked.

- If more and more exercises are given to the students, mathematics can be taught easily.

4. **Researcher's name: Dr.S.C.RABARI**

Designation: Senior Lecturer

Research advisor's name: Principal V.D.Adhiyol,

Introduction:

Since gender inequality in the primary education sector has a negative impact on the education of girls, here an attempt has been made to conduct a study on the “Study of the Educational Effects of Gender Equality on Girl Education in Mehsana District”.

What is gender discrimination? Defining it, renowned sociologist Ann Oaklen (1970) states that, "Gender means, those characteristics of men and women which are socially determined in contrast to those which are biologically determined."

There is a fundamental difference between 'sex' and 'gender'. 'Gender' means the expectation of things that men and women can do equally, while 'sex' means the gender difference between men and women. Gender is a dynamic concept and its impact varies across cultures and economic environments. Different aspects of gender discrimination are viewed from different perspectives depending on the socio-economic situation. In fact, awareness of sexual sensitivity is an important feature of a developed society. Boys and girls are equal and there is no natural difference between their genders due to their gender. Every man has some feminine traits and every woman also has some masculine traits and this is a gift given by nature. It has been decided to conduct the present study in order to understand this matter theoretically and in the context of its educational effects.

 Research Title: “Study of Educational Effects of Gender Equality on Girls’ Education in Mehsana District”

Purpose of Research:

The present research was also conducted keeping in mind a specific purpose. The main objectives of the present research were as follows.

1. To study the information related to the social impact of sexual sensitivity on girl education in the primary education sector of Mehsana district.

2. To study the information related to the educational impact of sexual sensitivity on girl education in the primary education sector of Mehsana district.

3. To study the programs undertaken for the development of girl education in the primary education sector of Mehsana district.

4. To study the educational impact of girl education in the primary education sector of Mehsana district in terms of gender.

 Research Questions: In order to fulfill the objectives of the present study, the following study questions have been formulated in its context.

1. What will be the effectiveness of the information related to the sociological impact of sexual sensitivity on girl education in the primary education sector?

2. What will be the effectiveness of the programs undertaken for the development of girl education in the primary education sector

3. What will be the effectiveness of the sociological information related to the gender of sexual sensitivity on girl education in the primary education sector?

4. How effective will the information related to gender-sensitive education be on girls' education in the primary education sector?

 Importance of the research:

Men and women, boys and girls are equal and there is no discrimination between them. Nature has accepted this but man does not accept it. When man in society removes this discrimination and accepts equality, the wall between men and women of gender discrimination will be removed and their development will be equal and in one direction. The present study has been conducted to understand the extent of gender discrimination in different communities, areas, different societies and different castes in the state of Gujarat, what kind of it is and how it affects gender education, i.e. girls' education. The present study has an objective to examine the effects of gender-discriminatory education and its effects on the future generation. The government of Gujarat has been making tireless efforts for the last five years to eliminate gender discrimination and promote girls' education. The present study has been conducted to find out how these efforts affect the society and its effects on education.

 Population:

The unit of the present study is the teacher or guardian and the Area of the present study is the teachers and guardians of primary schools in the entire Mehsana district.

 Sample Selection: Sample selection method has been used. In which 5 talukas have been randomly selected from a total of 10 talukas in Mehsana district. Five primary schools were selected from the selected talukas. Information was collected from the teachers of these primary schools and the guardians of the students studying in those schools. 5 teachers, 5 female teachers and 20 guardians were randomly selected from each taluka. Number of teachers and parents from 10 different talukas selected

 Research area: Primary education

 Research type: Practical

 Research method: The present research can be called a survey method based research

 Variables included in the research:

Variables such as caste, sexual sensitivity, sexual sensitivity, sexual impact and educational effects of sexual sensitivity have been included.

Tools: The main objective of the present research is to know the social and educational effects of sexual sensitivity on girl child education in the primary education sector. To know this situation, a self-designed questionnaire has been designed as a tool for obtaining information.

 Data collection: For data collection, 50 teachers and 100 parents selected from 25 primary schools in 5 talukas of Mehsana district were interviewed through BRC, CRC, school principal, school teacher

 Data Analysis:

The answers to the questionnaire for teachers are shown only in 'Yes' or 'No'. It has been divided into two sections. In which the information related to social impact, information related to educational impact has been properly analyzed. In it, using the numerical method, its simple percentage was averaged based on the number of responses and it was interpreted in a tabular manner.

The answers to the questionnaire for parents are shown only in 'Yes' or 'No'. It has been divided into two sections. In which the information related to social impact, information related to educational impact has been properly analyzed. In it, using the numerical method, its simple percentage was averaged based on the number of responses and it was interpreted in a tabular manner.

 Research findings:

Conclusions from the responses of teachers and parents:

(A) Social impacts:

The findings from the responses given by teachers regarding the social impact of gender equality on girl child education are as follows:

Due to awareness of girl child education, if training in gender equality is given, women will be able to stand on their own feet and will get the opportunity to live with self-respect. Girls should not necessarily stay at home to take care of younger siblings. Women's opinions should be given priority in family decisions. Also, girls should be given more education even though they have to go to a different home, so that girls can stand on their own feet, live with self-respect and the future society will also be educated.

(B) Educational Impacts:

The following conclusions are drawn from the responses given by the teachers regarding the social impact of gender equality on girl child education:

Due to awareness of girl child education, future mothers can become educated., Awareness should be created among the parents in the upbringing of girls., Boys and girls should be kept together in all school activities., Awareness is created among girls in the future society., The special qualities of girls should not be ignored by the teacher., Girls should be included in all types of activities in school., Girls and boys are found to be equal in academic achievement.

Conclusions from the responses of the parents:

(1) Social Impacts:

Due to lack of gender equality, the progress of girls is stunted,

the education of girls is stopped and women are subjected to atrocities. If training is given, women's awareness will increase, they will be useful in the education of the future society and women will be able to stand on their feet, the first step to educate the future society is awareness of gender equality.

While the parents of the general caste, girls should stay at home, women's opinion is not needed in family decisions and the place of girls is considered lower than boys in society, and it can be seen from their attitude that there is no provision for girls for higher education in society, etc.

(2) **Educational effects:**

Due to lack of gender equality, boys are seen to be smarter than girls, despite the ability of girls, they are more than boys in school, school time for girls should be kept only in the afternoon. According to the parents of the general caste, efforts should be made by teachers in the classroom to create self-identity of girls.

The parents of the general caste clearly oppose this matter, saying that teachers do not pay attention to the education of girls.

 Educational outcomes: Every study has its own importance in its respective field, so the present study is related to education, so its social and educational outcomes are achieved.

1. It can be known to what extent equality can be brought in the society.

2. In the future, gender-based training programs given to teachers can be made more effective.

3. Gender bias can be removed from every field such as society and education.

4. The status of women in the family will be elevated.

5. The place of boys and girls in the society will be equal.

6. Parents will become aware of the education of girls.

7. The proportion of girl education can be increased.

8. The importance of co-education can also be explained to the society.

9. Teachers can provide proper understanding by directly visiting the parents of girls who drop out of school.

11. Teachers will behave without discrimination between boys and girls in all school activities.

 Recommendations for future research: The following research related to the present research can be conducted in the future.

1. The present study has been conducted on teachers and parents of primary schools in the context of gender equality, similarly, the study can be conducted on teachers and parents of secondary schools and higher secondary schools.

2. In the present study, gender, caste and socio-economic status of the parent have been considered as variables. In the future, the study can be conducted by considering other variables such as type of teachers, area, educational experience of teachers, educational qualification of teachers, education of parents, etc.

3. In the present study, Mehsana district has been considered only, similarly, the study can be conducted by considering all the districts of Gujarat.

5. Name of the researcher: B.S.DESAI

Designation: Senior Lecturer

Name of the research supervisor: Principal V.D.Adhiyol,

 Introduction: The principal of DIAT asked the researchers to prepare and test a program for simplifying the difficult points found in the Social Science subject of Standard 7 in the achievement survey DLI-4, GAS-4 and SAT-1 conducted on children studying in primary schools of Mehsana district. The researcher is working as an expert in the subject of Social Science and has also been a guide for the textbook of Social Science, so he is well acquainted with the objectives of the Social Science curriculum. Therefore, when the principal asked him to prepare a program for simplifying the difficult points found in the subject of Social Science and to test it, he accepted it with great enthusiasm and decided to conduct the present research to design an educational program for simplifying the difficult learning outcomes allocated by GCERT and determine its effectiveness.

 Research Title: Structure of a simplified educational program in the context of teaching difficult learning outcomes of the subject of Social Science of Standard-7 and its effectiveness

 Purpose of the research:

In the present study, the researcher has set the following objectives.

• To design an answer test for the subject of Social Science of Standard-7

• To test an answer test for the subject of Social Science of Standard-7.

• Structure of simplified educational program in the context of teaching difficult learning outcomes of social science subject of standard-7 and its effectiveness “To create an educational program in relation to the related content

• Structure of simplified educational program in the context of teaching difficult learning outcomes of standard-7 and its effectiveness”

• To examine the effectiveness of the educational program on the achievement of students

• To examine the effectiveness of the achievement achieved by the student through special educational program and traditional education.

 Importance of Research:

The present research also has its own unique importance.

(1) In the present research, an educational program was prepared for the simplification of difficult learning outcomes. If it proves effective, then a program for presenting the

subject matter related to difficult learning outcomes will be obtained through which the content that seems difficult can be presented to the student effectively and easily.

(2) The academic achievement of the student can be increased.

(3) It will be a guide for designing educational programs for different subjects.

(4) The quality of education can be improved.

(5) The presentation of the material will be useful for providing relevant guidance to teachers during in-service training.

 Population:

All the children studying in standard-7 in primary schools of Mehsana district were the Area of the present research.

 Sample Selection:

It was considered sufficient to implement the prepared educational plan based on the study findings. For the selection of the sample, it was decided to select one school from the primary schools managed by the District Panchayat Education Committee following the purposive sampling method. The selection of the school was done following the random sampling method in which first a list of primary schools managed by the District Panchayat Education Committee having more than 30 students and two classes in standard-7 was prepared. From this list, the help of the MS Excel program of the computer was taken to select the school. The school was selected using RANDOM BETWEEN FUNCTION in FORMULA in MS Excel program

 Field of Research:

The present study was very much related to the field of educational evaluation and testing.

 Tools: In the present research, “Structural and Effectiveness of Simplified Educational Program in the Context of Teaching of Difficult Social Science Subject of Standard-7, SS705” was used as the tools.

• A 50-mark test was designed and used for the content included in the study. The test is attached.

 Data Collection: The researcher included students studying in Standard-7 of Kundal Primary School and Navapura Primary School of Kadi Taluka of Mehsana district as a sample. Data was collected by taking a test of the students at the end of the educational program in both the schools.

 Data Analysis: Here the researcher is required to give details of the statistical method used to analyze the data.

While preparing the research plan, the collected data is processed and analyzed in accordance with the objectives set. Analysis means calculating some measurements to find the pattern of relationships between data groups.

The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on the diagnosis, hence there was also an aim to compare the two educational methods, hence the average of the marks obtained by the students of the experimental group and the traditional group in the post-test was found and their t-value was found.

 Research Findings: The main findings of the present research were as follows.

(1) The average of the marks obtained by the students of the experimental group in the post-test is 38.43 while the average of the marks obtained by the students of the traditional group in the post-test is 26.39. Finding the t-value, it is found to be 6.10 which is more than 2.56 which shows that the average score of the students in the experimental group in the post-test is higher than that of the students in the traditional group.

(2) Hence, the null hypothesis is that there will be no significant difference in the average scores of the students of the experimental group (the group that learned the content through the prepared educational program) and the traditional group in the post-test. The students of the experimental group have higher achievement than the students of the traditional group.

(3) The educational program designed by the researchers regarding the unit “Structure of simplified educational program and its effectiveness in the context of teaching difficult learning outcomes of social science subject of standard-7, SS705” has been effective and if the educational program is implemented at the school level to carry out the teaching work of the above learning outcomes, it can prove to be more effective than the traditional method.

(4) The students of the experimental group have achieved more achievement than the students of the traditional group in all three levels of achievement. However, among the students of both the groups, 100% of the students of the experimental group have achieved the achievement level of 35%. While 93.93% of the students of the traditional group have been able to reach the achievement level of 35%.

(5) Among the students of both the groups, 84.61% of the students of the experimental group have achieved the achievement level of 50%. That is, 84.61% of the students of the experimental group have achieved more than 50%. While this proportion is 45.45% for the students of the traditional group.

(6) Among the students of both the groups, 79.48% of the students of the experimental group have achieved an achievement level of more than 75%. That is, 79.48% of the students of the experimental group have achieved more than 75% while only 9.09% of the students of the traditional group have achieved less than 75%.

 Educational outcomes:

(1) The structure of a simplified educational program in the context of teaching difficult learning outcomes of the social science subject of standard-7, number SS705, and its effectiveness was done, under which the efforts made by the researcher were effective and it should be implemented at the school level.

(2) Similarly, for other difficult points found in NAS, an educational program should be designed by the DIET for the simplification of the difficult points and it should be implemented at the school level.

(3) In-service training should be provided to teachers working in the field on how to implement the educational program in the classroom.

6. Name of the Researcher : B.S.DESAI, P.I.PATEL, DR.D.A.TRIVEDI

Designation : Senior Lecturer

Name of the Research Guide : Principal V.D.Adhiyol,

Introduction: The main function of the adolescents, besides earning, is to attend school. In the present education system, it is the primary stage which is the most crucial stage of education as it lays the foundation for personality traits, self-confidence, learning skills and coping with the difficulties of real life situations. Secondary education. It is also more valuable and it is a platform to promote and develop economic and social development. Providing better and quality education is a big challenge.

Education for all children is the main goal of our Indian democracy. Education is a basic necessity for responsible citizenship, maintenance of our lives and successful entry into today's complex world of work. In our country, education is available free of cost, yet an alarmingly large number of intellectually capable children drop out of school. They are wasting their mental abilities, wasting their opportunities and depriving them of their chances for a better life

 Research Title: "A Study of the Causes of Dropout in Primary Schools of Mehsana District."

 Research Objectives:

The main objectives of the present research were as follows.

1. To study the causes of dropout in primary and upper primary schools.

2. To study the problem of dropout of students in primary schools in urban-rural areas.

3. To study the educational causes of primary schools at rural and urban levels.

4. To study the consequences of dropout in primary schools and the diagnostic and remedial measures.

 Research Questions: In order to fulfill the objectives of the present study, the following study questions have been formulated in its context.

1. What will be the causes of dropout in primary and upper primary schools?

2. What will be the problem of dropout of students in primary schools in urban-rural areas?

3. What are the educational reasons for primary schools at rural and urban levels?

4. What are the consequences of dropout in primary schools and what are the diagnostic and remedial measures?

 Significance of the Research: This research has studied the problem of dropout in primary schools of Mehsana district. 76 years have passed since the country got independence, but the pace of economic, social and cultural development of various sectors of the country has been slow. The literacy rate among women, Scheduled Castes and Backward Classes and especially among rural people is very low. Girls are less literate than boys. One problem is to make people literate. It is necessary to conduct such research in Mehsana district from time to time to assess the situation, decide future policies and make plans. This research is the result of this vision. So far, no comparative study has been done on the problem of school dropout in primary and upper primary schools of Mehsana district on the basis of region, class and gender. From this point of view, this study is useful and important. Even though we call our country a democratic and socialist country, the ideals of equality, liberty, fraternity and social justice which are enshrined in the Directive Principles of the Indian Constitution, today appear like a word trap. Such studies show that the problem of dropout in primary and upper primary schools was more earlier but now it has reduced to some extent,

 Population:

The Area of the present study is teachers and dropout students of primary schools located in the entire Mehsana district.

 Sample Selection: Sample selection method has been used. In which there are a total of 10 talukas in Mehsana district. Five primary schools were selected from each taluka. Information was collected from the teachers of these primary schools and the dropout students of the students studying in those schools. 5 teachers and 25 dropout students were randomly selected from each taluka.

 Research area: Primary education

 Research type: Practical

 Research method: The present research can be called a survey method based research.

 Variables included in the research: After the formulation of the problem statement, it becomes necessary to define the research problem. So that the exact Area of the investigation can be determined. It includes three important actions.

(1) Telling about the variables included in the problem

(2) Identifying the words useful to describe the variables

(3) Clarifying the concept that represents the variables.

The definition of the problem includes the terminology that identifies the variables and the concepts that explain their meaning. Let us try to understand the practical definition of the terminology included in the problem statement.

 Primary school: The school in which classes are taught from standard 1 to standard 8.

 Enrollment: The registration of different students in different schools is written in the attendance sheet. In this research, the representation changes on the basis of region, gender, caste, etc.

 Dropout: Dropout means all those boys and girls who are studying after getting admission from standard 1 or standard 6 and leave their studies midway without passing standard 5 or standard 8. In addition, all those boys and girls who started their studies after home education by taking admission in standard 2 or 3 but left their studies midway without passing standard 5 or 8.

 Tools: The main purpose of the present research is to study the problem of dropout in the field of primary education. To know this situation, a structured question was used as a data collection device.

 Tools: The main purpose of the present research is to study the problem of dropout in the primary education sector. To know this situation, a self-designed questionnaire has been designed as a data collection device.

Tools-1 Design of questionnaire for dropout students and Tools-2 Design of questionnaire for teachers

 Datacollection: For data collection, the study was conducted through BRC, CRC, school principal, school teacher to 50 teachers selected from 50 primary schools of 10 talukas of Mehsana district and 25 dropout students and their responses were obtained in written form.

 Dataanalysis: In the present study, two devices were used for data collection. One was a questionnaire for teachers and the other was a questionnaire for dropout students.

The responses of the teachers were obtained through the questionnaire for dropout students. These responses were analyzed. The answers to this controlled response questionnaire are expressed in 'yes' or 'no' only. In it, using the numerical method, the number of responses was averaged by simple percentage and interpreted in a tabular form.

The number of responses of dropout students through the questionnaire for teachers was averaged by simple percentage and interpreted in a tabular form.

 Researchfindings:

5.3.1 Findings from the responses of dropout students:

1. Maximum dropout students believe that they did not like going to school.

2. Maximum dropout students believe that their health was good during studies.

3. Maximum dropout students believe that they did not go to school every day.

4. Maximum dropout students believe that they had the will to study.

5. Maximum dropout students believe that their parents were not sick frequently.

6. The maximum dropout student believes that he could not go to school because he had to take care of his siblings.

7. The maximum dropout student believes that some subjects were difficult.

8. The maximum dropout student believes that he could not remember difficult subjects even after practicing repeatedly.

9. The maximum dropout student believes that he lost interest in difficult subjects due to the assessments.

10. The maximum dropout student believes that he was disappointed by this and left his studies.

11. The maximum dropout student believes that the teaching style of the teachers was not good.

12. The maximum dropout student believes that you could not understand what the teacher taught.

13. The maximum dropout student believes that the class teacher was present every day.

14. The maximum dropout student believes that the teacher did not encourage you while teaching.

15. The maximum dropout student believes that some teachers used to tease or scold you while teaching.

16. The maximum dropout student believes that the teacher used to get angry when you asked questions.

17. The maximum dropout student believes that you did not drop out of school the year you got married.

18. The maximum dropout student believes that you did not drop out of school because you started a job or business.

19. The maximum dropout student believes that your parents made you do some work so that you did not go to school.

20. The maximum dropout student believes that you dropped out of school because there was no benefit in it.

21. The maximum dropout student believes that their subject teacher did not give them too much homework.

22. The maximum dropout student believes that subject teachers punished them for not completing their homework.

23. The maximum dropout student believes that teachers used to gossip among themselves instead of teaching.

24. The maximum dropout student believes that they could have told the headmaster about the problem.

25. The maximum dropout student believes that your homework was done with your earnings.

26. The maximum dropout student believes that your parents were not aware of your studies.

27. The maximum dropout student believes that your parents' behavior was loving towards you.

28. The maximum dropout student believes that your parents were able to bear the cost of education.

29. The maximum dropout student believes that they are satisfied with the education of the school teachers.

Findings of the study of educational reasons related to dropout of primary schools at rural and urban levels

1. In rural schools, 66 percent of primary schools do not have enough space for children to study, while in urban schools, 60 percent of schools do not have enough space for children to study.

2. 76 percent of children in rural schools and 66 percent of children in urban schools are not interested in studying.

3. 84 percent and 94 percent of internal examinations are conducted in rural and urban schools respectively. There are no strict board examinations till standard 5 and 8, so there is no problem of drop out among students. Due to the decline in the standard of education, students become weak in studies and leave their studies midway.

4. There is a shortage of 48 percent and 40 percent subject teachers in rural and urban schools respectively. Therefore, the problem of drop out is more in rural areas.

5. 66 percent of students in rural areas do not ask questions while 40 percent i.e. 48 percent students in urban schools do not ask questions.

6. The learning environment of most of the schools in rural areas was found to be uninteresting, the situation in urban areas was also not satisfactory, only the learning environment of Montessori i.e. nursery schools was interesting. Therefore, the education of children in schools run by the Basic Education Council is gradually decreasing, due to which dropouts occur.

7. There is no proper sports material in rural schools and proper sports material is not available in 68 percent of the urban schools.

8. Educational material was not available in sufficient quantity in 70 percent of the rural schools, while educational material was not available in 60 percent of the urban schools. Due to lack of shells in the schools, the learning environment becomes monotonous.

9. Rural and urban schools said that studying does not feel like a burden, but after observing the learning environment of the schools, it was found that 60 to 70 percent of the teachers feel like teaching is a burden. They entered this profession due to non-availability of jobs in other departments and thus making the learning environment unhealthy. The educational environment of the school is not described as attractive and interesting.

10. Teachers in rural and urban schools report that 80 percent of children, dropout students and the government being indifferent towards studies have made the learning environment of primary and upper primary schools a burden, leading to dropout.

11. Rural schools and urban schools It is said that the government occasionally runs refresher courses and other training. Dropouts are increasing due to lack of proper improvement in teaching.

12. 72 percent and 66 percent of rural and urban schools respectively report that the standard of education is declining due to lack of significant (effective) attention from the government.

13. Rural schools say that problems in education are increasing due to lack of attention. According to unit number 13, rural schools say that 88 percent of dropout students sometimes or never pay attention to their children's education and 82 percent of dropout students from urban schools do not pay attention to their children's education, due to which it is natural to reduce the number of schools.

14. Rural schools say that sometimes 80 percent of grants or compensation are given and 90 percent of urban schools say that proportion or compensation is sometimes given which causes dropout.

15. 88 percent of schools in rural areas say that scholarships are not provided on time, 70 percent of schools in urban areas say that scholarships are not provided on time, which causes dropout.

16. In rural areas, the government does not bear the cost of 10 percent of schools, they run at their own expense, while in urban areas, 20 percent of schools run at their own expense, due to which dropout

17. In rural areas, 40 percent of schools are facing shortage of subject teachers for two or more years. In urban areas, shortage of subject teachers was observed in 46 percent of schools. Which is the reason for dropout.

 Educationalimplications:

The educational implications of this study are as follows-

1. This study shows that students in rural areas suffer more problems than students in urban areas. For this reason, the number of illiterate people is more in rural areas. A large number of dropout students from Scheduled Castes and Backward Classes are illiterate. Most of the financial facilities provided to Scheduled Castes are not received on time. Such arrangements need to be made at the administrative level, so that funds are available to students on time, so that they can use that money in educational activities. Due to not getting money on time, they use it for household chores.

2 In this study, educational problems increase due to the difference in socio-economic status of rural and urban students, scheduled and non-scheduled castes. Necessary steps should be taken to reduce educational problems. The government is making efforts for the economic upliftment of the scheduled castes. Many types of schemes are being implemented. It is very important to evaluate them. Educationists say that as long as there is a difference in socio-economic status, it will be very difficult to provide equality of educational opportunities. This shows that girl students are coming to study in primary and upper primary schools. Looking at the enrollment ratio of girl students,

there is a special need to improve the economic status of low-status families. There is a great need for the development of girl education for India.

 Recommendations for future research: The following researches related to the present research can be conducted in the future.

1. The present study has been conducted on dropout students for the primary section, similarly, the study can be conducted on dropout students of secondary schools and higher secondary schools.

2. In the present study, the area of the school related to dropout has been considered as a variable. In the future, the study can be conducted by considering other variables such as type of teachers, area, educational experience of teachers, educational qualification of teachers, education of dropout students, etc.

3. In the present study, Mehsana district has been considered only, similarly, the study can be conducted by considering all the districts of the entire Gujarat.

7. Name of the researcher: Seema Ramashray Yadav

Designation: Lecturer

Name of the research guide: Shri V.D. Adhiyol, Principal, DIET, Mehsana

1. **Introduction**:

Children are taught subjects like languages, mathematics, science, environment, social science at the primary level. It is the moral duty of every teacher to make the children well aware of the basics of every literacy subject. The present research was conducted on children studying in primary schools of Vadnagar and Unjha talukas of Mehsana district. In the National Achievement Survey (GAS-4), a program was prepared and tested to simplify the difficult points found in the Hindi subject of standard-7.

2. **ResearchTitle**:

Structure and Trial of Simplified Educational Program in the Study Context of Standard 7 Hindi Subject Hard Study Item No. H703

3. **Research Objectives**:

1. To design a test of Standard-7 Hindi Subject.

2. To trial a test of Standard-7 Hindi Subject.

3. To design an educational program related to the content of Standard-7 Hindi Subject Hard Study Item H703 “Song, Poetry, Pahelia and Doha Sunkar Evan PadhkarSamjhate Hai.”

4. To examine the effectiveness of the educational program on the achievement of students regarding Standard-7 Hindi Subject Hard Study Item H703 “Song, Poetry, Pahelia and Doha Sunkar Evan PadhkarSamjhate Hai”.

5. To examine the effectiveness of the achievement achieved by students through special educational program and traditional education.

4. Research Questions

Before starting the research, the researcher makes logical assumptions about what results will be obtained at the end of his research. In this research, the following question is presented to know the results. A well-formed question becomes a guide for the researcher.

1. Will there be a difference in the effectiveness of the special educational program (students of the experimental group) and traditional education (students of the general group) on the achievement of students?

5. **Importance of the Research**:

 This study will prove useful in making children think mentally.

 This study will prove useful in understanding the content and solving problems based on that content with high intelligence.

 This study will be helpful in making difficult learning outcomes easier for children.

 The teacher will be able to take necessary efforts regarding the learning outcomes identified.

 It will help in selecting and implementing learning-teaching processes by identifying the needs of the students.

 Measures can be taken to remove the obstacles in the chosen learning outcomes of the students.

 The present study will provide future researchers with basic information about the results related to the learning outcomes of the Hindi subject.

 The present study will provide future researchers with guidance and direction for their research work.

6. **Population**:

All children studying in standard-7 of primary schools in Mehsana district were the Area of the present research.

7. **Sample Selection**:

Following the purposive sample selection method for the selection of the sample, students studying in standard-7 of Bhalesara Primary School in Vadnagar taluka of Mehsana district and Indiranagar-Dasaj Primary School in Unjha taluka were included as the sample.

8. **FieldofResearch**:

The main field of the present research is primary education. While the sub-field was educational evaluation and testing.

9. **Type of Research**:

The present research is of experimental and practical type.

10. **Research Methodology**:

The present research used experimental research method.

11. **Variables included in the research**:

The simplified educational program designed to eliminate the difficulty of learning Hindi subject H703 is the independent variable. The marks obtained by the students in the difficult learning achievement H703 conditional test of Hindi subject i.e. academic achievement was selected as the dependent variable.

12. **Tools:**

In the present research, a 20-mark test prepared based on the learning achievement H703 "Geet, Kavita, Pahelia aur Doha SunkaravanPadhkarSamajte Hai" was used as the tools.

13. **Data collection**:

The researcher included students studying in standard-7 of Bhalesara Primary School of Vadnagar taluka of Mehsana district and Indiranagar-Dasaj Primary School of Unjha taluka as a sample. Data was collected by taking a test of the students at the end of the educational program in both the schools.

14. **Data analysis**:

The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on diagnosis. Therefore, the students obtained in the test taken after the implementation of the educational program The average and percentage of the scores were found.

15. **Findings of the research**:

1. Among the students of the experimental group and the traditional group, the students of the experimental group have achieved 75.95% achievement. While the students of

the traditional group have been able to reach the achievement level of 63.70%. Among the students of both the groups, the students of the experimental group have achieved 12.25% more achievement than the students of the traditional group. So it can be said that the educational program designed by the researcher has been effective.

2. In the distribution of grades 16-20, 16 students of the experimental group are 59.26% and 10 students of the traditional group are 37.07%. Therefore, it can be said that the percentage of the students of the experimental group is good in 16-20 marks.

3. Hard study result H703, “Song, poetry, first and second poems are sung and read by the audience”. Regarding the researcher

16. **Educational Outcomes**:

• In the present research, the educational program designed by the researcher regarding the difficult learning outcomes H703 "Geet, Kavita, Pahelia Aur Doha Sunkar Evan PadhkarSamjhate Hai" has been effective, so this program should be implemented at the school level.

• Similarly, for other difficult points found in GAS-4, an educational program should be designed through Diet to simplify the difficult points and it should be implemented at the school level.

• Teachers working in the classroom can be trained on how to implement the educational program in the classroom.

• Children can be oriented towards learning Hindi by adopting different teaching methods.

• Children should be familiarized with information related to prior knowledge according to the new unit.

• Children should be given sufficient time to ask questions and the questions should also be explained in depth.

• The concept of each content should be clearly clarified Should.

• Appropriate planning should be made to provide developmental experiences to children.

17. **Recommendations for future research**:

Based on the present research, it was recommended that future research be conducted on the following topics.

• Study of the effectiveness of the subject-wise critical point-based diagnostic-therapeutic program regarding NAS and GAS.

• Study of the effectiveness of the Gyan Kunj project on the academic achievement of students.

• Study of the effectiveness of the ‘Schools of Excellence’ program on the achievement of learning outcomes of students.

• Study of the effectiveness of the FLN program on the reading, writing and arithmetic skills of children.

• Study of the effectiveness of various programs implemented by the government on the academic achievement of students.

• Study of the structure and trial of the program for the development of Hindi subject and creativity.

8. **Name of the researcher: Dr.S.C.RABARI**

Designation: Senior Lecturer

Name of the research mentor: Principal V.D. Adhiyol,

Introduction:

The principal of DIAT asked the researchers to prepare and test a program for simplifying the difficult points of the environmental subject of standard-4 in the achievement survey DLI-4, GAS-4 and SAT-1 conducted on children studying in primary schools of Mehsana district. The researcher is working as an expert in the subject of social science and has also been a mentor for the textbook of social science, so he is well acquainted with the objectives of the social science curriculum. Therefore, when the principal asked him to prepare a program for simplifying the difficult points found in the environment and to test it, he accepted it wholeheartedly and decided to conduct the present research to design an educational program for simplifying the difficult learning outcomes allocated by GCERT and determine its effectiveness.

 Research Title: Structure of a simplified educational program in the context of teaching difficult learning outcomes of the environment subject of Standard-4 and its effectiveness”

 Purposeoftheresearch:

In the present study, the researcher has set the following objectives.

1. To design an answer test for Standard-4 Environment Subject

2. To test an answer test for Standard-4 Environment Subject.

3. Structure of simplified educational program in the context of teaching difficult learning outcomes of environmental subject of standard-4 and its effectiveness “Designing an educational program in relation to related content

4. Structure of simplified educational program in the context of teaching difficult learning outcomes of standard-4 and its effectiveness”

5. To examine the effectiveness of the educational program on the achievement of students

6. To examine the effectiveness of the achievement achieved by the student through special educational program and traditional education.

 Importance of Research:

The present research also has its own unique importance.

(1) In the present research, an educational program was prepared for the simplification of difficult learning outcomes. If it proves effective, then a program for presenting the subject matter related to difficult learning outcomes will be obtained through which the content that seems difficult can be presented to the student effectively and easily.

(2) The academic achievement of the student can be increased.

(3) It will be a guide for designing educational programs for different subjects.

(4) The quality of education can be improved.

(5) The presentation of the results to the teachers during in-service training will be useful for providing relevant guidance.

 Population:

The present research was conducted on children studying in standard-4 in Maktupur and Sunok primary schools of Unjha taluka of Mehsana district. Hence, all the children studying in standard-4 in Maktupur and Sunok primary schools of Unjha taluka of Mehsana district were the Area of the present research.

 Sample Selection:

It was considered sufficient to implement the prepared educational plan based on the study findings. For the selection of the sample, it was decided to select two schools from the primary schools run by the District Panchayat Education Committee following the purposive sampling method. The selection of the schools was done following the random sampling method in which first a list of primary schools run by the District Panchayat Education Committee having more than 30 students in standard-4 and having two classes was prepared. The help of the MS Excel program of the computer was taken to select the school from this list. The school was selected by using the RANDOM BETWEEN FUNCTION in the FORMULA in the MS Excel program.

 Field of Research:

The present study was very much related to the field of educational evaluation and testing.

 TypeofResearch:

The present research was of a practical type.

Tools: In the present research, the tools used was “Structural and Effectiveness of Simplified Educational Program in the Context of Teaching of Difficult Learning Outcome of Environment Subject of Standard-4 EV410”

• A 25-mark test was designed and used for the content included in the learning outcome.

Data Collection:

The students of Maktupur Primary School were briefly informed that the teaching work of “Natural Resources” unit would be done from the next day and an introduction was made to the students. After that, the teaching work was done in the classroom for two hours every day for 5 consecutive days by following the following procedure. In Maktupur Primary School, the educational work was done according to the educational program prepared by the researcher in the class of Standard-4 as per the plan given below and in Sunok Primary School, Unjha Taluka, Standard-4, Sunok, the educational work was done by the teacher of Environment of Standard-4 of the school with the help of traditional teaching method of Chowk and Talk without the use of any educational equipment. Data Analysis: The main purpose of the present research was to determine the effectiveness of the treatment program prepared based on diagnosis. Hence, there was also an aim to compare the two educational methods. Hence, the average of the marks obtained by the students of the experimental group and the traditional group in the post-test was found and their t-value was found.

 Research Findings: The main findings of the present research were as follows.

1. The average score of the students in the experimental group in the post-test is 37.14 while the average score of the students in the traditional group in the post-test is 26.60. Finding the t-value, it is found to be 5.24 which is more than 2.56 which shows that there is a significant difference at the 0.01 level between the average score of the students in the experimental group in the post-test and the average score of the students in the traditional group in the post-test. It can be said that the average of the marks obtained by the students of the experimental group in the post-test is more than the average of the marks obtained by the students of the traditional group in the post-test. Therefore, the null hypothesis "There will be no significant difference between the average of the marks obtained by the students of the experimental group (the group that learned the content through the prepared educational program) and the traditional group in the post-test." is rejected.

2. The students of the experimental group have higher achievement than the students of the traditional group and hence it can be said that the educational program designed by the researchers in the context of the difficult learning outcomes "" Structure of the simplified educational program and its effectiveness in the context of teaching the

difficult learning outcomes of the subject of Environmental Science of Standard-4 and its number EV410" unit has been effective and if the educational program is implemented at the school level to carry out the teaching work of the above learning outcomes, it can prove to be more effective than the traditional method.

3. The students of the experimental group have achieved more than the students of the traditional group in all three levels of achievement. However, among the students of both the groups, 100% of the students of the experimental group have achieved the achievement level of 35%. While 93.93% of the students of the traditional group have been able to reach the achievement level of 35%.

4. Among the students of both the groups, 82.85% of the students of the experimental group have achieved the achievement level of 50%. That is, 82.85% of the students of the experimental group have achieved more than 50 percent. While for the students of the traditional group, this proportion is 42.42%.

5. Among the students of both the groups, 77.14% of the students of the experimental group have achieved an achievement level of more than 75%. That is, 77.14% of the students of the experimental group have achieved more than 75% while only 9.09% of the students of the traditional group have achieved less than 75%.

 Educational outcomes:

(1) In the context of difficult learning outcomes, the difficult learning outcomes of the environmental subject of standard-4, number EV410, the structure of a simplified educational program and its effectiveness were done, under which the efforts made by the researcher were effective and it should be implemented at the school level.

(2) Similarly, for other difficult points found in NAS, an educational program should be designed by the DIET for the simplification of the difficult points and it should be implemented at the school level.

(3) In-service training should be provided to teachers working in the field on how to implement the educational program in the classroom.

9. Name of the researcher: Seema Ramashray Yadav, Dr. Devangi M. Patel

Designation: Lecturer

Name of the research supervisor: Shri V.D. Adhiyol, Principal, DIET, Mehsana

1. **Introduction:**

In the Gunotsav program, the school used to get feedback only once a year. Instead, if regular feedback and support were provided, the quality of the school and opportunities for continuous improvement would increase. Keeping that in mind, Gunotsav 2.0 has been developed as a 'School Accreditation' program in the year 2019.

Upgrading the Gunotsav program to Gunotsav 2.0, the following changes have been considered within the entire process of Gunotsav. The purpose of Gunotsav 2.0 is to identify the areas of school improvement through school evaluation, taking into account the standards established in the world from a local perspective and continuously helping it. This program will help schools prepare a school development plan that will ensure continuous and sustainable development of the school. The Gunotsav 2.0 program is a quality-oriented dynamic program that provides support throughout the year to schools to continuously move forward from their current level.

The present research has studied the achievement of the best schools and the schools achieving the lowest results based on the GSQAC grading of Mehsana district.

2. **Research Title**:

The title of the present research was as follows.

Study of achievement of best and lowest performing schools based on GSQAC grading of Mehsana district

3. **Purpose of the research**:

The present research was also carried out keeping in mind the specific purpose. The main objectives of the present research were as follows.

1. To study the achievement of the best schools and the schools achieving the lowest results in the field of education and teaching of the best schools and the schools achieving the lowest results in Mehsana district.

2. To study the achievement in the field of management of the best schools and the schools achieving low results in Mehsana district.

3. To study the achievement in the field of co-curricular activities of the best schools and the schools achieving low results in Mehsana district.

4. To study the achievement in the field of resources and their utilization of the best schools and the schools achieving low results in Mehsana district.

5. To study the good things of the best schools in Mehsana district.

6. To study the corrective things of the schools achieving low results in Mehsana district.

4. **Research Questions:**

The questions for the present research were formulated as follows.

1. What will be the teaching-learning process of the best schools and the schools achieving low results in Mehsana district?

2. What will be the management field of the best schools and the schools achieving low results in Mehsana district?

3. What will be the co-curricular activities of the best schools and the schools achieving low results in Mehsana district?

4. The best schools of Mehsana district and the schools achieving low results and how they are used?

5. What are the good things about the best schools of Mehsana district?

6. What are the corrective things about the schools achieving low results in Mehsana district

5. **Importance of the research:**

1. Through the present study on the field of study and teaching regarding the best schools, administration textbook writers, curriculum designers, parents and everyone who is interested in the field of study will get necessary guidance.

2. Activities to create an environment and directions for the growth of education in schools achieving low results can be obtained.

3. If the reasons for the schools achieving low results are properly diagnosed, appropriate remedial education planning can also be done.

4. Educators can create self-study materials in the field of study and teaching regarding the best schools.

5. The present research will be useful for overcoming the limitations of students of schools achieving low results in Mehsana district.

6. **Population**:

The Area of the present research includes all government primary schools accredited by G.S.Q.A.C. in Mehsana district.

7. **Sample Selection**:

In this research, the researcher was asked by GCERT to select the top school and bottom school of Mehsana district based on the year: 2022-23 report given by

G.S.Q.A.C. Based on the year: 2022-23 report given by G.S.Q.A.C., the top 8 schools and bottom 8 schools of Mehsana district were selected.

8. **Field of Research**:

Since the present research aims to study the achievement of the best schools and the schools achieving low results based on the GSQAC grading of Mehsana district, the present research can be called a research related to educational guidance.

9. **Type of Research:**

In the present study, the researcher wanted to study the achievement of the best schools and the schools achieving low results based on the GSQAC grading and interpret and analyze it numerically. Therefore, the present research can be called a practical and numerical research.

10. **Research Method:**

The present research can be called a survey method-based research.

11. **Variables included in the research**:

In the present study, the researcher wanted to study the achievement of the best schools and the schools achieving low results based on the GSQAC grading. Which includes independent variables and dependent variables.

12. **Tools** :

A ready-made and self-designed tools was used in the present research. The information was recorded based on the report of the year: 2022-23 provided by the ready-made tools G.S.Q.A.C. In addition, the researcher used a 30-point self-designed opinion questionnaire as another tools. The researcher collected information by filling this opinion questionnaire from the school.

13. **Data collection:**

The researcher contacted the principals of the best 8 schools and 8 schools with low results included in the selected sample and the BRC Coordinator of the taluka and obtained the information filled in the report of the year: 2022-23 provided by G.S.Q.A.C. and the 30-point opinion questionnaire through WhatsApp and E-Mail.

14. **Data analysis:**

In the present research, the researcher obtained survey information. There was no attempt to compare the mutual or interrelated effects of any particular variables. Therefore, descriptive statistics, which is strategically suitable for the analysis of the data obtained by the researcher and for the statistical calculation, was used. Qualitative analysis of the general information of the students was done.

15. **Findings of the research**:

The main findings of the present research were found as follows

1. The main area of the schools achieving the best results is good in terms of teaching and learning and the sub-areas are unit tests, end-of-semester examinations and effective environment for learning, teaching-learning processes and school attendance.

2. The main area of the schools achieving the best results is good in terms of school management and the sub-areas are good in terms of school management and school safety.

3. The main area of the schools achieving the best results is good in terms of co-curricular activities and the sub-areas are prayer meetings, yoga, exercise and sports, other activities and participation in competitive examinations organized by the state.

4. The main area of the schools achieving the best results is resources and their use and the sub-areas are good in terms of use of educational resources, use of technology, mid-day meal scheme and water, toilet and sanitation.

5. The main area of the schools achieving the lowest results is learning and teaching and the sub-areas are need for corrective measures in terms of unit tests, mid-term examinations, effective environment for learning, teaching-learning processes and school attendance.

6. The main area of the schools achieving the lowest results is school management and the sub-areas are need for corrective measures in terms of school management and school safety.

7. The main area of the schools achieving the lowest results is co-curricular activities and the sub-areas are prayer meetings, yoga, exercise and sports, other activities and participation in competitive examinations organized by the state.

8. The main area of low-performing schools is the need for corrective measures in terms of resources and their use and the sub-areas are the use of educational resources, use of technology, mid-day meal scheme and water, toilets and sanitation.

9. The performance of the schools achieving the best results is good in every area.

10. The schools achieving the lowest results require corrective measures in all areas.

11. The schools achieving the lowest results require corrective measures in order to make the same efforts as the schools achieving the highest results.

16**. Educational Outcomes:**

From the study of the present research, the following outcomes can be suggested.

1. The government should make more efforts to increase the understanding of the principals of the schools achieving the lowest results in Gunotsav 2.0.

2. The government should make more efforts to increase the understanding of the principals of the schools achieving the highest results in Gunotsav 2.0.

3. The government should make efforts to make school teachers more aware of Gunotsav 2.0.

4. Training should be organized to increase the understanding of school teachers and principals regarding Gunotsav 2.0.

5. Training should be organized to continuously increase the understanding of teachers and principals of schools with the best and lowest results regarding GSQAC and Gunotsav 2.0.

17. **Recommendations for future research**:

The following recommendations can be suggested from the study of the present research.

1. The teaching-learning and achievement in other fields of the best schools and schools achieving low results in other districts of the state of Gujarat can be studied.

2. The best schools of Gujarat state and the schools achieving low results can be studied in terms of teaching-learning and achievement in other fields

3. The best schools of Gujarat state and other states of India and the schools achieving low results can be studied in terms of teaching-learning and achievement in other fields.

4. The best schools of India and the schools achieving low results can be studied in terms of teaching-learning and achievement in other fields.

5. Such research can be undertaken at M.Ed. and Ph.D. levels.

6. Such research can be encouraged by the Government of India.

10. Researcher's Name: Dr. Devangi M. Patel

Designation: Lecturer

Research Mentor's Name: Shri V.D. Adhiyol

1. **Introduction**

Ministry of Human Resource Development (MHRD), National Council of Educational Research and Training (NCERT), New Delhi, Samagra Shiksha Abhiyan (SSA) and Gujarat Council of Educational Research and Training (GCERT), Gandhinagar conduct various types of surveys and research at the national and state levels. National Achievement Survey was conducted at the national level between the years 2017 and 2021. In order to provide students with the practice of NAS, to identify standard and subject-wise difficult points and to check the achievement level of the children, Gujarat Achievement Survey (GAS)-1 was conducted every year at the state level on students of standard four, six and seven respectively during the year 2019, Gujarat Achievement Survey (GAS)-2 in the year 2019-20, Gujarat Achievement Survey (GAS)-3 in the year 2021-22 and Gujarat Achievement Survey (GAS)-4 in the year 2022-23.

During November 2023, Gujarat Achievement Survey (GAS)-5 was conducted by GCERT, Gandhinagar on students of standard four and seven across the state.

2. **Research Title**

“A Study of Academic Achievement of Students of Standard Four and Seven of Mehsana District under Gujarat Achievement Survey (GAS-5)”

3. **Research Objectives**

The objectives of the research are the central part of the entire research work. The objectives of the present study were as follows.

1. To examine the subject-wise academic achievement of students of standard four and seven of the district.

2. To examine the academic achievement of students of standard four and seven of each taluka.

3. To examine the effect of gender on the academic achievement of students of standard four and seven.

4. To examine the effect of area on the academic achievement of students of standard four and seven.

5. To examine the effect of social group on the academic achievement of students of standard four and seven.

6. To determine the subject-wise difficult learning outcomes of standard four and seven.

4. **Research Questions/Hypotheses**

The null hypotheses of the present research were formulated as follows.

1. There will be no significant difference in the average achievement test scores of standard four students in terms of gender.

2. There will be no significant difference in the average achievement test scores of standard seven students in terms of gender.

3. There will be no significant difference in the average achievement test scores of standard four students in terms of area.

4. There will be no significant difference in the average achievement test scores of standard seven students in terms of area.

5. There will be no significant difference in the average achievement test scores of standard four students in terms of social group.

6. There will be no significant difference in the average achievement test scores of standard seven students in terms of social group.

5. **Significance of the Research**

The significance of the present research is as follows.

• Subject-wise and taluka-wise academic achievements of standard 4 and 7 students will be obtained.

• Information will be available regarding subject-wise and standard-wise difficult points.

• Children will get practice for the exam regarding NAS examination.

• The effect of gender on the academic achievement of students will be available.

• The effect of area on the academic achievement of students will be available.

• The effect of social group on the academic achievement of students will be available.

• The proportion of students below 30%, 31 to 50%, 51 to 75% and above 75% of standard-wise academic achievement will be known.

• The average subject-wise achievement of students of standards four, six and seven for the entire district and each taluka will be known. As a result, it will be convenient to organize need-based training and remedial education at the school level in low-achieving subjects.

• The present survey will provide a hard study result of the standard-wise and subject-wise curriculum at the district level. Due to which, the District Education and Training Building will be helped in planning the training of the content at the district level and will

help the teachers to improve the quality of class education by providing need-based training.

• The research team will be able to guide the teachers by creating simplification programs based on difficult study materials.

6. **Population**

The Area of the present study is limited to the Gujarati medium government, aided and private primary schools under the control of the district panchayat and municipality of the entire Mehsana district.

7. **Sample Selection**

In the present research, a total of 200 primary schools of ten talukas (districts) were included in the sample, ten schools of standard 4 and ten schools of standard 7, randomly selected by GCERT from each taluka. In the sample, one class was randomly selected from all the classes of standard four and seven of the selected school and a maximum of 30 students of that class were tested.

Thus, 1901 students of standard-4 and 2174 students of standard-7 from a total of 200 schools in the district are included in the sample.

8. **Field of Research**

Since the present study is related to the assessment of children, it can be clearly said that the present study was very much related to the field of educational testing and evaluation.

9. **Type of Research**

The present research is related to the implementation of the program. Hence the present research is of practical and numerical type.

10. **Research Method**

The present research is based on the survey method.

11. **Variables included in the research**

Table showing the variables and levels of variables included in the research

Type of sequence variable Variable levels of variables

1 Independent gender Boy, girl

Area Rural, urban

Social group General, OBC, SC, ST.

12.**Tools**

The present research was to check the achievement of students of standard four and seven under GAS-5. As per the guidance and instructions of GCERT, Gandhinagar, the test was conducted by the District Education and Training Buildings in all the districts of the state. In which the achievement test was conducted to know the academic achievement of Gujarati, Mathematics and Environment in standard four and Gujarati, Mathematics, Science Technology and Social Science in standard seven. Which was certified by GCERT.

The test paper of standard four had a total of 60 sections. In which sections 1 to 20 were on Gujarati subject, sections 21 to 40 were on Mathematics subject and sections 41 to 60 were on Environment subject. In which one section carried one mark, for a total of 60 marks. Which had to be completed within a time limit of 120 minutes.

The test paper of standard seven had a total of 80 sections. In which, sections 1 to 20 were from Gujarati subject, sections 21 to 40 from Mathematics subject, sections 41 to 60 from Science and Technology subject and sections 61 to 80 from Social Science subject. In which, there was a test of total 80 marks with one mark for each section. Which had to be completed within a time limit of 160 minutes.

Standard and subject-wise section number of the test paper, total marks and duration

Standard Subject Section Number Total Marks Time

4 Gujarati 20 20 120 minutes

Mathematics 20 20

Environment 20 20

7 Gujarati 20 20 160 minutes

Mathematics 20 20

Science and Technology 20 20

Social Science 20 20

In standard four, the students had to tick the answers to the test questions in the question paper itself with a ballpoint pen. After the test was completed, the field investigator transferred the answers to the OMR sheet based on the tick marks made by the students. While in standard seven, the students had to choose the appropriate option from the four options given below the test question and mark that option on the OMR sheet themselves with a blue or black ballpoint pen. The necessary explanation for filling it was given to the students before the test.

13. **Data Collection**

In the present research, the test papers of the schools selected in the sample for data collection were brought to the Diet from the state level by the G.A.S. Co-ordinator of each Diet. Thereafter, in the Field Investigator Guidance Meeting organized at the Diet

on 27th and 29th January, 2024, the field investigator who would be sent to conduct the test in each of the schools selected in the sample was given sufficient understanding about GAS-5 and the role of the field investigator was clarified and all the literature regarding the test was handed over to the concerned field investigator in a sealed cover. The sealed cover contained a sheet showing the number of students as per the standard, appointment order, AT, PQ, TQ and SQ test papers and OMR sheets, field notes and guidelines regarding the test administration.

The test was implemented on 30th January, 2024. The field investigators reached the respective schools before the prayer meeting and made necessary arrangements and conducted the test smoothly. Following the selection process, a maximum of 30 children per standard were tested from all the children of the selected standard four and seven of the school. In schools where the total number of children of that standard was less than 30, all the children present were selected for the test. The monitoring team monitored the test administration in each taluka. After the test was completed, all the literature was returned to the B.R.C. Bhavan at the taluka headquarters by the field investigators. From there, all the literature was collected and deposited at the Diet. As per the instructions received from the GCERT, all the O.M.R. Sheets of each standard AT, TQ, PQ, SQ were sent to the state level.

14. **Data Analysis**

The purpose of the present research was to know the academic achievement of the district in the subject included in that standard. All the OMR sheets were scanned at the state level and the standard-wise data of the district was sent to that district in an Excel file by GCERT, Gandhinagar. Based on this, the GAS-5 District Coordinator calculated and obtained the standard-wise, subject-wise and overall academic achievement score of the district. For the present research, the hypotheses were tested by finding the standard mean, standard deviation, t-value and significance level according to the hypotheses formulated keeping in mind the variables like caste, area and social group. Finally, the difficult learning outcomes were determined for each subject included in the test of standards four and seven.

15. **Research Findings**

The following findings were obtained from the present research.

1. The academic achievement of Gujarati, Mathematics and Environment subjects of Standard-4 has been achieved at 69.32%, 65.11% and 68.46% respectively. While the average academic achievement of all three subjects of Standard-4 has been achieved at 67.63%.

2. The academic achievement of Gujarati, Mathematics, Science Technology and Social Science subjects of Standard-7 has been achieved at 60.1%, 54%, 58.2%, and 64.5% respectively. While the average academic achievement of all four subjects of Standard-7 has been achieved at 59.20%.

3. The average academic achievement of the district in Gujarati subject of both standard 4 and 7 is 64.71%, the average academic achievement of the district in Mathematics subject of both standard 4 and 7 is 59.55%, the average academic achievement of the district in Environment subject of standard 4 is 68.46%, the average academic achievement of the district in Science subject of standard 7 is 58.20%, the average academic achievement of the district in Social Science subject of standard 7 is 64.50%.

4. The average percentage of academic achievement of the entire class four students below 30%, 31 to 50%, 51 to 75% and above 75% was found to be 8.71%, 17.45%, 37.98%, 35.86% respectively.

5. The average percentage of academic achievement of the entire class seven students below 30%, 31 to 50%, 51 to 75% and above 75% was found to be 15.3%, 22.83%, 36.93%, 24.95% respectively.

6. There is a significant difference in the academic achievement of boys and girls of class 4 in terms of gender. Which is in favour of girls. There is no significant difference in the achievement of boys and girls of class 7 in terms of gender.

7. There is a significant difference in the achievement of students from rural and urban areas in Standard 4 in terms of area, which is in favour of students from urban areas. There is no significant difference in the achievement of students from rural and urban areas in Standard 7 in terms of area.

8. There is a significant difference in the achievement of students from General and OBC, General and SC, OBC and ST, SC and ST social groups in Standard 4 in terms of social group. While there is no significant difference in the achievement of students from General and ST, OBC and SC social groups in terms of social group.

9. There is a significant difference in the achievement of students from General and ST, OBC and ST, SC and ST social groups in Standard 7 in terms of social group.

10. There is no significant difference in the achievement of students belonging to the general and OBC, general and SC, OBC and SC, social groups of standard 7 with respect to social group.

Subject wise Learning Outcomes (LOs) and Average Achievement (%) of Standard 4

Subject Section No. Learning Outcome Order Learning Outcome Statement Academic Achievement (%)

Mathematics 23,24 M405.2 Converts units of distance and height. (Meter to cm, Meter to cm, Meter to km, Meter to km) 47.73

Environment 55,56,

57 EV 412 Uses information from signboards, posters, money (notes/coins), railway tickets, timetables etc. 46.67

Subject wise Learning Outcomes (LOs) and Average Achievement (%) of Standard 7

Subject Section

No. Learning Outcome Order Learning Outcome Statement Academic Achievement (%)

Gujarati 8,9,

10,11 G714 Can write answers to questions based on the given dialogue or paragraph. 49.32

Gujarati 16,17,

18, 19,20 G719 Knows and uses practical grammar including synonyms, antonyms, verbs, tenses, sentence types, nouns, adjectives, punctuation, proverbs, idioms, spelling. 49.98

Math 25 M703.1 Multiplies fractional numbers by whole numbers. 38.6

Math 26 M703.2 Multiplies fractions by fractions. 49.7

Math 27 M703.5 Divides another fraction by a fraction. 46.10

Math 29 M703.8 Divides decimal numbers by whole numbers and decimal numbers. 42.6

Mathematics 37 M706.3 Finds the solution of the given equation. 32.6

Mathematics 39,40 M712.1 Identifies the pair of angles formed by the intersection of two parallel lines. Also, finds the measures of the other angles from the given measure of one angle. 40.20

Science 50,51,52 SC706 Explains processes and events 49.18

Social Science 63,64,

65,67 SS717 Analyzes the administrative measures and strategies taken for military control adopted by various states. 45.11

16. **Educational Outcomes**

Need-based training and remedial education should be organized at the school level in low-achieving subjects.

A simplified educational program should be made regarding difficult learning outcomes. This program should be implemented at the school level for the teaching of difficult learning outcomes.

A district level simplification educational program based on other difficult points related to the current curriculum should be designed and implemented in all the schools of the district.

After changing the curriculum and changing the evaluation method, it should be checked whether the amount of difficult points has increased or decreased and necessary amendments should be made in the curriculum and textbooks based on that.

Efforts should be made to conduct research for the study of difficult learning outcomes and factors affecting academic achievement by the District Education and Training Building.

17. **Recommendations for future research**

• Survey of academic achievement of students of Mehsana district under Gunotsav

• Study of the effectiveness of difficult point-based training in classroom education

• Study of the effectiveness of 'Reading Campaign Program' on the reading comprehension and reading speed of students.

• Study of the effectiveness of various programs implemented by the government on the academic achievement of students.

11. Researcher's name: Dr. Pankaj I. Parmar

Designation: Senior Lecturer

Research Mentor's name: Dr. Gaurang C. Vyas

1. **Introduction:**

Education is a factor that changes human life. Its origin lies in the process of primary education. In order to make primary education quality-oriented, GCERT, Gandhinagar has made radical changes in the curriculum of standard 1 to 8 keeping in mind the 21st century National Curriculum Framework 2005. To achieve the goals of quality education, it is necessary to conduct continuous achievement surveys. By knowing the current level of achievement and subject-wise difficulties of the district, the District Education and Training Building can implement its in-service program based on the needs and achieve the achievement target every year by knowing the gap between the current achievement level and the expected achievement target. The achievement level of students studying in the schools of the district is checked.

Considering the results obtained in DLI, GAS-4, SAT -1 (21-22) by G.C.E.R.T. Gandhinagar, each diet has been allocated according to the number of lectures of difficult learning outcomes of various subjects. Under which, it was considered

appropriate to conduct the present study by Diet-Mehsana with the aim of conducting research keeping in mind the difficult learning outcome number M719 of Mathematics subject and its implementation among the students.

2. **Research Title**

Structure of simplified educational program in the context of studying difficult learning outcome number “M719” of Mathematics subject of Standard-7 and its trial

1. **Purpose of Research:**

The objectives of the present study were as follows.

(1) To structure a simplification program based on difficult learning outcome number M719 of Mathematics subject for the students of Standard-7.

(2) To design a test based on the difficult learning outcome number M719 of Mathematics for students of standard-7.

(3) To test the effectiveness of the test designed based on the difficult learning outcome number M719 of Mathematics for students of standard-7.

2. **Research hypothesis**

Ho1 There will be no significant difference between the average scores obtained by the experimental and control groups in the post-test

3. Significance of the research

The significance of the present study can be presented as follows:

• Through the present study, students will be able to understand various issues of chapters like height, probability in Mathematics.

• Through the present study, information can be obtained about the measures of mobility in Mathematics.

4. **Population**:

The present study was limited to a government primary school in Mehsana district. Thus, the Area of the present study was the students studying in standard-7 in Gujarati medium primary schools of Mankanj Primary School-Ta. Jotana, Mehsana district, Gujarat state.

5. **Sample Selection**:

In the present study, the researcher randomly selected Mankanj Primary School, Ta. Jotana, Mehsana district as the sample. 36 students were selected.

6. **Field of Research**:

The present study focused only on the school-based holistic developmental education and evaluation system of primary school. Hence, it can be clearly said that the present study was very much related to the field of educational evaluation and testing.

7. **Type of Research**

In the present study, the students studying in standard-7 of Mankanj Primary School, Ta. Jotana, Mehsana district were selected by the researcher as the sample. Also, they were given teaching work based on mathematics. Based on which the students had to give their responses on the post-test. Therefore, the present research was a practical type of research as well as a quantitative type of research.

8. **Research Methodology**

A complete experimental plan was implemented in the present research. In which a group pre-test-post-test plan was selected. In this plan, pre-test and post-test were implemented on the selected group. To check the academic achievement and to know the effect of the exercise, a post-test was given to the students. In which the students gave feedback. The effectiveness of the training applied is tested from the difference in the scores obtained at the end of both the tests (T2E - T2C).

9. **Variables included in the research**:

In the present research, education through the educational program i.e. education through practical work and education through the traditional method were the independent variables and the scores obtained by the students in the post-test taken after the implementation of the practical work in the classroom and the scores obtained in the post-test taken after the teaching work in the classroom by the traditional method were the dependent variables.

10. **Tools**:

In the present research, the students are informed about various concepts based on the difficult points of the mathematics subject of standard-7 such as mobility measures, probability, height etc. and clarify the concept. Keeping that in mind, the teaching plan was prepared by the sponsor. The plan was made for four hours. The teaching work was done by the sponsor. On the basis of which the pre-test and post-test were designed. The test was of 25 marks. In which the students had to answer the given questions. Which included questions like short answer questions, solving puzzles. Each question carried 01 mark. 1 hour was kept for giving feedback in the test.

11. **Data Collection**:

In the present study, the prior approval of the school principal was taken to obtain the students' responses on the device designed. After that, the purpose of testing the students in the school and the exercises designed on its basis were divided into cards

and data was collected accordingly. Teaching work was done. The lecture method and the teacher's experience were combined during the teaching work.

12. **Data Analysis:**

In the present study, a pre-test and a post-test designed by the researcher were given. Since the mean difference in the response scores given by the students was to be compared, the t-test of statistics was done with the help of the computer-based program SPSS.

13. **Research Findings**

The findings of the present study were as follows.

1. The academic achievement of students taught through the hard-to-reach program of Mathematics of Standard-7 was found to be significantly more effective than the traditional method.

2. Students were able to easily understand the complex concepts of mathematics such as measures of mobility, height and probability, etc.

3. The child can gain understanding of the subject at his own pace.

4. Students can understand the subject quickly through practice or repetition during the teaching of Mathematics.

5. Students get an opportunity to express their ideas, that is, creativity can be developed.

14. **Educational Outcomes**:

The educational outcomes of the present study were as follows.

1. Based on the findings of the experiment conducted in the present research, it can be said that the program prepared based on the difficult points of the Mathematics subject of Standard-7 was effective in terms of the academic achievement of the students.

2. If the educational program is also structured for the teaching of other complex or difficult topics of the Mathematics subject, the academic achievement of the students can be increased.

15. **Recommendations for Future Research**

Based on the experiences of the researcher's experiment, the researcher has pointed out some future researches so that such researches can be done more and more in the future, which are as follows.

1. The present research is limited only to the government primary school of Mehsana district. In the future, such research can be conducted by selecting a larger sample.

2. Such exercises can also be given for units of subjects other than Mathematics and their effectiveness can be checked.

3. If more and more exercises are given to the students, the subject of Mathematics can be taught easily.