

**ANDHRA PRADESH RASHTRIYA MADHAYAMIK SHIKSHA ABHIYAN  
LEARNING ACHIEVEMENT TEST (LAT) OF IX CLASS STUDENTS 2010-11  
BASELINE ASSESSMENT SURVEY - A REPORT**

**I - INTRODUCTION**

**1.1 OBJECTIVES OF THE STUDY**

- To Study the level of achievement in languages (Telugu/Urdu & English) Mathematics and Sciences of Class VIII Pass and Studying in Class IX
- To Study the difference in achievement district wise, locality category wise, gender wise.
- To Study the influence of Father's & Mothers Education on achievement.
- To Study the level of achievement area wise in Languages, Mathematics & Sciences.
- To recommend the learning deficiencies for remedial teaching and preparation of remedial material.

**1.2 LIMITATIONS OF THE STUDY**

The present study has the following limitations

- Limited to the 9 districts of Andhra Pradesh.
- From each district 4 Mandals were selected.
- Schools pertaining to Zilla Parishad, Government, and Municipal and Ashram School management are considered.
- Hyderabad district is selected on Metro/ Urban criteria. One school from each of 15 Divisions were selected.
- Achievement test was conducted in Telugu/Urdu: English: Mathematics and Science subjects only.
- Question papers were prepared for 25 marks with duration of 45 Mts.

**1.4 STUDY DESIGN**

The study is intended to know the performance levels of the students from Telugu and Urdu medium schools in the state of Andhra Pradesh. The sample is drawn from the three regions of Andhra Pradesh i.e., Andhra, Telangana and Rayalaseema regions and Hyderabad which is metro city.

The sample for the study has been chosen representing the various factors influencing the performance of the students. The independent variables like gender, caste, management of the schools, father's education, mother's education and location were taken for the present study.

The subjects – Telugu, English, Mathematics and Science subjects were taken for Telugu medium and Urdu, English, Mathematics and Science subjects were taken for Urdu medium were taken to test the achievement levels of the students.

**1.5 SAMPLE DESIGN:**

- For the selection of schools, multistage sampling method was suggested.
- It was decided that the three important regions in A.P shall represent in the sampling design.
- The following were the districts selected for LAT based on low medium & high dropout rates from the three regions of Andhra Pradesh.

S.No	Region	Name of the District	Dropout
1	Andhra Pradesh	Vishakhapatnam	Low
		Vizianagaram	Medium
		Prakasam	High
2	Rayalaseema	Chittoor	Low
		Kurnool	High
3	Telangana	Mahaboobnagar	High
		Adilabad	Medium
		Karimnagar	Low
4	Hyderabad Metro	Hyderabad	

- The above from the districts, selected one urban mandal was selected at random.
- Again in each districts selected under study 3 EBB Mandals were selected based upon High, Medium and Low dropout rates.
- All Govt, ZP, Municipal and aided schools in the mandal were selected for the study.
- All class IX students in the school from the sample for the study.
- The LAT study has also included studying the effect of independent, variables 1. Gender 2. Caste 3. Management 4. Education of fathers and mothers 6. Locality on learning achievement in Hyderabad Metro City.
- All the 15 Mandals in the Hyderabad Metro were selected and one school from each Mandal was selected at random.
- All the students studying in class IX of the school were involved in the study of LAT.

The following table shows the sample frame.

S.No	Region	Name of the District	Name of the Mandal covered ( 3 rural + 1 Urban)	No of Schools covered	No of class IX students taken LAT
1	Andhra	Vizianagaram	4	32	<b>1861</b>
		Vishakhapatnam	4	28	<b>1768</b>
		Prakasam	4	25	<b>1177</b>
2	Telangana	Mahaboobnagar	4	30	<b>1769</b>
		Karimnagar	4	47	<b>2194</b>
		Adilabad	4	46	<b>1657</b>

3	Rayalaseema	Chittoor Kurnool	4 4	30 28	<b>1605</b> <b>1537</b>
4	Hyderabad Metro	Hyderabad	15	15	<b>420</b>
		<b>Total</b>	<b>47</b>	<b>281</b>	<b>14101</b>

Thus the LAT was conducted in AP in 9 districts covering 47 Mandals in 281 schools on **14101** class IX students.

## II - METHODOLOGY

### 2.1 TOOLS USED:

#### A). Pilot Study

An Educational expert from English & Foreign Languages University, Hyderabad and RMSA Project Consultant along with the research team of LAT(RMSA), AP met and discussed in length and decided to conduct a pilot study in two districts of AP for standardisation of test papers in Telugu/ Urdu, English, Maths & Science.

#### B). Preparation of Test Papers for LAT:

The Educational experts, faculty from SCERT, IASE, team of RMSA and identified subject teachers from Government Secondary Schools met in a workshop for preparation of tools i.e. the test for measuring Learning Achievement.

In the workshop it was decided to develop/prepare test papers for four subjects' i.e.

1. Language-1 Telugu/Urdu.
2. Language-2 English.
3. Mathematics.
4. Science

The subject experts were divided into four groups based on their teaching subjects. Each subject group was given instructions about the competencies to be tested in Languages i.e. Telugu/Urdu and English and areas in Mathematics and sciences.

- The test papers prepared in the said work shop were used for pilot study.
- The LAT team, RMSA, AP have randomly selected 2 rural schools from Medak district and 2 urban schools from Hyderabad urban locations for conducting pilot study. The RMSA faculty have directly conducted the Pilot Test.

### 2.2 DESCRIPTION OF TOOLS

#### A) Question Papers:

##### 1) Test paper: Telugu/Urdu

The language expert group identified four competency areas i). Language expression, ii). Language comprehension, iii). Grammar usage and IV) content knowledge.

As said earlier, elsewhere the test was mainly objective in nature with one word answers, short answers and essay type.

##### 2) Test Paper – English

The group of teachers & experts involved in the preparation of English test paper identified four language competencies –

1. Content & reading
2. Vocabulary
3. Grammar and
4. Writing.

The English test paper was also in Objective in nature with short answer type

### 3) Test Paper – Mathematics

The experts and subject teachers who formed the group to prepare test papers in mathematics have identified the important areas, prepared a blue print and different types of question.

The group identified

1. Arithmetic 2. Algebra 3. Geometry 3. Mensuration and 4. Coordinate Geometry

### 4) Test paper – Science:

- A group of teachers and experts involved in the preparation of the test paper – science, have identified important areas in science text books, prepared questions as per the blue print and have given percentage of types of questions.
- The important areas were physics, chemistry and biological science. The group has given 52% of weightage to questions in physics and chemistry and 48% of weight age to questions in Biological Sciences.

## B) Formats

Apart from preparation & construction of LAT question papers the following formats were also used in the present survey. They were:

Sl.No	Name of the Format
1	Observers Report
2	School Data sheet
3	Question paper Analysis sheets for <ul style="list-style-type: none"><li>• Telugu / Urdu</li><li>• English</li><li>• Mathematics and</li><li>• Science</li></ul>

## 2.5 DATA COLLECTION PROCEDURES

As suggested by MHRD, New Delhi , while preparing Annual Plan & Perspective Plans greater attention was placed on quality issues like consolidation of State norms, Learning Achievement Survey remedial teaching and good practise to be followed elsewhere on Gender and caste specific issues.

Hence it was decided to conduct Learning Achievement Survey to students of class VIII passed out in Govt. and studying class IX during the academic year 2010-11.

As said earlier, the following points were considered.

- Learning Achievement Test was conducted on class IX students only.
- The students tested in Language i.e. English, Mathematics and Science subjects only.
- Work shop was conducted for preparation of LAT question papers on important and selected competences / areas in the subjects based on the blue print. A key for evaluation was also prepared for each question paper.
- The test was conducted in two days. (i.e. on 17.09.2010 and 18-09-2010) as follows:

S.No	Date & day	Time	Subject
1	Day 1 – 17.09.2010	10.15 to 11.00 AM	Telugu / Urdu
2		11.15 to 12.00	Mathematics
3	Day 2 – 18.09.2010	10.15 to 11.00 AM	English
4		11.15 to 12.00	Science

- The test was conducted in an ideal seating arrangement and no scope was given for any kind of malpractice.
- It was advised to utilise the services of available teachers of other subjects as invigilators.
- Student data sheet was given to the class teacher to obtain necessary information of the students which was certified by both a class teacher and head master.
- Before conduct of the test, students of class IX were briefed about the purpose of the test.
- Subject teachers concerned in the school were asked to value the script on the same day under the supervision of Head Master and DRP on the duty.
- Subject-wise question paper analysis sheet was provided and was filled by the subject evaluator immediate after completion of the test and certified by the subject teacher, DRP and Head Master.
- Immediately after completion of valuation and working out the analysis of the test subject wise answer scripts were packed in separate sealed covers with proper indications.
- The above packets were submitted by the Dy.E.O concerned through the DRP on duty.

#### **2.6 DATA PROCESSING AND ANALYSIS**

- As scheduled the test was conducted on 17-09-2010 and 18-09-2010.
- After conducting the test the data of various schools in the district was consolidated at district level.
- The consolidated district wise data was sent to State Office for further data analysis.
- A five day workshop on data analysis and report writing was conducted at State Office from 09-11-2010 to 13-11-2010.

### **III DATA ANALYSIS, FINDINGS**

**A- DATA ANALYSIS,FINDINGS OF LEARNINGACHIEVEMENT TEST (LAT) OF TELUGU  
MEDIUM**

**Table : Showing the Learning Achievement Test – Variable and Subject – wise Performance  
of the Students of Telugu Medium in the State of Andhra Pradesh.**

S. No	Variable	Subject	High Performance	Low Performance
1.	<b>Districts</b>	Telugu	Prakasam	Hyderabad
		English	Chittoor	Hyderabad
		Mathematics	Vizainagaram	Vishakhapatnam
		Science	Prakasam	Hyderabad
2.	<b>Gender</b>	Telugu	Girls	Boys
		English	Girls	Boys
		Mathematics	Girls	Boys
		Science	Girls	Boys
3.	<b>Caste</b>	Telugu	B.C	S.C
		English	O.C	S.T
		Mathematics	O.C	S.T
		Science	O.C	S.T
4.	<b>Management</b>	Telugu	Zilla Parishad	Municipal
		English	Zilla Parishad	Government
		Mathematics	Zilla Parishad	Municipal
		Science	Zilla Parishad	Municipal
5.	<b>Father's Education</b>	Telugu	P.G & above	Illiterate
		English	P.G & above	Illiterate
		Mathematics	P.G & above	Illiterate
		Science	P.G & above	Illiterate
6.	<b>Mother's Education</b>	Telugu	Degree & below	Illiterate
		English	Degree & below	Illiterate
		Mathematics	Degree & below	P.G & above
		Science	Degree & below	Illiterate
7.	<b>Location</b>	Telugu	Rural	Urban
		English	Rural	Urban
		Mathematics	Rural	Urban
		Science	Rural	Urban

**B - DATA ANALYSIS,FINDINGS OF LEARNINGACHIEVEMENT TEST (LAT) OF URDU  
MEDIUM**

**Table: Showing the Learning Achievement Test – Variable and Subject – wise Performance  
of the Students of Telugu Medium in the State of Andhra Pradesh.**

S. No	Variable	Subject	High Performance	Low Performance
-------	----------	---------	------------------	-----------------

1.	<b>Districts</b>	Urdu	Hyderabad	Adilabad
		English	Mahabubnagar	Adilabad
		Mathematics	Hyderabad	Adilabad
		Science	Hyderabad	Adilabad
2.	<b>Gender</b>	Urdu	Urban	Rural
		English	Rural	Urban
		Mathematics	Urban	Rural
		Science	Urban	Rural
3.	<b>Caste</b>	Urdu	Government	Zilla Parishad
		English	Zilla Parishad	Government
		Mathematics	Government	Zilla Parishad
		Science	Government	Zilla Parishad
4.	<b>Management</b>	Urdu	Boys	Girls
		English	Boys	Girls
		Mathematics	Boys	Girls
		Science	Boys	Girls
5.	<b>Father's Education</b>	Urdu	10 <sup>th</sup> class & below	Degree & below
		English	10 <sup>th</sup> class & below	Illiterate
		Mathematics	Illiterate	10 <sup>th</sup> class & below
		Science	10 <sup>th</sup> class & below	Degree & below
6.	<b>Mother's Education</b>	Urdu	P.G & above	Degree & below
		English	P.G & above	Illiterate
		Mathematics	P.G & above	10 <sup>th</sup> class & below
		Science	Degree & below	10 <sup>th</sup> class & below
7.	<b>Location</b>	Urdu	Hyderabad	Adilabad
		English	Mahabubnagar	Adilabad
		Mathematics	Hyderabad	Adilabad
		Science	Hyderabad	Adilabad

### C- FINDINGS OF QUESTIOPAPERS (SUBJECT & AREA WISE OF LEARNING ACHIEVEMENT TEST (LAT) OF TELUGU AND URDU MEDIUM

#### i) Findings of the Question Paper Analysis of All subjects (Telugu Medium):

1. An average of **50.63 per cent** of marks was scored in **Telugu** subject in Learning Achievement Test (LAT) in the state of Andhra Pradesh. It shows that the boys have scored 49.71 per cent of marks and girls have scored 51.45 per cent of marks in Telugu subject. It also shows that 52.53 per cent of marks were scored in Grammar, **41.33 per cent of marks were scored in Language Expression**, 69.71 per cent of marks were scored in Language Comprehension and **46.58 per cent of marks were scored in Content Knowledge in Telugu subject**. The girls have better performance than boys in Telugu subject.
2. An average of **35.32 per cent** of marks was scored in **English** subject in Learning Achievement Test (LAT) in the state of Andhra Pradesh. It shows that the boys have scored 34.16 per cent of marks and girls have scored 36.35 per cent of marks in English subject. It also shows that **26.61 per cent of marks were scored in Content Knowledge**, **29.53 per cent of marks were scored in Language Appreciation**, 64.38 per cent of marks were scored in Language Comprehension and **32.95 per cent of marks were scored in Language Expression** in English subject. The girls have better performance than boys in English subject.
3. An average of **36.22 per cent** of marks was scored in **Mathematics** subject in Learning Achievement Test (LAT) in the state of Andhra Pradesh. It shows that the boys have scored 35.27 per cent of marks and girls have scored 37.09 per cent of marks in Mathematics subject. It also shows that 56.02 per cent of marks were scored in Arithmetic, **24.68 per cent of marks were scored in Algebra**, **34.48 per cent of marks were scored in Geometry** and **30.72 per cent of marks were scored in Menstruation** in Mathematics subject. The girls have better performance than boys in Mathematics subject.
4. An average of **41.60 per cent** of marks was scored in **Science** subject in Learning Achievement Test (LAT) in the state of Andhra Pradesh. It shows that the boys have scored 41.52 per cent of marks and girls have scored 41.68 per cent of marks in Science subject. It also shows that **45.63 per cent of marks were scored in Physics**, **31.43 per cent of marks were scored in Chemistry** and 50.66 per cent of marks were scored in Biology in Science subject. The girls have better performance than boys in Science subject.

#### ii) Findings of the Question Paper Analysis of All subjects (Urdu Medium):

1. An average of 45.67 per cent of marks was scored in Urdu subject in Learning Achievement Test (LAT) in the state of Andhra Pradesh. It shows that the boys have scored 53.27 per cent of marks and girls have scored 40.15 per cent of marks in Urdu subject. It also shows that **47.28 per cent of marks were scored in Grammar**, **32.03**

**per cent of marks were scored in Language Expression, 42.03 per cent of marks were scored in Language Comprehension and 47.33 per cent of marks were scored in Content Knowledge** in Urdu subject. The boys have better performance than girls in Urdu subject.

2. An average of 41.21 per cent of marks was scored in English subject in Learning Achievement Test (LAT) in the state of Andhra Pradesh. It shows that the boys have scored 49.00 per cent of marks and girls have scored 35.57 per cent of marks in English subject. It also shows that **30.70 per cent of marks were scored in Content Knowledge, 34.74 per cent of marks were scored in Language Appreciation, 67.11 per cent of marks were scored in Language Comprehension and 43.27 per cent of marks were scored in Language Expression** in English subject. The boys have better performance than girls in English subject.
3. An average of 30.71 per cent of marks was scored in Mathematics subject in Learning Achievement Test (LAT) in the state of Andhra Pradesh. It shows that the boys have scored 35.23 per cent of marks and girls have scored 27.35 per cent of marks in Mathematics subject. It also shows **that 27.06 per cent of marks were scored in Arithmetic, 31.27 per cent of marks were scored in Algebra, 32.98 per cent of marks were scored in Geometry and 29.19 per cent of marks were scored in Menstruation** in Mathematics subject. The boys have better performance than girls in Mathematics subject.
4. An average of 40.43 per cent of marks was scored in Science subject in Learning Achievement Test (LAT) in the state of Andhra Pradesh. It shows that the boys have scored 49.46 per cent of marks and girls have scored 34.00 per cent of marks in Science subject. It also shows that **39.74 per cent of marks were scored in Physics, 31.55 per cent of marks were scored in Chemistry** and 51.72 per cent of marks were scored in Biology in Science subject. The boys have better performance than girls in Science subject.