# EVALUATING ICT INTEGRATION INENGLISH TEACHING PRACTICESIN SELECT TEACHER EDUCATION COLLEGES OF TELANGANA STATE

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## Abstract

*This study investigates the challenges encountered by English trainee teachers during school internships in applying ICT-based methods. Descriptive research methodology was employed, surveying 200 trainee teachers fromten B.Ed. colleges affiliated to Osmania University in TelanganaState using open-ended questionnaires and examined using thematic analysis. Results indicate that ICT significantly improves English Language Teaching (ELT) by promoting student engagement, supplementing competencies in language skills, and enhancing academic outcomes. Nonetheless, obstacles such as deficient infrastructure, limited access to equipment, power interruptions, and inadequate technical support hinder optimal adoption of ICT. Participants highlighted the necessity for adequately equipped laboratories, uninterrupted electricity, smart classrooms, and technical support for promoting ICT integration. The research emphasizes the transformative abilities of ICT in teacher education and advocates for deliberate measures to address the gaps between policy and practice, equipping educators for 21st-century classrooms.*

**Keywords:** ICT, English, Education, Trainee Teachers, ELT.

## Introduction

India's National Educational Policy(NEP) 2020 asserts that the relationship between technology and education is reciprocal at all levels. Education is integral to the nation's digital transformation, while technology significantly enhances educational processes and outcomes. The primary objective of technological interventions should be to enhance educational access, facilitate teacher preparation and professional development, improve teaching-learning and

evaluation processes, and optimize educational planning, implementation, and administration, encompassing procedures related to admissions, attendance, and assessments (MHRD 2020). The Covid-19 pandemic necessitated a revaluation and revitalization of teaching and learning methodologies by education authorities. Blended learning has been promoted throughout multiple educational tiers, facilitating direct classroom engagement with instructors with online learning options. A blended learning environment provides flexibility in several ways. A curriculum that incorporates digital media while conforming to traditional educational concepts may employ the blended learning approach. It is markedly more beneficial and attractive than anything that has previously existed (UGC 2021). The Indian government has implemented numerous efforts to mitigate the adverse impacts of Covid-19 on the educational sector. The system rapidly embraced remote learning, instructors meticulously adjusted to their evolving responsibilities, and parents and communities united to support their children's education (UNICEF 2021). The Ministry of Education's directives aligned with local settings, stipulating that all states must modify health and safety protocols for school reopening based on specific local conditions. Educators must to undergo professional development training on the utilization of various internet resources for instructional purposes (UNICEF 2021). The Covid-19 pandemic has necessitated a focus on the essential elements of our curriculum, assessment system, and accountability frameworks. When the educator possesses comprehensive topic knowledge, understands pedagogical methods, and is proficient in utilizing existing technology for content delivery, teaching becomes more effective and conducive (Khatoon & Kottacheruvu, 2022). A multitude of studies has been undertaken nationally and internationally about the integration of ICT in education, notably in English language instruction. The researcher recognized the necessity for a study on teacher education in India, particularly regarding the integration of ICT in teaching practices. This study aims to address the challenges encountered by trainee teachers in developing and executing ICT-based English methodology lesson plans during their teaching practice, specifically concerning the infrastructure and technical support offered by educational institutions.

**Relevance of the Study:**

The calibre of teacher education is indicative of a nation's educational system. Consequently, teacher education is a critical component of the nation that necessitates diligent oversight and regular evaluation. Pedagogy of English in teacher education programs equips prospective English teachers to be proficient in both the philosophical and psychological dimensions of language acquisition, as well as in various approaches, methods, and strategies of

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language instructions. Pre-service teacher education is the phase during which aspiring teachers are equipped for 21st-century classrooms. Consequently, they must acquire information, abilities, and experiences that enable them to implement contemporary language teaching approaches and address the obstacles encountered in daily classroom interactions. This study sought to identify the obstacles encountered by prospective English teachers in the preparation and execution of ICT-based English lesson plans during their B.Ed. program, focusing on infrastructure, technical resources, and human support from relevant educational institutions and internship schools. The study additionally sought to ascertain the perspectives of English trainee teachers regarding the incorporation of ICT in English teaching methodologies.

## Review of Related Literature

Various studies have explored the integration and impact of Information and Communication Technology (ICT) in education across different contexts. Abidin M. J. Z. (2011) focused on EFL instructors in Libya, revealing that while many recognize the importance of ICT, a significant portion lacked training opportunities. MHRD (2012) emphasized the underutilization of ICT in schools and the need for diverse applications to enhance creativity and problem-solving skills. Research by Narasimham (2012) indicated that private management teachers received more support for ICT use, while Wedell, M. & Malderez, A. (2013) speak about understanding classroom context which is very important in language learning. And understanding the culture of the learners.Further studies, including those by Patil (2013), Malhotra (2014), and Ghavifekr et al. (2014), underscored the necessity of technology in language instruction and the challenges teachers face in adopting it. By 2018, UNESCO outlined essential competencies for teachers to effectively integrate ICT, while Madhuri P. (2018) and Bhawana S. (2019) demonstrated the positive effects of technology on student engagement and learning outcomes. Recent studies, such as those by Rana (2020) and Mahato & Omkar (2022), examined the challenges and potential of ICT in teacher education, particularly during the Covid-19 pandemic, highlighting the need for improved infrastructure and professional development. Overall, these studies collectively illustrate the evolving landscape of ICT in education and the ongoing challenges and opportunities it presents.

## Objectives of the study:

- To assess the effectiveness of ICT in ELT classrooms during school internships.
- To investigate the problems encountered by English trainee teachers in implementing ICT-based lesson plans during school internships.

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- To identify potential solutions to the issues encountered by English trainee teachers in implementing ICT-based lesson plans during their school internship.

**Research Methodology**

**Method& Population:**The researcher has adopted descriptive research using survey method and identified English trainee teachers of teacher education programme as the population which has been taken from the B. Ed. colleges affiliated toOsmania University of Telangana state. Ten colleges have been selected for the study out of which five were selected from the urban locale of the Hyderabad district whereas the remaining five colleges were selected from rural areas of Rangareddy, and Medak districts.

**Sample:**The sample size for this survey consisted of 200 trainee teachers, selected using a simple random sampling procedure. Of these, 100 were selected from urban areas and 100 from rural regions.

**Tool:**Questionnaire with five open ended questions was used as a tool to collect the responses from the respondents for the study. The questions are as follows:

**Question-1**How ICT is helpful in English Language Teaching (ELT) in ESL classroom scenario?

**Question-2**Being an English trainee teacher, what changes have you noticed in students' learning outcomes from ICT-based lesson plans?

**Question-3**What was the most challenging situation while delivering ICT-based lesson plans during your internship?

**Question-4**What practical suggestions would you recommend to overcome such type of situations?

**Question-5**Do you believe that ICT-based lesson plans are effective in ESL classrooms? Kindly support your answer.

**Data Analysis and Interpretation:**Interpretation of the responses was done through *Thematic Analysis* by identifying the Primary Theme and Sub-themes then Coding the excerpts from the responsesgiven by each respondent for all theinterview questionsthat are discussed below.

<u>**Results and Discussions**</u>

**Question-1: How ICT is helpful in English Language Teaching (ELT) in ESL classroom scenario?**

**Table-1 Theme-based coding of significance of ICT in ELT classrooms**

| Primary Theme | Sub-themes | Codes |
|---|---|---|
| Significance of ICT in ELT Classrooms | Teaching aspects Learning aspects | <ul><li>Helpful</li><li>Attractive</li><li>Keen interest</li><li>Attentive</li><li>Helpful in listening skills</li><li>Help in speaking</li><li>Interactive</li><li>Helpful in grammar</li><li>Helpful in reading</li><li>Helpful in new vocabulary</li><li>Develops LSRW skills</li><li>Easy comprehension</li><li>Fun way</li><li>Learner's involvement</li></ul> |

**Table-1.1 Frequency and Percentage of Significance of ICT in ELT Classrooms**

| Excerpts | Trainee Teachers' Responses out of 200 | |
|---|---|---|
| **Teaching Aspects** | **Frequency** | **Percentage** |
| Helpful & Attractive | 142 | 71% |
| Creates interest & Grabs attention | 134 | 67% |
| Helpful in Listening & Speaking skills | 127 | 63.5% |
| Helpful in reading | 112 | 56% |
| Helpful in teaching grammar & vocabulary | 173 | 86.5% |
| Easy explanation | 178 | 89% |
| **Learning Aspects** | **Frequency** | **Percentage** |
| A fun way of learning | 167 | 83.5% |
| Easy comprehension | 146 | 73% |
| Develops LSRW skills | 138 | 69% |
| Learner's involvement | 116 | 58% |

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**Interpretation**

In ELT classrooms, 71% of prospective English teachers find ICT helpful and attractive, with 67% recognizing it as creating interest and grabbing attention. 63.5% of respondents recognize it as helpful in teaching listening and speaking skills, while 56% find it appropriate for reading. 86.5% of respondents believe ICT is helpful in teaching grammar and vocabulary, and 89% find it fun. 73% of respondents believe students easily comprehend concepts with ICT, and 69% believe it helps develop LSRW skills among learners. 58% of trainee teachers recognize ICT allows learners to participate in the teaching-learning process.

**Question-2: Being an English trainee teacher, what changes have you noticed in students' learning outcomes from ICT-based lesson plans?**

**Table- 2 Theme-based coding of changes in learning outcomes using ICT lesson plans**

| Primary theme | Sub-themes | Codes |
|---|---|---|
| Changes in learning outcomes using ICT Lesson Plans | Learning Environment Learning outcomes | • Improved attention<br>• Listened carefully<br>• Developed interest in the subject<br>• Developed curiosity<br>• Change in the classroom environment<br>• Understand easily<br>• Answer appropriately<br>• Improved vocabulary<br>• Participate actively in activities<br>• Introvert/shy students opened up<br>• Improved grades<br>• Ask meaningful questions |

**Table-2.1 Frequency and percentage of changes in learning outcomes usingICT lesson plans**

| Excerpts | Trainee Teachers' Responses out of 200 | |
|---|---|---|
| **Learning Environment** | **Frequency** | **Percentage** |
| Improved attention & listened carefully | 112 | 56% |
| Developed curiosity | 125 | 62.5% |
| Developed interest in the subject | 119 | 59.5% |
| Change in the classroom environment | 112 | 56% |
| Participated actively in language activities | 142 | 71% |
| **Learning Outcomes** | **Frequency** | **Percentage** |
| Understand easily & answer appropriately | 138 | 69% |
| Improved vocabulary | 109 | 54.5% |
| Introvert/shy students opened up | 113 | 56.5% |
| Improved grades | 121 | 60.5% |
| Ask meaningful questions | 94 | 47% |

**Interpretation**

English trainee teachers found that ICT-based lesson plans improved students' attention, curiosity, and learning outcomes. 56% of respondents believed that learners listen carefully and using ICT improved their attention during class. 62.5% of respondents said ICT helped develop interest in the subject, while 59.5% accepted that students developed an interest in the subject. Positive changes in the classroom environment were observed, with 71% of respondents observing active student participation in language activities. ICT integration improved vocabulary among learners, and introverted students were more involved in discussions. 60.5% of respondents reported improved grades, and 47% recognized meaningful questions from students during classroom transactions.

**Question-3: What was the most challenging situation while delivering ICT-based lesson plans during your internship?**

**Table-3 Theme-based coding of challenges in practising ICT-based lesson plans**

| Primary Theme | Sub-themes | Codes |
|---|---|---|
| Challenges in Practising ICT-based Lesson Plans | Infrastructure Technical support | • Seating arrangement<br>• No equipment<br>• No Overhead projector<br>• No lab facilities<br>• No language lab<br>• No computers<br>• Electricity issue<br>• Power cuts<br>• Used own Laptop<br>• Used own smartphone<br>• No technical support<br>• The school did not support<br>• No access to Lab<br>• No access to equipment |

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**Table-3.1 Frequency and Percentage of Challenges in Practising ICT-based Lesson Plans**

| Excerpts | Trainee teachers' responses out of 200 | |
|---|---|---|
| **Infrastructure** | **Frequency** | **Percentage** |
| Seating arrangement | 67 | 33.5% |
| No equipment & overhead projector | 82 | 41% |
| No Lab & computers | 91 | 45.5% |
| Electricity issues & Power cuts | 78 | 39% |
| **Technical Support** | **Frequency** | **Percentage** |
| Used own Laptops & Smartphones | 98 | 49% |
| No technical support | 94 | 47% |
| The school did not support | 63 | 31.5% |
| No access to Lab or equipment | 56 | 28% |

**Interpretation**

English internship schools face challenges in providing proper seating arrangements, equipment, and language labs for students. 33.5% of prospective English teachers report no proper seating arrangements, 41% lack proper equipment for ICT-based period plans, and 45.5% lack language labs or computer labs. Power cuts and electricity issues are reported by 39% of trainee teachers. 49% of respondents use their own devices for projecting ICT-based period plans, while 47% do not receive any technical support. 31.5% of respondents report that internship schools do not support trainee teachers during teaching practice, and 28% report that even with available equipment, trainee teachers are not given access to it.

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**Question-4: What practical suggestions would you recommend to overcome such type of situations?**

**Table-4 Theme-based coding of recommended suggestions to overcome challenging situations**

| Primary Theme | Sub-themes | Codes |
|---|---|---|
| Recommended Suggestions | Provision of Infrastructure Provision of Access Provision of Support | • Equipped computer lab<br>• Language lab<br>• Overhead projectors<br>• Proper infrastructure<br>• Electricity supply<br>• Access to smart classroom<br>• Access to equipment<br>• Sufficient time<br>• Technical support<br>• Proper support<br>• School support<br>• Teachers support |

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**Table-4.1 Frequency and percentage of recommended suggestions to overcome challenging situations**

| Excerpts | Trainee teachers' responses out of 200 | |
|---|---|---|
| **Provision of Infrastructure** | **Frequency** | **Percentage** |
| Equipped with Computer /Language Lab | 95 | 47.5% |
| Overhead projectors & proper infrastructure | 68 | 34% |
| Electricity supply | 67 | 33.5% |
| **Provision of Access** | **Frequency** | **Percentage** |
| Access to smart classroom | 43 | 21.5% |
| Access to equipment | 58 | 29% |
| Sufficient time | 89 | 44.5% |
| **Provision of Support** | **Frequency** | **Percentage** |
| Technical support/proper support | 91 | 45.5% |
| School/teacher support | 84 | 42% |

**Interpretation**

The survey shows that a majority of trainee teachers believe that schools should have proper infrastructure, including equipped labs, overhead projectors, and proper electricity supply. They also emphasize the need for access to smart classrooms and equipment for delivering ICT-based period plans. Additionally, they suggest sufficient time for ICT-based period plans and the provision of technical support. The majority of respondents also recommend that schools and

teachers provide support for successful ICT integration in the classroom during teaching practice.

**Question-5: Do you believe that ICT-based lesson plans are effective in ESL classrooms? Kindly support your answer.**

**Table-5 Theme-based coding of effectiveness of ICT-based English lesson plans**

| Primary Theme | Sub-themes | Codes |
|---|---|---|
| Relevancy of ICT English Lesson Plans | Preparation for 21$^{st}$-century classrooms <br> Teaching-Learning aspects | • Breaks monotony <br> • Integrate technology <br> • Prepare new-gen teachers <br> • Quite relevant <br> • Prepare for 21$^{st}$-century classrooms <br> • Prepare tech-savvy teachers <br> • Demand of techno-schools <br> • Help outcome-based learning <br> • Helpful for teachers <br> • Help in improving grades |

**Table-5.1 Frequency and percentage showingeffectiveness of ICT-based Englishlesson plans**

| Excerpts | Trainee teachers' responses out of 200 | |
|---|---|---|
| **Preparation for 21$^{st}$-century classrooms** | **Frequency** | **Percentage** |
| Breaks monotony & integrates technology | 69 | 34.5% |
| Prepare new-gen, tech-savvy, & 21$^{st}$-century teachers | 121 | 60.5% |
| Relevant & demand of techno-schools | 98 | 49% |
| **Teaching-Learning Aspects** | **Frequency** | **Percentage** |
| Helpful for teachers | 136 | 68% |
| Helpful in outcome-based learning & Improves grades | 112 | 56% |

**Interpretation**

ICT period plans are found to be helpful for English trainee teachers, breaking classroom monotony and integrating technology into the teaching-learning process. They prepare teachers for 21st-century classrooms, with 60.5% believing it is relevant and in demand by techno-schools. 68% of respondents believe ICT period plans are helpful for teachers, while 56% believe they improve student grades and outcome-based learning.

**Conclusion:**

The study of open-ended questions reveals that the majority of English Trainee Teachers perceive ICT as beneficial and engaging in English Language Teaching classes. A multitude of respondents said it generates curiosity and captures attention in the classroom. The majority of respondents acknowledged that ICT is beneficial for teaching listening and speaking skills to pupils. Trainee instructors also believed it to be suitable for reading purposes. Moreover, the majority of respondents indicated that ICT is beneficial for teaching grammar and vocabulary, and noted that students perceive it as an enjoyable method of learning. Some respondents asserted that pupils grasp the topic effortlessly with ICT, while others contended that it aids in the development of LSRW abilities among learners. Moreover, trainee teachers acknowledged that ICT enables learners to engage in the teaching-learning process. Inquiries on the alterations in learning outcomes among students utilizing ICT indicate that numerous trainee teachers noted an increase in learners' attentiveness and enhanced listening skills during class. Most respondents indicated that ICT fostered curiosity, while many acknowledged that pupils cultivated an interest in the subject. Trainee educators observed beneficial transformations in the classroom atmosphere. Furthermore, the majority of respondents noted that pupils engage actively in activities when utilizing it. Regarding learning outcomes, the majority of trainee teachers indicated that learners comprehend the idea and respond correctly. Many respondents saw that the usage of ICT enhanced vocabulary among learners, while others found that introverted or timid pupils were more engaged in conversations when ICT was utilized. Additionally, the replies indicated that ICT contributed to enhancing pupils' grades. It has been noted that those kids pose significant inquiries during classroom interactions. at answer to inquiries regarding the challenges encountered when executing ICT-based lesson plans during teaching practice, it is clear from the feedback that numerous trainee teachers noted the absence of adequate seating arrangements for children at the internship schools.

Several respondents indicated that the schools lacked enough equipment for the ICT-based curriculum plan. Numerous comments indicate the absence of language and computer laboratories at educational institutions. Several trainee teachers noted power outages and electrical problems in schools. Regarding technical help, several respondents utilized their personal devices for presenting ICT-based period plans, while a minority reported a lack of technological assistance in schools. Limited feedback indicates that internship institutions failed to assist trainee educators throughout their teaching practicum. It has been noted that some responses indicate that, despite the presence of equipment in schools, trainee instructors have not

been granted access to this equipment for implementing ICT-based lesson plans. Trainee instructors recommended that schools maintain well-equipped laboratories, install overhead projectors, and provide adequate infrastructure for ICT deployment. A significant number of trainee instructors advocated for a reliable electricity supply in classrooms. Furthermore, several respondents indicated that educational institutions ought to facilitate access to smart classrooms and emphasized the necessity of providing equipment for the implementation of ICT-based lesson plans. Many participants suggested that adequate time should be allocated for ICT-based period plans. Many respondents highlighted the necessity of technical support, while others said that internship schools and educators should facilitate this help to ensure the effective incorporation of ICT in the classroom during teaching practice. Inquiries regarding the significance of ICT indicate that trainee instructors perceive ICT lesson plans as crucial in alleviating classroom monotony and as an effective means of incorporating technology into the teaching-learning process. The majority of respondents assert that ICT integration facilitates the preparation of teachers for 21st-century classrooms. While several acknowledged its relevance and demand among techno-schools, others contended that ICT period plans are beneficial for educators. A significant number of respondents indicated that it facilitates outcome-based learning and enhances student grades.

**Educational Implications:**

Teacher educators play a crucial role in preparing prospective English teachers to effectively use language teaching methods and techniques in the 21st-century classrooms. The Covid-19 pandemic has highlighted the importance of ICT integration in the teaching-learning process. This study aims to identify challenges faced by prospective English teachers in implementing ICT-based English period plans in education colleges, including infrastructure, technical facilities, and support from colleges and internship schools.

- The study's recommendations include urging policy-makers, teacher educators, and teachers to increase their efforts in advising educational institutions on how to integrate ICT into the teaching-learning process. By addressing these challenges, teacher educators can better prepare students for the challenges of the 21st-century classroom and ensure they are well-equipped to navigate the challenges of language teaching in the 21st century.

- The study highlights the importance of teacher education in preparing future technocrats for the 21st-centuryteaching profession. It emphasizes the need for institutions to provide

intensive grounding in technological aspects and prepare teachers for future technology-savvy roles.

- To promote ICT integration in schools, higher authorities should take immediate steps to ensure access to necessary resources and infrastructure. Teacher educators are also encouraged to promote smart classes and the installation of smart boards in ELT classrooms. However, a lack of basic electricity and interrupted power supply have been observed as factors affecting ICT integration in many schools.

- Universities can propose online, web-based, or blended-mode courses in Teacher Education Programmes to equip trainee teachers with knowledge about exploring and exploiting various Open Educational Resources (OER) for language teaching. Regular CPD programs should be organized for English Teacher Educators to keep them abreast of the latest methods and techniques adopted in 21st-century ELT classrooms.Institutions should also encourage them to carry out action research projects in English Language Education to gain insight into issues and pedagogical concerns prevailing in current ESL classroom scenarios.

- The study also highlights the need for teacher education colleges to consider existing challenges faced by trainee teachers during teaching practice and come up with possible solutions. Teacher educators recommend providing support from internship schools for the successful implementation of ICT integration in the classroom during their teaching practice. Institutions must ensure the availability and access to the infrastructure in concerned internship schools.

- School authorities should maintain decent infrastructure facilities, including functional language labs, to ensure experiential learning, learner inclusion, and autonomy in the teaching-learning process. Schools with inadequate funds may initiate fundraising campaigns with the help of stakeholders and community members, inviting alumni for their contributions. Additionally, schools may apply for funds from state or central organizations and other NGOs.

Therefore, the study highlights the importance of teacher education in preparing future technocrats for the 21st-century English language teaching profession. By addressing infrastructure, technical support, and human resources, schools can better prepare their teachers for the challenges of the 21st-century English language teaching landscape.

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**Scope for further Research:**

The current study paves the way for additional research in this domain, allowing scholars to examine ESL students' perspectives about the incorporation of ICT.

- This study is conducted on teacher education colleges associated with Osmania University in Hyderabad. The research can be expanded to include teacher education institutions from various universities (Central, State, and Deemed).
- Comparativestudiescan be undertaken in other states of India besides Telangana.
- The integration of ICT in the assessment and evaluation of language acquisition can also bestudied.
- An experimental study can be undertaken to ascertain the impact of digital literacy and multimedia utilization on the efficacy of English language instructors.

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**Appendix:**

### List of Colleges with Sample Size

| Sl. No. | Name of the Teacher Education College | Sample |
|---|---|---|
| 1. | BED 1001 University College of Education, Osmania University, Tarnaka, Hyderabad. | 20 |
| 2. | BED 1621 Adam College of Education, Diamond Hills, Shaikpet, Golconda, Hyderabad. | 20 |
| 3. | BED 1623 Anwar Ul- Uloom College of Education, Nampally, Hyderabad. | 20 |
| 4. | BED 1626 Ghulam Ahmed College of Education, Banjarahills, Hyderabad. | 20 |
| 5. | BED 1627 Institute of Advanced Study in Edn. Masab Tank, Hyderabad. | 20 |
| 6. | BED 2478 Holy Mary Tec. College of Education, Yenkepally(V), Chowdariguda, Vikarabad. | 20 |
| 7. | BED 2488 Nawabshahalam khan College of Education, Yennepally, Vikarabad, Ranga Reddy. | 20 |
| 8. | BED 2509 St. Judes College of Education for Women., Vikarabad , Ranga Reddy. | 20 |
| 9. | BED 6293 Noble College of Education, NH.7 Road, Toopran, Medak. | 20 |
| 10. | BED 6299 GMR College of Education, Digwal Village, Zaheerabad, Medak. | 20 |