

## **A Comparative Analysis of Assessment Practices and Their Impact on Student Achievement in Rural vs. Urban Government Secondary Schools in Islamabad**

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### **Abstract**



*This research study aimed to examine and compare the assessment practices utilized in rural and urban secondary level students of government colleges of Islamabad. Diagnosing the critical role of effective assessment practices in the enhancement of learning outcomes, the current study focused on the identification of the differences in assessment methods, challenges faced and its effect on students' achievement in rural and urban settings. This research followed descriptive research design. Moreover, this quantitative research study was conducted using sample of 362 students enrolled at secondary level and 79 teachers from selected colleges selected through double stage sampling technique. Data were collected using a questionnaire constructed by the researcher. This questionnaire contained various dimensions to measure their performance. To analyse the data statistical analyses including descriptive and inferential statistics were applied to compare assessment approaches and their relationship with academic results. The research findings exposed the existence of disparities between colleges located in urban and rural area of Islamabad. These inequalities could be observed in the conduction of assessments, the extent to which assessments are conducted and provision of feedback to the students. The results identified that formative assessment which focuses on student centred approaches positively correlates with their academic performance. In contrast, the colleges located in rural areas largely depend upon traditional approaches of assessment. As a result, they are behind the urban colleges in the development of critical thinking among learners. Additionally, various challenges that hinder the effectiveness of assessment practices like limited teachers training and inequalities in the system are highlighted. On the basis of detailed findings, the researcher provided recommendations.*

**Keywords:** Assessment, Rural, Urban, Feedback, Academic Performance.

### **Introduction**

In the contemporary era, education system is not restricted to simple recall of information but to prepare the students to meet the requirements of latest technological world. As the universe is moving at a greater pace with respect to technological innovations, the emphasis of education system has shifted towards the development of higher order thinking skills among students. These skills include the ability to determine the situations critically, to have problem solving skills and deep analysis. In developing these skills assessment practices play a crucial role as they help in fostering and evaluation of these competencies. (Halpern, 2014). Assessment is the main guider to provide students with the necessary feedback to engage them in cognitive development (King, 1997).

In Pakistan, the educational institutions face prominent challenges in the successful implementation of assessment to get desired outcomes. These challenges include the disparities between rural and urban areas, proper resources, lack of teacher training and the ways of assessment utilized by colleges. Urban schools generally have access to more varied and formative assessment techniques that promote active learning and critical thinking. In contrast, rural schools frequently rely on traditional summative assessments that emphasize memorization and limit opportunities for students to engage in higher-order thinking (Sadallah, 2017). Such differences may contribute to the gap in academic performance between rural and urban students.

This research conducted within the territory of Islamabad focused on the utilization of different assessment practices in the rural and urban area government colleges. The aim of the study was to know the impact of these practices on students' performance, comparison of types, and to find out the extent to which assessment methods are implemented in classroom setting to improve students' achievement.

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The research study focused on government colleges by selecting eight colleges from both regions. The researcher selected four government colleges named as IMCG F-6/2, IMCG F-8/1, IMCB G-13/2, and ICB G6. Similarly, to inculcate data from the rural area colleges four colleges named as IMCG Bhara Kahu, IMCG Tarlai, IMCB Sihala and IMCB Nilore were selected. The population selected to be included in the study comprised of 400 secondary level students and 100 teachers from these colleges. For data collection structured questionnaire was designed for teachers and analysis of academic records of secondary level students was conducted for detailed examination of assessment strategies in both areas. The study aimed to provide valuable recommendations for educational stakeholders at all levels including teachers, administrators and policy formulators. It was important to understand different dimensions of assessment strategies implemented in colleges to foster equitable and effective learning environment irrespective of geographic areas.

Moreover, this study contributed to improve educational quality and standardization of educational curricula in Pakistan. By providing evidences the research played the role in modifying the assessment practices to fulfill the needs of urban as well as rural area colleges of Islamabad. Finally, this comparative study resulted in to the findings that prioritize student centred learning to bring improvement in their critical thinking abilities.

### **Rationale of the study**

Throughout my journey as an educator in Pakistan, I have experienced that assessment practices usually vary between rural and urban areas. These differences show the existence of inequalities within education system among regions. In rural areas assessment practices are mostly traditional which emphasizes rote memorization rather than critical thinking enhancement. On the other hand, urban area educational institutes focus on formative assessments and provision of regular feedback to make assessment as a student centred approach. This shows that within the territory of Islamabad these differences persist leading to educational gaps. Previous researches identified assessment practices mostly in single region so the current study analysed both regions in terms of assessment practices, feedbacks and challenges by doing a comparative research study. The findings of the research study will be helpful for the teachers, policy makers and administrators to modify the assessment techniques and overcoming of challenges for equitable education system in Pakistan.

### **Statement of Problem**

Secondary level education system of Pakistan is marked by rural-urban educational divide that exists in the form of achievement gaps in both regions. This gap is persistent in assessment practices as urban areas are preparing students on the basis of critical thinking skills by experiencing ongoing assessment practices. The scenario is different in rural areas where focus is on summative assessments rather than formative ones. This is evident from the fact that literacy rate is low in rural area as compared to urban area where literacy rate is higher. These inequalities led researcher to conduct a comparative research study in this domain so that the analysis could be done to find out assessment types, frequency and feedback impact on students' performance.

### **Research Objectives**

1. To examine the assessment strategies used in rural and urban government colleges of Islamabad.
2. To investigate the relationship between students' academic performance and assessment in rural and urban colleges.
3. To explore the views of teaching faculty and students related to the effectiveness of current assessment techniques in their colleges.
4. To investigate about the facilitative factors influencing the assessment practices.
5. To provide the recommendations for the improvement of assessment strategies for the enhancement of academic performance across both areas

### **Research questions**

1. How assessment practices are used differently in rural and urban government colleges of Islamabad?
2. How the assessment practices in rural and urban area colleges affect students' academic performance?
3. What is the extent to which assessment practices are effective in terms of reliability and fairness according to teachers and students?

4. What are the influencing factors that affect the implementation of assessment, methods in classrooms?
5. What suggestions and recommendations could be provided for the improvement of assessment system to minimize the rural-urban divide within education system?

## **Literature Review**

### **Concept of Assessment**

Assessment in education encompasses a broad range of activities aimed at measuring student learning, skills, attitudes, and educational outcomes (Black & Wiliam, 1998). It is not merely a tool for grading but a critical process that shapes both teaching and learning. Educational theorists emphasize that assessment should align with learning objectives and support cognitive development. For example, Bloom's Taxonomy categorizes cognitive skills from basic recall to complex evaluation and creation (Bloom, 1956).

According to the researches, there are different theories that perceive assessment differently. One of the theories is constructivist theory focuses on construction of knowledge by the students by their active engagement in construction of knowledge rather than simple recall of information. Hence, this approach focuses on the development of higher order thinking skills (Bruner, 1966; Vygotsky, 1978). Another theory in this regard is Formative assessment theory which stresses on the provision of continuous feedback mechanism. This type of feedback informs educators to better align their teaching strategies with the dynamic needs of learners (Black & Wiliam, 1998).

### **Types of Assessment**

Assessment is categorized into different types. These types include formative assessment, summative assessment, diagnostic assessment and other continuous types. Each type of assessment has its own criteria for assessing the knowledge of students. The important type of assessment is formative one, which include classroom quizzes, peer assessments, and inclusion of students in classroom discussions. These strategies foster immediate feedbacks for real time amendments. Moreover, it enhances students learning by the identification of loop holes to encourage metacognition (Nicol & Macfarlane-Dick, 2006).

Summative assessment conducted at the end of year or semester aim to evaluate commutative knowledge influencing grades at the end (Raza & Javed, 2018). Diagnostic assessments, typically administered at the beginning of instruction, help identify prior knowledge and skill gaps to tailor teaching approaches (Black & Wiliam, 1998). Continuous assessment integrates multiple evaluation formats over a semester or academic year, promoting a holistic view of student capabilities beyond a single test score (Ahmed & Shah, 2020). Each type carries strengths and limitations; formative and continuous assessments foster deeper learning and engagement but require teacher expertise and time, which can be scarce, especially in under-resourced schools (Khan & Nasir, 2020). Summative assessments, while easier to administer on a large scale, may encourage rote learning and test-focused teaching, undermining higher cognitive skills (Ali & Hussain, 2019).

### **Importance of Assessment**

Assessment holds a pivotal role in shaping academic outcomes by informing students, teachers, and policymakers about learning progress and instructional efficacy. One of the research states that carefully formulated assessment practices which are properly aligned with the research objectives results in enhancement of students' motivation and academic achievement. Assessment process in Pakistan highly effect the classroom environment, teacher's accountability, and students' achievements (Khan et al., 2021). A study by Malik and Rehman (2017) stayed that data on assessment helps in uncovering the inequalities and gaps within the system based on location, gender and economic status (Malik & Rehman, 2017). Therefore, analysis of studies reveals that assessment is not only important to foster equity in education and Hence, effective assessment is not only critical for individual academic success but also for advancing educational equity and bringing policy reforms in Pakistan.

### **Challenges associated with Assessment Practices**

According to previous researches, effective assessment practices in Pakistani schools is packed with multiple challenges. These challenges are mostly prominent in rural area educational institutions. Other factors include inadequate teacher training in the usage of latest technologies and their focus on exam centred approaches only. Moreover, infrastructural deficiencies in some areas also effect innovative assessment methods (Ali & Hussain, 2019). Other studies revealed that lack of highly

standardized assessments to promote higher level skills and presence of cultural norms promoting rote memorization effects creativity of students (Siddiqui et al., 2022). These mentioned disparities by various studies showed that these challenges contribute in the failure of system to capture full spectrum of students' abilities and hence limiting the opportunities for their academic growth and performance. (Ahmed & Shah, 2020).

According to a study, the inequalities exist between assessment practices of schools and colleges located in different areas of Pakistan. These disparities include socio-economic, resources and infrastructural divides. Teachers in urban areas are more exposed to latest assessment techniques as compared to rural area faculty. They use formative assessment including problem based projects to foster active learning among students (Siddiqui et al., 2022). Comparing these strategies with the rural side showed that they mostly rely on summative assessments because of non-availability of proper facilities which resultantly decreases the cognitive engagement of students (Ahmed & Shah, 2020). The results from the mentioned studies clearly conclude that rural area students receive less personalized skills which impact their future opportunities in education.

The regular feedback supports the development of metacognitive skills and self-directed learning among students (Nicol & Macfarlane-Dick, 2006). On the other hand, students in the rural area are initially not provided the opportunities for formative assessments and they are mostly involved in the process of summative assessment which result in rote memorization and low academic achievement. Resultantly, their cognitive abilities are not developed at that pace which make them able to cope up with the tertiary level of education along with the employment opportunities (Raza & Javed, 2018). These gaps in the areas highlight the urgent need to bring reforms in the assessment practices which will in turn raise the academic performance and will empower students. These disparities highlight the urgent need to reform assessment practices to ensure equitable learning opportunities. Improving assessment quality in rural schools is essential not only to raise academic performance but also empower students with skills necessary for socio-economic mobility and national development.

### **Identification of Research Gap**

The literature review highlights the critical role of assessment in academic performance along with the disparities within the territories within Pakistan's secondary education system. Most of the researches discussed the inequalities broadly without isolating assessment methods so this research seeks to address the gap by comparative study on assessment practices within the rural and urban colleges of Islamabad. The data were collected through questionnaires and academic records. The findings aim to provide the evidence to provide guidance to policy interventions to focus on teacher training in this specific area which will ultimately bring educational reforms for the improvement of education system and quality across Pakistan.

### **Research Methodology**

Researcher employed a descriptive research design to examine and compare the assessment strategies in government colleges located in urban as well rural areas of Islamabad. Researcher employed quantitative approach for data collection from the target population. To collect the data two-stage sampling technique was utilized. At the first stage sectors were selected purposively by the researcher. After that stratified random technique was used to choose government colleges from rural and urban sides of Islamabad. In order to collect data self-constructed questionnaires were administered to gather information on assessment practices. In order to obtain academic performance, the data were collected from college records to analyse the impact of assessment. The questionnaire was designed based on existing body of knowledge as a literature and validated through a pilot study.

In order to analyse the data appropriate statistical techniques were used. To summarize assessment practices descriptive statistics were used. On the other hand, inferential statistics were used including t-test and inferential statistics to examine the differences between rural and urban schools. Also the statistics were used for examination of relationship between assessment method and academic performance of students. The study specifically followed purely quantitative methodology to ensure objectivity and generalizability of the findings (Creswell, 2014).

### **Population and Sampling**

For the current study, secondary level students from both the male and female colleges located in urban and rural areas of Islamabad were selected. The population was approximately consisting of 2300 secondary level students in rural area colleges and 3800 secondary level students in urban area.

Utilizing the criteria of sample size by Krejcie and Morgan 362 students would be enough for the study. Therefore, the sample of this study was comprised of 362 students and 79 teachers. Double sampling was used for data collection in which initially purposive sampling was employed to select 4 rural and 4 urban colleges from the list provided by the respective education departments. At the second stage, cluster sampling was applied where all the students of grade 9<sup>th</sup> and 10<sup>th</sup> at the selected schools were included for the study.

### **Instrumentation**

For the present study researcher employed two main instruments for this quantitative study; a structured questionnaire and along with that students' academic records of previous three years were collected. The first instrument was self-constructed questionnaire designed to explore assessment practices and their impact on students' academic outcomes. In the questionnaire 35 statements were added by dividing the questionnaire into three sections. In the first section 5 statements having demographic details such as age, school level, and area were added. Second section included 15 statements focused on types and frequency of assessment methods by teachers, including different types of assessment like summative, formative, diagnostic, and performance-based assessments. Third section of questionnaire had ten statements assessing students' perceptions of how different assessment methods influenced their understanding, motivation and academic success.

5-point Likert scale was used to rate the questionnaire scale ranging from Strongly Disagree to Strongly Agree. Initially, a pilot study was conducted with 20 teachers to refine language and clarity. For reliability Cronbach's alpha was used and reliability comes out to be 0.82, indicating strong internal consistency. The final version is provided in Appendix C.

The second instrument which consists of students' academic records was collected from colleges with proper permissions. These records were consisting of final examination scores in core subjects for the current academic year. The purpose of this data was to compare and correlate academic outcomes with the reported assessment practices. Academic data records added a layer of empirical evidence to support findings derived from self-reported questionnaire. These two instruments together provided with perceptual and performance based data allowing for a more reliable and valid analysis of the impact of assessment.

### **Conduction of Pilot Study**

In order to check the reliability and validity of the instrument a pilot test was conducted by the researcher. To carry out pilot study, sample selected was one-fourth, drawn from the same population and excluded from the final data collection. The pilot test was conducted for the examination of clarity, consistency and functionality of the questionnaire items. The execution of pilot test and reliability analysis strengthened the overall credibility of instruments used in the current research.

### **Validity of Instruments**

For the validation of research instrument used in the study, opinions of experts were sought. For the validity, the instrument was reviewed by three educational professionals. One of the faculty member was from the International Islamic University from the Education Department. Moreover, two experience secondary school teachers were selected from urban and rural government schools of Islamabad. The experts did the examination of questionnaire for clarity, relevance and alignment with research objectives. On the provision of the feedback several modifications were made in the instrument. This ensured that the instruments effectively captured the required constructs of the study suitable for both urban and rural regions. This demanding validation process improved the accuracy and appropriateness of the instruments utilized in the study.

### **Data collection**

In order to collect the data researcher personally visited the selected schools in both rural and urban settings. Questionnaires were distributed in a controlled classroom environment by seeking the prior permission and ensuring the necessary protocols. The confidentiality of responses was ensured throughout the data collection process.

### **Data Analysis**

The data collected through the instruments from the teachers and academic records were analysed using SPSS software. Two statistical practices were used for the data analysis. Descriptive statistics summarized the assessment practices while inferential statistics tested the differences between the rural and urban colleges and examined the impact on the academic performance.

**Description of Assessment Techniques**

The questionnaire items containing items related to types of assessment, frequency of assessment, provision of feedback and challenges were measured on a Likert scale e.g.; 1=Never, 5=Always.

**Table 1** Analysis of formative assessment and feedback practices between rural and urban colleges

Assessment Practice	Rural Mean (SD)	Urban Mean(SD)	Overall Mean (SD)
Formative Assessment	3.45(0.78)	4.12(0.65)	3.78(0.84)
Summative Assessment	4.10(0.50)	4.25(0.55)	4.17(0.53)
Use of Feedback	2.85(0.95)	3.95(0.70)	3.40(0.91)
Frequency of test	3.25(0.88)	4.00(0.75)	3.63(0.87)
Assessment Challenges	3.90(0.80)	2.95(0.90)	3.42(0.88)

Table 1 illustrates that the teachers of urban colleges reported the high use of formative assessment and feedback practices as compared to rural teachers. Contrarily, rural area teachers reported facing more challenges related to assessment.

**Description of Comparison between Rural and Urban Colleges**

T-test was conducted to compare assessment practice scores between rural and urban colleges. The results of t test are as follows.

**Table 2** Description of Comparison between Rural and Urban Colleges

Assessment aspect	T value df	P value interpretation
Formative assessment	-4.52	338<0.001 Significant difference, Urban >Rural
Summative assessment	-1.75	338<0.081 Significant difference, Urban >Rural
Use of feedback	-6.12	338<0.001 Significant difference, Urban >Rural
Frequency of testing	-5.10	338<0.001 Significant difference, Urban >Rural
Assessment challenges	7.35	338<0.001 Significant difference, Rural > Urban

**Interpretation:** Table 2 shows the significant differences existing between rural and urban colleges.

**Descriptive statistics of Academic Performance**

In order to show the academic performance, it was categorized into three levels based on their scores in final examination. They are classified as Below Average Level (<50%), Average Level (50-80%), and Above Average (>80%)

**Table 3** Descriptive statistics of Academic Performance

Performance level	Rural school %	Urban school %	Total %
Below average	35%	20%	27.5%
Average	50%	60%	55%
Above average	15%	20%	17.5%

Interpretation: Table 3 shows that the schools located in urban areas had more students at above average level as compared to the students in rural areas.

**Interpretation of Assessment Practices on academic performance**

In order to find out the impact of assessment practices on academic performance of students Pearson correlation analysis was conducted between teachers' reported assessment practices and students' scores in examinations.

**Table 4** Interpretation of Assessment Practices on academic performance

Variable	Correlation coefficient(r)	p-value interpretation
Formative assessment	0.45	<0.001 Moderate positive correlation
Summative Assessment	0.20	0.02 Weak positive correlation
Use of feedback	0.55	<0.001 Strong positive correlation
Frequency of testing	0.38	<0.001 Moderate positive correlation
Assessment challenges	-0.47	<0.001 Moderate negative correlation

**Interpretation:** Utilization of assessment practices such as formative and summative showed strong correlation with the academic performance of students. On the other hand, challenges faced by students in the process negatively impacted their academic performance.

**Regression analysis**

In order to predict academic performance based on assessment practices multiple regression was conducted.

**Table 5** Regression analysis

Predictor	B(unstandardized Coeff)	SE	Beta (Standardized	t	P value
Formative assessment	0.32	0.05	0.35	6.40	<0.001
Summative assessment	0.12	0.06	0.13	2.00	0.046
Use of feedback	0.42	0.04	0.45	10.50	<0.001

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Frequency of testing	0.18	0.05	0.20	3.60	<0.001
Assessment challenges	-0.30	0.06	-0.28	-5.00	<0.001

Interpretation: Table 5 showed the use of feedback as the strongest predictor of academic performance. Formative assessment and frequency of testing also effected positively while challenges again effected negatively.

### Conclusion

The inspiration behind the conduction of this study arose from the noticeable differences in academic performances of students in the colleges of urban and rural areas of Islamabad. These inequalities raised the critical questions about the assessment practices which affect students' learning outcomes. The findings of this research study lead to several important conclusions.

The researcher concluded that the assessment practices in urban secondary schools are more diverse, frequent and aligned with contemporary educational standards. On the other hand, colleges located in rural areas mostly rely on traditional summative assessment methods with limited feedback provision. This difference in assessment approaches impacts students' performance which shows that students' in urban areas rely on rote memorization which restricts their ability to deeply engage with the subject matter. This reliance on the summative assessment hamper their academic growth. Hence, the findings of the study suggest that the rural area students face multiple challenges in understanding and application of knowledge, which in turn raise the concern for the improvement is the quality of assessment and training the teachers in these areas.

Moreover, the findings revealed that the quality of assessment practices directly influence the motivation level of students, engagement in studies and their achievements. Students enrolled in the urban colleges are exposed to more varied and continuous assessment, methods which provide them better learning opportunities. Contrarily, in rural colleges students are mostly assessed through high stake examinations that failed to develop critical thinking and problem solving skills in students. This gap underscores the need of educational reforms to bridge the gap between rural and urban colleges. This is very important for the equitable and inclusive education environment in Pakistan.

### Recommendations

The findings of research study clearly highlighted the differences existing in assessment practices in rural and urban secondary schools and their impact on the students' academic performance. As findings clearly pointed that the methods of assessment used in rural areas are mostly traditional limiting their higher order thinking skills. Therefore, it is recommended that school leaders need to play their effective role for directing teachers to work towards the adoption of more diverse and continuous assessment methods. These approaches may include quizzes, project based assignments, peer assessments and constructive feedback sessions. These practices can foster deeper understanding of subject matter along with continued learning process. Moreover, the role of teachers is pivotal in the implementation of improved assessment techniques. However, the current study highlights the gap in teachers' familiarity with the trendy assessment methods, especially in the rural colleges. So, to address this it is recommended by the researcher that ongoing professional development is mandatory. These programs need to be designed to build teachers' capacity to create and administer assessments that go beyond factual recall, encouraging evaluation, analysis and synthesis of knowledge. The conduction of seminars and workshops needs to be designed to cover the teachers at broader level to equip them with the innovative tools and strategies, enabling them to better measure and enhance students' academic abilities.

Additionally, the educational authorities need to develop equitable assessment policies across all schools irrespective of geographic location. There should be proper guidelines to ensure balanced and aligned with educational goals assessment practices nationwide. This will help in reduction of academic divide between rural and urban college students' and will promote the fair opportunities for all learners to demonstrate their understanding through varied cognitive skills.

Another finding revealed that student-centred and continuous assessments are more prominent in the urban area colleges, which resulted in better academic achievements of students. So, it is recommended that rural area colleges need to adopt such methods as self-assessment techniques, peer review, and portfolios which empowers students to own their learning. When students are motivated to engage actively in learning process they not only progress positively but provide teachers with a bulk of data to identify students learning needs and provide them instructions accordingly.

Another critical factor that influences student achievement is parental and community involvement. This study suggests that parents and communities may not be fully aware of assessment techniques and its importance. In order to deal with this, it is recommended that colleges should organize awareness programs and regular meet up with the parents to educate them about the benefits of diverse assessment practices. This step may help in reinforcement of learning both inside and outside the classroom by the creation of supportive communities.

Additionally, along with these pedagogical changes it is important to deal with the infrastructural and resource disparities. Most of the colleges in rural area side lack the access to adequate teaching materials, assessment tools and digital technologies. This limits their ability to implement effective assessments. In order to deal this issue, it is recommended that he investment by government and non-governmental organizations can enhance quality of assessment and learning experiences. Such investments would make institutions capable of incorporating interactive and technology supported assessments that cater to different learning styles.

At the end, continuous research and monitoring of evaluation process may provide fruitful results in this regard. The educational departments need to play the active role for regular review of assessment policies and practices for sustainable progress to cater the needs of educational institutes. Moreover, further research studies in this context exploring the other sides of assessment may help in identifying the best practices and support evidence-based reforms that may improve academic performance and education quality across all regions of Pakistan.

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