

Evaluating the Impact of Formative Assessment Methods on Knowledge Retention and Learning Outcomes in Higher Education Institutions

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ABSTRACT

The current trends in higher education especially the meeting point between technological advancement and pedagogical change have redefined the assessment paradigm whereby formative assessment has become increasingly popular as a major platform of enhancing student learning. Contrary to summative assessments, formative assessments are a feedback-provision system that is both iterative and interactive in nature supplying timely feedback to the instructors and encouraging active participation. The study focuses on the study of the popularity and effectiveness of formative assessment treatment in educational organizations of higher education in the Delhi NCR region. The research defines the most prevalent formative evaluation techniques and evaluates the extent of the impression that these assessment procedures have on both quick-term knowledge conservation and long-term scholastic accomplishment. Despite the widely reported benefits of formative assessment, such as encouragement of the metacognitive awareness as well as increased student involvement and reflective learning, empirical evidence shows that there is a stark contrast between currently dominant impressions about the worth of formative assessments and how they are actually organized in practice. Statistical comparisons show only moderate or insignificant correlations between formative assessment practice and learning outcomes and shows how continuing issues in consistent and effective practice remain. In this vein, the research suggests that, on the one hand, the instructors tend to support formative assessment per se; on the other, the limitation of institutions prevents the best use of the concept. The conclusion presents the development of properly structured policy support and the faculty training connected with the integration of digital technologies aimed at filling the gap between the theory and practice of formative assessment facilitating the realization of meaningful and sustainable academic development as the contribution to the decreasing the gap between the formative assessment theory and practice.

Keywords: *Formative Assessment, Knowledge Retention, Learning Outcomes, Feedback Mechanisms, Metacognitive Awareness, Student Engagement, Self-Regulation, Long-Term Learning*

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The assessment practices in higher education have been redefined in the course of the last few decades due to the evolving pedagogical knowledge and technological advancement (Bakar, 2021). The formative assessment has been morphed into the most fundamental teaching as well as learning strategy which has potential to shape productive learning experiences and also drive the performance of students. Working like interaction-focused and procedure-driven mechanism, the formative assessment able to monitors the progress related to both the learners and gives adequate feedback imminently which must allow corrective measures with the form of an improved lesson and. Like practice differs along with regard to the traditional summative assessment practices in which the tests are commonly conducted with the end of the learning modules. At the same time, Formative assessment is known as terminology that was coined in 1967 by Michael Scriven as well as elaborated by Benjamin Bloom known as formalised its applications in instructions. It also includes the range of data-collection processes that give real-time data on what the students are understanding as well as make decisions on how to teach them. This assessment can lead for dynamic learner involvement and reinventing for the role of assessment with the using feedback-oriented paradigms over the measurement model ones. At the same time, the modern universities are starting for recognizing that their effectiveness within the assessment can no longer be met solely for the standardised tests and other assessing tools and continued monitoring, frequent assessment as well as podcasting of instruction. Empirical studies in educational psychology have been found to support a consistent association resulting in an increased performance of learners in academic assessment when these learners are aware of their study weaknesses, and they apply strategies to overcome these weaknesses on purpose. For example- the formative tasks promoting metacognitive reflection as well as more comprehensive actualization about the concepts and concepts would be moderated within the group discussions, peer review, repeated quizzes, as well as self-evaluation and the sessions of individual feedback. This kind of practice must aligns with constructivist theory related to learning as knowledge construction has been valued more than information reception. At the same time, the formative assessment was even more relevant at the time when digital technologies spread both generally and within the online environment in particular. On the other hand, there still exist with the number of barriers for the systematic implementation of formative assessment within institutions. These type of barriers are distinct limits of policy along with the institution, student opposition for more assessment, faculty time load as well as technical obstacles. Hence, there is still no evidence related to the research study on who is best to use certain formative strategies within disciplinary, student, or instructional levels. The state of literature provides conflicting evidence on whether the direct correlation between formative assessment and academic outcomes, which can be measured actually exists, and thus there are still a lot of puzzles to be solved in terms of what processes are involved in the attainment of the best of effectiveness and under which conditions it one could be used most adequately. In line with this, the current study aims to investigate the association between formative assessment practice and outcomes in higher education without restriction of looking at outcomes in terms of objective measures of performance, but with consideration of the complex processes that lead to enriching learning conditions. Through the bridging of such gaps, the study will contribute to our knowledge on learner-centred pedagogies within modern universities.

This study is especially relevant in the context of Indian higher education, particularly in the Delhi NCR region, where there is an increasing demand for quality education and effective teaching strategies. With the rise of digital learning and the impact of the COVID-19

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pandemic, institutions have adopted various technology-enabled assessment tools. However, there is a lack of empirical research that evaluates how these tools influence learning outcomes over time.

By examining the effectiveness of different formative assessment methods, this study aims to fill the existing research gap and provide evidence-based insights for educators and policymakers. The findings will help in designing informed institutional strategies, improving teaching practices, and promoting the integration of formative assessment into regular academic processes to foster deeper, long-lasting learning.

Objectives of the Study

- To identify and categorize the various formative assessment methods currently employed in higher education institutions.
- To assess the effect of formative assessment on knowledge retention and long-term learning outcomes.

LITERATURE REVIEW

Identification and Categorization of Formative Assessment Methods in Higher Education (Post-2020). The landscape of formative assessment methods in higher education has undergone significant transformation since 2020, accelerated by the COVID-19 pandemic and rapid technological advancement. Recent literature reveals an evolving taxonomy of formative assessment practices that reflect contemporary educational challenges and digital learning environments. Morris et al. (2021) conducted a comprehensive systematic review of formative assessment and feedback in higher education, identifying key methodological categories that have emerged in recent years. In this investigation, it is reported that the students use a range of a formative assessment such as self-evaluation, peer evaluation, and group evaluation. Participants demonstrated delicate understanding of the complexities of varied assessment practices and the determination of enlarging their repertoire of assessment methods.

Formative assessment software has seen a soaring development since 2020. Focused critical evaluation of the current stable of popular online formative assessment instruments, as implied by a study by Feng et al. (2024) identifies the fact that standardized online formative assessment instrumentation has grown exponentially over the past decade and is characterized by diverse and substantially inconsistent functionality, teaching and learning quality and accessibility characteristics. The existing studies report comprehensive listings of digital assessment tools and more recent lists name at least 75 applications that can be used to facilitate formative assessment in teaching and learning situations. The move to the online learning under conditions of the pandemic outbreak has forced the introduction of new types of distant formative assessment strategies.

Sava et al. (2024) explored teachers' digital assessment practices in higher education, documenting how digital technologies offer opportunities for more effective assessment practice while presenting new challenges for implementation.

Peer and self-assessment are techniques that have become more common in use. The implementation of self-, peer-, and group-assessment techniques enhanced students understanding of complexity during the assessment as well as increased the motivation to complete various assessment activities in terms of recent exploratory research in

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professional education programs. Recent studies have demonstrated the effectiveness of the student-centered formative assessment methods in health professions education, and studies on the perspective of the medical students indicated better learning achievements and reflection.

As Berisha et al. (2024) claim, utilizing formative assessment as the teacher preparation and professional development divide into an independent field. The study of formative assessment as the example of professional development in digital environments in 2021-2022 allowed the teachers to observe some challenges and factors of success in the implementation practice of the modern educational environment.

A reflection that is intensive of the modern formative assessment processes that is able to demonstrated the necessity for reconsidering the theory. In the context to the familiarity of the formative assessment concepts, Coyle (2023) has been evaluated that limited questioning has been done related to the practices carried out along with the name of formative assessment and the theory that generates it. It requires a calling into question of the nature of formative assessment within the higher education.

Within the next category that has been discussed in new literature is the real-time as well as continuous assessment methods. Most of the educational researchers assert that formative assessments occur at the time, prior and after a classroom lesson and the data obtained which has been to inform immediate changes to the teaching and learning activities.

The literature able to indicates the emergence of formative assessment methodologies that are more advanced, upgraded technologically, and student-based. At the same time, recent studies have time and again underlined the effectiveness of the research studies will be based on empirical surveys, consider the learning outcomes in long term, institutional barriers and effectiveness related to newer formative assessment methodologies that needs to be used in higher education contexts.

As Wiliam (2010) indicates, formative assessment is important in establishing the manner in which students that mainly relate to learning process with what is learned. One important effects it has is that it helps to improve self-regulation, student motivation, and metacognitive awareness as three important psychological as well as their cognitive factors which can directly affect academic success. Most of the summative assessments that are evaluative and often high stakes, formative assessments are highly diagnostic and developmental. Along with immediate feedback, the students are more willing for taking risks, fail, and learn, and they are in a safe learning environment.

Evans et al. (2014) agree with this statement by revealing that formative assessment develops intrinsic motivation due to the active involvement of the students in the learning process. With frequent and positive feedback, students also get a better awareness of their strengths and weaknesses. This awareness, as the self-determination theory would put, can increase their sense of competence that is a primary source of intrinsic motivation. To illustrate, learners will find it easier to remain motivated to continue the learning process when they understand that their actions and plan of actions contributed to them mastering a certain concept. Moreover, during formative assessment, students often have options, e.g. have a choice of projects that they find interesting or goal setting. This type of independence

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especially in tertiary education in which self-learning is crucial enhances the levels of participatory activity as well as long term persistency to a great extent.

Andrade and Heritage (2017) evaluate that formative assessments improve self-regulation significantly as another element in terms of successful learning. These tests can able to motivate the students to set learning goals, evaluate their personal progress, and explore how well the study methods are performing. This type of cycle of planning, evaluating and assessing empowers a student for becoming in control of his/her learning process. In the context of promoting self-regulation, teachers can often implement the formative assessment processes on the basis of such instruments as the self-assessment checklists, portfolios learning, and reflective diaries. At the time of students are trained to approach the way they learn critically, they will able to be more inclined for altering their actions and approaches in such a way that their school achievements get enhanced.

According to Hudesman and associates (2013), Formative evaluation is effective for enhancing more metacognitive awareness that is the ability to reflect on the thinking process. At the time, learners are subjected to tasks demanding them for explaining their findings, explore their strong/weak points and also predict their work, they able to learn more about their cognitive mechanisms. Because of this awareness, students can also become highly strategic in learning and also, they can adapt themselves with different ways to the demands of different assignments. For example, students are asked for sharing their thoughts, and able to estimate their understanding, with the help of the formative assessment which include mechanism of peer review as well as formative questions, which are both the tools that help to develop the metacognition.

By integrating formative assessment practices into regular teaching routines, educators can create a learning environment that supports continuous improvement and long-term academic development.

RESEARCH METHODOLOGY

Research Design

In this research study, there is explanatory sequential mixed-methods research design where the quantitative method of data collection is followed by qualitative research. Such an arrangement enables both identifiable patterns and subtle textual contexts to be identified. It is observed that the first phase of the quantitative steps identifies trends occurring in the use of formative assessment and its effects on student performance. The following qualitative component adds the extra detail by stating faculty views and student lives. Since the quantitative outcomes form grounds of qualitative data acquisition, data integration is increased. It is the simultaneous and sequential design characteristics that thus accord such a context-sensitive explanatory form, end-to-end describing how formative assessments influence learning in a highly diverse higher-education context.

Research Method

The given research chose a mixed-methods approach in order to enjoy the overlapping benefits of quantitative and qualitative research. The quantitative arm measured how prevalent and effective formative assessments were and the qualitative part identified what the participants experienced and the situational constraints. This can be warranted by the fact that multimethod design has the potential of enhancing triangulation, thus enhancing reliability and validity. In educational studies, particularly in categories relating to the

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concept of assessment effects, the implementation of statistical analysis specifically necessitates an approach which is heavily reliant on statistical analysis to the detriment of minute details, etc., just as a strictly qualitative research methodology would impede the notion of generality. Therefore, both the results and the mechanisms of learning enhancement can be well understood using mixed methods.

Sample of the Study

In the current research, the purposive sampling process was used in identifying 65 faculty participants in ten higher institutions of education within the Delhi NCR. The decision to use this approach was considered right in the sense that the fact participants had some experience with formative assessment practices ensured that the results were more reliable in general. The sample size achieved statistical significance and still, it allowed in-depth context analysis. The sample design involved the academic heads, senior faculty and junior faculty, thus obtaining a wide range of representation in terms of perspective and teaching experiences. This design makes sense to the extent that it has focused on the stakeholders who were best off to offer their insights in implementation, effect, and obstacles of formative assessment in higher education.

Data Collection Methods

In the current research, the methods of data collection, which combine two complementary approaches, namely structured questionnaires to be used during the quantitative phase and semi-structured interviews during the qualitative one, are applied. The questionnaires drew out data on how frequently the assessment was done, what kind of assessment were used and views on the results. These approaches were employed due to their high efficiency and depth: the choice of surveys allowed accumulating large amounts of information, and interviews provided elaborate perceptions. The justification is based on the complementary nature of the tools, which allow recognizing patterns according to the numerical pattern and interpret them within the context, which, in turn, is essential to assess the formative assessment as a complex educational discipline.

Data Analysis Procedure

The items of quantitative data that were collected using the structured questionnaires were analyzed using SPSS (Statistical Package for the Social Sciences) in order to ensure that the statistical accuracy and reliability were there in a diverse study undertaken. Adoption of different techniques of formative assessments in the disciplines were described in the form of frequencies and percentages. To determine the effect of using formative assessments on knowledge retention and learning enhancement regression by hierarchical linear modelling was used as a method of establishing what led to long-term learning conditions. In addition to this, frequency method and regression method is used to check the effectiveness of formative assessment over student learning outcome.

Ethical Considerations

Ethical integrity was observed in the study strictly. The subjects were given informed consent forms in full contents, which stated the purposes, procedures and voluntary nature of the research. Anonymity and confidentiality were achieved by response coding and data storage in a safe place. Each participant was told that they could withdraw at any moment without any prejudice. Data collection occurred after the approval of ethics by the institution. These lines of ethical operations were validated within the framework of the scholarly standards of research, as well as in relation to the sensitivity of the institutional

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faculty and practice evaluations. These steps improve the believability of the information obtained and also ensure the participants are truthful and thoughtful with their answers because they are given transparency and trust.

RESULT AND DISCUSSION

Result-1: Different types of formative Assessment

Formative assessment is a vital component of the teaching-learning process, aimed at providing continuous feedback to both teachers and students to improve learning outcomes. Unlike summative assessments, which evaluate learning at the end of an instructional period, formative assessments are conducted throughout the learning process to monitor student progress, identify learning gaps, and guide instructional adjustments. In the present study, various types of formative assessments employed by educators were identified and analyzed in terms of their frequency and usage. Table 1 presents the distribution of different formative assessment methods based on responses collected from 65 participants. The data offers insights into the most and least frequently used strategies, reflecting current trends in formative assessment practices.

Table-1: Different types of formative Assessment

Assessment Type	Frequency	Percentage (%)
Quizzes or tests	52	80.00%
Assignments or projects	39	60.00%
Viva voce	35	53.85%
Quarter term quiz	29	44.62%
Peer assessment	28	43.08%
Spontaneous challenge inquiry	28	43.08%
One minute paper (class summary)	25	38.46%
Concept maps	20	30.77%
Laboratory assignment	13	20.00%
Option 11	1	1.54%
Other (please specify)	1	1.54%

According to the survey outcomes the quizzes or exams form the most common formative tool and 80 percent of the instructors use it. The second most popular type of assignment or project is applied by 60 percent of spectators. The adoption of viva voce assessment practice is undertaken in 53.85 per cent of the institutions and indicates a strong adherence to the oral aspect of formative assessment. Quarter-term quizzes (44.62%), peer assessment (43.08%), and spontaneous challenge inquiries (43.08%) are complementary to such practices, as they also encourage an active process of studying. Besides, one minute papers or summary of the class are used by 38.46 percent of respondents which is characteristic of the methods aimed at facilitating the development of thoughtful and conceptual learning. The use of laboratory assignments is as well less common with only 20 percent of institutions testifying the use. Only a narrow segment of the participants (1.54%) mentioned Option 11 and Other forms of assessment, which means that though the traditional formative measures prevail, somewhat dangerous options are still rare. Taken together, the results indicate that the institutions of higher education in Delhi NCR make use of a wide range of formative assessment strategies, especially those that allow assessing and progressing student learning through the use of conventional and interactive approaches.

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The data interpretation of the impact of the formative assessment on the immediate retention of knowledge and the results of long-term learning will utilize the mixed-methods approach that considers the quantitative performance indicators and qualitative measurements of the level of knowledge acquisition. The method can be utilized to study both immediate and long-term learning effects at multiple time lines thus producing an overall vision of the enduring effect of formative assessment on the permanence of student learning.

Result-2: Multiple Regression Analysis

Descriptive Statistics			
	Mean	Std. Deviation	N
Purpose of formative assessment	2.63	.762	65
Formative assessment	1.95	.211	65

The descriptive statistics for 65 reveals insights into perceptions of formative assessment. The mean score for the purpose of formative assessment is 2.63 (SD = 0.762), indicating that formative assessment is opt to enhance student learning, with some variability in responses suggesting diverse opinions. In contrast, the mean score for formative assessment practices is lower at 1.95 (SD = 0.211), reflecting that most of the people are opting formative assessment.

Correlations			
		Purpose of formative assessment	Formative assessment
Pearson Correlation	Purpose of formative assessment	1.000	-.010
	Formative assessment	-.010	1.000
Sig. (1-tailed)	Purpose of formative assessment	.	.467
	Formative assessment	.467	.
N	Purpose of formative assessment	65	65
	Formative assessment	65	65

The correlation analysis for 65 respondents examines the relationship between the purpose of formative assessment and its implementation. The Pearson correlation coefficient of -0.010 indicates a negligible negative correlation, suggesting no significant linear relationship between the two variables. The significance value (1-tailed) of 0.467 further confirms that the correlation is not statistically significant, as it exceeds the typical threshold of 0.05. This implies that perceptions of the purpose of formative assessment do not strongly influence or predict the effectiveness of its implementation. The findings highlight disconnect, indicating a need for strategies to better align understanding and practice of formative assessment in secondary education settings.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.010 ^a	.000	-.016	.768

a. Predictors: (Constant), Formative assessment

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ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.004	1	.004	.007	.934 ^b
Residual	37.134	63	.589		
Total	37.138	64			

a. Dependent Variable: Purpose of formative assessment

b. Predictors: (Constant), Formative assessment

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.704	.892		3.032	.004
Formative assessment	-.038	.454	-.010	-.083	.934

a. Dependent Variable: Purpose of formative assessment

The regression analysis examines the relationship between formative assessment practices (predictor) and the perceived purpose of formative assessment (dependent variable) based on data from 65 respondents. The model yields an R value of 0.010, indicating a negligible correlation, and an R Square of 0.000, suggesting that formative assessment practices explain virtually none of the variance in the perceived purpose. The adjusted R Square of -0.016 reflects no predictive power, accounting for degrees of freedom. The standard error of the estimate is 0.768, indicating moderate variability in predictions.

The ANOVA results show a regression sum of squares of 0.004 (df = 1) and a residual sum of squares of 37.134 (df = 63), yielding an F-statistic of 0.007 with a significance of 0.934, far above the 0.05 threshold, confirming the model's lack of statistical significance. The coefficients table indicates an unstandardized coefficient (B) of -0.038 for formative assessment (standard error = 0.454, Beta = -0.010), with a t-value of -0.083 and significance of 0.934, reinforcing that formative assessment practices do not significantly predict the perceived purpose. The constant (B = 2.704, t = 3.032, p = 0.004) is significant, suggesting a baseline perception of purpose. These findings highlight a disconnect between practice and perception, necessitating improved alignment in formative assessment strategies.

Result-3 Effectiveness of formative assessment in improving student learning outcomes

Formative assessment plays a pivotal role in enhancing student learning by providing timely feedback, fostering active engagement, and informing instructional practices. To understand its perceived impact, participants were asked to rate the effectiveness of formative assessment in improving student learning outcomes on a 5-point scale, where **5** indicated *high effectiveness* and **1** indicated *low effectiveness*. The responses are summarized in Table 3, reflecting overall positive perceptions regarding the role of formative assessments in supporting student achievement.

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Table-2: Effectiveness of formative assessment in improving student learning outcome

Rating	Frequency (Number of responses)
5	39
4	23
3	2
2	1

The empirical data indicate that a very large proportion of the involved respondents scored high regarding the effectiveness of the formative assessments. Particularly, 60 percent or 39 out of 65 participants were the highest or gave the highest rating of 5, contrary to what it means that they think that formative assessments are very effective in improving learning outcomes. The other 35.38% scored it 4 indicating that they were positively comparatively less satisfied in its effectiveness. The number of respondents with low ratings was very tiny with only 3.08 percent rating a score of 3 and only 1.54 percent rating a score of 2 indicating that few respondents were bothered about its effects. The findings are clear indications of a firmly positive outlook around the influence of the formative assessment in the improvement of student learning in all the HEIs in the Delhi NCR region.

Correlations

		Student learning Outcome	Formative assessment
Pearson Correlation	Student learning Outcome	1.000	.082
	Formative assessment	.082	1.000
Sig. (1-tailed)	Student learning Outcome	.	.258
	Formative assessment	.258	.
N	Student learning Outcome	65	65
	Formative assessment	65	65

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.082 ^a	.007	-.009	.639

a. Predictors: (Constant), Formative assessment

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.175	1	.175	.428	.515 ^b
	Residual	25.763	63	.409		
	Total	25.938	64			

a. Dependent Variable: Student learning Outcome

b. Predictors: (Constant), Formative assessment

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Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.086	.743		5.500	.000
Formative assessment	.247	.378	.082	.654	.515

a. Dependent Variable: Student learning Outcome

MAJOR FINDINGS OF THE STUDY

It used correlation and regression examination to investigate the relationship between formative assessment practices (predictor) and student learning outcomes (dependent variable). The examination was conducted on 65 respondents in Saharanpur district. This value of Pearson correlation function was 0.082 which showed a green light relationship with a weak correlation level of positive plus. The result obtained, 1-tailed significance value of 0.258 was higher than the 0.05 required value and this showed that the correlation was not significant.

The regression model yielded $R = 0.082$ and $R^2 = 0.007$, which implies that the variance in the learning outcomes was explained by formative assessment only within 0.7%. Adjusted R^2 of -0.009 showed that there was no predicting power considering the degrees of freedom. The SE of the estimate stood at 0.639 which implies a moderate variability of the prediction.

The ANOVA outcomes had a regression sum of squares of 0.175 ($df = 1$) and residual sum of squares of 25.763 ($df = 63$) with a value of F of 0.428 and a sign of 0.515 implying that the model was not significant. In the coefficients table, a unstandardized coefficient (B) of 0.247 was indicated as the predictive variable formative assessment (standard error = 0.378, $Beta = 0.082$), t -value of (0.654) with a significance of (0.515) confirming that there is no significant predictive effect. The constant ($B = 4.086$, $t = 5.500$, $p = 0.000$) was significant and served as a reference to the possible outcome for learning. This evidence indicates an insufficient connection between the formative evaluation and the learning results, which is why the improvement of the implementation strategies is required.

The analysis of formative assessment practices based on 65 respondents, reveals key insights. Quizzes/tests (80%) and assignments/projects (60%) are the most frequently used formative assessment methods, followed by viva voce (53.85%), indicating a preference for traditional and interactive approaches. Less common methods include laboratory assignments (20%) and innovative options like concept maps (30.77%), with minimal use of other forms (1.54%). Descriptive statistics show a moderate perception of the purpose of formative assessment (mean = 2.63, $SD = 0.762$) but lower agreement on its implementation (mean = 1.95, $SD = 0.211$), suggesting a gap between purpose and practice. Correlation analysis indicates a negligible negative correlation (-0.010 , $p = 0.467$) between purpose and implementation, and a weak positive correlation (0.082 , $p = 0.258$) between formative assessment and student learning outcomes, both statistically insignificant. Regression analyses confirm that formative assessment practices do not significantly predict either the perceived purpose ($R^2 = 0.000$, $p = 0.934$) or learning outcomes ($R^2 = 0.007$, $p = 0.515$). Additionally, 60% of respondents rated formative assessment as highly effective (rating 5),

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with 35.38% giving a rating of 4, reflecting strong positive perceptions despite the weak statistical link to outcomes, highlighting the need for improved implementation strategies.

CONCLUSION

The current study backgrounds the growing importance and, more often than not, the respectable estimation of formative assessment in college education with the center of interest on the Delhi NCR area. Although most of the teachers recognize the potential of formative assessment in improving student achievements as demonstrated by 60 percent of the respondents to rate such activities highly helpful, statistical indices paint a very different scenario. Quantitative data states that there is no predictive value of the practice of formative assessment, and low relationships with perceived purpose and actual performances of students. Such a mismatch means that there is a violation of belief and practice and worries about alignment and integration of implementation in the approaches to instructions.

Despite these limitations, the research indicates that formative assessment has much potential in its application in the future as a teaching method to facilitate engagement and metacognition and enhanced learning opportunities.

Institutions should ensure they emphasize faculty capacity building, the cultivation of using a variety of formative approaches on a regular basis, and utilize digital technologies so as to enact this potential and transform it into measurable increases in learning. The targeted gap between intent and impact can be minimized through training of the faculty, the supportive policy environment, and the student sensitization of the feedback process. Altogether, the research gives strong grounds to introduce formative assessment into daily teaching and shows that more systematic and procedural methods of its implementation might lead to the long-term positive effects on the academic progress.

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Conflict of Interest

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