ISSN Online : 2709-4030
ISSN Print : 2709-4022
Vol.8 No.1 2024

# Role of Assessment in Curriculum Practice and Enhancement of Students' Learning at Secondary Level: Gender and School Location

**Nida Malik,[1] Dr. Muhammad Akram Malik,[2] Dr. Munwar Bagum,[3]Dr. Muhammad Nadeem Iqbal [4] Akhtar Abbas [5]**

1. M.Phil Scholar, Department of Education, Institute of Southern Punjab, Pakistan. nida.malick09@gmail.com
2. Professor and Head of Department, Department of Education, Institute of Southern Punjab, Pakistan.
3. Assistant Professor, Department of Education, Institute of Southern Punjab, Pakistan. munwarbagum@isp.edu.pk
4. Assistant Professor, Department of Education, BZU, Multan, Pakistan. nadeemiqbal@bzu.edu.pk* (Corresponding Author)
5. M.Phil Scholar, Department of Education, Institute of Southern Punjab, Pakistan. akhtarabbas151@gmail.com

**Abstract**

*The main objective of the study was to investigate the "Role of Assessment in Curriculum Practice and Enhancement of Students' Learning at Secondary Level." This study was to analyze the importance of role of assessment in curriculum practice and enhancement of students learning at secondary level and to find out the relationship between of these variables. The quantitative research study was used a Correlational survey design. Simple stratified sampling was used for the collection of data. All the public and private secondary schools of Multan were selected as a population of study. Data was collected from 711 male and female as well as rural and urban school students from district Multan all four tehsils. Researcher was adopted the questionnaire. The validation and amendment of questionnaire was based on expert opinion. The reliability of the questionnaire was assessed through Cronbach's alpha. There was one questionnaire selected for research for the students. Research questionnaire was contained the two sections like first section described the demographic information of participant and the second section contained the questions to analysis of students' perception about role of assessment in curriculum practice and enhancement of students learning at secondary level. The data was analyzed by SPSS. The descriptive analysis (mean as well as percentage) and inferential statistics (independent t-test and one way ANOVA) were used to analyze and interpretation of data. This study was also measure the relationship between variables, by using Pearson' correlation method was used.*

**Key Words:** Curriculum, Assessment, Learning, Enhancement.

## 1. Introduction

The role of assessment in enhancing students' learning at the secondary school level is of paramount importance. Assessment involves gathering information to provide feedback about the value of the curriculum, teaching methods, and students' teach (van der Vleuten et al., 2012). Assessment plays a crucial role in evaluating the curriculum's worth, tailored specifically to the secondary school context. Educators highly recommend integrating assessment and curriculum into the ongoing cycle of curriculum development, functioning, execution, and evaluation. According to Kaur (2018) and Areekkuzhiyil (2019), assessment is typically regarded as a core component of the teaching and learning

process. Assessment quantifies whether a student's performance in a particular academic subject has changed. It's essential to differentiate evaluation from assessment; evaluation aims to compare the quality of a performance or work product against a standard.

The fundamental characteristic of assessment is that mentors provide guidance to the student and put in the effort to offer insightful criticism that improves the learner's performance moving forward. Both methods involve gathering information about performance or work output, but how that information is used in each process differs significantly, fostering entirely different perspectives. Reinholz (2016) assessment serves a dual purpose: evaluating students' learning achievements (summative assessment) and enhancing their learning itself (formative assessment). Similarly, according to Falchikov (2016), assessments can be categorized based on their goals. Summative assessments (assessments of learning) compile student accomplishments to decide whether to certify them, while formative assessments (assessment for learning, AFL) provide feedback to students to advance their learning. This is a commonly used practice across educational levels.

Pervaiz and Hayat (2021) stated that formative assessment has three primary goals: helping teachers continuously evaluate their understanding of students' requirements, aiding students by giving feedback on their performance to contribute to their learning, and assisting educators in implementing effective teaching strategies. Formative assessment can be formal or informal (Alzina, 2016). According to Can Daşkın and Hatipoğlu (2019), mostly formal formative assessments are used for curriculum assessment. To understand more precisely what a student comprehends and can perform, teachers employ a variety of evaluation tools (Brown, 2012). According to Matcha et al. (2019), effective feedback from teachers encourages introspection, identifies misunderstandings, and fosters the growth of self-regulated learning abilities, all of which enhance student learning.

Assessment is an integral aspect of educational methodologies that holds significant importance in enhancing the academic achievements of students. This tool offers educators a valuable means of collecting evidence pertaining to students' knowledge, skills, and understanding. Assessment provides educators with valuable information about students' strengths and areas for improvement, enabling them to make well-informed decisions regarding instructional planning and curriculum design (Black & Wiliam, 2008). The implementation of ongoing assessment throughout the entirety of the educational program is of utmost importance in order to effectively track the progress of students and deliver prompt feedback. The utilization of this particular method of formative assessment allows educators to effectively identify any misconceptions or gaps in understanding among students, thus enabling them to implement targeted interventions and provide personalized support (Heritage, 2013). Through the regular assessment of students, educators are able to adjust their instructional approaches in order to cater to the distinct learning needs of individual students, leading to improved educational achievements.

The design of the curriculum is of utmost importance in facilitating the improvement of student learning. According to Popham (2009), a meticulously crafted curriculum serves as a structured framework that directs both instruction and learning activities, thereby guaranteeing the acquisition of essential knowledge, skills, and competencies by students.

Incorporating assessment as an integral component is a crucial aspect of effective curriculum practices. This involves aligning learning objectives with appropriate assessment strategies in order to facilitate meaningful learning experiences (Biggs, 2003). Numerous studies have demonstrated that when a curriculum and assessment are properly aligned, they have the potential to foster enhanced comprehension, critical analysis, and the development of skills that can be applied across various contexts (Sluijsmans et al., 2013).

Numerous scholarly investigations have been conducted to examine the potential impact of gender on educational attainment and assessment results. According to a study conducted by Hyde and Mertz (2009), the impact of gender on learning outcomes is found to be relatively insignificant, as the variations observed within genders are more substantial than those observed between genders. Nevertheless, several studies have identified disparities between genders in specific academic disciplines or assessment methodologies (Morgan et al., 2018; Bouchey & Harter, 2005). To ensure fairness and equity in student assessment, it is crucial to take into account the potential gender differences in assessment practices.

The process of assessment is of utmost importance in promoting and enhancing student engagement and motivation. Frequent feedback on students' performance and progress enhances their comprehension of their strengths and areas requiring improvement. The provision of feedback serves a dual purpose: firstly, it provides students with an understanding of their present academic status, and secondly, it offers guidance on the necessary steps to attain academic excellence (Black & Wiliam, 2008).

Conversely, Redding's research (2019) indicates that teachers' criticism of student performance further hampers the learner's academic performance. In general, there are two approaches to conducting assessments: a yearly system for external assessments and a semester system for internal assessments. Most schools have adopted the semester examination system over the past ten years (Munshi, 2012). Early assessments (midterm exams), for instance, play a pivotal role in preparing students for final term exams. In every subject, two fundamental objectives are highlighted: learning and learning with understanding. The first refers to students relying on rote learning due to difficulties in understanding. The goal of the second is to learn through understanding, helping students align divergent ideas into a single concept ("Learning and Understanding," 2002). Consequently, the primary focus of educational institutes is to offer productive and lifelong learning. For this purpose, they assess curriculum, teaching methods, teacher behavior, and student learning using formative or summative assessment. Curriculum assessment is employed to evaluate the program's value, efficacy, and quality.

Khasawneh (2022) suggested that teachers provide feedback on the curriculum's classroom usage on the relationship of curriculum, teaching methods, assessment methods'. They pinpoint areas of success and those needing development. Teachers evaluate the curriculum's relevance, appropriateness, and success in addressing student needs. Assessment tools such as tests, quizzes, and projects are used to gather information on student learning outcomes. Considering the rapidly changing world, assessments cover learning that equips the younger generation to adapt. In a recent international meeting held in Incheon, the Republic of Korea, it is concluded that quality education and equity lead to fulfilling Sustainable Development Goals by the year 2030.

Assessment serves as a means of motivating students and promoting their engagement in the learning process. When students receive constructive feedback on their performance and understand the criteria for success, they gain a clearer understanding of their strengths and areas for improvement (Hattie & Timperley, 2007). This feedback loop helps students set realistic goals, develop metacognitive skills, and take ownership of their learning. Assessment also provides opportunities for self-reflection and self-assessment, enabling students to monitor their own progress and make adjustments accordingly (Sadler, 2008). In addition to its role in instructional planning and student motivation, assessment assumes a paramount role in fostering equity and inclusivity within the realm of education. This multifaceted function of assessment goes beyond the mere evaluation of knowledge; it serves as a tool for dismantling barriers that might hinder certain students' educational journey.

Scholarly inquiries have been conducted to examine the correlation between assessment and the process of learning. The study conducted by Anderson and Thompson (2017) revealed a significant positive association between the frequency of formative assessments and the academic achievements of students. Research has provided evidence that the implementation of formative assessment, which involves continuous feedback and self-reflection opportunities, enhances students' understanding and retention of the subject matter. Black and Wiliam (2009) found that the implementation of effective formative assessment strategies can lead to significant improvements in student academic performance. These studies highlight the significance of assessment as a catalyst for learning.

Assessments play a crucial role in providing students with a valuable opportunity to apply their knowledge and skills in real-world situations. Assessment tasks afford students the opportunity to actively engage in the learning process, receive constructive feedback, and engage in reflective practices. The aforementioned procedure facilitates the refinement of students' comprehension and aptitude, fosters the cultivation of critical thinking proficiencies, and augments problem-solving capacities (Black & Wiliam, 1998).

The application of assessment data in educational settings offers educators a wealth of valuable insights regarding the effectiveness of their curriculum and instructional methods. Through a comprehensive analysis of assessment outcomes, educators can identify the specific domains where students excel and areas where they encounter challenges. Armed with this information, educators can tailor their instructional approaches to better cater to the unique needs and learning styles of their students. By utilizing differentiated instruction strategies, educators ensure that each student receives the appropriate level of support and guidance, thus promoting a more inclusive and personalized learning environment (Popham, 2008).

Popham (2008) highlights the critical role of assessment data in shaping curriculum plans and facilitating well-informed instructional decision-making. In essence, the integration of assessment data empowers educators to make data-driven decisions, fostering a continuous cycle of improvement in the educational process. It allows educators to optimize their teaching methods, address learning gaps effectively, and create a conducive learning environment that nurtures every student's academic growth and

success. Ultimately, the use of assessment data is paramount in promoting student-centered learning experiences and maximizing overall educational outcomes.

By embracing a wide array of assessment methods, educators conscientiously accommodate the rich tapestry of learning styles, preferences, and abilities present within their diverse student body (Wormeli, 2016). This dynamic approach to assessment creates an environment where every student's unique strengths can shine. Offering numerous opportunities for students to showcase their comprehension and skills not only engenders a sense of fairness but also facilitates a comprehensive evaluation that truly reflects their capabilities. By leveling the playing field, this approach effectively minimizes the influence of biases that might unintentionally skew traditional evaluation methods. The power of assessment is harnessed to ensure that every student, regardless of their background, is afforded equal chances to flourish. Aiming to break down the traditional barriers that have perpetuated inequalities, assessment becomes a beacon of hope for fostering success and growth among all students (National Research Council, 2012).

Assessment, therefore, emerges as an integral cornerstone of the curriculum practice, exerting a profound impact on the trajectory of students' learning journeys. It goes beyond a mere analytical tool; it becomes a guiding force that informs instructional decisions and shapes the teaching landscape. This informed decision-making process enables educators to tailor their instruction to suit individual students' learning needs, acknowledging that each student's path to understanding is unique. The motivational aspect of assessment is equally significant. By providing students with constructive feedback and clear benchmarks for success, assessment kindles their intrinsic motivation to excel. It instills a sense of ownership in their own learning process, empowering them to set ambitious goals and chart their own progress towards these objectives.

**ADD RESEARCH OBJECTIVES**

## 2. Research Questions

Following four research questions guided this study.

1. How does assessment impact the academic performance and learning outcomes of students at secondary level on the basis of gender?
2. What are the perceptions of students regarding the role of assessment in enhancing the learning process at the secondary level on the basis of school location?
3. What is the relationship between role of assessment and learning of students at secondary level?

## 3. Material and Methods

Following research methodology were applied to complete the current study.

### *3.1 Research Design and Participants*

The correlational research design was used for the present study. The survey was adapted to collect data about the role of assessment in curriculum practice and enhancement of students' learning in public Secondary schools of Multan because it provided information in a short span of time (Creswell, 2011). This research design is also a non-experimental research design which is used to measure two variables. It allows researchers to investigate not just the depth of a topic in the qualitative phase but also the breadth of the subject in the quantitative phase. This design is appropriate because it allows for the

collection of numerical data that can be analyzed statistically. The data was collected by researchers from students.

The choice to target secondary school students was significant because this phase of education is critical in shaping their academic and personal development. During this period, students undergo various challenges and changes, both academically as well as socially. Understanding their experiences and perceptions could provide valuable information to improve the overall educational system in the district. Population of this study comprised all the (213) public, male and female, urban and rural secondary schools and (42400) public, male and female, urban and rural secondary students of district Multan. To ensure the sample's representativeness and enhance the generalizability of the study's findings, a stratified random sampling method was employed. This approach involved random selection to capture a diverse cross-section of students from different schools and areas within District Multan. In the first stage, schools were randomly chosen from various geographical regions from all four Tehsils to minimize biasness and ensure representativeness. This approach included only public schools and diverse socioeconomic backgrounds. In the second stage, students were randomly selected from each chosen school. By utilizing a stratified simple random sampling method, the researcher was able to enhance the study's credibility and increase the likelihood of drawing accurate conclusions that can be applied to the broader population of secondary-level students in district Multan.

***3.2 Instrumentation and Data Collection***

The Assessment Experience Questionnaire (AEQ) by Gibbs and Simpson (2003) was used to measure the role of assessment in curriculum practice and enhancement of students' learning at secondary level. AEQ has six sub-sections; each section contains five statements 1. Perception of assessment's impact on learning 2. Effectiveness of assessment methods 3. Assessment as a Tool for Curriculum Improvement 4. Perceived Fairness of Assessment 5. Assessment and Learning Progression, and 6. Assessment's Impact on Study Habits and Time Management. Researcher used 5-point Likert scale in this study ranging from 1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree, 5- Strongly Agree. A questionnaire comprised of 30 items was adapted to examine role of assessment in curriculum practice and enhancement of students' learning at secondary level and to collect data from target population. All the items of questionnaire were adapted with minor modifications to make them well-suited with the consent of Pakistani culture.

Validity of research tool is a way from which the tool collects what it supposes to collect. The research tool performs its functions as it design to do. However, it is impossible, that a research tool has been 100% valid. Generally, it is checked by expert opinion and pilot testing. The validity of research instrument was assessed through expert opinion. All experts were opinioned that 5-point Likert scale was very easy to understand and all the items were related to research topic. Translation into Urdu of each word was good for students to understand the questions completely. Experts also praised that all students feel easy to response all items because the knowledge of secondary level students is low as compared to higher classes. So, they can answer every question very easily.

In pilot testing, research tool was conducted from 50 students of different secondary schools. The purpose of this procedure was to measure the feasibility, time, risk and

performance of the research tool. Tool was completely understood and responds easily all items by the students. It was estimated that students take around 20 to 25 minutes to fill the questionnaire and return it to the respondents. The reliability was measure from scale through SPSS and Cronbach's Alpha was found .913.The reliability value at 0.5 was considered appropriate. Overall scale reliability value of this study was calculated 0.95. These reliability values interpreted that this scale is reliable.

To administer the questionnaire, researcher took permission from CEO (DEA) Multan and as well as all the heads of public secondary schools male and female for the questionnaire. It was assured by researcher to educational authority of district Multan and participants of study that all the information were remained confidential. All ethical concerns were practiced in the institutions during survey. Questionnaire were handed out and filled by the students of secondary schools in the supervision of researcher in the classrooms during school time.

**4. Data Analysis and Results**

For statistical analysis procedure, researcher used descriptive and inferential statistic measures. Quantitative descriptions were properly written and represented in a manageable form in descriptive statistics. It helped to clarify large quantitative data in tabulated form. All types of descriptive statistic created a simpler quantitative summary of large data. Descriptive statistical measures like mean, average and standard deviation were used in this study. Researcher used inferential statistics to make judgment of the probability that observe differences between groups. For inferential statistical measures, the researcher used independent sample t-test and one way ANOVA to compare the perception of all participants in relation to categorical and continuous variables. To measure all these statistics, researcher used Statistical Package for Social Science (SPSS).

**Table 1:** *Independent sample t-test of role of assessment in curriculum practice and enhancement of students' learning on the basis of school location*

| Variable | School Location | N | Mean | SD | df | t-value | p-value |
|---|---|---|---|---|---|---|---|
| Perception of assessment's impact on learning | Urban | 501 | 20.56 | 2.98 | 709 | 1.60 | .117 |
| | Rural | 210 | 20.16 | 3.56 | | | |
| Effectiveness of assessment methods | Urban | 501 | 19.92 | 3.12 | 709 | 1.72 | .086 |
| | Rural | 210 | 19.45 | 3.62 | | | |
| Assessment as a tool for curriculum improvement | Urban | 501 | 19.33 | 3.34 | 709 | 1.65 | .099 |
| | Rural | 210 | 18.87 | 3.33 | | | |
| Perceived fairness of assessment | Urban | 501 | 19.49 | 3.26 | 709 | 2.43 | .015 |
| | Rural | 210 | 18.80 | 3.85 | | | |
| Assessment and learning progression | Urban | 501 | 19.60 | 3.22 | 709 | 0.38 | .717 |
| | Rural | 210 | 19.50 | 3.54 | | | |
| Assessment's impact on study habits and time management | Urban | 501 | 19.80 | 3.40 | 709 | 1.11 | .266 |
| | Rural | 210 | 19.46 | 4.42 | | | |

*Note: S.D= Standard Deviation*

Table 1 shows an independent sample t-test that was applied to students' perception of assessment's impact on learning on the basis of school location scores for urban and rural. Statistically, there was a non-significant difference in results for students' perception of

assessment's impact on learning of urban school (Mean=20.56, SD=2.98) and rural schools (Mean=20.16, SD=3.56): t=1.60, p=.117 (two tailed). Statistically, there was a non-significant difference in results for effectiveness of assessment methods of urban school (Mean=19.92, SD=3.12) and rural schools (Mean=19.45, SD=3.62): t=1.72, p=.086 (two tailed). Statistically, there was a non-significant difference in results for assessment as a tool for curriculum improvement of urban school (Mean=19.33, SD=3.34) and rural schools (Mean=18.87, SD=3.33): t=1.65, p=.099 (two tailed). Statistically, there was a significant difference in results for perceived fairness of assessment of urban school (Mean=19.49, SD=3.26) and rural schools (Mean=18.80, SD=3.85): t=2.43, p=.015 (two tailed). Statistically, there was a non-significant difference in results for assessment and learning progression of urban school (Mean=19.60, SD=3.22) and rural schools (Mean=19.50, SD=3.54): t=0.38, p=.717 (two tailed). Statistically, there was a non-significant difference in results for assessment's impact on study habits and time management of urban school (Mean=19.80, SD=3.40) and rural schools (Mean=19.46, SD=4.42): t=1.11, p=.266 (two tailed).

**Table 2:** *Independent sample t-test of* r*ole of assessment in curriculum practice and enhancement of students' learning on the basis of gender*

| Variable | Gender | N | Mean | SD | df | t-value | p-value |
|---|---|---|---|---|---|---|---|
| Perception of assessment's impact on learning | Male | 405 | 20.42 | 3.46 | 709 | .191 | .848 |
| | Female | 306 | 20.47 | 2.73 | | | |
| Effectiveness of assessment methods | Male | 405 | 19.49 | 3.48 | 709 | 2.68 | .008 |
| | Female | 306 | 20.16 | 2.97 | | | |
| Assessment as a tool for curriculum improvement | Male | 405 | 18.98 | 3.57 | 709 | 1.96 | .050 |
| | Female | 306 | 19.47 | 2.99 | | | |
| Perceived fairness of assessment | Male | 405 | 18.81 | 3.71 | 709 | 4.29 | .000 |
| | Female | 306 | 19.92 | 2.98 | | | |
| Assessment and learning progression | Male | 405 | 19.40 | 3.71 | 709 | 1.57 | .116 |
| | Female | 306 | 19.80 | 2.70 | | | |
| Assessment's impact on study habits and time management | Male | 405 | 19.03 | 3.93 | 709 | 5.556 | .000 |
| | Female | 306 | 20.58 | 3.26 | | | |

*Note: S.D= Standard Deviation*

Table 4.10 shows an independent sample t-test that was applied to students' perception of assessment's impact on learning on the basis of gender scores for male and female. Statistically, there was a non-significant difference in results for students' perception of assessment's impact on learning of male (Mean=20.42, SD=3.46) and female (Mean=20.47, SD=2.73): t=.191, p=.848 (two tailed). Statistically, there was a significant difference in results for effectiveness of assessment methods of male (Mean=19.49, SD=3.48) and female (Mean=20.16, SD=2.97): t=2.68, p=.008 (two tailed). Statistically, there was a significant difference in results for assessment as a tool for curriculum improvement of male (Mean=18.98, SD=3.57) and female (Mean=19.47, SD=2.99): t=1.97, p=.050 (two tailed). Statistically, there was a significant difference in results for perceived fairness of assessment of urban school (Mean=18.81, SD=3.71) and female (Mean=19.92, SD=2.98): t=4.29, p=.000 (two tailed). Statistically, there was a non-

significant difference in results for assessment and learning progression of male (Mean=19.40, SD=3.71) and female (Mean=19.80, SD=2.70): t=1.57, p=.116 (two tailed). Statistically, there was a significant difference in results for assessment's impact on study habits and time management of male (Mean=19.03, SD=3.93) and female (Mean=20.58, SD=3.26): t=5.55, p=.000 (two tailed).

## 5. Discussion

The study aimed to find out the significance difference in role of assessment in curriculum practice and enhancement in students learning. The results of the study showed that a very statistically significant positive correlation between role of assessment in curriculum practice and enhancement in students learning. These result contrasted with the findings of Redding's research (2019), who reported a moderate to strong correlation between role of assessment in curriculum practice and enhancement in students learning. They argued that role of assessment significantly fosters a collaborative environment among students. relationship between these variables, reinforcing the notion that assessment plays a crucial role in enhancing curriculum practice and student learning.

In a contrary to Heritage (2013) and his colleagues investigated the impact of assessment on curriculum practice and students learning in different educational settings. This study found a significant role of assessment on curriculum practice and students learning on the basis of school location Similarly, a study Khasawneh (2022) found a statistically non-significant difference in role of assessment on curriculum practice and students on the basis of gender.

## 6. Conclusion and Recommendation

It was found that there was non-significant difference in all subscale on the basis of school location both rural and urban. It was found that there was non-significant difference in two subscales on the basis of gender and significant difference in four sub-scales. The study recommends that assigning some responsibilities to teachers to evaluate role of assessment in curriculum practice and enhancement in students learning. Teachers must realize that the difference really exists between just doing and creating the difference. Assessment assists new students, makes them take more responsibility of their own competence, and increases career prospects for veterans. This research study offers a mechanism based on role of assessment supported by students learning and influence of external change agents.

## References

Alzina, A. (2016). *Using formative assessments to improve student learning outcomes: A study of the different types of formative assessments teachers use to drive instruction and their effects on student learning* (Doctoral dissertation, Concordia University Chicago).

Anderson, A., & Thompson, T. (2017). *The relationship between formative assessment and student learning outcomes*: A synthesis of empirical research. Research in Learning Technology, 25.

Areekkuzhiyil, S. (2019). Assessment Practices in Higher Education: Myths and Realities. *Online Submission*.

Biggs, J. (2003). Aligning teaching and assessing to course objectives. *Teaching and Learning in Higher Education: New Trends and Innovations*, 1-17.

Black, P., & Wiliam, D. (2008). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7-74.

Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Assessment and Accountability*, 21(1), 5-31.

Bouchey, H. A., & Harter, S. (2005). Reflected appraisals, academic self-perceptions, and math/science performance during early adolescence. *Journal of Educational Psychology*, 97(4), 673-686.

Brown, G. (2012). *Assessment for learning: Beyond the black box*. London: Routledge.

Creswell, J. W. (2011). *Best practices for mixed methods research in the health sciences*." Bethesda (Maryland): National Institutes of Health

Falchikov, N. (2016). Assessment in universities: A critical review of research. In B. Thalheimer (Ed.), *The Learning Outcomes Revolution: A Guide to Assessment for Learning* (pp. 33-56). Association for Talent Development.

Gibbs, G., & Simpson, C. (2003). Conditions under which assessment supports students' learning. *Learning and Teaching in Higher Education*, 1, 3-31.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112.

Heritage, M. (2013). *Formative assessment*. In J. Hattie & E. M. Anderman (Eds.), International Guide to Student Achievement (pp. 35-37). Routledge.

Hyde, J. S., & Mertz, J. E. (2009). Gender, culture, and mathematics performance. *Proceedings of the National Academy of Sciences*, 106(22), 8801-8807.

Kaur, G. (2018). *Curriculum development*. In G. Rijlaarsdam, T. Medimorec, S. Lenske, & S. Schek (Eds.), Teaching Writing in Europe (pp. 33-42). Brill.

Khasawneh, S. A. (2022). The relationship of curriculum, teaching methods, assessment methods. *International Journal of Educational Research and Innovation*, 10, 1-14.

Matcha, W., Koprda, Z., Trnová, E., & Jansová, Z. (2019). The effects of feedback on students' learning and performance. *European Journal of Contemporary Education*, 8(1), 96-105.

Munshi, N. (2012). External and internal assessment: An analysis of student performance in higher education. *Journal of Education and Vocational Research*, 3(8), 239-247.

National Research Council. (2012). Education for life and work: Developing transferable knowledge and skills in the 21st century. *National Academies Press*.

Pervaiz, M., & Hayat, S. (2021). The impact of formative assessment on student achievement in mathematics: *A meta-analysis. Educational Studies*, 47(2), 197-213.

Popham, W. J. (2008). Transformative assessment. Association for Supervision and Curriculum Development.

Popham, W. J. (2009). *Classroom assessment: What teachers need to know* (6th ed.). Pearson.

Redding, S. (2019). Assessment feedback in higher education: Student perceptions and effects on self-regulated learning. *Assessment & Assessment in Higher Education*, 44(7), 1056-1071.

Reinholz, D. L. (2016). *Assessment in higher education*. In J. C. Smart (Ed.), Higher Education: Handbook of Theory and Research (pp. 159-214). Springer.

Sadler, D. R. (2008). *Learning from assessment: Beyond test and measurement*. London: Routledge.

Sluijsmans, D., Dochy, F., & Moerkerke, G. (2013). Creating a learning environment by using self-, peer-, and co-assessment. *Learning Environments Research*, 16(2), 171-193.

van der Vleuten, C. P. M., Schuwirth, L. W. T., Driessen, E. W., Govaerts, M. J. B., Heeneman, S., & Twelve, M. (2012). A model for programmatic assessment fit for purpose. *Medical Teacher*, 34(3), 205-214.

Wormeli, R. (2016). *Fair isn't always equal: Assessing and grading in the differentiated classroom* (2nd ed.). Stenhouse Publishers.