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Gender Disparity Among Secondary School Teachers in Formative Assessment Practices During Classroom Instruction

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Abstract

This study was conducted to investigate the gender disparity in teachers' formative assessment practices during classroom instruction at the secondary school level. It was a survey research design. Four hundred (400) teachers were chosen as a sample of this research via stratified random sampling techniques from the Haripur district. These teachers were divided into two (2) strata of male and female such that each group consisted of 200 teachers. To attain the objectives, two (2) null hypotheses were established. A questionnaire with a reliability coefficient of 0.97 was utilized to gather data from the participants. The data gathered were examined through statistical tools. Majority of the teachers disagreed about using the learning target and monitoring strategy of formative assessment, and more than 40% of the teachers disagreed about using self-assessment and peer assessment. However, about 40% of the teachers were in favor of using feedback assessment in their classroom instruction. Further, male teachers were found better than female schoolteachers in using formative assessment strategies during classroom instruction. In-service teachers' training may be organized to bridge the gaps between the teachers for using formative assessment in classroom instruction and further research studies may be conducted on other aspects of formative assessment.

Keywords: *Formative Assessment Strategies, Learning Targets, Monitoring, Feedback, Self-Assessment, Peer Assessment.*

Introduction

In education, the word "assessment" is used for various purposes. Assessment is to determine the degree to which the intended outcomes are on the way to being attained and to what degree they have been attained (Wiggins & McTighe, 2005). According to Newton (2007), assessment has three main aims including decision, impact, and judgment. But, according to Chappuis and Chappuis (2008), the two purposes identified concerning assessments are looking at outcomes as the product (summative assessment) called assessment of learning, and process (formative assessment) which is called assessment for learning

(Stiggins, 2002). Product assessment is aimed to record what learners have achieved in the instructional endeavor, while process assessment is aimed mainly to provide info through the teaching procedure to make judgments relating to the activities that will enhance further learning. Besides, both kinds of assessments are different in processes, tools, and results (Swaffield, 2011). These differences, according to De Lisle (2016) might mean that various elements and aims shall be classified for the complete influence, particularly in the perspective of high stakes.

To be active, assessment must be formative for recognizing and replying to the learning needs of the students. Assessment can be further differentiated as for, of, and as learning (Bennett, 2010). Further, assessments might assist to focus instructors' concentration on central objectives, and in what way learning is anticipated to overcome misunderstandings that might arise in the future (Wiliam, 2011; Herman et al., 2015). Classrooms featuring formative assessment enable teachers to accustom their instruction to meet the personal needs of the pupil and to improve pupils enough to grasp high standards. Instructors also keenly embroil pupils in the procedure, assisting them to grow abilities that make them able to learn better (John-Brooks, 2005). According to Taras (2010) and Stobart (2008), formative assessments along with their several combinations are in practice at various teaching institutions all over the world broadly sustained via practical research.

In this context, some states containing Australia (Queensland), Canada, Denmark, England, Finland, Italy, New Zealand, and Scotland, promote formative assessment as a fundamental approach to education reform (John-Brooks,2005). Assessment policy in several nations remains to support the usage of continuous assessment in classrooms to improve education (De Lisle, 2016). To López-Pastor and Sicilia-Camacho (2017), formative assessment is the procedure thru which instructors offer material to pupils throughout the learning course in order to amend their understanding and self-regulation. Further, according to Ruiz-Primo (2011), the formative assessment is a critical element of active instructional practices (Torrance & Pryor, 2001; Pellegrino, Chudowsky, & Glaser, 2001; Gearhart et al., 2006). But, according to AFL (2009); Ruiz-Primo, (2011); Leahy, Lyon, Thompson, and Wiliam (2005), when the instructors apply instruction efficiently, formative assessment happens easily in real-time daily, as well as formally at pre-specified times. Likewise, the intensified usage of assessment for learning (formative assessment) guides to greater quality learning, it is frequently demanded that the pressure in schools to improve the grades attained by pupils in externally set tests and exams stops its utilization (Wiliam, Lee, Harrison, & Black, 2004). Furthermore, formative assessment is an active exchange between instructor and pupil in which instruction is adapted constantly grounded on the pupil's learning position Oswalt (2013). He has developed a tool for measuring formative assessment during classroom instruction. Gordon et al., (2014) underline the importance of formative assessment integrated with classroom teaching and learning. Keeping in view these situations, the focal point of this research study is exactly the formative use of assessment.

Literature Review

Strategies of Formative Assessment

Bennett (2011) defined formative assessment into observable scales. The FAST SCASS has recognized the five qualities of formative assessment (McManus, 2008): 1) learning progressions that may clearly articulate the sub-goals of the ultimate learning goal; 2) learning objectives and criteria for success that might be obviously known and transferred to pupils; 3) descriptive feedback that might be available to the pupils with evidence-based feedback which is associated to the proposed instructional objectives and criteria for attainment; 4) self- and peer-assessment, which are significant for giving pupils a chance to think meta-cognitively relating their learning; 5) and partnership i.e., to establish a classroom culture where instructors and pupils are buddies in learning.

Further, the ETS's program named Keeping Learning on Track (KLT) employed five main approaches for the accurate and effective utilization of formative assessment (Leahy et al., 2005; Thompson & Wiliam

2008; Bennett, 2011). These strategies comprise: explaining and contributing learning intentions and criteria for attainment; engineering useful classroom debates, queries, and learning activities; offering feedback that moves pupils onward; stimulating pupils as the managers of their personal learning; and motivating pupils as instructional sources for each other (Heritage, 2010; Earl, 2012). Moreover, some researchers (Wiggins & McTighe, 2005; Baldwin, Keating & Bachman, 2005; Joyce, Weil, & Calhoun, 2011; Russell, Airasian, & Airasian, 2012; Oswalt, 2013) implant formative assessment live out inside the bigger range of assessment and instruction.

Learning Targets

The approach of explaining and sharing learning objectives and criteria for success employs that pupils and instructor together obviously recognize in what way achievement is stated. According to Black and Wiliams (2010), a clear understanding of learning targets is important because low success repeatedly occurs because pupils are unaware of what is demanded from them. To Wiggins and McTighe (2005), the establishment of obvious learning targets makes a strong teaching basis. Effective communiqué concerning learning targets between instructors to pupils is very essential (Entwistle & Smith, 2002). Target can be understood mainly through the instructor and the course outlines.

In addition, the study of Hendry, Armstrong, and Bromberger (2011) has revealed that informing students about the criteria and exemplars can enhance pupils' understanding of standards and increase their success. According to, Thompson and Wiliam (2008), different resources offer instances of practices that instructors might utilize for enacting this approach for instance the standard effort might be in the shape of pupil jobs either from other classes of pupils or from instructor-made mock-ups.

Monitoring Student Learning

Monitoring of student learning is the second tool of formative assessment. This approach of causing active classroom debates, inquiries, and learning centers according to the researchers (Wiggins & McTighe, 2005; Fisher & Frey, 2007; Thompson & Wiliam, 2008; Heritage, 2010) is the teacher's ability to know the status of student education on continuing base. The formative assessment consisted of two main mechanisms including developing conclusions concerning pupil learning and then employing those conclusions to adjust teaching (Bennett, 2011).

Further, to Ruiz-Primo and Furtak (2007), the usage of formative assessment belongs to what termed as assessment conversations which authorize instructors to identify pupils' ideas, mental models, approaches, language usage, or communiqué abilities, and permit them to exercise materials to direct teaching and learning. But, the questioning technique is too often superficially, scarcely, or uselessly exercised in the classrooms (Leahy et al., 2005; Pinchok & Brandt, 2009). An instructor can use non-graded tests in instruction to observe pupil learning. Besides, the techniques might simply be those informal assessment discussions that happen obviously during routine activity in the classroom (Ruiz-Primo, 2011).

Provision of Feedback

Feedback is apparent to be something that follows an assignment or a quiz (Havnes, Smith, Dysthe & Ludvigsen, 2012). Feedback has been defined as info with which a pupil may approve, increase, overwrite, adjust, or rearrange material in retention, whether that info is the domain or meta-cognitive knowledge. The term active feedback is used to explain the information communed to the pupil to improve instruction (Shute, 2008). Further, according to Hattie and Timperley (2007), there are factors that affect its efficacy including the type of feedback given (e.g., negative, or positive) and the setting in which feedback was given i.e., the timing of the feedback. Particularly, it is more successful when it is immediate, precise, descriptive, and directed at pupil work in spite of the individual qualities of the pupil (Chappuis & Stiggins, 2002).

Feedback, according to Havnes et al (2012) can be provided in four classroom situations including the teacher checked the test or assignment and returning these to the pupils just after corrections; pupil presentations of projects; group work; and debates among the instructor and the pupils. The feedback also depends upon the way, the timing, and the language in which it is given (Black & Wiliams, 2009). Moreover, according to Nicol and Macfarlane-Dick (2006), feedback helped pupils to become self-regulated learners and is an important element for developing pupil achievement (Hattie & Timperley (2007).

Researches on assessment have not presented tight rules in what way assessment might be carried out (Black, Harrison, Lee, Marshall, & Wiliam, 2003) and how feedback is to be offered (Havnes et al., 2012). Furthermore, the teachers face two big challenges while giving feedback comprising: a lack of systematic feedback processes containing how feedback is practiced in perspective learning and assignments; and establishing an ongoing discussion between teacher and students where students can actively participate (Boud & Falchikov, 2007).

Self-Assessment

The strategy of self-assessment motivates pupils like proprietors of their personal learning for improving pupils' self-regulatory skills and probes learners to utilize assessment chores to respond to queries (Chappuis & Chappuis, 2008). This strategy according to Winne and Perry (2000) is the active form of learning comprising meta-cognition, strategic action, and intrinsic motivation. The researchers (Dunlosky & Metcalfe, 2009; Zimmerman & Schunk, 2001) argue that pupils' self-assessment exercises may be sustained via the growth of meta-cognitive abilities among pupils. Metacognition includes information of intellectual procedures, products, and the capability to control, observe, and estimate those intellectual procedures.

Further, according to Perry, VandeKamp, Mercer, & Nordby, (2002) pupils can be involved in self-regulatory actions like that of preparation, observing, problem-solving, and gauging throughout difficult reading and writing activities. This exemplifies how pupils might take proprietorship of their scholarship and how instructors perform an important part in that completion. According to Stiggins (2002), Nicol and Macfarlane-Dick (2006), this approach empowers pupils to consider themself as managers of their personal success and place a basis for constant learning.

Moreover, student participation in the assessment process seems to take place in very few subjects, with minimal differences between the different techniques utilized such as self-assessment, peer assessment, self-grading and negotiated to grade (Hamodi, López-Pastor & López-Pastor, 2017). Luckily, instructors have informed that pupils' self-assessments are normally correct, and pupils express that gauging their personal learning has assisted them to recognize the stuff in a novel fashion (Leahy et al., 2005). Furthermore, research on self-regulated learning proposes that learning develops when instructors guide pupils to gauge their own work and display to pupils just how to attain learning outcomes (HyeonWoo, Kyu Yon, & Grabowski, 2010).

Peer-Assessment

The approach of peer-assessment stimulating pupils as instructional means for each other emphasizes the part which pupils might perform during collective learning. That part is closely associated with other scales like approaches of self-assessment and learning targets. The researcher has noticed that the contribution of peers may support pupils' achievement and observe their own growth toward their targets (Wiliam, 2004). He planned that peer assessment is a prerequisite for effective self-assessment. Peer assessment promotes self-assessment (Reinholz, 2016). The study of Rust, Price, and O'Donovan, (2003) has found that pupils are useful instructional resources for one another. Teachers may have various approaches to activate this

technique of peer-assessment in their classroom. According to Thompson and William (2008), these approaches may include the utilization of a rubric labeling feature of those elements.

According to Topping (2009), peer assessment is a procedure for pupils to study and identify the level, value, or quality of a product or presentation of other equal-status pupils. Products to be assessed can include writing, oral presentations, portfolios, test performance, or other skilled behaviors. Peer assessment may be formative or summative. Peer assessment typically requires students to estimate peers' work beside assessment criteria (Jones & Alcock, 2014). Formative peer assessment might support pupils' judging their own development and recognizing their strengths and weaknesses. For the instructor, formative peer assessment can also serve the purpose of classifying and monitoring pupils who might demand additional supervision (Ashenafi, 2017). A substantial number of instructors and pupils defy peer-assessment utilizing marks and that the mass reports that pupils never or seldom rate one another in assessment tasks (Liu & Carless, 2006).

The chief advantage of formative assessment must be intellectualized as part of a thorough system in which all constituents work together to expedite learning (Bennett, 2011). It is concluded from previous research studies that socialization procedures are essential for the transferal of implicit information to happen (Rust, Price & O'Donovan, 2003) and offer weightage to peer assessment to clearly understand learning targets. Further, according to Leahy et al (2005) pupils up to class 12th are good at noticing errors in other pupils' work than in their personal work and so, feedback and peer assessment may be an essential portion of useful teaching. The possible unexpected additional advantage of using peer assessment might be the development of pupils' capabilities in self-regulated learning.

Previous Studies on Formative Assessment Strategies

In current years, peer assessment has been progressively utilized in classrooms as a substitute technique of assessment. Hallam, Kiston, Peffers, Robertson, and Stobart (2004) conducted a project to support professional practice in formative assessment. The findings revealed that head instructors and educational coordinators were deeply assured that the formative assessment scheme was very successful. Instructors were in practice utilizing this technique in their classes had a substantial influence on pupils' attainment, work, and self-esteem. In the same way, a project on the evaluation of assessment for learning was completed by Condie, Livingston & Seagraves (2005). The outcomes revealed that head instructors and educational authority coordinators were strongly encouraged that the formative assessment activity was very efficient. Further, instructors' formative assessments in their classes have a substantial effect on the student's self-esteem and attainment. Further, a study was conducted by Lydia Wen, Tsai, and Chang (2006) to explore the attitudes toward peer assessment by comparing pre-service and in-service instructors' peer assessments. A sample consisting of 280 pre-service instructors and 108 in-service instructors from northern Taiwan was involved in the study. The outcomes exposed that male in-service teachers and pre-service teachers had high positive attitudes to peer assessment than their female counterparts. Joshua, Joshua, & Maliki, (2007) conducted a study to utilize pupil achievement scores as the foundation for measuring teachers' instructional effectiveness: issues and research results. It was concluded that the attitude of female instructors was more positive as compared to male instructors towards formative assessment. Moreover, the study carried out by Havnes et al (2012), on formative assessment and feedback: making learning visible by collecting data from students, teachers, and school leaders. Substantial alterations in the pupils' and instructors' perceptions concerning feedback exercises were observed. Furthermore, a study was conducted by Fakeye (2016), to inspect instructors' and pupils' attitudes towards formative assessment and corrective feedback in the English Language of Ibadan Metropolis. Outcomes exposed that instructor had constructive attitudes to formative assessment and corrective feedback. No substantial differences were observed among male and female instructors' attitudes toward formative assessment.

Statement of the Problem

The aim of this research was to examine the gender disparity among secondary school teachers in formative assessment practices during classroom instruction.

Objectives of the Study

To carry out the study, the following objectives were framed.

01. To investigate teachers' formative assessment in classroom instruction at the secondary school level.
02. To compare male and female teachers over formative assessment during classroom instruction.

Hypotheses of the Study

Below two hypotheses were tested.

H_{01}. The teachers performing no formative assessment in classroom instruction at the secondary school level

H_{02}. There is no significant difference between male and female teachers in using formative assessment in the classroom instruction

Significance of the Study

The findings of the research are significant for all stakeholders including teachers; students; administrators; policymakers; and curriculum planners.

Methodology

This section discusses the research design, population, and sample of the study. Further, it explains the research instrument, data collection, and data analysis of the research. The details of these are given below.

Research Design

The survey-type research design was adopted to carry out this study.

Population and Sample

All secondary school teachers of the district Haripur comprised the population of the study. As per district EMIS data for the year 2017, taken from the district education office, the total numbers of teachers were 1200 (EMIS, 2017). Four hundred (400) secondary school teachers were selected through stratified random sampling techniques; 200 were male and 200 were female.

Research Instrument

To conduct the study a questionnaire was prepared in light of the questionnaire developed by Oswalt (2013) and was utilized to gather data from the respondents. It was a five-point Likert scale, consisting of 30 statements. The students' responses were sorted out for each statement on S.A= Strongly Agreed, A= Agreed, U.D = Undecided, D.A = Disagree, and S.D.A = Strongly Disagree. The questionnaire was validated using judgmental validation followed by pilot testing. Its reliability coefficient was 0.97 observed.

Data Collection and Analysis

Data was collected through a questionnaire from 400 teachers of secondary school. The researcher visited the sample schools and distributed the questionnaire by himself among the teachers. Every teacher responded carefully and 100% turnout was observed. Based on the study objectives and hypotheses, the collected data were analyzed using statistical tools like percentage score, mean, standard deviation, and t-test through the SPSS package. The data were interpreted into meaningful findings of the study. Conclusions were drawn in the light of findings. And lastly, recommendations were made in light of the conclusions.

Results and Discussions

Table 1 is about the examination of instructors' formative assessment techniques during instruction in class, while tables 2-7 are about the comparison of male/female schoolteachers over the factors of formative assessment including monitoring, feedback assessment, peer assessment, self-assessment, and overall assessment. The detail of the data analysis and interpretation is given below:

Table 1: Responses of teachers about the use of formative assessment during classroom instruction

Strategies of Formative Assessment	Teachers' Mean Percentage Responses				
	SA	A	UD	DA	SDA
Learning targets	5	21	23	32	19
Monitoring	6	29	26	27	12
Feedback assessment	12	28	21	23	16
Self-assessment	9	20	30	23	18
Peer-assessment	10	18	26	29	17
Overall Strategies	**8.4**	**23.2**	**25.2**	**26.8**	**16.4**

Table 1 shows that 26% of teachers agreed with using learning targets while 51% of the teachers disagreed. However, 23% were undecided about using learning targets. Further, 35% of the teachers were in favor of using monitoring assessment while 39% of the teachers disagreed. However, 26% of the teachers were unclear about using monitoring assessments in their routine instruction. Furthermore, 40% of the instructors were in favor of utilizing feedback assessment, while 39% of the teachers disagreed. However, about 21% of the teachers were unsure about using feedback assessments. Moreover, 29% of the teachers agreed with using a self-assessment strategy and 41% of the teachers disagreed. However, 30% of the teachers were unclear. Lastly, about 27% of teachers were in favor of utilizing peer assessment techniques and 46% of the teachers disagreed. However, 28% of the teachers were indecisive about utilizing it. In general, 32% of teachers were in favor of using formative assessment, and 43% of teachers were not using it. However, 25% of the teachers were uncertain about using it. Hence, some teachers were in practiced utilizing formative assessment strategies in their routine classroom instruction. Thus, hypothesis H_{01} that "the teachers perform no formative assessment in classroom instruction at secondary school level" is partially rejected.

All this is shown in the figure below.

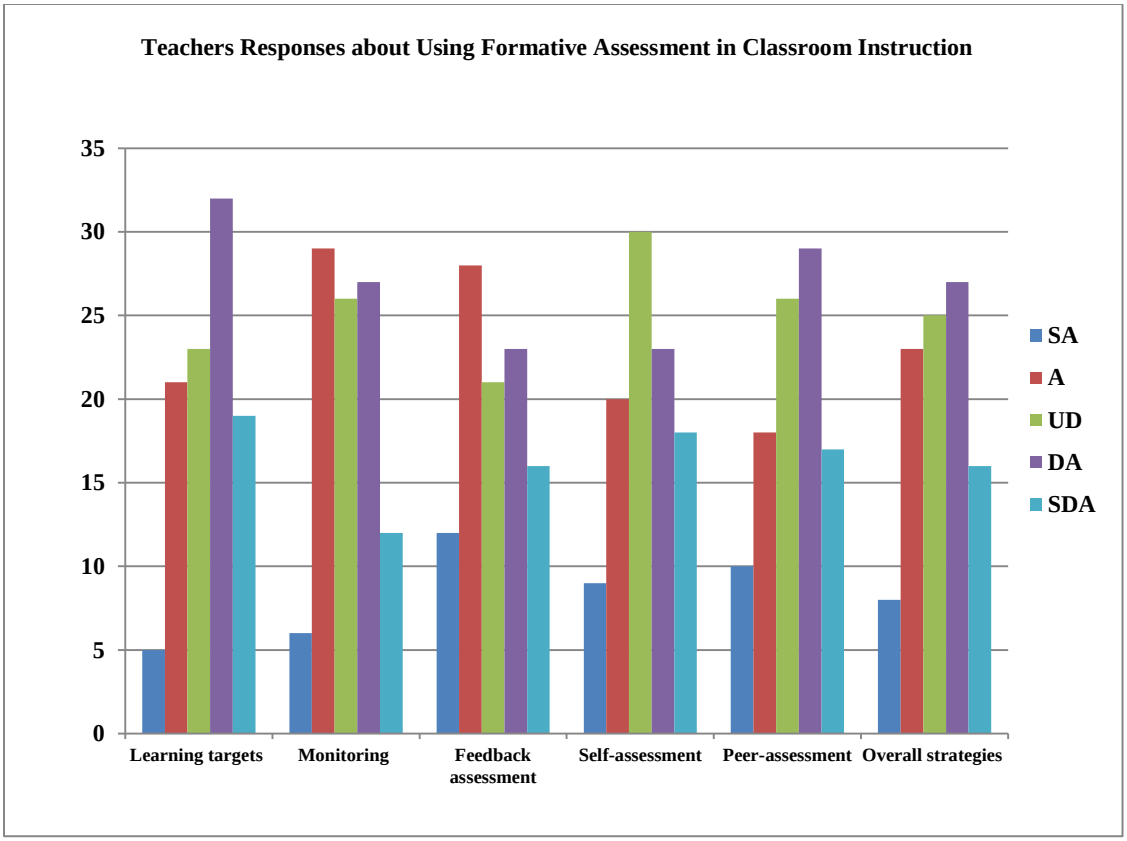

Table 2: Gender disparity among teachers for learning targets during classroom instruction

Gender	N	Mean	S.D	SEM	t	p
Male	200	17.83	4.78	0.34	10.24	0.000
Female	200	12.94	4.78	0.34		

Table 2 shows male and female schoolteachers' comparison for learning targets during classroom instruction. The computed value of t is greater than 1.96. The difference is statistically meaningful. Therefore, the null hypothesis $\mathbf{H_{02}}$ is completely rejected. Further, the calculated mean scores value of male schoolteachers is greater than female teachers i.e. (M_{Ma}=17.83, M_{Fe}=12.94, $p<0.05$). Thus, male teachers are found better than female teachers in using learning targets during instruction at the secondary school level.

Table 3: Gender disparity among teachers for monitoring strategy during classroom instruction

Gender	N	Mean	S.D	SEM	t	p
Male	200	20.06	5.12	0.36	7.92	0.000
Female	200	16.35	4.19	0.30		

Table 3 shows male and female schoolteachers' comparison for monitoring strategies during classroom instruction. The calculated value of t for the monitoring strategy is greater than 1.96. Therefore, the difference is significant statistically. Consequently, the null hypothesis $\mathbf{H_{02}}$ is entirely rejected. Further, the calculated mean scores value of male school teachers is greater than the female teachers i.e. (M_{Ma}=20.06,

M_{Fe}=16.35, p<0.05). Thus, male teachers are found better than female teachers in utilizing monitoring assessment during instruction at the secondary school level.

Table 4: Gender disparity among teachers for feedback strategy during classroom instruction

Gender	N	Mean	S.D	SEM	t	p
Male	200	19.89	6.08	0.43	7.29	0.000
Female	200	15.66	5.52	0.39		

Table 4 shows male and female schoolteachers' comparison for feedback strategy in classroom instruction. The calculated value of t for feedback strategy is greater than 1.96. Therefore, the difference is significant statistically. So, the null hypothesis $\mathbf{H_{02}}$ is entirely rejected. Further, the calculated mean scores value of male teachers is greater than the of female teachers i.e. (M_{Ma}=19.89, M_{Fe}=15.66, p<0.05). Therefore, male schoolteachers are found better than female schoolteachers in using feedback assessment strategy during instruction at the secondary school level.

Table 5: Gender disparity among teachers for self-assessment strategy in classroom instruction

Gender	N	Mean	S.D	SEM	t	p
Male	200	19.14	5.32	0.38	8.32	0.000
Female	200	14.45	5.94	0.42		

Table 5 shows male and female schoolteachers' comparison over self-assessment strategy during classroom instruction. The computed value of t is greater than 1.96. Therefore, the difference is statistically significant. Hence, the null hypothesis $\mathbf{H_{02}}$ is completely rejected. Further, the calculated mean score value of male teachers is greater than the female teachers i.e. (M_{Me}=19.14, M_{Fe}=14.45, p<0.05). Therefore, male teachers are found better than female schoolteachers in using self-assessment during instruction at the secondary school level.

Table 6: Gender disparity among teachers for peer-assessment strategy in classroom instruction

Gender	N	Mean	S.D	SEM	t	p
Male	200	19.46	5.21	0.37	12.35	0.000
Female	200	13.27	4.81	0.34		

Table 6 shows male and female schoolteachers' comparison over peer-assessment strategy during classroom instruction. The estimated value of t is greater than 1.96. Thus, the difference is statistically substantial. Therefore, the null hypothesis $\mathbf{H_{02}}$ is completely rejected. Moreover, the calculated mean score value of male teachers is greater than that of female schoolteachers (M_{Me} =19.46, M_{Fe}=13.27, p<0.05). Therefore, male teachers are found better than female teachers in using peer assessment strategy during instruction at the secondary school level.

Table 7: Gender disparity for overall formative assessment during classroom instruction

Gender	N	Mean	S.D	SEM	t	p
Male	200	96.37	25.43	1.80	9.69	0.000
Female	200	72.66	23.45	1.66		

Table 7 shows male and female schoolteachers' comparison for overall formative assessment in classroom instruction. Since p<0.05, and the calculated value of t for overall formative assessment is greater than 1.96. Thus, the difference is substantial. So, the null hypothesis $\mathbf{H_{02}}$ is fully rejected. Moreover, the calculated mean score value of male teachers is greater than the female teachers for overall formative assessment (M_{Me} =96.37, M_{Fe}=72.66, p<0.05). Therefore, male schoolteachers are found better than female in utilizing overall formative assessment in classroom teaching at high school.

Discussions

The results of the research have been debated considering the earlier studies accomplished on this perspective. Generally, from the table1 about 26% of teachers agreed with using learning targets while 51% of the teachers disagreed. However, 23% were undecided about using learning targets. Further, 35% of the teachers were in favor of using monitoring and 39% of the teachers disagreed. However, 26% of the teachers were unclear about using monitoring assessments in their routine instruction. Furthermore, 40% of the instructors were in favor of employing feedback assessment, while 39% of the teachers disagreed. However, about 21% of the teachers were unsure about using feedback assessments. Moreover, 29% of the teachers agreed with using the self-assessment strategy and 41% of the teachers disagreed. However, 30% of the teachers were unclear. Lastly, about 27% of teachers were in favor of utilizing peer assessment techniques and 46% of the teachers disagreed. However, 28% of the teachers were indecisive about utilizing it. In general, 32% of teachers were in favor of using formative assessment, and 43% of teachers were not using it. However, 25% of the teachers were uncertain about using it. Hence, some teachers were in practiced utilizing formative assessment strategies in their routine classroom instruction. Thus, hypothesis H_{01} that "the teachers perform no formative assessment in classroom instruction at secondary school level" is partially rejected. The results of the study corroborate partially with the findings of the studies carried out by (Hallam et., 2004; Condie, Livingston & Seagraves, 2005; Lydia Wen, Tsai & Chang, 2006; Joshua, Joshua, & Maliki, 2007; Havnes et al., 2012; Fakeye, 2016).

Moreover, table 2-7 shows male and female schoolteachers' comparison over the factors of formative assessment in classroom instruction. Since $p<0.05$ levels of significance and also the calculated values of t for each factor of formative assessment are greater than 1.96. Therefore, the difference is significant. Moreover, for all factors of formative assessment (learning targets, monitoring, feedback, self-assessment, peer assessment, and overall formative assessment), the calculated mean scores of male teachers M_{Ma} (17.83, 20.06, 19.89, 19.14, 19.46, and 96.37) is greater the corresponding mean scores of female teachers M_{Fe} (12.94, 16.35, 15.66, 14.45, 13.27, and 72.66). Therefore, male teachers are found superior to female schoolteachers in using formative assessment during the delivery of instruction This is in complete agreement with the results of Lydia Wen, Tsai, and Chang (2006) for formative assessment (peer assessment). Though, the findings of the study do not match with the findings of the study of Joshua, Joshua, and Maliki (2007), where the attitude of female teachers was more positive towards formative assessment than their male counterparts. These results also mismatch with the outcomes of the Fakeye (2016), where no significant differences were found between male and female instructors' attitudes toward formative assessment.

Conclusions

Majority of the teachers were not using formative assessment techniques including learning targets, monitoring, self-assessment, and peer-assessment in their teaching, while a considerable number of teachers utilized these techniques in their classroom instruction. However, fewer teachers were unclear about using these techniques. Further, most of the instructors were practicing feedback assessment in their routine teaching, while fewer teachers were not using it. However, small numbers of teachers were unsure about its usage. The male schoolteachers were found better than female schoolteachers in using formative assessment (learning targets, monitoring, feedback, self-assessment, peer assessment, and overall formative assessment) during teaching-learning process.

Recommendations

Keeping the findings, the subsequent approvals were framed including the educational leaders at the institutional, district, provincial, and national levels may organize workshops, seminars, and other necessary in-service training activities to enhance teachers' formative assessment strategies including learning targets, monitoring, feedback, self-assessment, peer-assessment, and overall formative assessment

and to bridge the gaps between male/female teachers formative assessment strategies during teaching-learning at the secondary level. Further, to create awareness about formative assessment, principals and administrators may lay emphasis on observing instructors' usage of formative assessment practices in their routine classrooms to promote learning. Future research studies may be conducted: to examine the role of the students, administrators, and parents in formative classroom assessment at primary, elementary, and higher secondary school levels; to improve techniques to develop female instructors' attitudes towards formative assessment; to maximize chances for the female instructor to utilize formative assessment in their routine instruction.

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