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RESEARCH PAPER

Relationship Between Students' Perceived Teachers' Feedback, Assessment for Learning and Learning Approaches

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ABSTRACT

The purpose of this study was to explore the relationship between students perceived Teacher Feedback, Assessment for Learning and their Learning Approaches. Higher education institutions are striving to shift from rote memorization towards meaningful and deep learning. This has signified the role of teacher feedback and Assessment for Learning (AfL). However, insufficient studies exist about how students perceived Teacher Feedback contributes in their Learning Approaches through the AfL experiences. Population was comprised on students in private sector universities. The study adopted quantitative cross sectional survey research design. The data were collected using structure questionnaire from 294 university students selected through simple random sampling techniques. The results demonstrated significant positive relationship between Verification, Feedback Directive Feedback, Scaffolding, Praise and Assessment for Learning and Learning Approaches. Verification Feedback found the most frequently received feedback while Teacher Criticism was the least received feedback form. AfL partially mediated the relationship between Students' Perceived Feedback and their Learning Approaches.

KEYWORDS Students' Perceived Teacher Feedback, Assessment for Learning, Learning Approaches, Higher Education

Introduction

Feedback is considered as a foundation of effective teaching and learning as highlighting in many studies (Selvaraj, Azman, & Wahi, 2021). It is described as an information given to a learner relating to their skills or understanding as shown on a task or in the completion of a task; generally, after instruction to improve his learning" (J. Hattie & Timperley, 2007). It is understood as a part of teaching process to promote self-regulation and motivate students for their learning (Guo, 2020). Its effective use supports learners persistence and bring clarity in understanding the challenges associated with their task (Russell, Baik, Ryan, & Molloy, 2022). The education systems are striving to shift their focus for preparing students from memorization and rote learning towards developing their critical thinking skills creativity and adaptability. This pedagogical shift shows transition from Assessment of Learning (AoL) to Assessment for Learning. (Misra, 2021).

Many studies reported significant positive association between teachers' feedback and students' learning approaches(Leung et al., 2022). Students utilize feedback as an opportunity to improve their performance (Sharma, Veremis, Katser, & Ramaswamy,

2023). Albuquerque (2023) found that a well-structured feedback can transform students' performance while a unclear can reinforce a surface level learning and reduce higher order thinking skills (Gan, Hoi, & Schumacker, 2019).

Although several international educational forums have highlighted the importance of formative assessments and feedback but in Pakistan education system is still based examination driven practices (Haqdad, Anjum, & Zafar, 2026). As a result, feedback is focused to unclear comments or to grade explanation rather than supporting as a source for improving learning.

Manzoor, Naeem, and Rehman (2023) found significant variations between students' abilities and faculty feedback practices. Kausar and Haroon (2025) found formative assessment as useful tool in students learning improvement when applied systematically. Jahangir and Sultana (2024) developed a Teachers' Feedback Literacy (TFL) scale in Pakistan to strengthen feedback practice. These studies demonstrate that even policies and frameworks are existing, but the implementation remains inconsistent.

Pakistan higher education system is exam-focused and foster rote memorization and feedback is rarely provided with the purpose to foster students' reflection and self-regulation. Although feedback is extensively researched in developed educational contexts, comparatively scarcely is known developing higher education systems, particularly in Pakistan. Therefore, it is required to explore how students' perception for teacher feedback influence their learning approaches.

Literature Review

Teachers' Feedback

Teachers' feedback is recognized as a critical component of effective teaching and students' motivation(Williams, 2024). Constructive feedback, such as Scaffolding, Verification, and Praise, has been revealed to enhance student motivation and poorly designed feedback inclines to strengthen surface learning and disengagement (Wisniewski, Zierer, & Hattie, 2020). Feedback is no longer viewed as a one-way transmission but as a dialogic process in which learners and instructors share responsibility and use feedback for improvement. Though, in examination based educational systems such as Pakistan, feedback is often provided to rationalize grades rather than as support to foster improvement (Kausar & Haroon, 2025). This limits its potential to transform learning practices. There are different forms of feedbacks provided to the students. Guo (2017) found five forms of feedbacks teachers give to the students; Verification Feedback, Directive Feedback, scaffolding Feedback, Teacher Praise and Teacher Criticism. Verification Feedback is given in simple form of judgment about student's answer is correct or incorrect or in form of grades while Directive Feedback is provided in form of extended comments about what a student needs to improve (Guo, 2020). Teachers' Scaffolding Feedback is based on cues, proposed solutions, prompts to support students to resolve the learning gap independently, Teacher Praise is based on encourage comments about students behavior and performance and Teacher Criticism form of feedback is given in negative comments to express disapproval or disliking towards students' performance (Guo, 2020).

Assessment for Learning (AfL)

Assessment for Learning (AfL) is also documented as formative assessment method used during instruction to improve learning, rather than just evaluating outcomes at the

end of teaching process (Schellekens et al., 2021). AfL strategies comprise of clarifying learning objectives, enhancing student understanding, providing feedback to move learning forward, and encouraging peer and self-assessment (Carless, 2015). Several studies validate that AfL increases student achievement, motivation, and self-regulated learning when applied effectively (Hawe & Dixon, 2017).

Although AfL is widely recognized for its effectiveness yet it faces problems in its implementation in developing countries educational environment e.g; Pakistan education system facing, several challenges such as large size classrooms, lack of teachers' professional development, and a the examination centered culture, weaken AfL practices (Manzoor et al., 2023). This causes a mismatch between policy and practice (Syed & Butt, 2025).

Student Learning Approaches

Learning Approaches serve beyond as strategy, they reflect students motivation, intention and the way the perceive their learning environment (Cayubit, 2022).Dorsah, Abukari, Tindan, and Alagbela (2025) identified three orientation on students Learning Approaches: Deep Learning, that accentuates critical thinking and combination of knowledge; Surface Learning, considered as rote memorization and nominal effort; and Strategic Learning, considered as performance- and grade-oriented.

Students reflection, self-regulation are strongly associated with AfL and teachers' constructive feedback (Dolmans, Loyens, Marcq, & Gijbels, 2016). while, examination focus cultures strengthen surface learning, restricting students' ability to engage critically with content(Beattie Iv, Collins, & McInnes, 1997).

The association between feedback, AfL, and student learning approaches is mutual. Feedback bridges the gap between assessment and learning, empowering students to link performance with improvement (Hawe & Dixon, 2017). When feedback is bridged with AfL it supports metacognition, self-regulation, and deeper engagement with tasks (Khuder, 2025).

Deep Approach

Students who apply Deep Learning Approach found curious about understanding concepts, construct meaningful knowledge instead memorization of information. They are observed motivated, engaged, critical thinkers, and problem solvers. Howie and Bagnall (2013) found such type of learners connect new information to existing knowledge, identify patterns, and can adapt application of acquired knowledge in diverse situations. Studies found significant positive association between Deep Learning and students. achievement as it encourages active learning and motivation. Deep Learning fosters creative, critical, reflective and emotional thinking (Nafi'ah & Faruq, 2025). So Deep Learning Approach considered as a valuable educational outcome that leads transfer of knowledge and lifelong learning (Fawzia & Karim, 2024).

Surface Approach

The surface learning approach emphasizes memorization and meeting minimum assessment requirements, leading students to view learning as the accumulation of isolated facts rather than genuine understanding(J. A. C. Hattie & Donoghue, 2016). Lindblom-Ylänne, Parpala, and Postareff (2019)shared that student who scored high on Surface learning were found different in their real learning behaviors. The author suggested that

learning approaches are complex to understand through a score on a questionnaire and recommended qualitative methods for better understanding the students practices and learning behavior. Research indicates that students who use surface strategies tend to demonstrate lower levels of critical thinking and conceptual understanding than those who adopt deep learning strategies (Entwistle & McCune, 2013). In an exam-focused educational context like Pakistan, reliance on memorization limits opportunities for deep learning and knowledge application.

Achieving approach

The achieving approach is a goal-oriented method in which students aim to maximize academic performance through effective study management, unlike learners who focus on understanding or surface learners who emphasize memorization. Strategic learners are motivated by the desire for high grades. They organize study schedules, monitor progress, and select strategies that align with assessment requirements ((Biggs, 1987). Close research shows that strategic learners possess strong self-regulatory skills, including time management and goal setting; they adjust learning behaviors based on the demands of different courses and assessments (Entwistle & McCune, 2013). At the same time, they may utilize both deep and surface learning tactics. Their primary focus is achieving favorable academic outcomes educational environment that offers clear criteria, constructive feedback, and self-monitoring opportunities can further enhance these learners' effectiveness.

Engagement with subject, Teacher support, Peer support

Student engagement with the subject reflects the level of interest, enthusiasm, and active participation learners demonstrate toward academic content. Engaged students are more likely to put effort into learning activities, process real challenges, and adopt people-learning approaches. Frederick et al.'s 2004 research indicates that engagement serves as a key mediator between instructional practices and academic achievement. Teacher support refers to students' perceptions of how much guidance, encouragement, and constructive feedback their teachers provide. Positive relationships between teachers and students enhance motivation, self-advocacy, and learning engagement (Wentzel, Baker, & Russell, 2012). Feedback that is timely, specific, and focused on improvement has been shown to promote deeper learning and boost academic confidence. Peer support is described as the academic and emotional help students obtain from another student of same level or grade. It is reported in several studies that peer support increases engagement, deep understanding of the content and positive learning experience (Gamlath, 2022).

Conceptual Framework

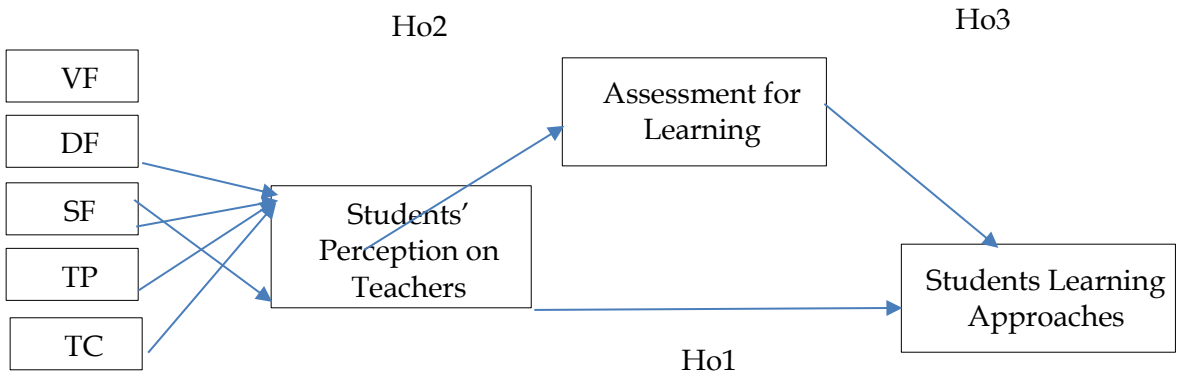

Figure 1: Conceptual Framework of the Study

VF=Verification feedback, DF= Directive Feedback, SF= Scaffolding Feedback, TP= Teacher's praise, TC= Teachers Criticism

H_O1: There is no significant relationship between Students' Perceived Teachers' Feedback and their Learning Approaches in higher education.

H_O2: There is no significant relationship between Students' Perceived Teachers' Feedback and their Assessment for Learning in higher education.

Ho3: There is no significant relationship between Students' Assessment for Learning and their Learning Approaches in higher education.

Ho4: Assessment for Learning does not Significantly Mediate between Students' Perceived Teachers' Feedback and their Learning Approaches.

Material and Methods

A quantitative, cross-sectional survey design was applied to investigate the relationships between variables: Teacher Feedback, Assessment for Learning (AfL), and Students' Learning Approaches in higher education institutions in Lahore Pakistan. The population was comprised of the students of private sector universities in Lahore. Using a simple random sampling strategy, 300 questionnaires were circulated among the students in printed form, of which 294 were retained after data cleaning. Participants ranged in age from 16 to 25 years.

Data were collected using a structured questionnaire adopted from previously validated studies. Students' perception on Teacher Feedback was assessed using a questionnaire developed by (Guo, 2017). This five-point Likert Scale (1 = my teacher never does this to 5 = my teacher always does this) was consisted of five components of teacher feedback: Verification Feedback, Directive Feedback, Scaffolding Feedback, Teacher Praise, and Criticism.

The Assessment for Learning and students Learning Approaches were measured using Questionnaire (AfLQ) developed by McDowell et al. (2011). This five-point Likert scale (Strongly agree-1 to strongly disagree-5) was comprised of three dimensions: Engagement with Subject, Teacher Support, Peer Support. Three dimensions of students' Learning Approaches (Deep Approach, Surface Approach, and Achievement Approach) were also selected to measure them using the same scale.

Prior to data collection, permission from the relevant institutions was obtained. Participation was voluntary, and all respondents' consent was obtained, ensuring the confidentiality and anonymity of the responses.

Results and Discussion

Data analysis is the methodical process of applying statistical techniques to describe, interpret and evaluate data(Wickham, 2016). SPSS and Process Macro (Hayes, 2018) was utilized for data analyses. Reliability analysis was done applying Cronbach's Alpha ($a>0.7$-0.9) while correlation was calculated to explore the relationship between the variables. Regression based mediation analysis was done through Process Model 4, bootstrapped with 5,000 sample) to find whether AfL mediated the relation between students' perceived feedback and their learning approaches.

Table 1
Reliability Analysis of the Scales of the Study

Variables	Cronbach's Alpha	No. of Items
VF	.87	6
DF	.87	6
SF	.84	5
TP	.95	6
TC	.90	6
AL	.89	16
SLA	.778	7

VF=Verification feedback, DF= Directive Feedback, SF= Scaffolding Feedback, TP= Teacher's praise, TC= Teachers Criticism

Table 1 demonstrates the internal consistency of the study constructs, which were assessed using Cronbach's alpha. The results shown that all scales established acceptable to excellent reliability (α > .70). VF (α = .87, 6 items) and DF (α = .87, 6 items) both showed high reliability. Similarly, SF (α = .84, 5 items) demonstrated good internal consistency. Teachers' Praise exhibited excellent reliability (α = .95, 6 items), while Teachers' Criticism also showed strong internal consistency (α = .90, 6 items). The AfL scale (α = .89, 16 items) was highly reliable. Finally, the SLA Scale (α = .77, 7 items) demonstrated acceptable reliability. Overall, the Cronbach's alpha values suggest that all constructs were measured with satisfactory internal consistency, supporting their use in following analyses.

Correlation Analysis

H_O1: There is no significant relationship between students' perceived Teachers' Feedback and their Learning Approaches in higher education.

Table 2
Mean, Standard Deviations, and Correlation Analysis between Students' Perceived Teachers' Feedback and their Learning Approaches

Variable	M	SD	1	2	3	4	5	6	7	8
1. V F	4.62	1.21	–							
2. DF	4.62	1.17	.66**	–						
3. SF	4.51	1.13	.54**	.66**	–					
4. TP	4.41	1.40	.51**	.52**	.41**	–				
5. TC	2.84	1.35	.13*	.08	.08	.32**	–			
6. DA	3.98	0.81	.27**	.30**	.33**	.29**	.06	–		
7. SA	3.43	0.87	.19**	.14*	.28**	.23**	.14*	.26**	–	
8. AA	3.91	0.76	.35**	.34**	.27**	.34**	.11	.54**	.34**	–

VF=Verification feedback, DF= Directive Feedback, SF= Scaffolding Feedback, TP= Teacher's praise, TC= Teachers Criticism, DA=Deep Approach, SA=Surface Approach, AA=Achieving Approach

Descriptive statistics show that Verification and Directive Feedback had the highest mean (M=4.62), demonstrating that students frequently receive these two types of feedback. TC had the lowest mean score (M=2.84, SD=1.35), indicating that students perceive less criticism from the teacher. Students' perception of the Deep Learning Approach had the highest mean score (M=3.98, SD=0.81), whereas the Surface Approach had the lowest mean score (M=3.43, SD=0.87), indicating that students prefer meaningful learning strategies over memorization.

H_O2: There is no significant relationship between students' perceived Teachers' Feedback and their Assessment for Learning in higher education.

Table 3
Correlation Analysis between Students' Perceived Teachers' Feedback and their Assessment for Learning

Variable	1	2	3	4	5	6	7	8
1. VF	–							
2. DF	.66**	–						
3. SF	.54**	.66**	–					
4. TP	.51**	.52**	.41**	–				
5. TC	.13*	.08	.08	.32**	–			
6. ES	.48**	.48**	.48**	.37**	.09	–		
7. TS	.44**	.50**	.43**	.39**	.08	.64**	–	
8. PS	.26**	.29**	.30**	.28**	.05	.48**	.46**	–

VF=Verification feedback, DF= Directive Feedback, SF= Scaffolding Feedback, TP= Teacher's praise, TC= Teachers Criticism, DA=Deep Approach, SA=Surface Approach, AA=Achieving Approach

The table results show that Verification, Directive, Scaffolding, and Teacher's Praise were significantly and positively correlated with students' Engagement with Subject, TS, and PS ($r = .26$, $p < .01$). DF was significantly associated with TS. DF was found to have the strongest association with TS ($r=.50$, $p<.01$), while TC was not significantly associated with all the components of students' LA. Conversely, students' Engagement with Subject was significantly associated with TS and PS ($r = .48$, $p < .01$).

Ho3: There is no significant relationship between students' Assessment for Learning and their Learning Approaches in higher education.

Table 4
Means, Standard Deviations, and Correlations among Assessment for Learning and Learning Approaches (N = 294)

Variable	M	SD	1	2	3	4	5	6
ES	3.86	0.63	–					
TS	3.72	0.66	.64**	–				
PS	3.97	0.91	.48**	.46**	–			
DA	3.98	0.81	.45**	.53**	.58**	–		
SA	3.43	0.87	.33**	.31**	.25**	.26**	–	
AA	3.91	0.76	.52**	.54**	.52**	.54**	.34**	–

Engagement with Subjects=ES, TS=Teacher Support, Peer Support=PS, Deep Approach=DA, Surface Approach=SA, Achieving Approach=AA

The findings show the significant positive association among all the dimensions of AfL and LA (Learning Approaches). ES was significantly positively associated with TS ($r=.64$, $p<.01$) and moderately associated with PS ($r=.48$, $p<. 01$). Engagement with Subject was also demonstrated significant positive relationship with DA ($r=.45$, $p<.01$) SA ($r=.33$, $p<.01$) and AA ($r=.52$, $p<.01$). TS was positively correlated with DA ($r=.58$, $p<.01$), SA ($r=.25$, $p<.01$) and AA is ($r=.52$, $p<.01$)

Ho4: Assessment for Learning does not Significantly Mediate between Students' Perceived Teachers' Feedback and their Learning Approaches.

Mediation Analysis

Mediation analysis was conducted to explore whether students' Perceived Teachers' Feedback indirectly influence their LA through AfL. The findings demonstrated

that AfL partially mediated the relationship between students Perceived Teacher Feedback and their Learning Approaches. Specifically, TF exerted a significant direct effect on LA (B = 0.09, p < .05) and a significant indirect effect through AfL (B = 0.21, 95% CI [0.15, 0.28]). This suggests that AfL is an important mechanism by which feedback fosters DL strategies.

Table 4.5
Regression Results Predicting Mediator Assessment for Learning from Teachers' Feedback

Predictor	B	SE	t	p	LLCI	ULCI
Constant	2.27	0.15	15.34	<.001	1.98	2.56
T_F	0.38	0.03	10.93	<.001	0.31	0.44

Note. R^2 = .29, F(1, 292) = 119.51, p < .001.

The regression model was significant, explaining 29% of the variance in AfL. Teachers' Feedback significantly predicted AfL, B = 0.38, p < .001, indicating that higher levels of Teachers' Feedback were associated with higher levels of AfL, as shown in Table 4.5.

Table 6
Regression Results Predicting Dependent Variable: Students' Learning Approach from Students Perceived Teachers' Feedback and their Assessment for Learning

Predictor	B	SE	t	p	LLCI	ULCI
Constant	1.16	0.21	5.62	<.001	0.75	1.57
T_F	0.09	0.04	2.14	.033	0.01	0.17
A_F_L	0.55	0.06	9.09	<.001	0.43	0.67

Note. R^2 = .34, F(2, 291) = 76.19, p < .001.

Table 6 shows that the regression model significantly predicted Students' Learning Approaches, explaining 34% of the variance. AfL emerged as a strong predictor of Students' Learning Approaches (B = 0.55, p < .001), while Teachers' Feedback also had a smaller but significant effect (B = 0.09, p = .033). These findings suggest that both Teacher Feedback and AfL contribute to predicting Students' Learning Approaches, with AfL being the stronger predictor.

Table 7
Direct and Indirect Effects of Teachers' Feedback on Students' Learning Approaches

Effect type	B	SE	t	p	95% CI(LL,UL)
Direct Effect	0.09	0.04	2.14	.033	0.01,0.17
Indirect Effect	0.21	0.03	__	__	0.15.028

Note. CI = Confidence Interval; AfL = Assessment for Learning; indirect effects are based on 5,000 bootstrap samples.

The direct effect of students perceived Teachers' Feedback on their Learning Approaches remained significant (B = 0.09, p = .033), even after including the mediator. The indirect effect through AfL was also significant (B = 0.21, 95% CI [0.15, 0.28]), since the confidence interval did not include zero, as shown in Table 4.8. This indicates that AfL partially mediates the relationship between Teachers' Feedback and Students' Learning Approach.

The direct effect of teachers' feedback on learning approaches remained significant after including AfL in the model (*B* = 0.09, *p* = .033). More importantly, the indirect effect of teachers' feedback on learning approaches through AfL was also significant (*B* = 0.21, BootSE = 0.03, 95% CI [0.15, 0.28]), as the confidence interval did not include zero. This

suggests that AfL partially mediated the relationship between teachers' feedback and students' learning approaches.

Thus, the findings support rejecting Ho4. Students' Assessment for Learning experiences significantly mediated the relationship between their perceptions of Teachers' Feedback and their Learning Approaches. This indicates that Teachers' Feedback not only directly influences Students' Learning Approaches but also indirectly affects their AfL experiences, which in turn foster more constructive learning approaches.

Discussion

The study was conducted to explore the relationships between the variable; students' perceived Teacher Feedback, Assessment for Learning (AfL), and their Learning Approaches in higher education. The results confirm that constructive feedback strategies-Verification, Directive, Scaffolding, and Praise were positively associated with AfL and deep Learning Approaches. The findings are consistent with existing literature as ….found that deep learning provide significant strengths to the students in nurturing their critical thinking, empathy, collaboration and lifelong learning(Feri, Ismiati, Al-Nur, & Akbar, 2025). When feedback was timely, specific, and actionable, students were more likely to regulate their learning and adopt deeper approaches (Gan et al., 2019). Wu and Zhang (2025) found that is one of the Deep Learning Approach is one of the significant contributor of students' academic achievement. Although findings are varied in diverse context and students' gender, academic discipline and also timeliness but consistently suggest that feedback support students learning approach.

Conversely, Teacher Criticism did not significantly relate to AfL or Deep Learning, reinforcing previous claims that vague or negative feedback undermines motivation (Guo, 2020). This suggests that not all feedback is equally effective, and that constructive feedback should be prioritized. The study also found that AfL was strongly correlated with students' Learning Approaches, consistent with research showing that AfL fosters reflection, critical thinking, and self-regulation. component of students (Hawe & Dixon, 2017). Pakistan's exam-driven culture, this highlights AfL's potential to shift students from surface memorization toward meaningful engagement.

The partial mediation result of AfL between students' perceived teacher feedback and their learning approaches was the most interesting result of the study. These results show that teacher feedback directly and indirectly influence students learning approaches. Study results suggests that when the teaching is embedded in AfL then teachers feedback promote self-monitoring, reflection, and facilitate self-regulation. These findings validate that alone the feedback may not work effectively but when it is attached AfL, enhances students learning approaches. So, the higher education institutions should strengthen AfL practices to increase the effectiveness of feedback and learning approaches.

Conclusions

The study provides empirical evidence that Teacher Feedback and Assessment for Learning effect students' Learning Approaches in higher education. The findings revealed that Constructive Feedback, Verification Feedback, Directive Feedback, Scaffolding, and Praise positively support AfL and foster Learning Approaches. AfL emerged as a strong predictor of students' Learning Approaches and moderately mediated the relationship between Teacher Feedback and Students' Learning Approaches. These findings suggest that educators integrate effective feedback within AfL to enhance students' engagement,

self-regulation, and deep learning. In Pakistan's higher education system, formative assessment practices should be strengthened.

Recommendations

On the bases of the findings the following few recommendations are made for the higher education institutions in Pakistan.

1. The higher education institutions are required to foster constructive feedback practices, especially Verification, Directive, Scaffolding feedback and Teacher Praise. Rigorous faculty development programs should be designed and conducted to prepare them for effective practices of feedback and improving students learning experiences.
2. Students in higher education institutions should be provided with a creating learning environment where they experience better engagement, positive support by the teacher and Peers.
3. Higher education institutions should not consider AfL as an assessment strategy but as tool for increasing students deep and meaningful learning experiences.
4. Curriculum should be designed embedding AfL activities to encourage the students to participate, and reflect, during teaching.
5. Future research should be conducted across educational setting, cultural context and disciplines to generalize the findings adding more intervening variables to get better options for improvement in teacher feedback

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