INVESTIGATING THE EFFECTS OF ESL TEACHERS' FEEDBACK ON ESL UNDERGRADUATE STUDENTS' LEVEL OF MOTIVATION, ACADEMIC PERFORMANCE, AND SATISFACTION: MEDIATING ROLE OF STUDENTS' MOTIVATION

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ABSTRACT

The purpose of this empirical research was to investigate the effects of ESL Teachers' Feedback on ESL undergraduate students' level of motivation, academic performance, and satisfaction: Mediating role of students' motivation. It is commonly acknowledged that teacher feedback is an important factor in students' academic success and that it is an integral part of the teaching and learning process. Students are encouraged by feedback, which also offers advice on how to perform well academically. The goal of the current study was to ascertain how teachers' ideas about feedback, its significance, and its consequences on ESL students' motivation, academic performance, and satisfaction at the higher education level. Students' motivation was also evaluated as a mediating variable between comments from ESL teachers and academic performance. Additionally, no previous research has examined the relationship between the study variables and Pakistani higher education institutions, making this

study extremely relevant in addressing the identified research gaps in the literature. Students at the Department of English served as the target population, and a survey questionnaire was used to gather data for this study. A representative sample size was chosen using a methodical random sampling methodology, yielding a viable sample of n = 379. Using SPSS version 26 for data screening, descriptive statistics, and the PLS-SEM method to investigate the correlations or associations between the variables, the gathered data were examined. All of the hypotheses were supported by the study's findings. The findings of this study have practical ramifications for educators, learners, policymakers, curriculum designers, and upcoming scholars in Pakistani higher education contexts of English Language Teaching (ELT). The study offers a discussion of the results and admits its limitations.

KEYWORDS
Teachers' feedback, students' motivation, students' satisfaction, students' academic self-efficacy, students' academic performance

INTRODUCTION

Feedback is defined as information from a person; as a teacher, colleague, guidance, peer, or any other person's performance (Hattie & Timperley, 2007). Valuable feedback is constructive feedback that acts of improving performance through correction of errors and mistakes (Cole, 2006; Zsohar & Smith, 2009). Students are more attracted by teacher's feedback l (Hattie & Timperley, 2007). A teacher plays a significant role in inspiring students and providing them with guidance through feedback. Feedback from teachers serves as a valuable tool for students in their journey of learning and helps them improve their academic performance (Mandhane, Ansari & Shaikh, 2015). Constructive feedback allows students to gain knowledge and understand their areas of interest, enabling them to work on them and prepare for future endeavors (Hamid & Mahmood, 2010). The idea of constructive criticism does, however, have some drawbacks in the educational context of nations like Pakistan. According to Kashif, Rahman, Mustafa, and Basharat (2014), poor nations like Pakistan do not pay much attention to teacher evaluations. Furthermore, according to Hafeez and Wahaja (2014), Pakistan's existing educational structure does not effectively take corrective feedback into account. I now realise that you want the provided content rewritten so that it does not appear to be plagiarised. The revised text is provided below: Teachers play a crucial role in the lives of their pupils as a source of inspiration and direction. Students are guided towards learning and academic improvement by their comments, which serves as a useful compass (Mandhane, Ansari, & Shaikh, 2015). Students who receive constructive comments are better able to recognise their areas of interest and thrive in their studies as well as get ready for their future endeavours (Hamid & Mahmood, 2010). However, it is crucial to recognise the restrictions placed on the idea of constructive criticism, especially in educational

environments in underdeveloped nations like Pakistan. According to research (Kashif, Rahman, Mustafa, & Basharat, 2014), evaluative feedback from teachers is frequently devalued in these situations. Similar to this, the current educational system in Pakistan does not adequately take into account remedial feedback (Hafeez & Wahaja, 2014). Therefore, it is crucial to recognize the significance of feedback in fostering students' academic performance, while also addressing the challenges and constraints that may exist in different educational systems."

Effective constructive feedback needs deliberate contemplation, a thoughtful approach, and sensitivity, according to Aston and Hallam (2011). Hattie and Timperley (2007) assert that teachers' verbal and nonverbal evaluative feedback greatly enhances students' motivation, satisfaction, learning, and classroom performance. Evaluative feedback, whether it takes the shape of summative or formative feedback, is essential for influencing students' pleasure and improving their general performance (Chan and Lam, 2010; Oluwatayo & Fatoba, 2017). Ahmed, Saeed, and Salam (2013) highlight the favourable effects of corrective feedback to illustrate its advantages. They discovered that pupils who get constructive criticism from their teachers frequently perform better on exams, comprehend subjects more thoroughly, engage in class discussion, and attain academic success. Additionally, these students do their tasks on time and speak up in class debates with assurance. According to Chandler (2003a), corrective feedback is used extensively throughout the world and greatly raises student achievement.

Through corrective feedback from teachers, students are given the chance to enhance their performance and fix errors (Li, Schwabe, Yang, & Chen, 2015). Corrective feedback, according to Wang and Wu (2017), can be useful in assisting students in improving their performance in the learning environment. Providing corrective feedback is a crucial component of teachers' evaluation strategies, and students in general enjoy the feedback they get from their teachers, claims Aravena (2015). Furthermore, Meral, Colak, and Zereyak (2012) found a strong correlation between students' motivation and academic success. According to Ahmed and Safaria (2013), highly motivated students tend to perform better on tests and exams and demonstrate a strong desire to study their subjects in-depth in the future. Furthermore, a study by Honicke and Broadbent (2016) found a link between undergraduate students' motivation and performance. According to Darazi, Khoso, and Mahesar (2022), motivation and students' academic performance are linked and mutually affect one other. According to Karl et al. (1993), giving students comments on their performance can increase their motivation. For instance, teacher feedback has a direct effect on the engagement, productivity, and contentment of students (Latif et al., 2021). This study aims to investigate the effects of constructive, evaluative, and corrective feedback provided by teachers on the performance and satisfaction of undergraduate students,

specifically ESL students at the higher education level in the district of Karachi, Sindh. It emphasizes the significant role of motivation and satisfaction in shaping students' academic outcomes.

The social cognition hypothesis put out by Bandura (2001), which emphasises the interaction between individual influences, behavioural factors, and environmental factors, serves as the theoretical foundation for this study. The theory emphasises how proactive, self-organizing, self-regulating, and self-reflective people are. Self-efficacy, which relates to a person's confidence in their capacity to complete activities successfully, is a crucial idea in this theory (Bandura, 1982). According to Bandura (1982), a person's motivation and capacity for job completion are closely related. Direct experiences, verbal persuasion, emotional states, performance outcomes (mastery experiences), and direct experiences are some of the several sources of motivation. In the teaching and learning process, in particular, mastery experiences are important sources of motivation and fulfilment (Bandura, 1997). Learners typically participate in active learning, where they actively carry out particular tasks and get feedback on how well they did. Students' motivation and performance can be improved by providing them with corrective, evaluative, and constructive feedback in both written and spoken forms, as well as through social effects (Wang & Wu, 2008). Glickman (2002) recently conducted research to look at how verbal feedback affects students. Students who received verbal feedback showed greater understanding of the assignment activity, according to the study.

LITERATURE REVIEW

Constructive feedback and students' motivation

Constructive feedback is a vital tool of effective learning (Omer & Abdularhim, 2017). Nyiramana (2017) verified that the term constructive feedback makes learning and teaching useful. Teachers are answerable for providing daily base constructive feedback so that students ensure to meek and get target learning outcomes (Duffy, 2013). Students cannot improve if teachers do not offer them correct and constructive feedback in order check their academic performance and motivation progress (Aston & Hallam, 2010). When it comes to getting information about their learning, students appear to prefer external input to internal feedback, according to quantitative study. The results show that these forms of feedback, known as internal and external feedback, have an impact on the control of self-learning and motivation. According to a study by Koseoglu (2015), students who are highly motivated by themselves are more likely to succeed academically because they are better able to identify and address obstacles they face while studying. The goal of the current study is to discover, look into, and evaluate these elements. Both oral and written feedback from teachers is essential for helping undergraduate students improve their academic performance and increase their enthusiasm and engagement (Sermsook, Liamnimitr, & Pochakorn,

2017). Direct feedback is preferable, especially in the beginning, as it enables students to remedy their errors and adhere to the proper structure for assignments given by the teacher (Srichanyachon, 2012). Undergraduates benefit greatly from spoken corrective feedback since it improves their comprehension of the material and grammatical elements. Furthermore, it has been found that this kind of feedback improves the learnt features' capacity for long-term memory. In contrast, indirect feedback enables students to recognise and fix their mistakes on their own as they go through tasks (Erlam, Ellis, & Batstone, 2013). In addition, studies show that professors' constructive criticism motivates students to use writing as a learning tool (Jamalinesari, Rahimi, Gowhary, & Azizifar, 2015).

Students' Motivation, Self-efficacy, and Academic Performance

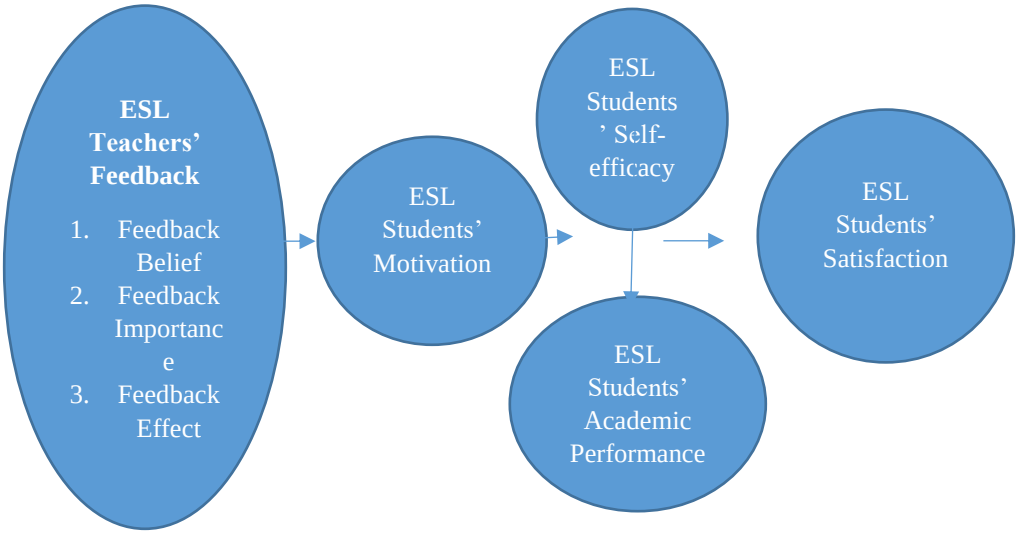
Motivation plays a very important for the students teaching and learning at higher education level (Darazi, Khoso & Mahesar, 2022). Dupret (2016) stated that those learners who get feedback from teachers are converted into successful learners might enhance their abilities and do their assignment in an excellent within the environment. According to Mehregan and Seresht (2014), evaluative feedback can make students able to achieve their goals and different capabilities directed by teachers. Chan and Lam (2010) search that guidance provide different ways to offer evaluative feedback at the time of teaching and learning to overcome the motivation of the students, while it is also investigated that students' motivation is the strongest predication of their future (Majeed, Khoso, Darazi & Fatima, 2022).

Indirect corrective feedback strongly effects on undergraduates learning process in comparison to direct corrective feedback (Mahesar, Darazi & Khoso, 2021; Westmacott, 2017). Those students who get corrective feedback they secure colorful marks in examination, to emphasize the perception extremely and take part in classroom activities, complete their assignment on exact time, talk effectively in classroom activities while share their notions in discussion classes (Ahmad & Safaria, 2013). Corrective feedback doesn't only improve students' learning but also enhances their ideas and confidence to perform excellently (Pham, 2015). Arbabisarjou, Zare, Shahrakipour and Ghoreishinia (2016); in the study they found that undergraduates with high self-motivation have an excellent academic status of learning in comparison to those who have low self-motivation. To sum up, there is a direct benefit of connection between undergraduates' academic performance and self-motivation. Teachers' feedback might help students to search out and identify the way to determine and gather valid information cure the hardness of the assigned task (Schunk & Zimmerman, 2007). In addition, it may enhance students' motivation and get them to success when teacher finds out their mistakes and errors. Therefore, the present study expands the following hypothesis (Schunk & Zimmerman, 2007).

Corrective feedback, satisfaction, and undergraduates' academic performance

Students' happiness with academic accomplishment and language learning are both included in the concept of satisfaction at the university level (Mahesar, Darazi, & Khoso, 2021). Also supported by Jamalinesari, Rahimi, Gowhary, and Azizifar (2015), corrective feedback from teachers motivates pupils to write and study. But according to Westmacott (2017), indirect corrective feedback has a greater influence on undergraduate students' learning than direct corrective feedback. According to Ahmad and Safaria (2013), students who receive corrective feedback typically perform better on tests, actively participate in class activities, turn in assignments on time, communicate effectively in front of the class, and contribute to group discussionsCorrective feedback, according to Pham (2015), not only helps kids learn better but also develops their ideas and self-confidence so they may succeed academically. According to research by Arbabisarjou, Zare, Shahrakipour, and Ghoreishinia (2016), undergraduates with high levels of self-motivation outperform those with low levels in the classroom. In conclusion, self-motivation and undergraduates' academic success are closely related. By pointing out students' mistakes and errors, teachers' feedback, according to Schunk and Zimmerman (2007), can assist students discover and obtain reliable information, deal with the difficulties of their given tasks, and increase their incentive for success. On the basis of these revelations, the current study puts up the following theory.

Figure 1: ***Conceptual Framework***



Source: Authors' contributions

Note: *In the above conceptual framework, Feedback is second order reflective-*

reflective exogenous construct; motivation is first order reflective endogenous construct; academic performance is first order reflective endogenous construct; self-efficacy is first order reflective exogenous construct, and satisfaction is first order reflective endogenous construct.

RESEARCH OBJECTIVES

1. To examine the impact of ESL teachers' feedback on ESL students' motivation in an ELT context at higher education level,
2. To investigate the impact of ESL undergraduate students' motivation on students' academic performance in an ELT context at higher education level.
3. To establish the impact of ESL undergraduate students' academic self-efficacy on students' academic performance in an ELT context at higher education level.
4. To find out the impact of ESL undergraduate students' academic performance on their satisfaction in an ELT context at higher education level.
5. To determine whether undergraduate students' motivation mediates the relationship between ESL teachers' teaching feedback and ESL students' academic performance in an ELT context at higher education level.
6. To determine whether undergraduate students' academic performance mediate the relationship between ESL students' academic self-efficacy and ESL students' satisfaction in an ELT context at higher education level.
7. To determine whether undergraduate students' academic performance mediate the relationship between ESL students' motivation and ESL students' satisfaction in an ELT context at higher education level.

RESEARCH QUESTIONS

1. ESL teachers' feedback has an impact on ESL students' motivation in an ELT context at higher education level.
2. ESL undergraduate students' motivation has an impact on students' academic performance in an ELT context at higher education level.
3. ESL undergraduate students' academic self-efficacy has an impact on students' academic performance in an ELT context at higher education level.
4. ESL undergraduate students' academic performance has an impact on their satisfaction in an ELT context at higher education level.
5. ESL undergraduate students' motivation mediates the relationship between ESL teachers' teaching feedback and ESL students' academic performance in an ELT context at higher education level.
6. ESL undergraduate students' academic performance mediates the relationship between ESL students' academic self-efficacy and ESL students' satisfaction in an ELT context at higher education level.
7. ESL undergraduate students' academic performance mediates the relationship between ESL students' motivation and ESL students' satisfaction in an ELT context

at higher education level.

RESEARCH METHODOLOGY

Sample and Procedure

The empirical study used an explanatory research design and a strictly quantitative technique. Data was gathered by the researchers from four institutions in Karachi's public sector while maintaining ethical standards like anonymity, confidentiality, and voluntary involvement. The participants received informed consent forms (Bryman, 2016). After completing the data screening process, data were gathered and analysed using SPSS v.26. The data had some missing values, which were filled up using multiple imputations after LM test (Chi-Square = 316.510, DF = 248, Sig. =.002) determined that the data weren't generated at random. 21 multivariate outliers were also found and eliminated from the sample (p-value 0.001). 379 responses made up the viable sample size for analysis after data filtering. Smart PLS 4.0.9.2 was used to establish the outer and inner models, and SPSS version 26 was used to continue processing the data (Ringle, Wende, & Becker, 2022). The outer and inner models were specifically created using the "Partial Least Squares - Structural Equation Modelling (PLS-SEM)" method.

Table 1: ***Descriptive statistics (n = 379)***

No	Demographic Variable Characteristics	Categories	Frequency	Percentage (%)
1	**Gender**	Male	172	45.4
		Female	207	54.6
2	**Age**	≤ 20 years	56	14.8
		21 to 25 years	253	66.8
		26 to 30 years	55	14.5
		31 years or above	15	4.0
3	**Education**	BS English	239	63.1
		MA English	140	36.9
4	**Institution**	University A	86	22.7
		University B	123	32.5
		University C	96	25.3
		University D	74	19.5

Source: *Author's estimation*

In the present empirical study, all the reflective constructs were measured on a five-point Likert Scale i.e., Strongly disagree = 1, Disagree = 2, Neutral = 3, Agree = 4 and Strongly agree = 5. However, all the items of these constructs were found reliable as given in the following table.

Table 2: ***Variables used in Research Model***

LOCs	Sample Items	Statements	No. of Items	Mean (SD) Variable-wise	Mean (SD) Item-wise	A	Source
FB	FB1	Students should do formal evaluations of their teachers.	7	3.8507 (0.84918)	3.6913 (1.19399)	0.856	Campbell, & Bozeman (2007)
FI	FI1	Students' evaluations are important to the university administrators.	4	3.7606 (0.95269)	3.9578 (1.16306)	0.767	Campbell, & Bozeman (2007)
FE	FE1	Teachers, change their assessment results based on student feedback evaluations.	4	2.5652 (0.88699)	2.7328 (1.18189)	0.746	Campbell, & Bozeman (2007)
SS	SS1	I am satisfied with teacher's preparedness to the lectures.	9	3.6095 (0.88994)	3.6623 (1.18720)	0.907	Obiosa (2020)
SE	SE1	I believe I will receive an excellent grade in this EFL course.	5	3.5735 (0.99870)	3.4947 (1.18242)	0.890	Zheng, Liang, and Tsai, (2017)
SM	SM1	Teacher clearly sets high expectations but can be achieved by students.	5	3.4206 (1.01054)	3.3598 (1.26519)	0.882	Salman (2017)
	SM5	Teacher emphasizes to develop students' interest for further reading and attempting seminar questions.			3.4483 (1.24003)		
AP	AP1	I am confident about the adequacy of my	4	3.4825	3.4471	0.865	Mehrvarz, Heidari,

	academic skills and abilities.	(1.042 30)	(1.229 53)		Farrokhnia , and Noroozi, (2021)

Source: *Author's estimation*
Note: FB = Feedback Belief, FI = Feedback Importance, FE = Feedback Effect, SS = Students' Satisfaction, SE = Academic Self-efficacy, SM = Students' Motivation, and AP = Students' Academic Performance.

Table 3: ***Correlation Matrix***

S. No.	Constructs	Alpha	Mean	SD	1	2	3	4	5	6	7
1	FB	0.856	3.8507	0.84918	1						
2	FI	0.767	3.7606	0.95269	.608**	1					
3	FE	0.746	2.5652	0.88699	.205**	.194**	1				
4	SS	0.907	3.6095	0.88994	.468**	.547**	.181**	1			
5	SE	0.890	3.5735	0.99870	.411**	.420**	0.100	.652**	1		
6	SM	0.882	3.4206	1.01054	.335**	.369**	0.088	.630**	.662**	1	
7	AP	0.865	3.4825	1.04230	.351**	.362**	.103*	.655**	.651**	.813**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: Authors' estimation
Note: FB = Feedback Belief, FI = Feedback Importance, FE = Feedback Effect, SS = Students' Satisfaction, SE = Academic Self-efficacy, SM = Students' Motivation, and AP = Students' Academic Performance.

Table 3 shows that the variables were correlated with each other.

Common Method Variance (CMV) Bias

The overall variation explained by Harman's single component is 35.062%, which is less than the 50% threshold, indicating that the current data set does not display any Common Method variation (CMV) bias. As a result, the data collection can be regarded as impartial, enabling the researcher to move forward with the data analysis (Podsakoff et al., 2012). Additionally, the researcher carried out a comprehensive

collinearity test and discovered that all Variance Inflation Factors (VIFs) in the outer model were 3.3, indicating that CMV problems were not present in the data set (Kock, 2015; Tehseen, Ramayah, & Sajilan, 2017). FB = 1.701, FI = 1.856, FE = 1.060, SS = 2.481, SE = 2.226, SM = 2.298, and AP = 2.368 were the VIF values for the outer model. Consequently, the researcher can confidently carry out additional analyses.

DATA ANALYSIS

Measurement model

To analyse the data for the current study, the researcher used Partial Least Squares - Structural Equation Modelling (PLS-SEM). This method ensured the measurement model's validity, dependability, and internal consistency by establishing an outer model for path analysis. Then, using 5000 subsamples and a bootstrapping technique, hypotheses were evaluated. The measuring model was developed by the researcher in accordance with the recommendations made by Hair, Risher, Sarstedt, and Ringle (2019). According to Hulland (1999; Bagozzi & Yi, 1988; Henseler et al. (2009); Hair et al. (2011), the loadings were higher than 0.60, the critical ratio (C.R.) was higher than 0.70, the average variance extracted (AVE) was higher than 0.50, and the variance inflation factor (VIF) was lower than 3Cross-loadings and the Fornell-Larcker criterion (Fornell & Larcker, 1981), which are shown in the accompanying tables, were used to establish the discriminant validity.

Figure 2: ***M. Model***

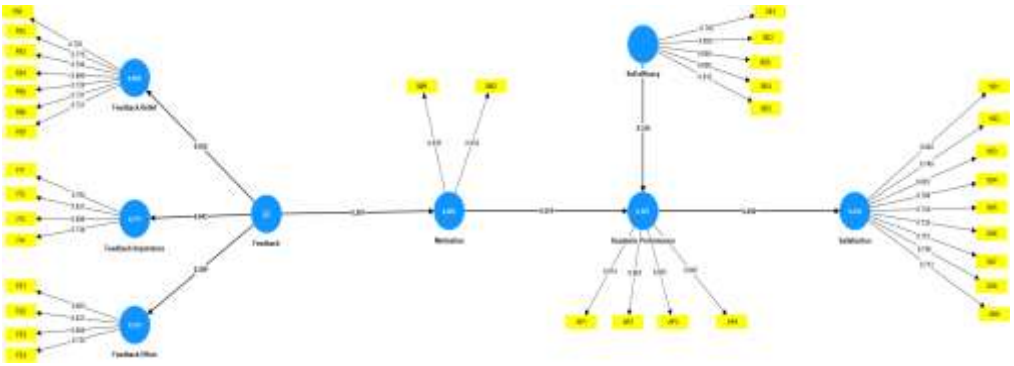


Table 4: ***First order MM***.

Constructs	Items	Loadings	Alpha	rho_a	CR	AVE	Outer VIF
Feedback Belief	FB1	0.72	0.856	0.858	0.89	0.537	1.833
	FB2	0.775					2.095

	FB3	0.76					1.914
	FB4	0.69					1.628
	FB5	0.729					1.748
	FB6	0.731					1.826
	FB7	0.721					1.703
Feedback Effect	FE1	0.653	0.749	0.758	0.842	0.574	1.328
	FE2	0.831					1.788
	FE3	0.8					1.698
	FE4	0.734					1.472
Feedback Importance	FI1	0.794	0.769	0.786	0.85	0.588	1.708
	FI2	0.831					1.81
	FI3	0.699					1.815
	FI4	0.736					1.736
Motivation	SM1	0.935	0.854	0.854	0.932	0.872	2.244
	SM2	0.933					2.244
Self-efficacy	SE1	0.783	0.89	0.891	0.919	0.695	1.946
	SE2	0.855					2.631
	SE3	0.858					2.445
	SE4	0.858					2.687
	SE5	0.812					2.256
Academic Performance	AP1	0.814	0.865	0.866	0.908	0.712	1.832
	AP2	0.861					2.31
	AP3	0.855					2.226
	AP4	0.845					1.993
Satisfaction	SS1	0.802	0.908	0.909	0.924	0.576	2.525
	SS2	0.749					2.213
	SS3	0.803					2.985
	SS4	0.789					2.132
	SS5	0.734					2.084
	SS6	0.732					2.223
	SS7	0.757					2.141
	SS8	0.746					2.007
	SS9	0.713					1.851

Source: Authors' estimation

Note: FB = Feedback Belief, FI = Feedback Importance, FE = Feedback Effect, SS = Students' Satisfaction, SE = Academic Self-efficacy, SM = Students' Motivation, and AP = Students' Academic Performance.

Table 5: ***Second order MM***

Construct	Dimensions	Items	Loadings	Alpha	rho_a	CR	AVE
Feedback	Feedback Belief	FB	0.932	0.855	0.882	0.787	0.577
	Feedback Importance	FI	0.843				
	Feedback Effect	FE	0.389				

Table 6: ***Discriminant Validity by FLC Method***

S. N	Constructs	1	2	3	4	5	6	7
1	Academic Performance	**0.844**						
2	Feedback Belief	0.351	**0.733**					
3	Feedback Effect	0.103	0.207	**0.758**				
4	Feedback Importance	0.354	0.646	0.193	**0.767**			
5	Motivation	0.723	0.254	0.041	0.303	**0.934**		
6	Satisfaction	0.659	0.474	0.183	0.533	0.547	**0.759**	
7	Self-efficacy	0.651	0.411	0.103	0.42	0.628	0.656	**0.834**

Source: Authors' estimation

Table 7: ***Discriminant Validity by Cross Loadings***

Constructs	Items	AP	FB	FE	FI	SM	SS	SE
Academic Performance	AP1	0.814	0.333	0.088	0.343	0.579	0.537	0.537
	AP2	0.861	0.284	0.102	0.237	0.576	0.553	0.547
	AP3	0.855	0.309	0.073	0.305	0.625	0.546	0.562
	AP4	0.845	0.263	0.085	0.31	0.656	0.585	0.552
Feedback Belief	FB1	0.274	0.72	0.124	0.395	0.234	0.271	0.248
	FB2	0.293	0.775	0.197	0.507	0.191	0.406	0.294
	FB3	0.289	0.76	0.097	0.466	0.201	0.322	0.355
	FB4	0.259	0.69	0.095	0.426	0.235	0.355	0.311
	FB5	0.271	0.729	0.221	0.475	0.191	0.366	0.355

	FB6	0.229	0.731	0.147	0.536	0.142	0.374	0.256
	FB7	0.187	0.721	0.168	0.496	0.117	0.331	0.287
Feedback Effect	FE1	0.131	0.14	0.653	0.173	0.084	0.209	0.104
	FE2	0.035	0.166	0.831	0.111	0.032	0.092	0.059
	FE3	0.106	0.173	0.8	0.198	0.066	0.171	0.127
	FE4	0.035	0.142	0.734	0.092	0.002	0.075	0.009
Feedback Importance	FI1	0.251	0.596	0.134	0.794	0.217	0.377	0.327
	FI2	0.259	0.624	0.155	0.831	0.213	0.377	0.334
	FI3	0.271	0.341	0.126	0.699	0.232	0.452	0.299
	FI4	0.327	0.35	0.182	0.736	0.288	0.466	0.333
Motivation	SM1	0.679	0.248	0.043	0.277	0.935	0.53	0.591
	SM2	0.672	0.226	0.034	0.29	0.933	0.491	0.581
Satisfaction	SS1	0.467	0.317	0.06	0.367	0.417	0.802	0.482
	SS2	0.423	0.274	0.103	0.372	0.32	0.749	0.4
	SS3	0.522	0.411	0.127	0.431	0.446	0.803	0.512
	SS4	0.531	0.328	0.163	0.363	0.455	0.789	0.516
	SS5	0.528	0.441	0.175	0.469	0.369	0.734	0.449
	SS6	0.485	0.373	0.173	0.44	0.415	0.732	0.516
	SS7	0.555	0.4	0.152	0.439	0.416	0.757	0.534
	SS8	0.496	0.36	0.121	0.376	0.408	0.746	0.541
	SS9	0.462	0.305	0.16	0.365	0.475	0.713	0.513
Self-efficacy	SE1	0.529	0.335	0.081	0.338	0.539	0.556	0.783
	SE2	0.525	0.324	0.073	0.346	0.501	0.559	0.855
	SE3	0.556	0.357	0.122	0.345	0.499	0.577	0.858
	SE4	0.57	0.332	0.084	0.377	0.54	0.55	0.858
	SE5	0.531	0.363	0.068	0.343	0.537	0.489	0.812

Source: Authors' estimation

Note: FB = Feedback Belief, FI = Feedback Importance, FE = Feedback Effect, SS = Students' Satisfaction, SE = Academic Self-efficacy, SM = Students' Motivation, and AP = Students' Academic Performance.

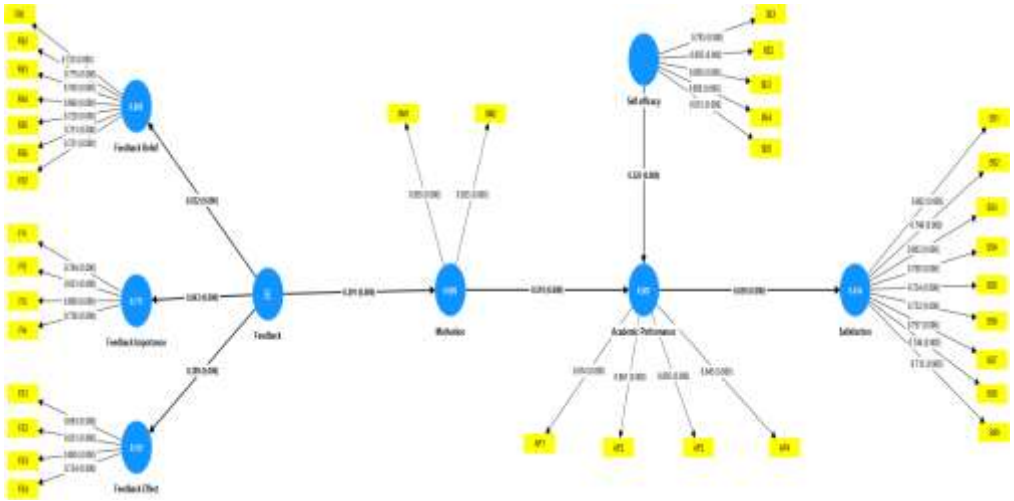
Table 8: ***Kline (2015) "suggested a stringent criterion of HTMT0.85 wherein the values are less than 0.85" As a result, HTMT was created, enabling the researcher to investigate the suggested assumptions***.

S. N	Constructs	1	2	3	4	5	6	7

	Academic Performance						
1							
2	Feedback Belief	0.409					
3	Feedback Effect	0.127	0.255				
4	Feedback Importance	0.441	0.764	0.253			
5	Motivation	0.84	0.299	0.085	0.382		
6	Satisfaction	0.738	0.532	0.218	0.649	0.619	
7	Self-efficacy	0.742	0.471	0.129	0.508	0.721	0.727

Source: Authors' estimation

Figure 3: ***Hypotheses Testing (Inner Model)***



Source: *Authors' estimation*

Table 9: ***Hypotheses Testing Direct Effects***

Hypotheses	Beta	SD	T values	P values	5.00%	95.00%	F^2	Q^2	R^2	Adj. R^2	Decision
AP -> SS	0.659	0.04	16.477	0.000	0.584	0.717	0.766	0.242	0.434	0.432	Supported
FB -> SM	0.291	0.056	5.238	0.000	0.195	0.378	0.092	0.072	0.085	0.082	Supported
SM -> AP	0.519	0.048	10.798	0.000	0.436	0.594	0.395	0.412	0.587	0.585	Supported

SE -> AP	0.325	0.054	6.080	0.000	0.234	0.409	0.155	0.412	0.587	0.585	Supported

Source: *Author's estimation*

The results of the hypothesis testing are shown in Table 9, which shows that all four direct hypotheses were supported. The first hypothesis, which proposed that ESL teachers' feedback would affect ESL students' motivation in an ELT context at the higher education level, was supported (= 0.291, p-value = 0.000). The second hypothesis, which indicated that undergraduate ESL students' motivation had an impact on their academic achievement in an ELT environment at the higher education level, was also validated (= 0.519, p-value = 0.000). Thirdly, the third hypothesis that examined how academic self-efficacy of ESL undergraduate students affected their academic performance in an ELT setting at the higher education level was found to be validated (= 0.325, p-value = 0.000). The fourth hypothesis, which predicted that academic achievement would affect undergraduate ESL students' satisfaction in an ELT setting at the higher education level, was also confirmed (= 0.659, p-value = 0.000).

Table 10: ***Hypotheses Testing Indirect Effect (Mediation)***

Hypotheses	Beta	SD	T values	P values	5.00 %	95.00 %	Decision
SE -> AP -> SS	0.214	0.042	5.051	0.000	0.146	0.285	Mediation
FB -> SM -> AP	0.151	0.032	4.663	0.000	0.1	0.207	Mediation
SM -> AP -> SS	0.342	0.032	10.639	0.000	0.288	0.395	Mediation

Source: Author's estimation

Note: *We used 95% confidence interval with a bootstrapping of 10,000 subsample.*
Here, FB = Feedback, SS = Students' Satisfaction, SE = Academic Self-efficacy, SM = Students' Motivation, and AP = Students' Academic Performance.

The findings of the indirect hypotheses are shown in Table 10, and they show that all three mediating hypotheses were validated, establishing mediation between the constructs. First, the first mediating hypothesis proposed that, in an English Language Teaching (ELT) context at the higher education level, the motivation of ESL undergraduate students mediates the relationship between the teaching feedback of ESL teachers and the academic performance of ESL students. This hypothesis was supported (B = 0.151, p-value = 0.000). Second, the second mediating hypothesis proposed that the relationship between ESL students' academic self-efficacy and ESL students' satisfaction in an ELT context at the higher education level is mediated by

ESL undergraduate students' academic performance, and this hypothesis was supported (B = 0.214, p-value = 0.000). Thirdly, the third mediating hypothesis proposed that the relationship between ESL students' motivation and ESL students' satisfaction in an ELT context at the higher education level is mediated by ESL undergraduate students' academic performance. This hypothesis was supported (B= 0.342, p-value = 0.000).

Predictive Validity of Inner Model using PL Spredict

Table 11: ***PL Spredict***

Items	Q^2predict	PLS-RMSE	LM-RMSE	PLS-LM RMSE	Decision
SS1	0.172	1.036	1.082	-0.046	High predictive power
SS2	0.136	1.078	1.138	-0.06	
SS3	0.199	0.993	1.065	-0.072	
SS4	0.186	0.959	0.984	-0.025	
SS5	0.171	1.067	1.142	-0.075	
SS6	0.184	0.962	1.035	-0.073	
SS7	0.197	0.997	1.052	-0.055	
SS8	0.189	0.952	1.027	-0.075	
SS9	0.169	1.024	1.073	-0.049	

Source: Author's estimation

Note: Here SS = Students' Satisfaction as endogenous variable items

DISCUSSION

The PLS-SEM analysis's findings offer important new understandings of the connections between the variables being studied. We will explore the ramifications of these discoveries and make connections to earlier research in the subject in this debate. First, the research confirmed the prediction that a rise in AP will cause an increase in SS by identifying a substantial and positive association between AP and SS. This result is in line with earlier studies that have found a strong correlation between these two. The consistency of these findings across numerous research indicates that AP is an important determinant of SS and should be taken into account in interventions designed to increase SS. Second, a substantial and positive link between FB and SM was discovered, suggesting that when FB rises, SM follows suit. This outcome is consistent with earlier research that found similar relationships between FB and SM. The importance of FB in boosting SM is supported by this consistency, which also emphasizes the need to include FB in SM improvement methods. Thirdly, the results of the analysis showed a strong and favorable association between SM and AP, indicating that when SM rises, AP should follow. This result supports earlier studies

that found a strong correlation between these two variables. The consistency of these findings across research suggests that SM is a significant driver of AP and should be taken into account when developing interventions to improve AP. The strong and positive link between SE and AP was discovered, suggesting that as SE rises, AP follows suit. This outcome is consistent with earlier studies that found similar relationships between SE and AP. These results corroborate previous studies, which further supports the significance of SE in enhancing AP and highlights the need to include SE in AP improvement initiatives.

The independent factors' indirect impacts on the dependent variables through the designated mediating variables were clarified by the mediation analysis. The findings showed that the corresponding mediating factors all moderate the associations between SE and SS, FB and AP, and SM and SS. These results are in line with earlier studies' findings of comparable mediation effects (Hafeez and Wahaja, 2014; Hamid & Mahmood, 2010). When constructing interventions or policies aiming at enhancing the outcomes of interest, it is crucial to take into account the complex interplay between variables, as evidenced by the mediation evidence in these connections. Finally, the PLS-SEM analysis was in line with earlier studies in the field and offered insightful information on the connections between the variables under investigation. These findings add to the expanding body of research that shows how crucial the independent and mediating variables are in influencing the dependent variables. These results should be taken into account in future research and practice in the relevant field when developing interventions or policies targeted at enhancing the outcomes of interest.

With an emphasis on the moderating function of students' academic self-efficacy, the aim of this study was to examine the impact of ESL teachers' feedback on ESL undergraduate students' levels of motivation, satisfaction, and academic performance. The study's results showed that professors' comments encourage pupils to actively participate in class activities and have a favourable effect on them. Additionally, positive and insightful criticism from professors raises students' motivation, which improves academic performance. Additionally, the information showed a connection between students' motivation and happiness, with pleasure being favourably and significantly linked to academic success. Importantly, the findings showed that the relationship between teachers' feedback and students' pleasure is mediated by motivation. Additionally, the results of the moderation analysis showed that, in higher education English classroom settings, students' motivation and satisfaction are favourably moderated by their academic self-efficacy.

Furthermore, it is crucial for all parties involved to work together and actively participate in order to achieve a good shift in the direction of establishing a healthy teaching and learning environment in educational settings. University instructors are

essential in giving feedback to students, which encourages undergraduates to improve their performance. However, university management should be cautious and give students thoughtful oral and written feedback to assist them correct their flaws and mistakes. Future scholars can now explore creativity and creative writing at greater depths across a range of educational levels thanks to the current findings. This will help the curriculum be updated to better meet the individual requirements of pupils. Additionally, Higher Education Institutions (HEIs) are accountable for ensuring the delivery of high-quality education by setting up the required infrastructure, hiring qualified English Language Teachers (ELTs), fostering a positive teaching and learning environment, updating the curriculum, and hosting conferences and workshops centred on various types of feedback.

RECOMMENDATIONS

The stakeholders participating in the public sector universities in Karachi, Sindh, Pakistan, should take note of the findings of this study. In the teaching and learning process, the feedback given by English as a Foreign Language (EFL) teachers is crucial. Because appropriate feedback may empower students and support their achievement, it is vital for EFL teachers to concentrate on its quality.

EFL instructors ought to be aware of how feedback affects students' academic success. Giving pupils comments can increase their motivation, which will ultimately improve their academic achievement. Because feedback can influence motivation and anxiety levels in the classroom, it is the duty of EFL teachers to consider their feedback style. The Higher Education Commission (HEC), the Government of Sindh, and the Federal Government should work together and provide the required resources to improve the teaching and learning environment in higher education. For higher education institutions to promote growth and positive change, these stakeholders should make sure that the essential infrastructure is provided.

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