

## TEACHING CLARITY, HELPFULNESS, AND FEEDBACK TIMELINESS AS PREDICTORS OF CLASS PARTICIPATION AND STUDENT PERFORMANCE

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### Abstract

*This study examined whether teaching clarity, teaching helpfulness, and feedback timeliness predict class participation and student performance. The study employed a quantitative, cross-sectional, explanatory design to analyze a secondary data set of 1,000 student records. Teaching clarity, teaching helpfulness, and timeliness of feedback were the independent variables and the dependent variables were student performance and class participation. The data were analyzed using descriptive statistics, Pearson correlation, multiple linear regression, and ordinal logistic regression. The findings indicated that the three teaching-related variables were rated at moderate levels, whilst student performance was clustered at the average and good categories. Correlation analysis revealed that the teaching clarity had a weak positive relationship with the class participation, which was statistically significant. The only significant predictor of class participation in the multiple regression model was the teaching clarity, though the overall explanatory power of the model was extremely low. Feedback timeliness was the only predictor that was significantly important in the ordinal logistic regression analysis, which indicated that the timeliness of feedback was also related to higher likelihood of achieving high academic performance. The predictor of either outcome was not significant for teaching helpfulness. In general, the results present some scanty yet significant evidence that certain dimensions of teaching effectiveness are related to student behavioral and academic outcomes. The paper underscores the practical significance of explicit teaching and feedback in facilitating student interaction and achievement.*

**Keywords:** Teaching clarity; teaching helpfulness; feedback timeliness; class participation; student performance

## 1. Introduction

The effectiveness of teaching is one of the key issues in modern education since the way of instruction determines the way students are involved in learning activities, understand the classroom demands, and learn to perform. This is the direction that recent scholarship has taken in its focus, to point out that the results of students are dependent not only upon personal capacity or effort, but also upon what the teachers do in the learning environment. Extensive studies of teacher-related effects have revealed uniform correlations between teaching quality, student engagement, and academic outcomes, but the magnitude and shape of these associations can differ across contexts and measures (Bardach & Klassen, 2021; Martin, 2021). Effective teaching is no longer perceived as content delivery in higher education in particular, but one can also think of it as the ability to facilitate participation, facilitate the learning process, and provide students with the environment where they can be successful (Dahleez et al., 2021; Trowler et al., 2022).

Three teaching characteristics seem to be particularly significant in this broader discussion: teaching clarity, teaching helpfulness, and teaching feedback timeliness. Teaching clarity is the degree of comprehension, organization and availability of instructions to students. When the lesson is well explained, the students tend to adhere to the academic expectations and contribute to the classroom life with confidence. Research on teacher characteristics and humanizing pedagogy implies that explicit and supportive instruction can empower student engagement and achievement by lessening uncertainties and enhancing the feeling of connectedness of students with the learning procedure (Kim et al., 2023). In a similar vein, teaching helpfulness is an indicator of how approachable, responsive and accommodating to student learning needs the instructors are. Teacher support has been identified to positively influence engagement and academic achievement, which implies that supportive instructional behavior may influence classroom engagement and performance (Tao et al., 2022; Thornberg et al., 2022).

Timeliness in the feedback is also crucial since students rely on the timely feedback to keep track of their progress, rectify errors, and modify learning strategies (Prananto et al., 2025). The feedback literature has continuously indicated that effective feedback is not only informative but also timely to be actionable. Delays in feedback can reduce its value in terms of improvement, whereas timely feedback can help students to reflect, act, and do better (Bulut et al., 2019; Henderson et al., 2019). Further recent research on feedback literacy indicates that the advantages of feedback become even more pronounced in cases where students can interpret and utilize feedback in a meaningful way in the learning process (Hoo et al., 2022). The attitudes suggest that timely feedback can be especially pertinent to participation and academic performance.

Although this is the accumulating body of research, there is a tendency for students to perform differently despite being in the same instructional setting. This variability indicates that student characteristics might not be the only factors that can account classroom involvement and student achievement, but also particular aspects of instructional quality. Participation is a multifaceted phenomenon that is influenced by classroom norms, identity, confidence, and attitudes towards teaching practice (Hard & RaoShah, 2022; Parker-Shandal, 2023; Wonder, 2021). It has also been found that participation is not necessarily easy to define and measure despite the fact that it is an essential sign of engagement and classroom presence of learning (Bekkering & Ward, 2020; Xu & Qiu, 2022). Similarly, student success is becoming conceptualized as a multi-dimensional phenomenon, including grades, in addition to engagement, persistence, and meaningful academic experience (Padilla-Petry et al., 2022; Picton et al., 2018).

Another gap in the literature is that most studies discuss the effectiveness of teaching in broad or composite terms, but few studies focus on the specific predictor roles of teaching clarity, teaching helpfulness, and feedback timeliness in a single quantitative study. This gap is significant as the discovery of the dimensions of instruction that are most significant can produce more specific evidence to support teaching practice and faculty development. The study examines the hypothesis that teaching clarity, teaching helpfulness, and feedback timeliness are predictors of class attendance and student achievement. In particular, the research investigates the rates of these variables related to teaching, evaluates the distribution of class participation and student performance, tests the correlation of these variables with class participation and measures the predictive power of these variables on student performance. The research also aims at determining which of the three predictors is most effective. By so doing, it adds to the body of literature on classroom effectiveness by providing evidence that can be utilized by students, teachers, institutions and researchers who want to enhance participation, feedback processes, and academic outcomes.

## 2. Methods

### 2.1 Research Design

The study used a quantitative, cross-sectional, explanatory design to investigate the predictive effect of teaching clarity, teaching helpfulness, and feedback timeliness on class participation and student performance. The quantitative approach was suitable since the research involved quantifiable variables and the statistical evaluation of the relationships between them. The cross-sectional design was appropriate since all the observations were made based on the same dataset which reflected student-level data at a single point in time. The study was explanatory in nature because it aimed not only at describing the pattern in the data but also at establishing the extent to which the factors that were chosen to be related to teaching were significant predictors of the variation in student outcomes. This design was in good conformity with the aim of the study, which was to determine whether the chosen factors of instruction were related to significant differences in student engagement and academic achievement.

### 2.2 Data Source

The secondary data used to analyse consisted of 1,000 student observations. A row was a record of a single student and the dataset contained a variety of demographic, academic and teaching-related measures. The dataset contained variables about student attributes, the engagement type, assessment success, and the quality of instruction as perceived by them (Zara2099, 2026). To facilitate the current study, the focus was on the variables that were directly related to the conceptual focus of the study. In particular, the analysis focused on three teaching predictors associated with clarity in teaching, helpfulness in teaching, and timeliness of feedback and two dependent variables, namely, class participation and student performance. Other variables in the dataset were also taken into account to be used as controls in more complex models to enhance analytical rigor and minimize the chances of omitted variable bias.

### 2.3 Study Variables

The research design was based on two categories of variables, namely, independent variables that reflected instructional variables and dependent variables that reflected student outcomes. The major predictor variables were teaching clarity, teaching helpfulness, and feedback timeliness. These variables indicate different but similar aspects of teaching practice that can influence the way students interact in the classroom and their academic performance.

Student performance and class participation were the outcome variables. Class attendance was considered an indicator of student behavior and engagement, whereas student achievement was an indicator of academic performance. Besides these key variables, the dataset had several variables that would be plausible to affect participation and performance such as age, gender, percentage of attendance, assignments done, hours spent studying each week, projects done, midterm grade and final grade. These variables may be included in longer regression models where they are controls to determine whether the three focal teaching variables still have significant effects after including the broader academic and demographic factors.

### 2.4 Measurement of Variables

The measures of teaching clarity, teaching helpfulness and feedback timeliness were included in the dataset as numeric rating variables and were considered as continuous predictors to conduct statistical analysis. These variables were student-level measures of instructional practices, which were deemed appropriate for both descriptive and inferential processes. The number of class sessions attended was considered a continuous numeric variable and thus suitable in analysing using correlation and multiple linear regression analysis methods. Student performance on the other hand was assessed as an ordinal categorical variable with four ordered levels: Poor, Average, Good, and Excellent. Since these groups demonstrate a significant development of academic status, the performance of students was considered an ordinal measure. This difference was significant in terms of model choice, as it implied that the techniques that should be used in case of ordered categorical data more suitable in this case.

The control variables that were available were a combination of levels of measurement. The age, the percentage of attendance, assignments done, hours spent studying per week, projects completed, mid-term grade and final grade were considered as numeric variables, and gender was a categorical variable. These differences guided the descriptive analysis of the data and specification of the extended regression models.

### 2.5 Data Analysis Procedure

The analysis was done in two phases. The initial step was the descriptive statistics to outline the general organization of the data set and the distribution of the research variables. Categorical variables were calculated using frequencies and percentages and continuous variables were calculated using means and standard deviations. This step gave an empirical picture of the sample and helped to determine the central tendencies and variability of the key constructs before testing the hypothesis.

The second step was the inferential analysis. In order to test the relationship between the three teaching-related predictors and class participation, Pearson product-moment correlation was initially employed to determine the direction and strength of the bivariate relationships. Subsequently, a multiple linear regression analysis was conducted using participation in the classes as the dependent variable and teaching clarity, teaching helpfulness, and feedback timeliness as the predictors. By doing so, it was possible to estimate the independent effect of each predictor, other factors remaining constant.

In the case of student performance, ordinal logistic regression was the preferred method of analysis since the dependent variable was ordinal and not continuous. This model retained the order of the outcome and offered a more methodologically suitable foundation to estimate the predictive impacts of the teaching variables. Numerical recoding of student performance to facilitate easier regression analysis could also be done in an exploratory sense, but would be viewed as a form of approximation and should be interpreted with caution since it would place categories that are essentially ordinal at equal spacing.

The current study concentrated on the direct predictive relationships between teaching clarity, teaching helpfulness, and feedback timeliness, class participation and student performance. Even though the dataset contained other demographic and academic variables, they did not appear in the final regression models that were reported in this study.

### 2.6 Model Specification

Two main predictive models were defined to answer the study objectives. The former model approximated the impact of teaching clarity, teaching helpfulness, and timeliness of feedback on participation in classes. This model was written as:

$$\text{Class Participation} = \beta_0 + \beta_1(\text{Teaching Clarity}) + \beta_2(\text{Teaching Helpfulness}) + \beta_3(\text{Feedback Timeliness}) + \epsilon$$

In this equation,  $\beta_0$  represents the intercept,  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  represent the regression coefficients associated with the three predictor variables, and  $\epsilon$  denotes the random error term.

The second model explored predictive effect of the same instructional variables on student performance. The model was simplified as:

$$\text{Student Performance} = \beta_0 + \beta_1(\text{Teaching Clarity}) + \beta_2(\text{Teaching Helpfulness}) + \beta_3(\text{Feedback Timeliness}) + \epsilon$$

Since the student performance was measured as an ordinal variable, the second model was estimated with ordinal logistic regression and not with ordinary least squares regression. The introduction of control variables was done following the order of the three main predictors so that the conceptual precedence of the teaching-related variables could be maintained and the model could be better explained.

### 2.7 Assumption Testing

The statistical models employed in this research were chosen depending on the level of measurement of dependent variables. The method of class participation was multiple linear regression since the class participation was a continuous variable whereas student performance was ordinal logistic regression since the student performance was an ordered categorical variable. The results are taken with a lot of caution considering the assumptions of such methods.

### 2.8 Ethical Considerations

The research was done purely on secondary data and no direct interaction with the participants was made in the course of the research. Personally identifying information was not present in the dataset except coded student identifiers, which assisted in maintaining the anonymity and confidentiality of the participants. The information was utilized in the academic and research purposes only.

## 3. Results

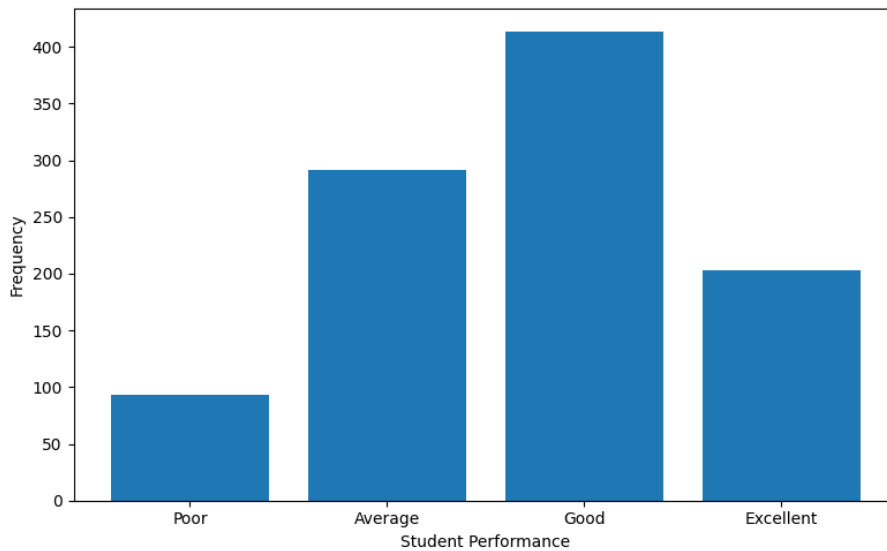
### 3.1 Descriptive Results

The research was founded on 1,000 observations of students. The demographic composition was quite equal in terms of gender, as female students comprised 45.4% of the sample, male students 44.8, and students of other gender 9.8. The age distribution was also spread evenly among the four age groups with 23.8 to 25.9 per cent, which implies that the data was not clustered in a particular age group. In terms of academic performance, the highest percentage of students was in the Good category (41.3%), then in the Average category (29.1%), then in the Excellent category (20.3), and finally in the Poor category (9.3). In Table 1. these distributions imply that the sample has a wide distribution of the levels of performance of students, and most of these are concentrated in the middle-to-upper levels.

**Table 1. Demographic Profile and Student Performance Distribution**

Category	Frequency	Variable	Percent
Female	454	Gender	45.4
Male	448	Gender	44.8
Other	98	Gender	9.8
18-19	250	Age Group	25.0
20-21	259	Age Group	25.9
22-23	238	Age Group	23.8
24-25	253	Age Group	25.3
Poor	93	Student Performance	9.3
Average	291	Student Performance	29.1
Good	413	Student Performance	41.3
Excellent	203	Student Performance	20.3

As shown in Figure 1, the distribution of student performance categories indicates that the largest proportion of students fell within the **Good** category, followed by **Average**, **Excellent**, and **Poor**.



**Figure 1. Distribution of Student Performance Categories**

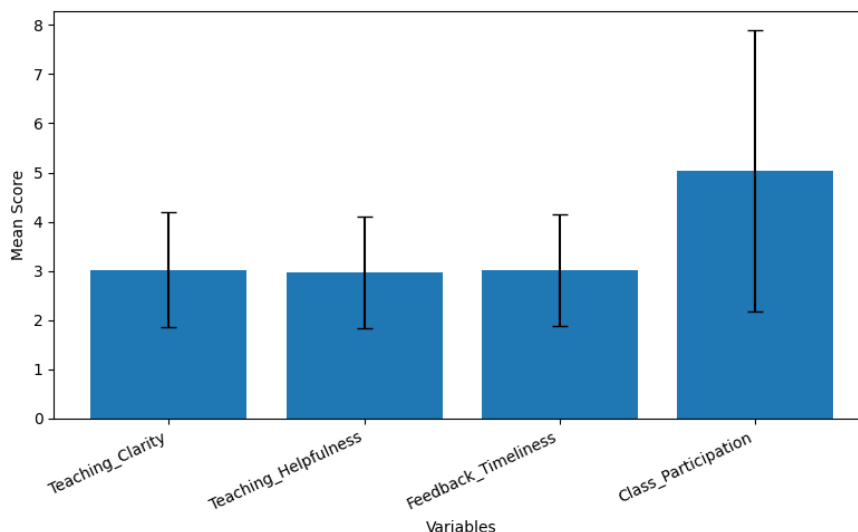
The descriptive statistics of the main continuous variables revealed medium average scores of the three teaching-related predictors. Teaching clarity had a mean of 3.025 (SD = 1.169), teaching helpfulness had a mean of 2.970 (SD = 1.142), and feedback timeliness had a mean of 3.021 (SD = 1.139). The mean of class participation was 5.026 (SD = 2.859), which is a moderate level of overall classroom engagement. The minimum and maximum values observed also indicate that the dataset has had a significant variation in all four variables. Such descriptive results offer a suitable premise to proceed with inferential analyses. Table 1 provides the demographic picture of respondents and the frequency of the categories of student performance, and Table 2 shows the descriptive statistics of the key variables of the study.

**Table 2. Descriptive Statistics of Main Study Variables**

Variable	Mean	SD	Min	Max
Teaching_Clarity	3.025	1.169	1.01	5.00
Teaching_Helpfulness	2.970	1.142	1.01	5.00
Feedback_Timeliness	3.021	1.139	1.00	5.00
Class_Participation	5.026	2.859	0.01	9.98

**3.2 Correlation Analysis**

Bivariate relationships between the three teaching-related predictors and class participation, and the interrelationships among the predictors themselves were measured with Pearson correlation analysis. The findings revealed that clarity in teaching had a positive correlation with class participation ( $r=.070, p=.0266$ ) that was weak yet statistically significant. This means that the greater the perceived teaching clarity, the greater the levels of participation in the classes, but the strength of the correlation was very low. As Figure 2 illustrates, teaching clarity, teaching helpfulness, and teaching feedback timeliness had similar mean values but class participation had more dispersion.



**Figure 2. Means and Standard Deviations of Main Study Variables**

In comparison, helpfulness of teaching did not have significant correlations with class participation ( $r = -.024, p = .4579$ ), feedback timeliness also had no significant correlation with class participation ( $r = -.033, p = .2937$ ). These results indicate that, on the bivariate level, neither helpfulness nor feedback timeliness showed any significant correlation with the participation behavior of the students in this dataset.

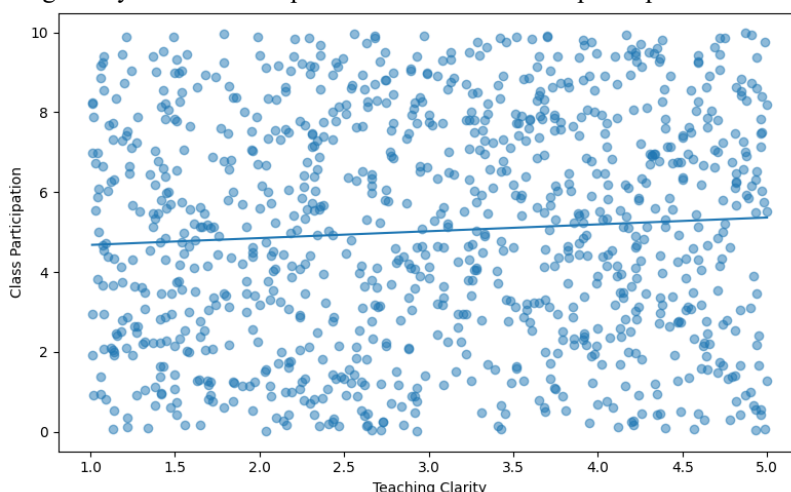
There was also weak intercorrelations between the predictor variables. Clarity was not substantially correlated with teaching helpfulness ( $r = .013, p = .6872$ ), or feedback timeliness ( $r = -.023, p = .4771$ ). The helpfulness and feedback timeliness teaching had a small positive correlation ( $r = .081, p = .0103$ ), but the degree of correlation was low. In general, the correlation table demonstrates that the variables of focal teaching were mostly independent of each other and only the teaching clarity had a statistically significant, but small, correlation with the participation in classes. **Table 3** presents the correlation matrix and associated probability values.

**Table 3. Correlation Matrix of Study Variables**

Variable	Teaching_Clarity	Teaching_Helpfulness	Feedback_Timeliness	Class_Participation
Teaching Clarity	1.000	0.013	-0.023	0.070
Teaching Helpfulness	0.013	1.000	0.081	-0.024
Feedback Timeliness	-0.023	0.081	1.000	-0.033
Class Participation	0.070	-0.024	-0.033	1.000

**3.3 Regression Analysis for Class Participation**

The multiple linear regression analysis was done to establish whether the teaching clarity, teaching helpfulness, and feedback timeliness had a significant effect on predicting class participation. The general model was not significant,  $R = .080, R^2 = .006, \text{adjusted } R^2 = .003, F = 2.138, p = .094$ . This means that the three teaching-related predictors together explained the variance in the participation in the classes at 0.6 percent which is a very weak model. As shown in Figure 3, the more teaching clarity the relationship with a small rise in class participation.



**Figure 3. Relationship Between Teaching Clarity and Class Participation**

On the individual predictors level, teaching clarity was the only significant predictor of class participation ( $B = 0.1705, SE = 0.0772, \beta = .0697, t = 2.2069, p = .0275$ ) shown in Table 4. The positive coefficient means that the greater the teaching clarity, the greater the class participation, but the standardized effect size was low. Predicting participation in classes was not significantly important with teaching helpfulness ( $B = -0.0550, SE = 0.0793, \beta = -.0220, t = -0.6931, p = .4884$ ). Similarly, feedback timeliness was not a significant predictor ( $B = -0.0750, SE = 0.0796, \beta = -.0299, t = -0.9429, p = .3459$ ).

These findings, when combined, suggest that despite the small positive effect of teaching clarity on participation in class, the explanatory power of the three instructional predictors was low. In this way, the predictive impacts on class attendance were weak in general.

**Table 4. Multiple Regression Results for Predictors of Class Participation**

Predictor	B	SE	Beta	t	p
Teaching Clarity	0.1705	0.0772	0.0697	2.2069	0.0275
Teaching Helpfulness	-0.0550	0.0793	-0.0220	-0.6931	0.4884
Feedback Timeliness	-0.0750	0.0796	-0.0299	-0.9429	0.3459

Model summary:  $R = .080, R^2 = .006, \text{Adjusted } R^2 = .003, F = 2.138, p = .094$ .

**3.4 Regression Analysis for Student Performance**

Since the student performance was assessed as an ordinal variable, ordinal logistic regression was applied to determine whether teaching clarity, teaching helpfulness, and feedback timeliness were significant predictors of movement among the ordered categories of academic performance. The model yielded a log-likelihood of -1265.145, an AIC of 2542.290, and a BIC of 2571.736. The probability-ratio chi-square was 7.754 with a probability value of  $p=.051$ , which means that the model did not reach, but was close to the traditional levels of overall statistical significance. McFadden’s pseudo- $R^2$  was .003, again suggesting that the explanatory contribution of the predictors was minimal.

At the individual coefficient level, feedback timeliness was the only statistically significant predictor of student performance ( $B = 0.1033, SE = 0.0511, z = 2.0226, p = .0431, OR = 1.1088$ ). This odds ratio indicates that a one-unit increase in feedback timeliness was associated with approximately a 10.9% increase in the odds of being in a higher student performance category. Teaching clarity did not significantly predict student performance ( $B = -0.0514, SE = 0.0499, z = -1.0311, p = .3025, OR = 0.9499$ ). Likewise, teaching helpfulness was not a significant predictor ( $B = 0.0726, SE = 0.0507, z = 1.4325, p = .1520, OR = 1.0753$ ).

These findings indicate that the timeliness of feedback positively but insignificantly influenced student performance shown in Table 5, but there were no significant independent effects of teaching clarity and teaching helpfulness. These results should be viewed with caution though in the light of the poor overall model fit.

**Table 5. Ordinal Logistic Regression Results for Predictors of Student Performance**

Predictor	Coef	SE	z	p	Odds Ratio
Teaching_Clarity	-0.0514	0.0499	-1.0311	0.3025	0.9499
Teaching_Helpfulness	0.0726	0.0507	1.4325	0.1520	1.0753
Feedback_Timeliness	0.1033	0.0511	2.0226	0.0431	1.1088

*Model summary:* Log-Likelihood = -1265.145, AIC = 2542.290, BIC = 2571.736, LR Chi-square = 7.754,  $p = .051$ , McFadden pseudo- $R^2 = .003$ .

### 3.5 Summary of Findings

The findings suggest that predictive validity of teaching clarity, helpfulness, and timeliness of feedback was generally low in this sample. The three teaching-related variables were clustered at the moderate mean values at the descriptive level, and student performance was clustered in the good and average categories. Only teaching clarity showed a statistically significant relationship with class participation in the correlation analysis and the magnitude of this relationship was weak.

The only significant predictor in the regression analysis of class participation was the teaching clarity but the overall model was not significant and had a low variance explained. The only predictor that had significant values in the ordinal logistic regression analysis of student performance was feedback timeliness, which had a low positive association with higher performance categories. But the overall model fit was still poor and explained only a small percentage of variation in results.

Combined, the results offer weak empirical evidence of the three instructional factors in predictive capacity. To be more specific, the hypothesis about the teaching clarity as a predictor of class participation was supported, whereas the hypotheses about the teaching helpfulness and feedback timeliness as predictors of class participation were not. The hypothesis on the timeliness of feedback was the only one that was supported in the case of student performance. In general, the observed effects in both dependent variables were minor and it is likely that other academic, behavioral or contextual variables, which were not measured in the current model, are going to contribute to a greater degree in the determination of class attendance and student achievement.

### 4. Discussion

The current research investigated the extent to which teaching clarity, teaching helpfulness, and feedback timeliness forecasted participation in a class and student performance. The results show that the impacts of these instructional variables were weak in general, but there are two interesting patterns. To begin with, teaching clarity had a positive impact on the participation in classes but this was minor and significant. This implies that the easier and more organized the instruction, the more students can feel capable of following the classroom activities and participating in discussion. This finding provides some evidence on the argument that certain aspects of teaching effectiveness can influence student behavior involvement, in relation to the study objectives. This interpretation is consistent with the wider engagement scholarship that indicates that students tend to engage more when classroom expectations and learning processes are conveyed in a clear and meaningful way (Tani et al., 2021).

In comparison, helpfulness was not predictive of either class attendance or student achievement in the current models. This does not necessarily mean that helpfulness is insignificant in education, it might simply mean that its effects are less direct, more context-specific or mediated by other variables that are not represented in the data. Supportive teaching can also have effects on confidence, sense of belonging, or readiness to seek help, which may not necessarily translate into a quantifiable effect on participation or performance in a simple predictive model. Students voice and engagement research has highlighted that the effects of instructional support frequently hinge on the interpretation and utilization of the opportunities that are offered to students (Sun et al., 2023). The non-significant finding on helpfulness, in that regard, might be due to the complexity of support as a pedagogical concept instead of the lack of value in it.

The only predictor that was found to be significant was feedback timeliness, though with a small effect and the overall model fit was poor. This finding however has significant interpretative consequences. Quick feedback can be used to assist students to detect mistakes, revise tactics and react to the academic demands before misconceptions can become embedded. The result is generally in line with literature that suggests that the efficacy of feedback does not solely rely on the quality of the content but also whether the feedback is delivered in time to influence further learning behavior (Haughney et al., 2020; Williams, 2024). Equally, as the literature reviews have discovered, teacher feedback can play a positive role in achievement as long as it is actionable and tied to academic improvement (Charalampous & Darra, 2025). In this way, this effect was small, but it confirms the claim that the timing of feedback can be of academic importance.

The results are consistent with and in contrast to the previous literature. The beneficial effect of teaching clarity as a predictor of participation is widely applicable to models that situate engagement as a response to classroom interactions and instructional directions (Tani et al., 2021). Similarly, the importance of feedback timeliness is also related to the current literature on feedback literacy that states that students gain an advantage when feedback processes are designed in a manner that makes them interpretable and usable (Boud & Dawson, 2023; De Kleijn, 2023). Meanwhile, the non-strong overall effects vary slightly with more potent assertions in the literature on teacher support, feedback, and student achievement. One of them is that most of the previous studies consider more enriching pedagogical processes, such as assessment literacy, dialogic feedback, and curriculum-based feedback practices, but the current dataset only represents a smaller range of indicators of instruction (Deneen & Hoo, 2023; Malecka et al., 2022). Besides, feedback is starting to be perceived as a sociomaterial and relational practice instead of a mere teacher input, which might be the reason why the limited numeric indicators can explain only a low percentage of student variability (Gravett, 2022).

Practically, the results imply that educators must lay emphasis on the clarity of presenting concepts and expectations because this can stimulate engagement despite a minor impact. The instructors are also expected to be friendly and encouraging although the coefficient of helpfulness is not significant, since even though support might not be directly significant, it might be indirectly significant through the other learning processes. Above all, timely feedback seems to be practically valuable to academic performance, which is why feedback that is timely enough to steer learning adjustment is necessary. This implication aligns with the evidence of students appreciating feedback that is practical, responsive, and linked to improvement to come (Paterson et al., 2020; Winstone, 2019).

The theoretical value of the study is also that it confirms the hypothesis that certain teaching practices may be related to student behavioral and academic outcomes, although the relationships may be weak. Longitudinal designs, broader contextual and motivational variables, and investigation of the role of engagement or feedback literacy as mediators between instructional practices and student outcomes should then be used in future research.

## 5. Conclusion

This study examined whether teaching clarity, teaching helpfulness, and feedback timeliness predict class participation and student performance using a dataset of 1,000 student records. The results suggest that the predictive power of these instructional variables was not very strong, but two significant trends could be identified. Teaching clarity demonstrated a positive statistically significant effect on class participation, which is relatively small but indicates that students could be more disposed to participate in classroom activities when instruction is clear and understandable. Timeliness of feedback, in turn, showed the small yet significant positive impact on student performance, suggesting that timely feedback can contribute to academic performance by helping them to adjust their learning strategies promptly. In comparison, helpfulness did not significantly relate to either class participation or student performance in the current analysis. This implies that supportive teaching may continue to play an educationally important role but indirectly through other factors that are not reflected in the data. Altogether, the findings present some limited yet significant evidence that there are certain dimensions of teaching performance that are linked to the behavioral and academic performance of students. The research adds to the literature by isolating three different teaching-related predictors instead of considering teaching effectiveness as a composite measure. In practice, the results indicate that effective classroom practice should include clear instruction and timely feedback on the part of the educators. Further studies ought to be based on these findings by employing longitudinal data, including other psychosocial and contextual factors, and examining more intricate mechanisms by which instructional practices can affect student engagement and achievement.

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