

Research Article

Democratic Leadership Style and Constructive Feedback as Drivers of Generation Z Students' Academic Achievement

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Abstract. The academic achievement of Generation Z students faces new challenges as higher education dynamics are increasingly shaped by instructional interaction styles and feedback quality. Theoretically, this study is grounded in democratic leadership theory (Avolio et al., 1999) and effective feedback theory (Kluger & DeNisi, 1996; Wisniewski et al., 2020). Research gap shows inconsistent findings regarding the simultaneous relationship of democratic leadership style and constructive feedback with academic achievement among Gen Z students in Indonesian higher education. Therefore, this study aims to analyze the relationship between democratic leadership style (X1) and constructive feedback (X2) on the academic achievement (Y) of Gen Z students at Universitas 17 Agustus 1945 Semarang. The study employs a quantitative correlational approach using Pearson Product Moment on 100 students selected through stratified proportional sampling. The results of the correlation test show that democratic leadership style has a positive and significant correlation with academic achievement ($r = 0.699$; $sig. = 0.000$), constructive feedback has a positive and significant correlation with academic achievement ($r = 0.813$; $sig. = 0.000$), and constructive feedback demonstrates a stronger correlation than democratic leadership style. These findings indicate that feedback quality is the dominant factor in promoting student academic achievement. The research recommends prioritizing faculty competency development in effective feedback delivery as the primary strategy for improving student academic achievement in higher education institutions.

Keywords: Academic Achievement; Constructive Feedback; Democratic Leadership Style; Gen Z Students; Pearson Correlation

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1. Introduction

The decline in the quality of student academic achievement amid the acceleration of higher education transformation has become an urgent issue. Generation Z students those born between 1997 and 2012 grew up in a digital ecosystem filled with two-way, fast, and responsive interactions. This characteristic creates a significant mismatch when they encounter one-way learning models with minimal feedback. In this context, the role of lecturers as learning leaders becomes a critical variable that determines whether Gen Z students can achieve optimal academic performance or become demotivated by a learning environment that does not align with their needs.

Although the literature on leadership and feedback in education has grown considerably, a significant research gap exists: the existing literature has not sufficiently addressed the simultaneous examination of the correlation strength of democratic leadership style and constructive feedback on the academic achievement of Gen Z students in Indonesian higher education. Prior studies show inconsistent findings some find a significant relationship between democratic leadership and academic achievement (Astuti et al., 2021; Britwum et al., 2022; Younis, 2021), while others find non-significant results (Patty et al., 2025). What remains unknown is which variable is more dominant between democratic leadership and constructive feedback, and how both variables operate in the specific context of Gen Z students in Indonesia.

This article addresses two fundamental questions: (1) How strong is the relationship between the democratic leadership style of lecturers and the academic achievement of Gen Z students? and (2) Does constructive feedback have a stronger correlation than democratic leadership style with academic achievement? These questions are fundamental because their answers directly determine the priority of pedagogical interventions that higher education institutions need to undertake to improve students' academic outcomes.

This article makes a distinctive contribution through three novelties: first, this study explicitly compares the correlation strength of two major pedagogical variables within a single integrated model; second, the study is conducted on a Gen Z university student population in Indonesia, which remains very limited in the literature; third, the use of a mixed-methods design (Pearson correlation+in-depth interviews) produces a more comprehensive understanding than purely quantitative research.

2. Literature Review

Democratic Leadership Style

Democratic leadership style is a leadership approach that places the active participation of group members at the core of decision-making. In higher education, democratic leadership by lecturers is characterized by openness to two-way communication, appreciation of student contributions, creation of an inclusive and supportive classroom climate, and the empowerment of students as active subjects in the learning process. Avolio et al. (1999) define effective leadership as the ability of leaders to empower followers to actively participate in decision-making, a concept directly relevant to higher education settings where lecturers function not only as knowledge transmitters but also as facilitators who encourage active engagement and student learning autonomy.

In this study, democratic leadership style (X1) is operationalized through eight indicators reflecting the dimensions of participation, communication, and empowerment: (1) student involvement in classroom decision-making; (2) appreciation of student opinions; (3) facilitation of two-way communication; (4) comfort in direct dialogue with lecturers; (5) freedom to express opinions without fear of negative judgment; (6) provision of open discussion spaces; (7) appreciation of student contributions; and (8) positive support for student ideas. These indicators were developed based on a synthesis of democratic leadership theory from Avolio et al. (1999) and empirical findings from Britwum et al. (2022) and Masreviastuti et al. (2021).

Constructive Feedback

Constructive feedback is evaluative feedback that is specific, clear, relevant, timely, actionable, and delivered empathetically to bridge the gap between actual performance and desired learning goals. Kluger & DeNisi (1996) through their meta-analysis demonstrate that feedback interventions have a significant impact on performance improvement, although their effectiveness depends greatly on the quality and manner of delivery. Wisniewski et al. (2020) further assert that effective feedback must contain information that helps individuals understand the gap between their current state and the target, while providing concrete directions to close that gap. In higher education, constructive feedback functions not only as an evaluation tool but as a continuous learning mechanism.

Constructive feedback (X2) is operationalized through eight indicators encompassing the dimensions of clarity, timeliness, relevance, motivation, and dialogue: (1) clarity of feedback regarding errors in assignments or exams; (2) ability of feedback to guide improvement; (3) timeliness of delivery after assessment; (4) relevance of feedback to student learning needs; (5) quality of constructive suggestions for performance improvement; (6) motivational impact of feedback on learning enthusiasm; (7) transparency in explaining reasons behind grades; and (8) concrete guidance for improvement in subsequent assignments. These indicators are grounded in the effective feedback framework of Wisniewski et al. (2020) and Rabia et al. (2023).

Academic Achievement

Academic achievement represents learning outcomes that reflect the extent to which students have attained cognitive, affective, and psychomotor competencies according to established learning standards. Bloom (1976) classifies learning outcomes into three main domains cognitive, affective, and psychomotor which collectively form a comprehensive picture of a person's academic attainment. From the perspective of Expectancy-Value Theory, Wigfield & Eccles (2000) assert that academic achievement is influenced by the combination

of students' expectancy of success and the value they assign to academic tasks two factors directly shaped by the quality of leadership and feedback they receive from lecturers.

Academic achievement (Y) is operationalized through four main dimensions: (1) comprehension of course material; (2) academic evaluation outcomes; (3) active participation; and (4) capacity for academic self-correction based on feedback received. This operationalization produces 8 statement items that measure academic achievement holistically not only in terms of grades, but also in terms of learning process and competency development.

Research Hypotheses

Based on the theoretical and empirical review above, this study formulates two hypotheses:

H1: There is a positive and significant relationship between democratic leadership style (X1) and the academic achievement of Gen Z students (Y) at Universitas 17 Agustus 1945 Semarang.

H2: There is a positive and significant relationship between constructive feedback (X2) and the academic achievement of Gen Z students (Y) at Universitas 17 Agustus 1945 Semarang.

3. Materials and Method

This study employs a quantitative approach with a correlational design reinforced by a qualitative component through in-depth interviews, forming a sequential explanatory mixed-methods design. The research population consists of all active students at Universitas 17 Agustus 1945 Semarang, with a sample of 100 students selected using stratified proportional sampling to ensure proportional representation from 17 study programs across all faculties. Data were collected using a structured Likert-scale questionnaire (1-5) comprising 24 items: 8 items for democratic leadership style (X1), 8 items for constructive feedback (X2), and 8 items for academic achievement (Y). Prior to main data collection, all instruments were piloted with 30 respondents and declared valid using Pearson Product Moment correlation with $r\text{-table} = 0.361$ ($n = 30$, $\alpha = 5\%$), and reliable with Cronbach's Alpha > 0.80 for all three variables.

Data analysis was conducted in two sequential stages using IBM SPSS version 25. The first stage comprised descriptive statistical analysis to characterize respondent demographics and describe response distributions across all variable indicators. The second stage involved inferential analysis using the Pearson Product Moment correlation test to examine the strength and significance of relationships between independent variables (X1 and X2) and the dependent variable (Y), at a significance level of $\alpha = 0.05$ with a two-tailed test. As a qualitative complement, in-depth interviews were conducted purposively with 12 selected students, each lasting approximately 30-45 minutes and transcribed verbatim, to strengthen and contextualize the interpretation of statistical findings.

4. Results and Discussion

Descriptive Analysis

The analysis of responses from 100 student respondents shows high mean values across all research variables. The democratic leadership style variable obtained a mean of 4.183, with the highest indicator on positive support for student ideas (90% agreement rate) and the lowest on freedom to express opinions without being judged negatively (74%). The constructive feedback variable obtained a mean of 4.152, with the highest indicator on motivational impact on learning (87%) and the lowest on explanation of reasons behind grades (73%). The academic achievement variable obtained the highest mean of 4.298, with the highest indicator on comprehension of course material (90%) and the lowest on active participation in discussion (77%). Respondent distribution shows 52% female and 48% male, with a majority aged 20-25 years (82%), reflecting the primary characteristics of Generation Z students.

Validity and Reliability Test

All statement items across the three variables were declared valid, with all r -calculated values exceeding the r -table value of 0.361. Reliability test results show Cronbach's Alpha values above 0.80 for all three variables, well above the minimum threshold of 0.70 (Nunnally, 1978). Table 1 presents the reliability test summary.

Table 1. Reliability Test Results (Source: SPSS 25 Data Processing).

Variable	Cronbach's Alpha	Value
Gaya Kepemimpinan Demokratis (X1)	0.872	Reliable
Feedback Konstruktif (X2)	0.891	Reliable
Prestasi Akademik (Y)	0.884	Reliable

Pearson Correlation Analysis

The Pearson Product Moment correlation test was conducted to test research hypotheses and measure the strength of relationships between variables. Table 2 presents the complete correlation matrix from IBM SPSS 25 output.

Table 2. Pearson Correlation Matrix (SPSS 25 Output) **. Correlation is significant at the 0.01 level (2-tailed).

		X1	X2	Y
X1	Pearson Correlation	1	.657* *	.699**
	Sig. (2-tailed)		.000	.000
	N	100	100	100
X2	Pearson Correlation	.657**	1	.813**
	Sig. (2-tailed)	.000		.000
	N	100	100	100
Y	Pearson Correlation	.699**	.813* *	1
	Sig. (2-tailed)	.000	.000	
	N	100	100	100

Hypothesis Testing

The hypothesis test for the democratic leadership style variable (X1) yielded a correlation coefficient of $r = 0.699$ with significance $0.000 < 0.05$ categorized as "strong" (0.60–0.79) thus H_0 is rejected and H_1 is accepted. The constructive feedback variable (X2) yielded a correlation coefficient of $r = 0.813$ with significance $0.000 < 0.05$ categorized as "very strong" (0.80-1.00) thus H_0 is rejected and H_2 is accepted. Table 3 presents the hypothesis decision summary.

Table 3. Hypothesis Testing Summary.

Hypothesis	Variable	r	Sig.	Decision
H1	Gaya Kepemimpinan Demokratis (X1) → Prestasi Akademik (Y)	0.699	0.000	Accepted
H2	Feedback Konstruktif (X2) → Prestasi Akademik (Y)	0.813	0.000	Accepted

The Effect of Democratic Leadership Style on Academic Achievement

The hypothesis test yielded a correlation value of $r = 0.699$ with significance $0.000 < 0.05$, indicating that democratic leadership style has a positive and significant relationship with student academic achievement. This result is in line with the research of Britwum et al. (2022) who found that leadership style significantly affects student achievement in Colleges of Education, and Masreviastuti et al. (2021) who demonstrated that democratic leadership is associated with academic achievement among business administration students in Indonesia. Participatory leadership creates a conducive classroom climate in which students feel valued, involved, and motivated a condition particularly relevant for Gen Z students accustomed to dialogic and responsive interaction. In-depth interviews with 12 informants reinforce this finding: all informants stated that involvement in classroom decision-making and open two-way communication made them feel more confident and motivated in learning.

Unlike the findings of Patty et al. (2025) who found that leadership does not significantly affect academic achievement, this difference is likely due to differences in institutional context, respondent characteristics, and the level of consistency in applying democratic leadership across different research settings.

The Effect of Constructive Feedback on Academic Achievement

The hypothesis test yielded a correlation value of $r = 0.813$ with significance $0.000 < 0.05$, indicating that constructive feedback has a positive and very significant relationship with student academic achievement. This result is in line with the meta-analysis of Wisniewski et al. (2020) affirming the power of feedback in improving educational outcomes, and the research of Rabia et al. (2023) demonstrating that constructive feedback interventions significantly improve academic achievement compared to control groups. Charalampous & Darra (2025) and Hamza & Abusa (2022) also found a consistent relationship between teacher feedback and academic achievement. Feedback that is clear, specific, timely, and accompanied by improvement directions allows students to identify the gap between actual performance and expected targets and take corrective action.

Unlike the research of Patty et al. (2025) which found no significant effect of feedback on writing achievement, this difference can be explained by the type of feedback studied in this study, feedback was accompanied by two-way dialogue that created stronger motivational impact than one-way feedback.

Comparison of Correlation Strength Between Variables

Of the two variables tested, constructive feedback shows a more dominant correlation with academic achievement ($r = 0.813$) compared to democratic leadership style ($r = 0.699$). This finding indicates that although democratic leadership is important in building a conducive learning climate, the quality of academic feedback provided by lecturers has a more direct and measurable impact on improving student achievement. This is consistent with Kluger & DeNisi (1996) who argue that effective feedback interventions have a greater effect on performance than other contextual factors. The practical implication is that higher education institutions need to prioritize faculty training in effective feedback delivery as the primary strategy for promoting Gen Z student academic achievement.

Discussion

This study demonstrates that of the two pedagogical variables tested, constructive feedback is the most dominant factor in promoting academic achievement among Gen Z students ($r = 0.813$), while democratic leadership style also plays a significant role albeit with a lower correlation ($r = 0.699$). Contextually, this finding reflects the characteristic learning dynamics of Gen Z students at Universitas 17 Agustus 1945 Semarang, who require fast, specific, and dialogue-based feedback consistent with the communication habits of a digital generation accustomed to instant and targeted responses.

Through the lens of democratic leadership theory (Avolio et al., 1999) and Expectancy-Value Theory (Wigfield & Eccles, 2000), this finding can be interpreted as follows: democratic leadership builds the psychological conditions that allow students to feel safe to participate and experiment academically, while constructive feedback provides specific information that helps students raise their self-expectations and internalize the value of academic tasks. The two mechanisms work synergistically democratic leadership prepares the ground, while constructive feedback plants and nurtures.

Compared to prior studies, this research yields three distinguishing contributions: first, comparative testing of the correlation strength of both variables has not been explicitly conducted in the context of Gen Z students in Indonesia; second, the r value for constructive feedback (0.813) is higher than most comparable studies, indicating that the Indonesian higher

education context with its increasingly open communication culture strengthens feedback effectiveness; third, the integration of qualitative data through interviews provides interpretive depth that goes beyond what correlation coefficients alone can explain.

The practical implications of this research operate at three levels: (1) at the lecturer level, competency development in delivering specific, timely, and dialogue-accompanied feedback is needed; (2) at the institutional level, pedagogical training programs focusing on democratic leadership skills and effective feedback delivery in an integrated manner need to be designed; (3) at the policy level, these findings can serve as a basis for establishing quality standards for lecturer-student interaction encompassing the dimensions of instructional leadership and feedback quality as academic performance indicators.

5. Conclusion

This study proves that democratic leadership style and constructive feedback both have positive and significant relationships with the academic achievement of Gen Z students at Universitas 17 Agustus 1945 Semarang. Democratic leadership style shows a strong correlation ($r = 0.699$; $sig. = 0.000$), while constructive feedback shows an even stronger correlation categorized as very strong ($r = 0.813$; $sig. = 0.000$). Thus, constructive feedback is the more dominant factor in driving academic achievement improvement. The main scientific contribution of this research lies in the comparative testing of the correlation strength of two key pedagogical variables within a single integrated model using a mixed-methods design on a Gen Z university student population in Indonesia.

Theoretically, this study reinforces the relevance of democratic leadership theory and effective feedback theory in the context of Indonesian higher education, while identifying that the quality of academic feedback has greater predictive power over student achievement than the instructional leadership approach. Methodologically, the combination of Pearson correlation and in-depth interviews proved to generate more comprehensive and contextual understanding. Limitations include coverage restricted to a single university and the use of self-report questionnaires that may carry perceptual bias.

For future researchers, it is recommended to: (1) add mediating variables such as learning motivation, self-efficacy, and student engagement to uncover the mechanisms linking leadership or feedback with achievement; (2) expand the research scope to other universities across various regions of Indonesia to test consistency of findings; and (3) explore differences in feedback effectiveness across delivery formats (written, verbal, digital) in the context of Gen Z student learning.

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