

Generational Differences in Learning-Oriented Work Commitment: The Mediating Role of Educational Context in Vocational and Professional Education in Bandung, Indonesia

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ABSTRACT

Objective: In the context of rapid transformation in vocational and professional education, this study aims to examine the influence of Generational Cohort on Learning-Oriented Work Commitment, with Educational Context serving as a mediating variable. Although generational differences are often assumed to shape learning behavior, empirical evidence explaining the mechanism through which these differences affect learning commitment remains limited. **Method:** This study employed a quantitative research design using a survey method. The sample consisted of learners enrolled in vocational and professional education programs in Bandung, Indonesia. Data were collected through structured questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS software. **Results:** The findings indicate that Generational Cohort has a significant effect on Educational Context, while Educational Context significantly influences affective, continuance, and normative learning commitment. Moreover, Educational Context fully mediates the relationship between Generational Cohort and all dimensions of learning-oriented work commitment, indicating that generational differences do not directly determine learning commitment but operate through contextual learning conditions. **Novelty:** This study offers a critical theoretical contribution by challenging the dominant assumption that generational differences directly determine learning commitment. By empirically demonstrating the full mediating role of Educational Context, this research reframes generational differences as contextual rather than deterministic factors. The findings advance educational theory by positioning Educational Context as the central mechanism through which generational characteristics are translated into learning-oriented work commitment in vocational and professional education.

INTRODUCTION

In the era of rapid technological change and global workforce competition, vocational and professional education plays a strategic role in preparing individuals to remain adaptive, competitive, and relevant in the labor market. Educational institutions are increasingly required to not only provide technical skills but also foster strong learning-oriented work commitment among adult learners. Learning-oriented work commitment is essential for ensuring sustained engagement, persistence, and meaningful participation in learning processes that directly support professional development and employability. However, educational institutions continue to face challenges in maintaining learner commitment amid changing learning preferences, digital disruption, and generational diversity (Kinger & Kumar, 2023; Lagmay & Florendo, 2025).

One of the major challenges in contemporary vocational and professional education is the growing presence of multiple generational cohorts within the same learning environment. Generation X, Generation Y (Millennials), and Generation Z participate simultaneously in vocational training, professional certification programs, and lifelong

learning initiatives (Prasath & Palraj, 2025; Verheyden, 2025). Each generation is shaped by different socio-historical contexts, technological exposure, and educational experiences, which may influence their attitudes toward learning, persistence, and responsibility in educational settings (Parry & Urwin, 2011; Smola & Sutton, 2002). As a result, understanding generational differences in learning-oriented work commitment has become an important issue in recent educational research (Cennamo & Gardner, 2008; Pawlak et al., 2025; Thanawat et al., 2025).

Previous studies on generational differences have predominantly focused on organizational and workplace contexts, emphasizing organizational commitment, job satisfaction, and employee retention (Costanza et al., 2012; Meyer & Allen, 1997). While these studies offer valuable insights, they tend to conceptualize commitment primarily as an employment-related construct, thereby overlooking its relevance within educational and training environments. In contrast, recent educational research suggests that commitment in learning contexts particularly among adult learners is shaped not only by generational identity but also by the relevance of learning content, instructional strategies, and alignment with professional goals (Cennamo & Gardner, 2008; Jenei et al., 2025; Zabel et al., 2017). Despite this growing recognition, empirical research that explicitly examines learning-oriented work commitment across generations in vocational and professional education remains limited, especially within rapidly urbanizing regions of developing countries (Moon et al., 2024). Bandung represents a strategically relevant urban context for addressing this gap. As one of Indonesia's major education, innovation, and creative industry hubs, Bandung attracts a diverse population of adult learners engaged in vocational training, professional certification, and lifelong learning programs. Regional education and workforce development reports consistently identify Bandung as a center for skills development, reskilling, and industry-linked education, reflecting broader national trends toward practice-oriented and professionally aligned learning pathways. Consequently, Bandung functions as a representative urban proxy for examining how generational characteristics interact with educational contexts in Indonesia's evolving vocational and professional education landscape, offering insights that are potentially transferable to similar urban regions across Southeast Asia.

The concept of learning-oriented work commitment in this study is adapted from the multidimensional commitment framework proposed by Turner et al, (2021) and further developed by Meyer and Allen, (1996). In educational contexts, this construct can be understood through three dimensions: affective learning commitment, which reflects learners' emotional attachment and enthusiasm toward learning activities; continuance learning commitment, which represents learners' intention to persist in educational programs due to perceived benefits and career relevance; and normative learning commitment, which refers to learners' sense of responsibility and obligation to actively engage in learning processes (Wolfson & Mathieu, 2021). These dimensions are particularly relevant for adult learners who must balance learning with work and personal responsibilities.

Bandung, the capital city of West Java, represents a highly relevant context for examining generational differences in learning-oriented work commitment. As one of Indonesia's major education and creative industry hubs, Bandung hosts a wide range of vocational institutions, professional training centers, and industry-linked education programs. The city attracts adult learners from diverse generational backgrounds who engage in continuous upskilling and reskilling to remain competitive in manufacturing,

service, and creative sectors (Harisandi et al., 2025). According to regional education and workforce development reports, Bandung has experienced rapid growth in vocational and professional education participation, reflecting the increasing demand for practice-oriented and industry-relevant learning pathways. However, despite this dynamic educational ecosystem, empirical studies investigating generational learning commitment within Bandung's vocational and professional education context are still scarce (Harisandi et al., 2024).

Furthermore, findings from previous studies regarding generational differences in commitment remain inconclusive. Some studies suggest that younger generations tend to demonstrate lower levels of commitment compared to older cohorts (Ferlinghetti's "underwear et al., 2025; Tosun, 2025), while other scholars argue that generational differences are often overstated and that contextual factors such as learning environment and program design play a more significant role than generational identity itself (Jaqua & Dinkjian, 2025; Rudolph et al., 2020). This inconsistency highlights a critical research gap, particularly within the field of educational research that integrates generational perspectives with vocational and professional learning contexts in developing countries such as Indonesia.

Therefore, further research is needed to empirically examine whether learning-oriented work commitment differs across Generation X, Generation Y, and Generation Z within vocational and professional education settings (Cennamo & Gardner, 2008). Addressing this gap is essential for developing evidence-based educational strategies that enhance learner engagement, reduce dropout rates, and improve the overall effectiveness of vocational and professional education programs. By focusing on Bandung as a representative urban education ecosystem, this study provides a contextualized understanding of how generational characteristics interact with learning environments to shape commitment toward learning.

This study contributes to recent educational research by bridging the literature on generational studies, adult learning, and vocational education. Specifically, it offers empirical evidence on generational differences in learning-oriented work commitment and highlights the importance of educational context in shaping learner behavior. The findings are expected to inform curriculum development, instructional design, and educational management practices in vocational and professional education, thereby supporting institutions in creating more inclusive, adaptive, and effective learning environments.

The purpose of this study is to empirically examine generational differences in learning-oriented work commitment within vocational and professional education contexts in Bandung, Indonesia. More specifically, this study aims to:

- a. Analyze differences in affective learning commitment among Generation X, Generation Y, and Generation Z.
- b. Examine differences in continuance learning commitment across generational cohorts.
- c. Assess differences in normative learning commitment among adult learners from different generations.
- d. Evaluate whether educational context influences generational differences in overall learning-oriented work commitment.

- e. Provide practical recommendations for vocational and professional education institutions in designing learning strategies that enhance commitment across generations.

RESEARCH METHOD

This study employed a quantitative survey approach to examine generational differences in learning oriented work commitment within vocational and professional education contexts in Bandung Indonesia. Data were collected using a structured questionnaire administered through both online and offline modes to ensure broader accessibility and participation among adult learners (Creswell, 2014). The online questionnaire was distributed using a Google Form link shared via institutional communication channels and learner group messaging platforms, while the offline questionnaire was distributed in printed form during scheduled class sessions and training activities at selected vocational and professional education institutions. The data collection process was conducted over a three month period from March to May 2024. Prior to distribution, the questionnaire items were reviewed for clarity and contextual relevance to vocational and professional education settings. Respondents were informed about the purpose of the study and participated voluntarily. Only completed questionnaires were included in the final dataset. This mixed distribution approach was adopted to minimize sampling bias and to capture responses from learners with varying levels of digital access and learning modalities, thereby enhancing the transparency and replicability of the research process.

The population of this study consisted of adult learners enrolled in vocational and professional education programs in Bandung, West Java. These learners participate in structured training, certification programs, or vocational education activities that are directly linked to professional skill development and employability. Respondents were required to have participated in at least one vocational or professional education program to ensure that they had sufficient learning experience within the educational context being studied.

In addition to the sampling procedure, this study ensured the scientific reliability of its measurement instruments by carefully adapting established organizational commitment scales to the context of vocational and professional education. The learning-oriented work commitment constructs were conceptually derived from the framework of Mayer, (1996) and operationalized based on Turner et al., (2021), however, all items were systematically rephrased to reflect learners' roles as participants in educational programs rather than employees in organizational settings. Specifically, organizational commitment items referring to emotional attachment to a workplace were reformulated to capture learners' interest and enthusiasm for learning activities, such as ALC1, which measures intrinsic interest in participating in learning activities. Similarly, continuance commitment items were adapted to assess learners' intentions to continue and complete educational programs based on perceived benefits and career relevance, while normative commitment items were reframed to reflect learners' sense of responsibility and obligation toward active engagement in learning processes. This adaptation ensures that the measurement instruments remain theoretically grounded while being contextually appropriate for vocational and professional education

A purposive sampling technique was employed to select respondents based on specific research objectives and inclusion criteria (Sarstedt, 2019). The criteria included:

(1) active participation in vocational or professional education programs, and (2) classification into one of the generational cohorts Generation X, Generation Y, or Generation Z. Based on these criteria, a total of 180 adult learners were selected as research respondents.

The determination of sample size refers to the guideline proposed by (Roscoe, 1975), which suggests that an appropriate sample size for quantitative research ranges between 30 and 500 respondents, depending on the complexity of the research model and number of variables examined. The sample size of 180 respondents is considered adequate to represent the population of adult learners in vocational and professional education programs in Bandung and to ensure sufficient statistical power for comparative analysis across generations.

This study followed several methodological stages, including research design, data collection, instrument development and validation, data analysis, and interpretation of findings. Data were collected through a structured questionnaire distributed online and offline to adult learners participating in vocational and professional education programs in Bandung. The questionnaire was designed using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to measure respondents' perceptions of learning-oriented work commitment.

Before data analysis, the research instrument was subjected to validity and reliability testing to ensure that each measurement item accurately represented the intended construct. The indicators for each variable used in this study are presented in Table 1.

TABLE 1. Research Indicators

VARIABLE	CODE	INDICATOR
Generational Cohort (X1)	GC1	Year of birth
	GC2	Generational category
Educational Context (Z)	EC1	Type of education
	EC2	Relevance of the program to industry needs
	EC3	Characteristics of the learning environment
Affective Learning Commitment (Y1)	ALC1	Interest in learning activities
	ALC2	Emotional attachment to the learning process
	ALC3	Enthusiasm for participating in educational programs
Continuance Learning Commitment (Y2)	CLC1	Intention to complete the learning program
	CLC2	Perceived long-term benefits of learning
	CLC3	Commitment to continuing education
Normative Learning Commitment (Y3)	NLC1	Sense of responsibility toward learning activities
	NLC2	Compliance with learning rules and schedules
	NLC3	Moral obligation to complete the learning program

Data analysis in this study was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS software. PLS-SEM was selected because it is suitable for analyzing complex research models involving multiple latent variables and does not require strict assumptions regarding data normality (Rutter et al., 2016). This method is particularly advantageous for educational research involving behavioral constructs and perceptual data.

In addition, PLS-SEM is robust for both small and large sample sizes and allows simultaneous assessment of measurement models and structural models (Sarstedt et al., 2019). This characteristic is essential for examining the multidimensional nature of learning-oriented work commitment and its differences across generational cohorts.

This study involved 180 respondents consisting of adult learners enrolled in vocational and professional education programs in Bandung, West Java. Descriptive analysis was conducted to present respondents' demographic characteristics, including gender, age, and generational cohort. Based on the collected data, the respondents were dominated by Generation Y (45%), followed by Generation Z (38%) and Generation X (17%). In terms of gender distribution, 55% of respondents were male and 45% were female. Most respondents were within the age range of 21–35 years, reflecting the typical age profile of adult learners engaged in vocational and professional education. The diversity of respondents across generational groups provides a representative basis for comparative analysis of learning-oriented work commitment.

PLS-SEM analysis using SmartPLS was conducted in two main stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model). The measurement model evaluation examined construct validity and reliability through indicator loadings, composite reliability, Cronbach's alpha, and average variance extracted (AVE). Indicators with loading values above the recommended threshold were retained for further analysis.

The structural model evaluation focused on testing the research hypotheses by examining path coefficients, t-statistics, and p-values obtained through the bootstrapping procedure. This stage aimed to identify significant differences and relationships between generational cohorts and dimensions of learning-oriented work commitment. The results of the SEM-PLS analysis form the basis for conclusions and educational implications derived from this study. All respondents participated voluntarily in this study and were informed about the purpose of the research. Data confidentiality and anonymity were ensured, and the collected data were used solely for academic research purposes.

RESULTS AND DISCUSSION

Results

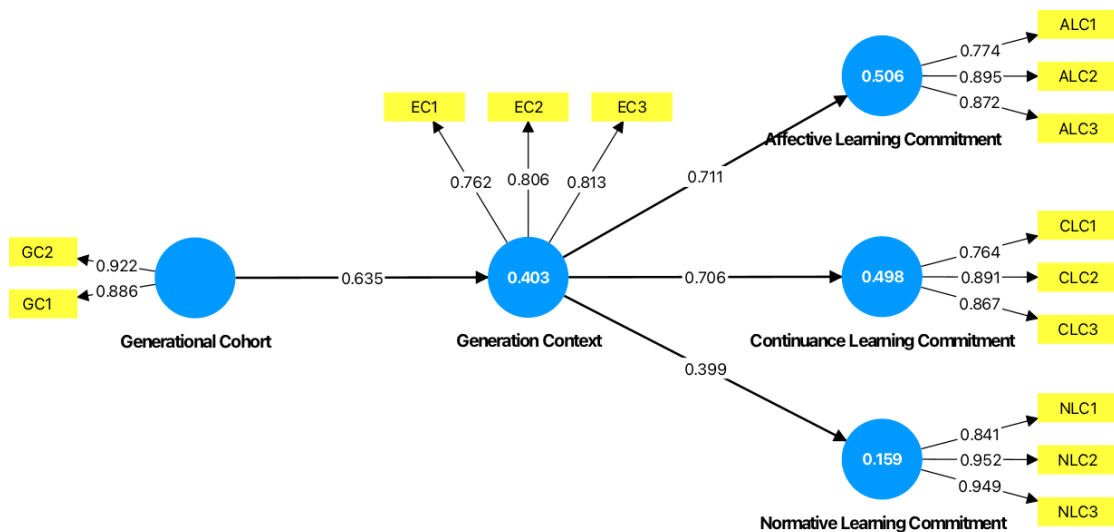


Figure 1. PLS Analysis Result

To facilitate clearer interpretation of the structural relationships, the validated PLS SEM model is presented in Figure 1. The path diagram illustrates the standardized coefficients among constructs and visually confirms the full mediating role of Educational Context.

As shown in Figure 1, Generational Cohort influences learning oriented work commitment exclusively through Educational Context, with no direct paths observed between Generational Cohort and affective, continuance, or normative learning commitment dimensions. This visual representation reinforces the statistical evidence of full mediation reported in the indirect effect analysis.

Convergent Validity

Convergent validity was assessed by examining the outer loading values (loading factors) of each indicator in the measurement model. Indicators are considered valid if they have an outer loading value greater than 0.70, indicating that the indicator adequately represents the latent construct it is intended to measure (Hustima Sahara & Armelia Windasari, 2022). Convergent validity is essential in the research process as it ensures that the indicators used to measure the constructs are highly correlated and effectively reflect the underlying variables.

TABLE 2. Outer Loading

Variable	Indicator	Outer Loading	Validity
Generational Cohort (X)	GC1	0.886	Valid
	GC2	0.922	Valid
Educational Context (Z)	EC1	0.762	Valid
	EC2	0.806	Valid
	EC3	0.813	Valid
Affective Learning Commitment (Y1)	ALC1	0.774	Valid
	ALC2	0.895	Valid
	ALC3	0.872	Valid
Continuance Learning Commitment (Y2)	CLC1	0.764	Valid
	CLC2	0.891	Valid
	CLC3	0.867	Valid
Normative Learning Commitment (Y3)	NLC1	0.841	Valid
	NLC2	0.952	Valid
	NLC3	0.949	Valid

Based on the results of the PLS-SEM analysis, all indicators in this study demonstrate outer loading values above the recommended threshold of 0.70, as presented in Table 2. This indicates that all measurement items possess good convergent validity and are suitable for further analysis. For the Generational Cohort variable, both indicators show strong contributions, with GC2 (0.922) emerging as the dominant indicator in representing generational classification, followed by GC1 (0.886). This suggests that the generational categorization of respondents is well captured by the measurement model. In the education context construct, all indicators demonstrate satisfactory loadings, with EC3 (0.813) being the most influential indicator, followed by EC2 (0.806) and EC1 (0.762). These results indicate that educational context is primarily shaped by learners' perceptions of contextual relevance and learning environment characteristics.

Regarding the dependent variables, the Affective Learning Commitment construct is most strongly represented by ALC2 (0.895), indicating that emotional attachment and enthusiasm toward learning are the dominant aspects forming affective commitment. This is followed by ALC3 (0.872) and ALC1 (0.774). For Continuance Learning Commitment, the indicator with the highest contribution is CLC2 (0.891), suggesting that perceived long-term benefits of learning play a central role in learners' willingness to persist in vocational and professional education programs. This is followed by CLC3 (0.867) and CLC1 (0.764).

Finally, in the Normative Learning Commitment construct, NLC2 (0.952) is the most dominant indicator, followed closely by NLC3 (0.949) and NLC1 (0.841). These findings indicate that a sense of moral obligation and responsibility toward learning is strongly reflected in the measurement items. Overall, since all indicators have outer loading values exceeding 0.70, the results confirm that the measurement model demonstrates strong convergent validity, and all indicators can be retained for further structural model evaluation.

Discriminant Validity

Discriminant validity is assessed to ensure that each latent construct in the research model is empirically distinct and measures a unique concept. In this study, discriminant validity was evaluated using three commonly accepted criteria in PLS-SEM analysis, namely Average Variance Extracted (AVE), the Fornell-Larcker Criterion, and the Heterotrait-Monotrait Ratio (HTMT). The use of multiple criteria strengthens the robustness of discriminant validity assessment (J. Hair & Alamer, 2022; Henseler et al., 2015).

The AVE value reflects the average amount of variance that a construct explains in its indicators. An AVE value greater than 0.50 indicates that the construct explains more than half of the variance of its indicators, which is considered adequate for discriminant validity (Hustima Sahara & Armelia Windasari, 2022). As shown in Table 3, all constructs in this study demonstrate AVE values exceeding the recommended threshold of 0.50. This result confirms that each latent variable has good discriminant validity and that the indicators appropriately represent their respective constructs.

Table 3. Average Variance Extracted (AVE)

Construct	AVE	Validity
Generational Cohort (X)	0.820	Valid
Educational Context (Z)	0.635	Valid
Affective Learning Commitment (Y1)	0.741	Valid
Continuance Learning Commitment (Y2)	0.742	Valid
Normative Learning Commitment (Y3)	0.847	Valid

The Fornell-Larcker criterion compares the square root of the AVE of each construct with its correlations with other constructs. Discriminant validity is established when the square root of the AVE of a construct is greater than its correlations with all other constructs (Fornell & Larcker, 1981). As presented in Table 4, the diagonal values (shown in bold), representing the square root of the AVE for each construct, are greater than the corresponding inter-construct correlations. This indicates that each construct shares more variance with its own indicators than with other constructs in the model. Therefore, the measurement model satisfies the discriminant validity requirements based on the Fornell-Larcker criterion.

Table 4. Fornell-Larcker Criterion

Construct	GC	GC	ALC	CLC	NLC
Generational Cohort (GC)	0.906				
Educational Context (EC)	0.635	0.797			
Affective Learning Commitment (ALC)	0.452	0.711	0.861		
Continuance Learning Commitment (CLC)	0.438	0.706	0.684	0.861	
Normative Learning Commitment (NLC)	0.281	0.399	0.358	0.362	0.920

The HTMT ratio is a more stringent criterion for assessing discriminant validity. According to Henseler et al, (2015) an HTMT value below 0.90 (or more conservatively 0.85) indicates adequate discriminant validity. As shown in Table 5, all HTMT values among the constructs are below the threshold of 0.90. This result confirms that there is no multicollinearity issue among the latent variables and that each construct is empirically distinct from the others.

Table 5. HTMT Ratio

Construct	GC	GC	ALC	CLC	NLC
Generational Cohort (GC)	-	0.702	0.498	0.472	0.318
Educational Context (eC)		-	0.812	0.805	0.461
Affective Learning Commitment (ALC)			-	0.742	0.512
Continuance Learning Commitment (CLC)				-	0.528
Normative Learning Commitment (NLC)					-

Overall, the discriminant validity assessment using AVE, Fornell-Larcker criterion, and HTMT ratio consistently demonstrates that all constructs in the model are empirically distinct and free from multicollinearity issues. These findings confirm that the measurement model meets the discriminant validity requirements and is appropriate for further structural model evaluation.

Composite Reliability and Cronbach's Alpha

Reliability testing was conducted to evaluate the internal consistency of the measurement instruments used in this study. Reliability refers to the extent to which an instrument consistently measures a construct and produces stable results across different conditions. In PLS-SEM analysis, composite reliability (CR) and cronbach's alpha (α) are commonly used indicators to assess construct reliability.

Composite Reliability is considered more suitable for PLS-SEM because it does not assume equal indicator loadings and provides a more accurate estimate of internal consistency. A composite reliability value greater than 0.70 indicates satisfactory reliability (J. F. Hair et al., 2018) Meanwhile, cronbach's alpha is used as a complementary measure, where a value exceeding 0.70 also indicates acceptable internal consistency (Amankwaa & Gyensare, 2019).

Based on the analysis results, all constructs in this study demonstrate Composite Reliability and Cronbach's Alpha values above the recommended threshold of 0.70, as shown in Table 6. These findings indicate that the indicators within each construct are highly consistent and reliably measure the intended latent variables.

Table 6. Composite Reliability and Cronbach's Alpha

Construct	Composite Reliability	Cronbach's Alpha	Reliability
Generational Cohort (X)	0.902	0.785	Reliable
Educational Context (Z)	0.846	0.739	Reliable
Affective Learning Commitment (Y1)	0.897	0.827	Reliable
Continuance Learning Commitment (Y2)	0.894	0.822	Reliable
Normative Learning Commitment (Y3)	0.933	0.892	Reliable

The generational cohort construct shows high reliability, reflecting the stability of generational classification indicators. Similarly, educational context demonstrates strong internal consistency, indicating that its indicators consistently capture learners' perceptions of educational context. For the dependent variables, affective learning

commitment, continuance learning commitment, and normative learning commitment all exhibit high reliability values, confirming that each dimension of learning-oriented work commitment is measured reliably. Overall, these results confirm that the measurement model satisfies reliability requirements and is appropriate for further evaluation of the structural model.

Direct Effect

All direct relationships in the structural model show positive and significant effects. This indicates that generational cohort significantly influences education context, and education context, in turn, significantly affects all three dimensions of learning-oriented work commitment.

Table 7. Direct Effects (Path Coefficient Results)

Variable	Original Sample (O)	Sample Mean (M)	STDEV	T Statistic	P Value	Conclusion
GC → EC	0.635	0.633	0.084	7.560	0.000	Accepted
EC → ALC	0.711	0.709	0.065	10.938	0.000	Accepted
EC → CLC	0.706	0.704	0.067	10.537	0.000	Accepted
EC → NLC	0.399	0.397	0.073	5.466	0.000	Accepted

The results of the structural model analysis indicate that all hypothesized direct relationships are positive and significant. First, generational cohort has a significant direct effect on education context ($\beta = 0.635$). This finding suggests that differences in generational background shape how learners perceive and experience educational environments. Learners from different generations demonstrate distinct expectations and preferences toward instructional design, learning flexibility, and contextual relevance, which confirms that generational characteristics influence educational context rather than learning outcomes directly. Furthermore, education context has a strong direct effect on Affective Learning Commitment ($\beta = 0.711$). This result indicates that learners' emotional attachment and enthusiasm toward learning are largely determined by how relevant, supportive, and engaging the educational context is. When vocational and professional education programs align with learners' professional goals and learning preferences, learners tend to develop stronger affective commitment.

Similarly, education context significantly influences continuance learning commitment ($\beta = 0.706$). This finding suggests that learners' willingness to persist and complete learning programs is strongly driven by perceived benefits, career relevance, and contextual support embedded in the learning environment. Learners are more likely to continue their participation when they perceive learning as valuable for long-term professional development.

In contrast, the effect of education context on normative learning commitment, although significant, is relatively weaker ($\beta = 0.399$). This indicates that a sense of moral obligation or responsibility toward learning is less sensitive to contextual factors and may be shaped by deeper personal values, cultural norms, or prior educational experiences. Nevertheless, the significant relationship confirms that educational context still plays an important role in shaping normative commitment.

Indirect Effect

Beyond the direct effects, the analysis also reveals significant indirect effects through the mediating role of generation context. The results show that generational cohort indirectly influences affective learning commitment through education context ($\beta =$

0.451). This finding indicates that generational differences do not directly affect learners' emotional engagement; instead, their influence operates through how educational contexts are designed and experienced.

Table 8. Indirect Effects (Mediating Role of Education Context)

Variable	Original Sample (O)	Sample Mean (M)	STDEV	T Statistic	P Value	Conclusion
GC → EC → ALC	0.451	0.448	0.089	5.067	0.000	Accepted
GC → EC → CLC	0.448	0.446	0.091	4.923	0.000	Accepted
GC → EC → NLC	0.253	0.251	0.072	3.514	0.000	Accepted

Similarly, generational cohort has a significant indirect effect on continuance learning commitment via education context ($\beta = 0.448$). This result suggests that generational characteristics affect learners' persistence in learning programs only when mediated by contextual learning factors, such as program relevance, instructional support, and alignment with professional needs.

Moreover, generational cohort indirectly affects normative learning commitment through education context ($\beta = 0.253$). Although the magnitude of this effect is smaller compared to affective and continuance commitment, it still indicates that generational influences on moral obligation toward learning are partially transmitted through educational context. Importantly, the absence of direct paths from generational cohort to learning commitment dimensions confirms that education context functions as a full mediator in the relationship between generational cohort and learning-oriented work commitment. This finding highlights that generational differences alone do not determine learning commitment; rather, it is the educational context that translates generational characteristics into meaningful learning outcomes.

Discussion

While several previous studies report that younger generations tend to demonstrate lower levels of commitment compared to older cohorts, particularly in organizational and workplace settings, the findings of this study reveal a different pattern within the vocational and professional education context in Bandung. This deviation can be explained by contextual and structural characteristics that distinguish educational environments from conventional employment settings. First, studies reporting lower commitment among younger generations are predominantly situated in organizational contexts where commitment is shaped by hierarchical structures, job security concerns, and long-term organizational attachment. In contrast, the Bandung sample consists of adult learners who voluntarily participate in vocational and professional education programs with clear career oriented objectives. This voluntary participation shifts the basis of commitment from organizational loyalty to perceived relevance and utility of the learning context. As a result, generational differences do not manifest as direct predictors of learning commitment but are instead translated through educational context.

Second, Bandung represents a dynamic urban learning ecosystem characterized by strong industry linkage, skills based curricula, and technology supported instruction. For younger generations who are often portrayed as less committed in traditional workplace settings, such contextual features may actually enhance engagement and persistence by aligning learning activities with their learning preferences and professional aspirations. This contextual alignment reduces the likelihood of observing lower commitment levels among younger learners.

Third, the full mediating role of educational context identified in this study provides a theoretical explanation for these deviations. Rather than contradicting earlier findings, the results refine them by demonstrating that generational differences in commitment are context dependent. When learning environments are adaptive, relevant, and professionally aligned, generational disparities in commitment become attenuated. This finding extends prior generational research by reframing commitment as a contextual outcome rather than a fixed generational trait. By explicitly addressing these deviations, (Mayer, 1996) and operationalized by (Turner et al., 2021) this study advances the literature beyond descriptive comparisons and offers a more nuanced explanation of how and why generational commitment patterns differ across organizational and educational settings, particularly within rapidly urbanizing regions such as Bandung.

Specifically, organizational commitment items referring to attachment to an organization were adapted to capture commitment toward learning activities and educational programs. For example, the original organizational commitment item emphasizing emotional attachment to the workplace was reformulated to measure learners' interest and enthusiasm in learning activities. Accordingly, Affective Learning Commitment item ALC1 was phrased to reflect learners' intrinsic interest in participating in learning activities rather than commitment to an employer or organization.

Similarly, continuance commitment items, which traditionally emphasize the cost of leaving an organization, were adapted to capture learners' intentions to continue and complete educational programs based on perceived long-term benefits and career relevance. Normative commitment items, originally associated with moral obligation toward an organization, were reframed to reflect learners' sense of responsibility and obligation to actively engage in and complete learning activities. This adaptation process ensures that the measurement instruments remain theoretically grounded while being contextually appropriate for vocational and professional education. By aligning commitment dimensions with learning-related behaviors and perceptions, this study enhances the construct validity of learning-oriented work commitment and supports the robustness of the empirical findings within an educational research context.

The Influence of Generational Cohort on Educational Context

Generational Cohort has a significant influence on Educational Context. This indicates that differences in generational background affect how learners evaluate and respond to learning environments. Learners from different generations demonstrate distinct expectations regarding learning methods, flexibility, technology integration, and instructional approaches. According to Parry and Urwin, (2011) and Smola and Sutton, (2002), generational characteristics shape learning preferences and engagement patterns, which directly influence perceptions of educational context. These findings highlight the importance of designing educational environments that accommodate generational diversity to ensure effective learning experiences in vocational and professional education.

The Influence of Educational Context on Affective Learning Commitment

Educational Context has a significant effect on affective learning commitment, indicating that more supportive, relevant, and engaging educational environments foster stronger emotional attachment and enthusiasm toward learning. This relationship is reflected in the measurement of affective learning commitment, which was adapted from the organizational commitment framework of (Mayer, 1996; Turner et al., 2021) to suit

educational settings. Specifically, workplace-oriented affective commitment items referring to emotional attachment to an organization were reformulated to capture learners' interest and enjoyment in learning activities. For instance, ALC1 was designed to measure learners' intrinsic interest in participating in learning activities rather than attachment to a workplace. A well-designed educational context therefore enhances learners' emotional engagement by aligning learning experiences with their needs and professional goals, leading to higher affective commitment. This finding is consistent with adult learning theory, which emphasizes that emotional engagement in learning is strongly influenced by contextual relevance and meaningful learning experiences (Sulistiasih & Widodo, 2025). Consequently, vocational and professional education institutions should prioritize the development of learning environments that promote positive emotional connections with learning.

The Influence of Educational Context on Continuance Learning Commitment

The results show that Educational Context also has a significant influence on continuance learning commitment. This suggests that learners are more likely to persist and complete educational programs when they perceive the learning environment as beneficial for their career development and professional growth. Educational contexts that clearly demonstrate practical value and long-term benefits encourage learners to remain committed to their learning journey. These findings support previous studies that highlight the importance of perceived usefulness and relevance in sustaining learning persistence among adult learners (Cennamo & Gardner, 2008). Therefore, emphasizing the applicability of learning outcomes to real-world professional contexts is essential in strengthening continuance commitment.

The Influence of Educational Context on Normative Learning Commitment

Educational Context has a significant, though comparatively weaker, effect on normative learning commitment. This indicates that learners' sense of moral obligation and responsibility toward learning is less influenced by contextual factors and may be shaped more by personal values, cultural norms, or prior educational experiences. According to Meyer and Allen (1997), normative commitment is relatively stable and value-driven, which explains why contextual interventions may have limited impact on this dimension. Nonetheless, a supportive educational context can still contribute to reinforcing learners' sense of responsibility toward learning.

The Indirect Influence of Generational Cohort on Affective Learning Commitment Mediated by Educational Context

The results indicate that Educational Context significantly mediates the relationship between Generational Cohort and Affective Learning Commitment ($\beta = 0.451$; $T = 5.067$; $p < 0.001$). This finding suggests that generational differences do not directly influence learners' emotional attachment to learning activities. Instead, their influence is transmitted through the educational context in which learning occurs.

This implies that learners from different generations develop affective learning commitment when the educational environment aligns with their learning expectations, technological familiarity, and professional aspirations. When educational contexts are designed to be engaging, relevant, and supportive, learners tend to experience higher levels of enthusiasm and emotional involvement in learning. This finding is consistent

with adult learning theory, which emphasizes the importance of contextual relevance in fostering emotional engagement in learning processes (Smola & Sutton, 2002).

The Indirect Influence of Generational Cohort on Continuance Learning Commitment Mediated by Educational Context

The indirect effect analysis shows that Generational Cohort has a significant indirect effect on Continuance Learning Commitment through Educational Context ($\beta = 0.448$; $T = 4.923$; $p < 0.001$). This result indicates that learners' willingness to persist and complete vocational and professional education programs is shaped by generational characteristics only when these characteristics are reflected in an appropriate educational context.

This finding suggests that educational contexts that clearly demonstrate career relevance, practical benefits, and long-term value are critical in sustaining learners' commitment to continue learning. Learners across generations are more likely to remain engaged when they perceive that the educational program supports their professional development goals. This supports previous research emphasizing that persistence in adult learning is strongly influenced by perceived usefulness and contextual alignment (Cennamo & Gardner, 2008)

The Indirect Influence of Generational Cohort on Normative Learning Commitment Mediated by Educational Context

The results further reveal that Educational Context also mediates the relationship between Generational Cohort and Normative Learning Commitment ($\beta = 0.253$; $T = 3.514$; $p < 0.001$). Although this indirect effect is statistically significant, its magnitude is lower compared to affective and continuance learning commitment.

This indicates that learners' sense of moral obligation and responsibility toward learning is less sensitive to generational differences and educational context. Normative learning commitment appears to be more deeply rooted in personal values, cultural norms, and prior educational experiences. Nevertheless, a supportive and well-structured educational context can still reinforce learners' sense of responsibility to engage in and complete learning activities. This finding aligns with commitment theory, which suggests that normative commitment is relatively stable and value-driven (Meyer & Allen, 1997).

CONCLUSION

Fundamental Findings: The results of this study reveal several key findings: (1) Generational Cohort has a significant influence on Educational Context, indicating that learners from different generations perceive and experience educational environments differently; (2) Educational Context has a significant influence on Affective Learning Commitment, suggesting that emotionally engaging and relevant learning environments enhance learners' enthusiasm and attachment to learning; (3) Educational Context has a significant influence on Continuance Learning Commitment, indicating that learners are more willing to persist in educational programs when the learning context is perceived as beneficial for long-term professional development; (4) Educational Context also significantly influences Normative Learning Commitment, although with a relatively weaker effect compared to affective and continuance commitment; and (5) Educational Context functions as a full mediating variable that connects Generational Cohort with all dimensions of learning-oriented work commitment, namely affective, continuance, and normative learning commitment. These findings demonstrate that generational

differences do not directly determine learning commitment but operate through the quality and relevance of the educational context. **Implications:** The findings of this study strongly reinforce the central thesis that generational differences do not directly determine learning oriented work commitment. Instead, learning commitment across generations is fundamentally shaped by the quality and relevance of the educational context in which learning occurs. This underscores the critical importance of educational context as the primary mechanism through which generational characteristics are translated into affective, continuance, and normative learning commitment. Accordingly, educational institutions offering vocational and professional education should prioritize the development of adaptive and context sensitive learning environments rather than relying on generational labeling as a basis for instructional design. Universities and training providers are encouraged to design learning programs that emphasize contextual relevance, including flexible learning modalities, industry aligned curricula, and technology supported instruction that respond to diverse learner expectations. Educators should recognize that fostering learning oriented work commitment is not merely a function of learner characteristics, but a consequence of how educational contexts facilitate emotional engagement, sustain learning persistence, and reinforce learners' sense of responsibility toward learning. At the institutional level, management policies should therefore focus on strengthening instructional quality, curricular relevance, and industry alignment as strategic priorities. By centering educational context as the core driver of learning commitment, vocational and professional education institutions can more effectively enhance learning oriented work commitment across generational cohorts. **Further Research:** Future research directions from this study can be synthesized into two key pillars. The first pillar, Contextual Alignment, emphasizes the need to further examine how the relevance of vocational and professional education to industry demands and learners' professional goals influences learning-oriented work commitment. Future studies may focus on specific contextual factors such as instructional quality, industry collaboration, work-integrated learning, and digital learning infrastructure to better understand how alignment between curriculum design and labor market needs strengthens affective and continuance learning commitment. The second pillar, Generational Inclusion, highlights the importance of adaptive instructional design that accommodates diverse generational characteristics. Future research may investigate how flexible learning methods, technology-supported instruction, and differentiated pedagogical approaches can effectively support learners from different generational cohorts. In addition, cross-institutional and cross-cultural research designs, as well as mixed-method approaches combining quantitative and qualitative methods, are recommended to test the generalizability of these two pillars and to gain deeper insights into how contextual alignment and generational inclusion interact in shaping learning-oriented work commitment.

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