EXPERIENTIAL LEARNING AND COLLABORATIVE LEADERSHIP: MODERATING EFFECT OF LEARNING CLIMATE IN EMANCIPATED LEARNING PROGRAM

Syunu Trihantoyo[1]*, Nuri Herachwati[1], Rudi Purwono[1], Elisabeth Supriharyanti[2]& Ian Firstian Aldhi[1]

[1]
Postgraduate School, Universitas Airlangga, Surabaya, Indonesia

[2]
Universitas Katolik Widya, Mandala Surabaya

Corresponding Author:
Postgraduate School, Universitas Airlangga, Surabaya, Indonesia

E-mail:

syunu.trihantoyo-2020@pasca.unair.ac.id

ABSTRACT

Emancipated learning through experiential activities as a national policy is central in developing student competencies from school to university level. This study aims to determine and analyze the effect of experiential learning in shaping collaborative leadership mediated by the learning climate when students carry out emancipated learning activities. This research uses a quantitative approach with a survey method and uses AMOS version 22.0 structure equation model (SEM) analysis. Data analysis was carried out in stages: descriptive analysis, validity and reliability tests, and hypothesis testing to ensure goodness of fit model. A total of 332 students participating in the emancipated learning program were given an instrument with a Likert scale of 1 (strongly disagree) - 5 (strongly agree) to measure the research variables. The results of the study in testing the two research hypotheses show that experiential learning has a positive and significant effect on student collaborative leadership, and learning climate also strengthens the effect of experiential learning on collaborative leadership. This finding indicates that moderation of learning climate in schools positively impacts the effect of experiential learning on students' collaborative leadership competence in implementing the emancipated learning program.

Keywords: **Experiential Learning, Collaborative Leadership, Learning Climate, Emancipated Learning**

INTRODUCTION

The policy of emancipated learning in Indonesia is massively implemented in educational institutions ranging from schools to universities. The implementation of the emancipated learning policy requires empowering all education stakeholders to become agents of change (Anggraeni, 2022). Based on data from the Ministry of Education, Culture and Research, there are currently more than 725,000 students registered in the emancipated learning program, with more than 14,000 schools benefiting from the emancipated learning program, more than 3,000 organizations or companies register as partners, and more than 1,300 universities participate in the emancipated learning program (https://kampusmerdeka.kemdikbud.go.id). The participation of all stakeholders (Razak et al., 2019) in emancipated learning is very effective in developing student competencies, especially collaborative leadership. Student collaborative leadership is the basis for meeting competencies and can be developed through various direct activities when implementing various off-campus programs.

Collaborative leadership emphasizes cooperation (Fung et al., 2019) and active participation of all team or organizational members in the decision-making process to achieve common goals (Torres, 2019). This approach aims to create an inclusive work environment (Nabella et al., 2022) and a conducive learning climate (Aldridge & Bianchet, 2022). In the context of higher education, students' involvement in a semester-long emancipated learning program in the field can improve collaborative leadership competencies. The teaching campus program is a form of experiential learning that provides direct experience in the development of students' soft skills.

Collaborative leadership is also influenced by developments in psychology and organizations that show that individuals have a need to feel valued and have their contributions recognized in the work environment (Bundtzen, 2020; Corbett & Spinello, 2020). In collaborative leadership, team members are given the opportunity to actively participate in the decision-making process (Widianto, Lestari, Adna, Sukoco, & Nasih, 2021), so that they feel valued and have a sense of ownership of the results achieved. In addition, collaborative leadership has also developed in response to the need to increase member engagement and improve overall organizational performance (Rehman, Bhatti, & Chaudhry, 2019). By encouraging collaboration and active participation, collaborative leadership can help strengthen relationships between team members and create a more harmonious and productive work environment (Kim & Park, 2020).

The results in analyzing theoretical gaps using Vos viewer in internationally indexed journals, namely Scopus, obtained 71 articles. The keywords used in this search are "collaborative leadership" and "learning", following the presentation of Vos viewer data.
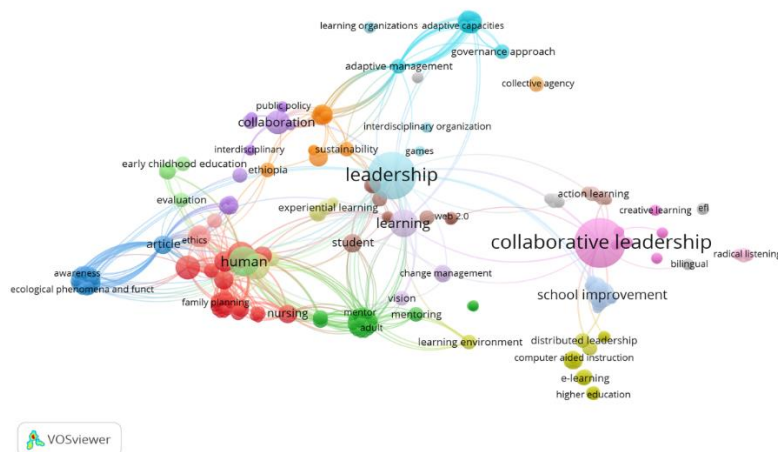

Figure 1. *Research Gap (source: VosViewer)*

The data above is based on a database of articles from 1989 to 2023. It can be seen that the majority of research on collaborative leadership in learning is related to school improvement, leadership, and human. This means that collaborative leadership research by looking at the moderation of learning climate and the influence of experiential learning has not been done by many previous researchers. For this reason, this research provides new value in seeing the moderation of learning climate in the influence of experiential learning on collaborative leadership in students in higher education.

Meanwhile, practically, there is a gap in students' practical experience in dealing with various problems in the field. Moreover, currently the competencies must be mastered by students, namely 21st century competencies (Toheri et al., 2019) regarding: character, citizenship, critical thinking, creativity, collaboration, and communication. Thus, the challenges of future life can be mastered by students, especially in facing conditions known as Volatility, Uncertainty, Complexity, Ambiguity (VUCA). The VUCA phenomenon is certainly a concern for all academics in higher education (Waller, Lemoine, Mense, Garretson, & Richardson, 2019), especially in preparing competent graduates. One of the strategies in an effort to bring student competence closer is by involving students in an emancipated learning program to foster collaborative leadership.

This research contributes to the formation of students' collaborative leadership, especially when participating in the emancipated learning program. This research also provides a new idea that the emancipated learning program is able to develop student competencies comprehensively, especially collaborative leadership competencies. By using structure equation model analysis, this research analyses experiential learning in shaping collaborative leadership mediated by learning climate when students carry out emancipated learning activities. The results of this study can be used as a reference for emancipated learning program managers in developing policies that are relevant to student needs, including the learning curriculum.

The hypotheses in this study are:
H1: Experiential learning has a positive effect on student collaborative leadership
H2: Learning climate positively moderates the effect of experiential learning on student collaborative leadership

LITERATURE REVIEW

Experiential Learning and Collaborative Leadership
Various basic theories of leadership have been proposed, namely trait theory, behavioral theory, and contingency theory (Yukl, 2011). Collaborative leadership is a leadership style translated from contingency theory. The implementation of experiential learning in the context of collaborative leadership allows leaders to feel and understand the dynamics of work in groups more deeply by being directly involved in collaborative activities (Bradberry & De Maio, 2019). Thus, leaders can identify challenges and opportunities that arise in the teamwork environment (Navajas-Romero, Ceular-Villamandos, Pérez-Priego, & Caridad-López del Río, 2022). In addition, experiential learning can develop strong interpersonal skills in team members, effective communication, empathy, and the ability to understand team members' points of view (Winter, Leanage, Roberts, Norman, & Howick, 2022).

Experiential learning provides opportunities for leaders to interact with different types of individuals, listen to the views of team members, and build stronger working relationships. Experiential learning and collaborative leadership in students can build a foundation for the development of an inclusive and participatory work culture (Byrd, 2022). Collaborative leadership and educational culture in organizations can reduce individual tension through experiential learning (Fish, Gawne, & Machin, 2022). With experiential learning, students have learning experiences in overcoming problems directly, making decisions together, and appreciating the contribution of each team member so that they can provide real examples of cooperation in increasing program success.

The Moderating Role of Learning Climate

One of the determinants of effective learning activities is the learning climate (Baert, De Rick, & Van Valckenborgh, 2006). If learning activities are effective, then learning achievement will be higher (D'Alterio, Fantinelli, Galanti, & Cortini, 2019). Learning climate is defined as the learning atmosphere felt by educators and students in the learning space (Eldor, 2017). Learning climate is formed by internal and external factors of each individual (Barger, Leffel, & Lott, 2021). Where the learning climate affects organizational attitudes and behaviors and member performance which then determines organizational performance (Komarudin, 2022). Learning behavior has a relationship with learning achievement (Gunawan, Suminah, Murdiyah, Andriningrum, & Onenda, 2018), because learning behavior contains ways of learning and learning habits that are usually applied.

Mikkelsen and Grønhaug (1999) measured the learning climate with the focus of indicators about the opportunities provided from the organization to develop. Based on Mikkelsen and Grønhaug's (1999) indicators, there are seven indicators and for each, there are several statements that will be used in this study. Meanwhile, the results of Carrim & Basson's (2013) research suggest that at the organizational level, aspects of management support, autonomy and responsibility, time, opportunities to develop, and easy access to information are the most important things in fostering a learning climate from various organizations studied. Casey's (2005) research defines individuals and organizations as learning systems, where this pattern is described in the form of adaptation, goal achievement, and integration in identifying individual and organizational learning needs. The conclusion from the literature review discussion above, as well as based on the leadership theory of contingency leadership as the grand theory in this study, there is still a research gap in analyzing the mediating role of learning climate on the effect of experiential learning on collaborative leadership in students in implementing the emancipated learning program. The following research framework is presented as the basis for developing the research model.
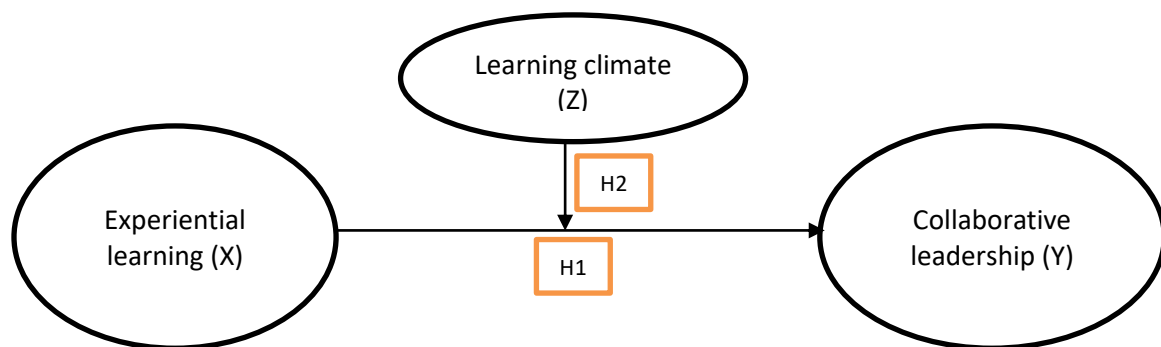

Figure 2. *Research Framework*

Based on the conceptual framework above, it can be explained that the independent variable in this study is experiential learning, while the dependent variable is collaborative leadership. While the learning climate variable as a mediation between experiential learning and student collaborative leadership.

METHODOLOGY

Research Design

Based on the research framework, this study focuses on analyzing the mediating role of learning climate on the effect of experiential learning on collaborative leadership in students participating in the emancipated learning program. Roh, Heo and Whang (2019)'s survey method was conducted online in this study. This is to measure each research variable using a Likert scale (1 strongly disagree and 5 strongly agree). The research instrument was developed from literature on previous research.

Population and Sample

The target population in this study were all students participating in the emancipated learning program in 2023 at Surabaya State University. The minimum number of data samples in the SPSS 23 and AMOS version 22.0 analysis techniques is 220 respondents (Mia et al., 2019). As for this study, there are 332 respondents who have filled in the data from the total 357 emancipated learning program participants. Data collection was carried out during the period when students were implementing the emancipated learning program in March-June 2023. The questionnaire was filled out online using google form on the research variables. The distribution of respondents in this study was schools where students were placed in the emancipated learning program throughout the East Java Province, Indonesia.

Research Instrument

The research instrument consists of two main parts, the first part aims to find out general information about respondents, and the second part contains material substance to explore data related to research variables. Research instruments are used to measure each research variable. The collaborative leadership variable (Sakai et al., 2017) consists of indicators of team management skills, action for accomplishing team goals, attitude and behavior that improve team cohesion, fulfilling one's role as a professional. As for the experiential learning variable (Walker & Rocconi, 2021), it represents indicators of lifelong learning, solving real-word problems, collaboration, structured reflection.

Meanwhile, the learning climate variable (Mikkelsen & Grønhaug, 1999) represents indicators of opportunity to develop, transparency, and creativity. Two experts in the field of leadership reviewed the research instrument to assess the validity of the instrument. There was a minor revision based on expert input and the final instrument was used in collecting research data.

Validity and Reliability Test

Validity testing in learning climate moderation research in the influence of experiential learning on collaborative leadership using AMOS software version 22.0. The validity test is used to determine that unobserved variables can be measured using each observed variable construct, using confirmatory factor analysis (CFA) or commonly referred to as factor analysis on 332 respondents. The value is declared valid if the loading factor value of each construct is more than 0.5 (λ>0.5) with a significant level of less than 5% (P <0.5) (Hair, Gabriel, & Patel, 2014).

Table 1: *Standardized Regression Weights*

			Loading Factor
x3	<---	Experiential_Learning	0,916
x2	<---	Experiential_Learning	0,929
x1	<---	Experiential_Learning	0,917
y1	<---	Collabortive_Leadership	0,935
y2	<---	Collabortive_Leadership	0,974
y3	<---	Collabortive_Leadership	0,984
y4	<---	Collabortive_Leadership	0,956
m3	<---	Learning_Climate	0,895
m2	<---	Learning_Climate	0,898
m1	<---	Learning_Climate	0,887

Based on the analysis results above, it shows that all indicators in this study both to measure experiential learning, learning climate, and collaborative leadership have a loading factor P value > 0.5 so that this research instrument is said to be valid. Validity measurement is very important in questionnaire assessment. The validity test is carried out to determine whether the questionnaire used for research is valid or not. The validity test aims to confirm the significant correlation between the correlation between variables (Flake, Davidson, Wong, & Pek, 2022). To see the correlation in validity, factor analysis is used in this study is CFA (Confirmatory Factor Analysis).

Meanwhile, the reliability test in this study was carried out to show that the measuring instrument used in this study has reliability as a measuring instrument. Where the research instrument is said to be reliable if the composite reliability value is > 0.7 (Hair et al., 2014). Based on the results of testing the questionnaire, the following data were obtained.

Table 2: *Composite Reliability*

Variable	Composite Reliability
experiential learning	0,989
learning climate	0,984
collaborative leadership	0,996

In this study, reliability testing used Cronbach's alpha (α) technique which states that a questionnaire is reliable if it has an alpha value above 0.6. Reliability of less than 0.6 is not good, while 0.7 is acceptable, and 0.8 is good.

Data Analysis

Descriptive analysis in this study uses SEM (Structural Equation Modeling) with the software used, namely AMOS and SPSS to process and analyze data. Hypothesis testing in this study researchers used the Structural Equation Modeling (SEM) technique as an analysis that combines factor analysis, structural modeling, and path analysis approaches (Hair et al., 2014). The analysis method is carried out to interpret and draw conclusions from the amount of data collected. The next step is to test the fit based on fit indices. Thus, the indices that can be used to test the feasibility of a model are as summarized in the following table:

Table 3: Indicator Goodness of Fit Model

Goodness of Fit Index	Cut off Value	Indicator
Chi Square	Expected to be Small	0: perfect fit; the larger the less fit
Significant Probability	≥ 0,05	≥α: fit; score α which can be used: 5%, 1%, 10%
RMSEA	≤ 0,08	≤ 0,05; fit; > 0,10: not fit
GFI	≥ 0,90	0: not fit; 1: fit perfect; ≥ 0,90: fit
AGFI	≥ 0,90	0: not fit; 1: fit perfect na; ≥ 0,90: fit
CMIN/DF	≤ 2,00	≤ 2,00: fit
TLI	≥ 0,95	0: not fit; 1: fit perfect; ≥ 0,90: fit
CFI	≥ 0,95	0: not fit; the bigger the fit one
NFI	≥ 0,95	0: not fit; 1: fit perfect; ≥ 0,90: fit

FINDINGS

Demographic Profile

The following are the characteristics of respondents based on gender, semester, faculty, and study program who are

research respondents. Where the respondents of this study are students who take part in the emancipated learning program implemented in 2023.The following are the characteristics of respondents based on gender, semester, faculty, and study program who are research respondents. Where the respondents of this study are students who take part in the emancipated learning program implemented in 2023.

Table 4: Respondent Characteristics

Respondent Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Male	46	13,9
	Female	286	86,1
Faculty	Faculty of Education	109	32,8
	Faculty of Language and Art	86	25,9
	Faculty of Science and Sports	18	5,4
	Faculty of Economic and Business	54	16,3
	Faculty of Science and Law	65	19,6

From this data, it can be concluded that the characteristics of the respondents of the emancipated learning program who filled out the instrument were predominantly female with a total of 286 (86.1%). The faculty that dominates the emancipated learning program is from the Faculty of Education, whose graduates will become teachers in educational institutions and in accordance with the objectives of the emancipated learning program, namely campus teaching.

SEM Model Fit Test

After conducting validity and reliability tests and testing the assumptions of sample adequacy (>220 respondents) (Mia et al., 2019), then the model will be tested for fit by looking at several Goodness of Fit model criteria with Chi Square, Probability, RMSEA, GFI, AGFI, CMIN/DF, TLI, CFI, and NFI values. The structural model to be estimated in this analysis is as follows.
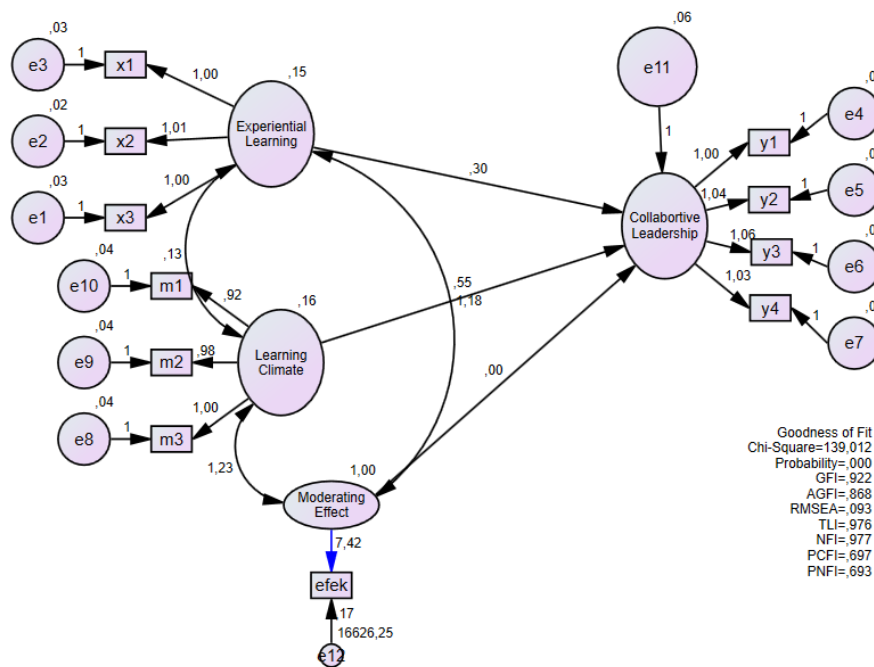

Figure 3. *Structure Model*

Based on the results of the structural model estimation, the results of the model fit test are as follows.

Table 5: Model Fit Test Results

Goodness of Fit Index	Cut off Value	Result test	Evaluation Model
X2-Chi Square	Expected to be small	139,012	Marginal Fit
Significant Probability	≥ 0,05	0,000	Not Fit
RMSEA	≤ 0,08	0,093	Marginal Fit
GFI	≥ 0,90	0,922	Good Fit
AGFI	≥ 0,90	0,868	Marginal Fit
CMIN/DF	≤ 2,00	2,905	Not Fit
TLI	≥ 0,95	0,976	Good Fit
CFI	≥ 0,95	0,697	Marginal Fit
NFI	≥ 0,95	0,977	Good Fit

Based on the table above, it can be seen that the model is not so good at meeting the criteria for goodness of fit model with three criteria that meet good fit. Hair, et al. (2014) state that a model is said to be feasible if it has a goodness of fit that meets the requirements of at least four. Hair et al. (2014) explains that the model development strategy is one of the modeling techniques in SEM by making modifications to the model so that some test tools can have better results, such as a decrease in the Chi Square number, an increase in the GFI number and so on. Model modification is done by adding paths according to the recommendations given by the AMOS program in the modification indices table. The table is a recommendation from the AMOS program regarding variables or errors that must be processed further for modification. The following are the paths added to the model.

Table 6: Model Path Change

Path	Modification indices
e5<--->e9	10,171
e7<-->e9	12,345
e4<--->e6	8,811
e5<--->e7	9,803

With the addition of paths based on the recommendations of the AMOS program for the highest value of modification indices, the next research model will be as follows.
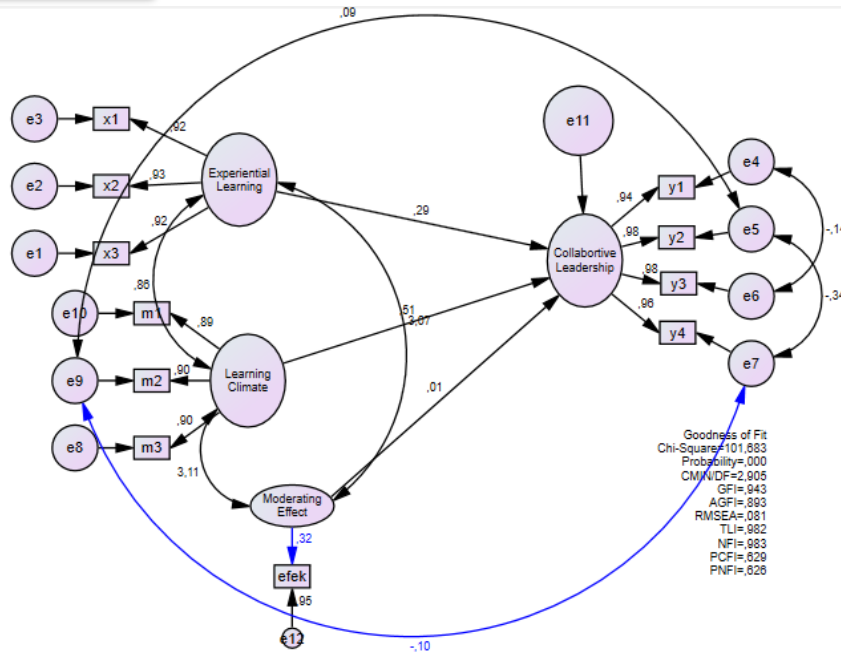
Figure 4. *Structural Modification Model*

Based on the figure above, the results of the model fit test are as follows:

Table 7: Model Fit Test Results After Modification

Goodness of Fit Index	Cut off Value	Indicator	Result test	Evaluation model
X2-Chi Square	Smallest Value	0: the perfect fit; the bigger the less fit	101,683	Marginal Fit
Significant Probability	≥ 0,05	≥α: fit; score α used : 5%, 1%, 10%	0,000	Not Fit
RMSEA	≤ 0,08	≤ 0,05; fit; > 0,10: Not fit	0,081	**Good Fit**
GFI	≥ 0,90	0: not fit; 1: the perfect fit; ≥ 0,90: fit	0,943	**Good Fit**
AGFI	≥ 0,90	0: not fit; 1: the perfect fit; ≥ 0,90: fit	0,893	Marginal Fit
CMIN/DF	≤ 2,00	≤ 2,00: fit	2,905	Not Fit
TLI	≥ 0,95	0:not fit; 1: the perfect fit; ≥ 0,90: fit	0,982	**Good Fit**
CFI	≥ 0,95	0: not fit; the bigger the less fit	0,629	Marginal Fit
NFI	≥ 0,95	0: not fit; 1: the perfect fit; ≥ 0,90: fit	0,983	**Good Fit**

From the results of testing the model with the modifications made, it was found that there were four goodness of fit criteria that were declared feasible. Based on Heir et all. (Hair et al., 2014) regarding the use of 4-5 goodness of fit that meets the requirements is sufficient to assess the feasibility of a model, then this model is declared feasible, and the model built is good. The criteria are four good fit, three marginal fit, and two not fit.

The Result of SEM Analysis

After obtaining a model that fits the data and determining the appropriate estimation method for the model that has been formed, the next stage of SEM analysis is to estimate the structural model.

Table 8. Structural Model Estimation Results

Hypotesis		Standardized estimate	S.E.	C.R.	P	Conclusion
H1	EL→ CL	0,302	0,095	3,168	0,002	Significant positive
H2	EL*LC→ CL	0,005	0,001	7,903	0,000	Significant positive

Based on the hypothesis results in the structural model analysis, the data for each variable relationship obtained P value ≤0.05, meaning that the hypothesis on the variable relationship in this study is positively significant. As for the table above, several conclusions are obtained as follows. The significant value of the effect of the Experiential Learning (EL) variable on Collaborative Leadership (CL) is 0.002 (significant value <0.05) with a positive standardized loading estimate of 0.302, indicating that the experiential learning variable has a positive and significant effect on collaborative leadership. The higher the experiential learning of students in implementing the emancipated learning program, the more collaborative leadership will be built optimally.

The significant value of the effect of the moderating variable Learning Climate (LC) in the effect of Experiential Learning (EL) on Collaborative Leadership (CL) is 0.000 (significant value <0.05) with a positive standardized loading estimate of 0.005, indicating that the learning climate variable is positive and quite weak in moderating the effect of experiential learning on collaborative leadership. This can be caused by the organization used as a place to implement the emancipated learning program is a school, so the learning climate has been formed positively. Although weak, the learning climate in schools is able to encourage the influence of experiential learning on collaborative leadership in students participating in the emancipated learning program.

Hypothesis Testing Results

Based on all the SEM analysis results above, the hypothesis testing results are as follows.

Table 9: Hypothesis Testing Results

No	Hypothesis	P Value	Conclusion
1	Experiential learning is highly significant towards collaborative leadership	0,002	Accepted
2	Learning climate highly influences experiential learning towards collaborative leadership	0,000	Accepted

DISCUSSION

Influence of Experiential Learning to Collaborative Leadership

Experiential learning is a learning approach that focuses on providing direct experience to students as an effective learning tool (Anggraeni, 2022; Yuniawan, Rokhman, & Abidin, 2023). Meanwhile, collaborative leadership refers to the ability to lead and coordinate teams by utilizing synergies between team members and promoting cooperation and active participation in decision making. Collaborative leadership is able to foster students' field experience when on campus, either through leadership simulation activities, student exchanges, teaching campuses, and other practical activities (Kainer et al., 2019). Based on the results of the first hypothesis research, where experiential learning has a significant influence on collaborative leadership with a P value = 0.002 (significant value <0.05). This shows that experiential learning directs students to learn through reflection on practical experiences. Thus, students'

collaborative leadership will be built through various activities carried out with various emancipated learning programs. The role of collaborative leadership in experiential learning also allows leaders to understand team dynamics more deeply, and helps in the development of interpersonal skills, continuous learning, and the formation of an inclusive work culture. Experiential learning through interpersonal simulation has a significant effect on teamwork and collaborative leadership (Kleib, Jackman, & Duarte-Wisnesky, 2021).

Learning Climate as the Experiential Learning Moderator on Collaborative Leadership
In the context of this study, moderation of the learning climate is an important factor that influences experiential learning on collaborative leadership abilities in students participating in the independent learning program on independent campuses, especially in teaching campus activities class 5 at Surabaya State University. Based on the research data analysis, the P value of 0.000 (significant value <0.05) shows that the learning climate variable positively and quite weakly moderates the effect of experiential learning on collaborative leadership. This is due to the condition of the school climate, which is created as a learning organization, so that the climate has been created even though the emancipated learning program has not been running. Even so, learning climate has a positive impact on the effect of experiential learning on collaborative leadership. These results are relevant to the results of research that shows a positive learning climate is able to foster collaborative leadership in the context of organizational management as part of the experiential learning of principals and teachers, besides that there are other aspects that contribute to the quality of teaching and the principal's instructional leadership vision (Shaked, 2022) which are not used as variables in the study. This is also supported by the results of research on the influence of organizational learning climate in experiential learning and collaborative leadership by combining self-concept leadership theory, social exchange theory and a hierarchical model of the distance of variables to human behavior (Vermeulen, Kreijns, & Evers, 2022). Organizational learning climate is related to work motivation, job satisfaction, positive working conditions in collaborative leadership (Daniëls, Muyters, & Hondeghem, 2021). Therefore, a positive organizational learning climate can contribute to organizational performance, through experiential learning and collaborative leadership.

CONCLUSION

The findings of this study provide theoretical contributions and practical implications. This research strengthens the contingency leadership theory, especially on the collaborative leadership model which is influenced by experiential learning and moderated by learning climate. Both theoretically and practically, the implications of this research can provide direction in shaping student leadership competencies through emancipated learning activities as a national policy in fostering student competencies relevant to 21st century skills. The school learning climate has been positively conditioned as an educational environment. The climate created in students' experiential learning activities through the emancipated learning program is able to produce collaborative leadership skills in students. This research is limited to the scope of universities with respondents participating in the emancipated learning program, namely teaching campuses. Future research recommendations can be carried out on a more comprehensive data distribution with various forms of existing emancipated learning programs, such as: independent studies, certified internships, real work lectures, student exchanges, and various other programs. The author also makes methodological recommendations to be able to develop research analysis using multi-level analysis, where future research will examine data hierarchically, namely the organizational level and individual level.

REFERENCES

Abdullah, A. S. (2021). Leadership, Task Load And Job Satisfaction: A Review Of Special Education Teachers Perspective. Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12(11), 5300–5306.

Aldridge, J. M., & Bianchet, S. (2022). Using student feedback about the learning environment as a starting point for co-construction. Learning Environments Research, 25(3), 939–955. https://doi.org/10.1007/s10984-021-09403-9

Anggraeni, C. W. (2022). Participatory Management In Emancipated Learning Programs And Key Performance Indicators: What Are The Virtues? Demystifying Language Teaching Program Management And Evaluation: Theories And Practices, 26.

Baert, H., De Rick, K., & Van Valckenborgh, K. (2006). Towards the conceptualisation of learning climate. Adult Education: New Routes in a New Landscape, 87–111.

Barger, A. P., Leffel, K. G., & Lott, M. (2021). Plotting Academic Innovation: A Content Analysis of Twenty Institutional Websites. Innovative Higher Education, 1–17.

Bradberry, L. A., & De Maio, J. (2019). Learning by doing: The long-term impact of experiential learning programs on student success. Journal of Political Science Education, 15(1), 94–111.

Bundtzen, H. (2020). Adapting Herzberg's Motivation-Hygiene Theory to a VUCA world–a repertory grid study. European Journal of Economics and Business Studies, 6(3), 145.

Byrd, M. Y. (2022). Creating a culture of inclusion and belongingness in remote work environments that sustains meaningful work. Human Resource Development International, 25(2), 145–162.

Carrim, N. M. H., & Basson, J. S. (2013). Creating a learning climate: a South African study. The Learning Organization, 20(1), 6–19.

Casey, A. (2005). Enhancing individual and organizational learning: A sociological model. Management Learning, 36(2), 131–147.

Corbett, F., & Spinello, E. (2020). Connectivism and leadership: harnessing a learning theory for the digital age to redefine leadership in the twenty-first century. Heliyon, 6(1).

Coulson-Thomas, C. (2019). Collaborative leadership for environment protection and climate change: Strategy for creative solutions.

D'Alterio, N., Fantinelli, S., Galanti, T., & Cortini, M. (2019). The mediator role of the job related stress in the relation between learning climate and job performance. Evidences from the health sector. Recenti Progressi in Medicina, 110(5), 251–254.

Daniëls, E., Muyters, G., & Hondeghem, A. (2021). Leadership training and organizational learning climate: Measuring influences based on a field experiment in education. International Journal of Training and Development, 25(1), 43–59.

Eldor, L. (2017). The relationship between perceptions of learning climate and employee innovative behavior and proficiency. Personnel Review.

Fish, R. M., Gawne, S. J., & Machin, L. (2022). Balancing medical education with service in the workplace: a qualitative case study. Journal of Workplace Learning, 34(2), 176–187. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112556624&doi=10.1108%2FJWL-05-2021-0064&partnerID=40&md5=f57597cd9e27db189b812040a1195483

Flake, J. K., Davidson, I. J., Wong, O., & Pek, J. (2022). Construct validity and the validity of replication studies: A systematic review. American Psychologist, 77(4), 576.

Fung, T. W. F., Chan, K. N., & Lou, V. W. (2019). Building volunteer collaborative leadership: an academic community partnership initiative. The Foundation of Community-Based End-of-Life Care in Hong Kong.

Gunawan, I., Suminah, S., Murdiyah, S., Andriningrum, H., & Onenda, G. (2018). Improving Student Learning Achievement through Behavior Modification Approach. 1st International Conference on Early Childhood and Primary Education (ECPE 2018), 91–94. Atlantis Press.

Hair, J. F., Gabriel, M., & Patel, V. (2014). AMOS covariance-based structural equation modeling (CB-SEM): Guidelines on its application as a marketing research tool. Brazilian Journal of Marketing, 13(2).

Hallinger, P., & Heck, R. H. (2010). Leadership for learning: Does collaborative leadership make a difference in school improvement? Educational Management Administration & Leadership, 38(6), 654–678.

James, K. T., Mann, J., & Creasy, J. (2007). Leaders as lead learners: A case example of facilitating collaborative leadership learning for school leaders. Management Learning, 38(1), 79–94.

Jurkowski, S., Mundelsee, L., Jüngst, C., & Hänze, M. (2022). Measuring knowledge co-construction: A comparison of high-inference observation, low-inference coding and self-report of transactive communication . Zeitschrift fur Erziehungswissenschaft, 25(6), 1505–1527. https://doi.org/10.1007/s11618-022-01124-w

Kainer, K. A., López Binnqüist, C., Dain, J. L., Contreras Jaimes, B., Negreros Castillo, P., Gonzalez Basulto, R., &

Melchor Contreras, F. (2019). Leading by listening, learning by doing: modeling democratic approaches to conservation leadership in graduate education. Journal of Environmental Studies and Sciences, 9, 206–2017. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065429048&doi=10.1007%2Fs13412-019-00542-3&partnerID=40&md5=d5baabffebe55f0107e54f9d5b76de22

Kim, E.-J., & Park, S. (2020). Transformational leadership, knowledge sharing, organizational climate and learning: an empirical study. Leadership & Organization Development Journal.

Kleib, M., Jackman, D., & Duarte-Wisnesky, U. (2021). Interprofessional simulation to promote teamwork and communication between nursing and respiratory therapy students: a mixed-method research study. Nurse Education Today, 99, 104816.

Komarudin, A. N. (2022). Pengaruh Iklim Organisasi Sekolah Terhada Motivasi Berprestasi Untuk Mewujudkan Kinerja Pembelajaran. J-STAF (Shiddiq, Tabligh, Amanah, Fathonah), 1(2), 355–363.

Kushman, J. W. (1992). The organizational dynamics of teacher workplace commitment: A study of urban elementary and middle schools. Educational Administration Quarterly, 28(1), 5–42.

Mia, M. M., Majri, Y., & Rahman, I. K. A. (2019). Covariance based-structural equation modeling (CB-SEM) using AMOS in management research. Journal of Business and Management, 21(1), 56–61.

Mikkelsen, A., & Grønhaug, K. (1999). Measuring organizational learning climate: A cross-national replication and instrument validation study among public sector employees. Review of Public Personnel Administration, 19(4), 31–44.

Nabella, S. D., Rivaldo, Y., Kurniawan, R., Nurmayunita, N., Sari, D. P., Luran, M. F., … Sova, M. (2022). The Influence of Leadership and Organizational Culture Mediated by Organizational Climate on Governance at Senior High School in Batam City. Journal of Educational and Social Research, 12(5), 119–130.

Navajas-Romero, V., Ceular-Villamandos, N., Pérez-Priego, M. A., & Caridad-López del Río, L. (2022). Sustainable human resource management the mediating role between work engagement and teamwork performance. Plos One, 17(8), e0271134.

Ng, B., & Latife, A. (2022). Exploring students' learning and motivation in a lesson study for learning community (LSLC) environment: a new perspective. International Journal for Lesson & Learning Studies, 11(3), 193–204.

Paletta, A., Basyte Ferrari, E., & Alimehmeti, G. (2020). How principals use a new accountability system to promote change in teacher practices: Evidence from Italy. Educational Administration Quarterly, 56(1), 123–173.

Raelin, J. (2006). Does action learning promote collaborative leadership? Academy of Management Learning & Education, 5(2), 152–168.

Razak, N., Ab Jalil, H., & Ismail, I. (2019). Challenges in ICT integration among Malaysian public primary education teachers: The roles of leaders and stakeholders. International Journal of Emerging Technologies in Learning (IJET), 14(24), 184–205.

Rehman, S. U., Bhatti, A., & Chaudhry, N. I. (2019). Mediating effect of innovative culture and organizational learning between leadership styles at third-order and organizational performance in Malaysian SMEs. Journal of Global Entrepreneurship Research, 9(1), 1–24.

Roh, Y., Heo, G., & Whang, S. E. (2019). A survey on data collection for machine learning: a big data-ai integration perspective. IEEE Transactions on Knowledge and Data Engineering, 33(4), 1328–1347.

Sakai, I., Yamamoto, T., Takahashi, Y., Maeda, T., Kunii, Y., & Kurokochi, K. (2017). Development of a new measurement scale for interprofessional collaborative competency: The Chiba Interprofessional Competency Scale (CICS29). Journal of Interprofessional Care, 31(1), 59–65.

Shaked, H. (2022). How organizational management supports instructional leadership. Journal of Educational Administration, 61(1), 60–77.

Toheri, T., Winarso, W., & Haqq, A. A. (2019). Three Parts of 21 Century Skills: Creative, Critical, and Communication Mathematics through Academic-constructive Controversy. Checker Similarity or Originality Universal Journal of Educational Research, 7(11), 1–16.

Torres, D. G. (2019). Distributed leadership, professional collaboration, and teachers' job satisfaction in US schools. Teaching and Teacher Education, 79, 111–123.

Vermeulen, M., Kreijns, K., & Evers, A. T. (2022). Transformational leadership, leader–member exchange and school

learning climate: Impact on teachers' innovative behaviour in the Netherlands. Educational Management Administration & Leadership, 50(3), 491–510.

Walker, J. P., & Rocconi, L. M. (2021). Experiential Learning Student Surveys: Indirect Measures of Student Growth. Research & Practice in Assessment, 16(1), 21–35.

Waller, R. E., Lemoine, P. A., Mense, E. G., Garretson, C. J., & Richardson, M. D. (2019). Global higher education in a VUCA world: Concerns and projections. Journal of Education and Development, 3(2), 73.

Wei, H., Horns, P., Sears, S. F., Huang, K., Smith, C. M., & Wei, T. L. (2022). A systematic meta-review of systematic reviews about interprofessional collaboration: facilitators, barriers, and outcomes. Journal of Interprofessional Care, 36(5), 735–749.

Widianto, S., Lestari, Y. D., Adna, B. E., Sukoco, B. M., & Nasih, M. (2021). Dynamic managerial capabilities, organisational capacity for change and organisational performance: the moderating effect of attitude towards change in a public service organisation. Journal of Organizational Effectiveness: People and Performance, 8(1), 149–172. https://doi.org/10.1108/JOEPP-02-2020-0028

Winter, R., Leanage, N., Roberts, N., Norman, R. I., & Howick, J. (2022). Experiences of empathy training in healthcare: a systematic review of qualitative studies. Patient Education and Counseling.

Yukl, G. (2011). Contingency theories of effective leadership. The SAGE Handbook of Leadership, 24(1), 286–298.

Yuniawan, T., Rokhman, F., & Abidin, Z. (2023). Study Analysis of the Types of Emancipated Learning Activities. Unima International Conference on Social Sciences and Humanities (UNICSSH 2022), 26–31. Atlantis Press.