

Article

Mentorship-Oriented Leadership on the Learning Satisfaction of Higher Vocational Students

Jinxiang Li ^{1,*}¹ Emilio Aguinaldo College, Manila, Philippines

* Correspondence: Jinxiang Li, Emilio Aguinaldo College, Manila, Philippines

Abstract: This study investigated the influence of mentorship-oriented leadership on the learning satisfaction of higher vocational students in a selected institution in Shandong Province, China. Grounded in Bandura's Social Cognitive Theory, the research examined how four mentorship leadership dimensions — empowerment, cultural responsiveness, emotional support, and goal alignment — correlated with four dimensions of learning satisfaction: cognitive engagement, emotional satisfaction, instructional interaction, and facilitation. A quantitative research design was employed, involving a total of 513 students through census sampling. A structured, researcher-developed questionnaire was used to collect data. Statistical analyses included descriptive statistics, independent samples t-tests, one-way ANOVA, and Pearson correlation coefficients. Results indicated that both mentorship-oriented leadership and learning satisfaction were perceived as "manifested" by students. Emotional support was rated as the most prominent leadership behavior, while cultural responsiveness received the lowest rating. In terms of satisfaction, facilitation and emotional satisfaction scored highest. No significant differences were found across sex, age, or year level, suggesting consistent perceptions across demographic groups. Crucially, all four mentorship leadership dimensions showed significant positive correlations with learning satisfaction dimensions, with the strongest relationship between emotional support and emotional satisfaction ($r = 0.54$, $p < 0.01$). The study concludes that mentorship-oriented leadership positively influences student satisfaction and recommends the institutionalization of structured mentorship programs, enhanced faculty training, and increased emphasis on cultural inclusivity to promote holistic student development in vocational education.

Keywords: mentorship-oriented leadership; learning satisfaction; vocational education; emotional support; social cognitive theory; cultural responsiveness

Received: 10 June 2025

Revised: 16 June 2025

Accepted: 26 June 2025

Published: 05 July 2025



Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

1.1. Background of the Study

In recent years, the evolving demands of higher vocational education have underscored the need for more personalized, developmental, and inclusive leadership approaches. Among these, mentorship-oriented leadership has emerged as a transformative strategy that emphasizes relational guidance, skill development, and cultural responsiveness. This leadership style is particularly relevant in the vocational education context, where students are expected to develop not only technical competencies but also emotional resilience and professional identity.

Mentorship-oriented leadership moves beyond conventional instructional authority and focuses on establishing trust-based relationships between educators and students. It nurtures student autonomy, aligns personal goals with institutional expectations, and fosters an environment of encouragement and inclusivity. In higher vocational settings — where the practical application of skills is as critical as academic performance — such mentorship has the potential to significantly influence learning satisfaction.

Learning satisfaction is a multidimensional construct that reflects students' perceptions of their educational experience, including cognitive engagement, emotional fulfillment, quality of instructional interaction, and facilitative support. For vocational students, satisfaction is closely linked to their sense of readiness for the workforce, motivation to persist, and overall well-being. Thus, the relationship between mentorship-oriented leadership and learning satisfaction becomes a critical area of investigation for both educators and institutional leaders.

In the Chinese context, where rapid educational reforms and regional disparities affect the consistency of vocational education quality, mentorship practices can provide much-needed individualized support. However, empirical studies exploring the link between leadership practices and learning satisfaction among vocational students remain limited, particularly in non-Western settings. This study was conducted to address that gap by focusing on a higher vocational institution in Shandong Province, China.

1.2. Statement of the Problem

This study explores how mentorship-oriented leadership, characterized by empowerment, cultural responsiveness, emotional support, and goal alignment, influences the learning satisfaction of higher vocational students. It specifically addresses the following questions:

- 1) What is the demographic profile of the respondents in terms of:
 - a) Age.
 - b) Sex.
 - c) Year level.
- 2) How do students assess mentorship-oriented leadership in terms of:
 - a) Empowerment and skill development.
 - b) Cultural responsiveness and inclusivity.
 - c) Relational and emotional support.
 - d) Guidance and goal alignment.
- 3) Are there significant differences in students' assessment of mentorship-oriented leadership across demographic variables?
- 4) How do students assess their learning satisfaction in terms of:
 - a) Cognitive engagement.
 - b) Emotional satisfaction.
 - c) Instructional interaction.
 - d) Facilitation.
- 5) Are there significant differences in learning satisfaction across demographic variables?
- 6) Is there a significant relationship between mentorship-oriented leadership and learning satisfaction?

1.3. Research Objectives

This research aims to:

- 1) Describe the demographic characteristics of higher vocational students.
- 2) Assess the level of mentorship-oriented leadership practiced by educators.
- 3) Evaluate students' learning satisfaction.
- 4) Identify differences in perceptions based on demographics.
- 5) Determine the relationship between mentorship-oriented leadership and learning satisfaction.
- 6) Propose a mentorship module grounded in the findings.

1.4. Research Hypotheses

The study is guided by the following null hypotheses:

- 1) H_{01} : There is no significant difference in the assessment of mentorship-oriented leadership based on demographic profile.
- 2) H_{02} : There is no significant difference in the assessment of learning satisfaction based on demographic profile.
- 3) H_{03} : There is no significant relationship between mentorship-oriented leadership and learning satisfaction.

1.5. Significance of the Study

This study offers valuable contributions across several educational levels:

- 1) For Educational Leaders and Administrators: It provides empirical insights into how mentorship-oriented leadership can be institutionalized to enhance student outcomes.
- 2) For Teachers and Mentors: The findings can help refine classroom and advisory practices, with a focus on emotional support, inclusive communication, and skill alignment.
- 3) For Students: The proposed mentorship framework will help improve academic engagement and emotional well-being, ultimately increasing satisfaction and retention.
- 4) For Policymakers: The research supports the development of leadership training programs tailored to the unique needs of vocational education.
- 5) For Future Researchers: This study opens new avenues for investigating mentorship in diverse cultural and educational contexts.

1.6. Scope and Delimitations

This research is confined to a sample of 513 students enrolled at a higher vocational institution in Shandong Province, China. It adopts a quantitative approach utilizing a researcher-developed survey that measures mentorship-oriented leadership and learning satisfaction. While the study includes comprehensive demographic analysis and correlation testing, it does not consider other institutional factors such as curriculum design, infrastructure quality, or external socioeconomic influences.

The study's generalizability is limited to similar vocational contexts and may not fully apply to general academic institutions or other cultural environments. Furthermore, while the study presents a proposed mentorship module, its implementation and impact evaluation are beyond the current research scope.

2. Review of Related Literature

2.1. Mentorship-Oriented Leadership: Definition and Dimensions

Mentorship-oriented leadership is a multidimensional leadership approach that integrates mentoring principles into educational practice. It emphasizes mutual growth, skill enhancement, cultural responsiveness, and emotional support. Unlike traditional leadership models that focus solely on direction and oversight, mentorship-oriented leadership fosters a nurturing environment in which students are empowered to actively engage in their development [1,2].

This leadership style encompasses four key dimensions:

- 1) Empowerment and Skill Development: Involves guiding students to take initiative, build competencies, and develop confidence in their abilities. Educators function as facilitators who promote autonomy and continuous improvement.
- 2) Cultural Responsiveness and Inclusivity: Mentors must recognize and adapt to the diverse cultural backgrounds of learners, ensuring inclusiveness and fairness in learning environments.
- 3) Relational and Emotional Support: Effective mentorship requires empathy, trust, and meaningful relationships. Leaders must provide emotional guidance to foster student belongingness and motivation.

- 4) **Guidance and Goal Alignment:** Aligning students' personal aspirations with institutional or career goals is a critical aspect of this leadership approach. Mentors provide structure and clarity to help students navigate educational and professional pathways.

Together, these dimensions shape the educational experience beyond academic instruction, influencing students' psychological, emotional, and social development.

2.2. Learning Satisfaction: A Multidimensional Construct

Learning satisfaction reflects students' perceived fulfillment of their educational needs and expectations. It is recognized as a core indicator of instructional effectiveness and student engagement. In higher education, learning satisfaction is typically analyzed across four dimensions:

- 1) **Cognitive Engagement:** The intellectual investment students make in their learning processes, including critical thinking, problem-solving, and reflection.
- 2) **Emotional Satisfaction:** Refers to students' affective responses to their educational experience — feelings of enjoyment, enthusiasm, and fulfillment.
- 3) **Instructional Interaction:** Describes the quality and frequency of interactions between students, instructors, peers, and educational content.
- 4) **Facilitation:** The organizational and structural support that helps students navigate their learning journey, including clarity of instruction, resource availability, and administrative support.

These dimensions are not isolated; they interact dynamically and are influenced by various institutional, social, and psychological factors.

2.3. Mentorship and Student Outcomes: Empirical Perspectives

A growing body of literature underscores the significance of mentorship in promoting student success. In academic environments, structured mentorship programs have demonstrated positive effects on student confidence, skill acquisition, and institutional belonging. For example, Pfund et al. documented the impact of CO-Mentor — a mentoring training program — on both mentor and mentee development [3]. Mentors gained confidence in guiding others, while mentees developed key academic and professional skills.

Womack et al. emphasized the importance of cultural awareness in mentoring relationships, especially for underrepresented students in science, technology, engineering, and mathematics (STEM) [4]. The Culturally Aware Mentoring (CAM) initiative revealed that when mentors are trained to recognize cultural differences and challenges, mentees report higher levels of trust, engagement, and satisfaction.

Natural mentoring relationships also play a significant role in student development. According to van Dam et al., the quality of informal mentoring — characterized by emotional closeness and autonomy — strongly influences resilience, academic motivation, and learning satisfaction [5]. These findings suggest that both formal and informal mentoring contribute to favorable educational outcomes, particularly in emotionally and socially complex environments.

In the health sciences, mentoring has proven critical to professional development. Cross et al. highlighted how supportive mentors improved the career satisfaction of female faculty in medical fields, addressing both personal and organizational barriers to advancement [6,7].

2.4. Mentorship in Challenging Contexts: COVID-19 and Beyond

The COVID-19 pandemic highlighted the adaptability and resilience of mentorship frameworks. With traditional face-to-face mentoring disrupted, institutions embraced virtual and peer mentoring models. Junn et al. found that remote mentorship maintained

students' sense of connection and continuity, supporting their academic and emotional well-being during uncertain times [8].

Technology-mediated mentorship also contributed to sustained learning satisfaction. Widely used communication platforms and digital learning communities provided flexible channels for guidance and interaction. These findings demonstrate that mentorship-oriented leadership can be effectively adapted to online or hybrid learning contexts [9].

Moreover, mentoring proved beneficial in addressing generational and motivational gaps between students and faculty. Waljee et al. described how Millennial learners' expectations for rapid feedback, inclusivity, and collaboration could be effectively managed through adaptive mentorship models that emphasize shared goals and open dialogue [10].

2.5. Theoretical Framework: Social Cognitive Theory

This study is grounded in Albert Bandura's Social Cognitive Theory, which posits that learning is shaped by the reciprocal interaction of personal, behavioral, and environmental factors [11]. Mentorship-oriented leadership functions as a key environmental factor that directly influences students' behaviors and self-perceptions.

One of the central concepts of SCT is observational learning — students acquire skills and attitudes by observing their mentors' actions, values, and feedback. Leaders who model inclusive, empowering behaviors cultivate a learning environment where students internalize confidence, resilience, and self-efficacy.

Another essential construct is self-efficacy, or an individual's belief in their capacity to perform tasks and achieve goals. Mentorship-oriented leadership enhances self-efficacy by providing emotional support, structured feedback, and opportunities for mastery experiences [12]. These, in turn, elevate cognitive engagement and emotional satisfaction — two vital components of learning satisfaction.

Thus, the SCT framework enables a comprehensive understanding of how mentorship-oriented leadership influences learning satisfaction by linking observable behaviors (e.g., mentoring practices), cognitive processes (e.g., self-efficacy), and affective responses (e.g., emotional well-being).

2.6. Research Gaps and Justification

Despite extensive documentation of mentorship's benefits, there remain several gaps in the literature:

- 1) **Limited Quantitative Studies:** Most existing research is qualitative or anecdotal. Few studies have quantitatively measured the correlation between specific mentorship behaviors and learning satisfaction dimensions.
- 2) **Cultural Contexts:** Much of the literature is Western-centric. There is a lack of research on mentorship-oriented leadership in non-Western, particularly Chinese, vocational education settings.
- 3) **Integration of Mentorship and Leadership:** Few studies examine the intersection of mentorship and educational leadership practices. Research often treats these constructs separately.
- 4) **Underexplored Constructs:** While mentorship's impact on academic outcomes is well-established, its role in facilitating instructional interaction and logistical support remains under-researched.

This study addresses these gaps by employing a quantitative methodology in a Chinese vocational context, using validated instruments to assess both mentorship-oriented leadership and learning satisfaction. It also contributes to the development of a structured mentorship module grounded in theoretical and empirical insights.

2.7. Conceptual Framework

The conceptual framework guiding this study illustrates the hypothesized relationships among three core components:

- 1) Independent Variable: Mentorship-Oriented Leadership (with four dimensions).
- 2) Dependent Variable: Learning Satisfaction (with four dimensions).
- 3) Moderating/Differentiating Variables: Demographic factors (age, sex, year level).

The model posits a direct relationship between mentorship-oriented leadership and learning satisfaction. It assumes that effective mentorship practices — when tailored to students' developmental and cultural contexts — enhance cognitive, emotional, and relational satisfaction. The demographic profile provides context to assess whether variations exist in students' perceptions based on identity and academic standing.

This conceptual approach serves as the foundation for data collection, analysis, and interpretation in subsequent chapters [13].

3. Methodology

3.1. Research Design

This study employed a quantitative research design, integrating descriptive, comparative, and correlational approaches to investigate the relationship between mentorship-oriented leadership and learning satisfaction among students in a higher vocational institution. This multifaceted design enabled a comprehensive analysis of students' perceptions and experiences while maintaining statistical objectivity.

- 1) The descriptive component focused on measuring the perceived levels of mentorship-oriented leadership and learning satisfaction using mean scores and standard deviations.
- 2) The comparative aspect examined differences in perceptions across demographic groups such as age, sex, and year level.
- 3) The correlational component assessed the strength and direction of the relationship between mentorship-oriented leadership and learning satisfaction using Pearson correlation coefficients.

This methodology was selected to systematically quantify student responses, identify group-based differences, and test hypotheses related to leadership influence on satisfaction outcomes [14].

3.2. Research Locale and Participants

The study was conducted in a higher vocational institution located in Shandong Province, China. This region is known for its strong emphasis on technical education and industry-academia alignment. The institution offers various diploma and degree programs aimed at equipping students with practical skills for immediate employment.

The student population of this institution provided a suitable setting to explore the interplay between mentorship practices and learning experiences, particularly within a career-focused educational environment.

A total enumeration sampling technique was employed, meaning that all eligible students were invited to participate in the study. The final sample comprised 513 students, ensuring broad representation across different age groups, academic years, and gender identities. This sampling method helped reduce sampling bias and increased the generalizability of findings within the institution.

3.3. Research Instrument

Data were collected using a researcher-developed structured questionnaire, composed of three major sections. The instrument was designed based on relevant literature and validated through expert review and pilot testing.

Part 1: Demographic Profile

This section gathered data on three key demographic variables:

- 1) Age (grouped: 18–20, 21–23, 24–26).
- 2) Sex (male, female).

3) Year level (1st year to 4th year).

Part 2: Mentorship-Oriented Leadership.

This section assessed the perceived mentorship behaviors of instructors across four dimensions, using a 4-point Likert scale (1 = Not Manifested, 4 = Highly Manifested):

- 1) Empowerment and Skill Development.
- 2) Cultural Responsiveness and Inclusivity.
- 3) Relational and Emotional Support.
- 4) Guidance and Goal Alignment.

Sample items included:

"My mentor encourages me to take initiative", and "My mentor recognizes and respects cultural differences".

Part 3: Learning Satisfaction

This section evaluated students' satisfaction using a similar 4-point Likert scale across the following dimensions:

- 1) Cognitive Engagement.
- 2) Emotional Satisfaction.
- 3) Instructional Interaction.
- 4) Facilitation.

Sample statements were:

"I find the learning process intellectually stimulating", and "Resources and guidance are easily accessible".

The questionnaire's internal consistency was tested using Cronbach's alpha during a pilot phase involving 30 students. All sections demonstrated high reliability, with alpha coefficients exceeding 0.80.

3.4. Data Collection Procedure

The data collection process was carried out online through widely used digital communication platforms among students in China [15]. The choice of WeChat ensured accessibility and ease of participation, especially under post-pandemic digital learning conditions.

The process followed these steps:

- 1) Ethical Clearance: Approval was obtained from the institution's research ethics board prior to distribution.
- 2) Consent: An informed consent form was embedded at the beginning of the online survey. Students were required to read and agree before proceeding.
- 3) Survey Distribution: The questionnaire link was disseminated via WeChat groups and class networks, with the help of instructors and administrative staff.
- 4) Data Collection Period: The survey remained open for approximately two weeks. Reminders were sent periodically to increase response rates.
- 5) Anonymity and Security: Responses were anonymized, and data were stored in a password-protected file accessible only to the researcher.

This procedure allowed for wide reach, reduced physical barriers to participation, and ensured data integrity and confidentiality.

3.5. Data Analysis

Collected data were analyzed using SPSS (Statistical Package for the Social Sciences), employing the following techniques:

- 1) Descriptive Statistics

Mean and Standard Deviation were used to describe the levels of mentorship-oriented leadership and learning satisfaction.

- 2) Comparative Analysis

To determine if perceptions differed across demographic variables:

Independent samples t-tests were used for dichotomous variables (e.g., sex).

One-way ANOVA was used for variables with more than two groups (e.g., age, year level).

If significant differences were found in ANOVA, post hoc Tukey tests were applied to identify which specific groups differed.

3) Correlational Analysis

Pearson's r was computed to assess the relationship between the dimensions of mentorship-oriented leadership and the components of learning satisfaction.

Interpretation of correlation strength followed Cohen's conventions [16]:

- a) 0.10–0.29: small.
- b) 0.30–0.49: moderate.
- c) 0.50–1.0: strong.

The statistical significance level was set at $p < 0.05$.

These analyses were aligned with the study's objectives and hypotheses, providing empirical answers to the research questions and revealing patterns in student perceptions.

3.6. Ethical Considerations

The study strictly followed ethical research protocols to protect the rights and welfare of participants. Key considerations included:

- 1) Voluntary Participation: Students were informed that participation was optional and had the right to withdraw at any point.
- 2) Informed Consent: A detailed explanation of the study's purpose, risks, and benefits was provided before the questionnaire began.
- 3) Confidentiality: No identifying information was collected, and responses were kept anonymous. Aggregated data reporting ensured that individual answers could not be traced.
- 4) Data Protection: All digital files were stored securely and deleted after the completion of the study to prevent unauthorized access.

Ethical transparency ensured the credibility of the study and fostered trust between the researcher and participants.

4. Results and Discussion

This chapter presents the findings of the study in accordance with the research questions. Descriptive, comparative, and correlational statistical analyses were conducted to examine the relationship between mentorship-oriented leadership and learning satisfaction. The results are supported by tables and interpreted in light of existing literature and the Social Cognitive Theory.

4.1. Demographic Profile of Respondents

The demographic characteristics of the 513 respondents are summarized in Table 1.

Table 1. Demographic Profile of the Respondents (n = 513).

Category	Subgroup	Frequency	Percentage
Sex	Male	227	44.2%
	Female	286	55.8%
Age	18–20	427	83.2%
	21–23	71	13.8%
	24–26	15	2.9%
Year Level	1st Year	212	41.3%
	2nd Year	174	33.9%
	3rd Year	102	19.9%
	4th Year	25	4.9%

The majority of respondents were female (55.8%), aged 18–20 years (83.2%), and in their first (41.3%) or second year (33.9%) of studies. This reflects the typical composition of students enrolled in vocational programs in China [17].

4.2. Assessment of Mentorship-Oriented Leadership

The perceived level of mentorship-oriented leadership across four dimensions is shown in Table 2.

Table 2. Mean Scores of Mentorship-Oriented Leadership Dimensions.

Dimension	Mean Score	Interpretation
Empowerment & Skill Development	2.96	Manifested
Cultural Responsiveness & Inclusivity	2.89	Manifested
Relational & Emotional Support	3.03	Manifested
Guidance & Goal Alignment	2.98	Manifested
Overall Average	2.97	Manifested

Students perceived mentorship-oriented leadership as generally present across all dimensions. The highest-rated aspect was Relational and Emotional Support ($M = 3.03$), indicating strong mentor-mentee emotional rapport. The lowest-rated was Cultural Responsiveness ($M = 2.89$), suggesting room for improvement in inclusive practices [18].

4.3. Assessment of Learning Satisfaction

Student responses on learning satisfaction are summarized in Table 3.

Table 3. Mean Scores of Learning Satisfaction Dimensions.

Dimension	Mean Score	Interpretation
Cognitive Engagement	2.91	Manifested
Emotional Satisfaction	3.01	Manifested
Instructional Interaction	2.88	Manifested
Facilitation	3.03	Manifested
Overall Average	2.96	Manifested

Facilitation ($M = 3.03$) and Emotional Satisfaction ($M = 3.01$) were rated highest. This indicates that students valued the organizational structure and affective environment of their academic experience.

4.4. Comparative Analysis Based on Demographics

T-tests and one-way ANOVA were used to assess whether students' perceptions differed by sex, age, or year level. The findings are summarized in Table 4.

Table 4. Summary of Comparative Analysis Results.

Variable	Dimension	Statistical Test	Result	Significance
Sex	All Mentorship & Satisfaction Dimensions	Independent t-test	No difference	Not significant
Age Group	All Dimensions	One-way ANOVA	No difference	Not significant
Year Level	All Dimensions	One-way ANOVA	No difference	Not significant

No significant differences were found across any demographic group. This supports H_{01} and H_{02} , indicating that students perceive mentorship and satisfaction similarly regardless of their sex, age, or year level.

4.5. Correlation between Mentorship-Oriented Leadership and Learning Satisfaction

To assess the strength of relationships between mentorship leadership and satisfaction, Pearson's correlation coefficients were computed (see Table 5).

Table 5. Correlation between Mentorship Leadership and Learning Satisfaction (n = 513).

Mentorship Dimension	Highest Correlated Satisfaction Dimension	Pearson r	Strength	p-value
Empowerment & Skill Development	Cognitive Engagement	0.46	Moderate	<0.01
Cultural Responsiveness	Instructional Interaction	0.38	Moderate	<0.01
Relational & Emotional Support	Emotional Satisfaction	0.54	Strong	<0.01
Guidance & Goal Alignment	Facilitation	0.49	Moderate	<0.01

All relationships were positive and statistically significant, rejecting H_{03} . The strongest relationship was found between Relational and Emotional Support and Emotional Satisfaction ($r = 0.54$), indicating that affective mentoring has the most profound impact on students' emotional engagement.

4.6. Discussion

The results confirm the theoretical underpinnings of Social Cognitive Theory, which posits that learning is shaped by environmental factors (such as leadership), personal factors (such as self-efficacy), and behavioral engagement [19-21].

1) Mentorship Strengthens Emotional Satisfaction

The high correlation between emotional support and emotional satisfaction supports the idea that empathetic mentorship contributes to positive emotional experiences. This aligns with findings by Van Dam et al., who emphasized the value of mentor-mentee trust in developing resilience and motivation [5].

2) Empowerment Drives Cognitive Engagement

Students who feel empowered by mentors tend to exhibit greater cognitive involvement in learning tasks. This supports Bandura's concept of self-efficacy, where belief in one's ability promotes deeper intellectual engagement.

3) Inclusivity Remains a Challenge

The relatively lower score for cultural responsiveness suggests that students may not feel that their cultural identities are fully acknowledged or integrated into the learning process. Womack et al. similarly argued that mentoring without cultural awareness risks reinforcing existing challenges [4].

4) Consistency Across Demographics

No significant differences were found in perceptions based on sex, age, or academic year. This suggests that mentorship-oriented leadership, when practiced effectively, is broadly beneficial and accessible to diverse student populations — supporting the call for institutionalized mentoring programs.

4.7. Summary of Findings

- Both mentorship leadership and learning satisfaction were perceived as manifested by students.
- Emotional support and facilitation were the highest-rated dimensions.
- No significant differences were found across sex, age, or year level.
- All mentorship dimensions showed significant, positive correlations with learning satisfaction.
- The strongest relationship was between emotional support and emotional satisfaction.

4.8. Implications for Educational Leadership

The findings have practical implications for enhancing leadership and instructional practices in vocational education:

- 1) Faculty Training: Programs should focus on developing emotional intelligence and mentorship capabilities among instructors.
- 2) Cultural Responsiveness: Training should also include components of cultural awareness to better serve diverse student backgrounds.
- 3) Mentorship Programs: Institutions should formalize mentorship systems that integrate goal-setting, inclusive practices, and structured feedback.
- 4) Policy Development: Educational policymakers should include mentorship leadership in professional standards for vocational educators.

5. Conclusion and Recommendations

5.1. Conclusion

This study aimed to examine the influence of mentorship-oriented leadership on the learning satisfaction of higher vocational students in a selected institution in Shandong Province, China. By exploring both constructs across multiple dimensions and considering student demographics, the research provided a comprehensive understanding of how mentorship practices relate to student experiences in vocational education.

The findings revealed that both mentorship-oriented leadership and learning satisfaction were perceived as manifested by students. Among the four dimensions of mentorship leadership, relational and emotional support was the most strongly manifested, while cultural responsiveness and inclusivity received the lowest ratings. This suggests that students feel emotionally supported by their instructors but may not fully perceive mentorship practices as culturally inclusive or responsive.

Learning satisfaction was similarly positive, with facilitation and emotional satisfaction receiving the highest ratings. Students appreciated the structure and support provided by their learning environment and expressed general emotional contentment with their educational experiences.

Importantly, no significant differences were found across sex, age, or year level regarding students' perceptions of mentorship or satisfaction, indicating a broad applicability of mentorship practices regardless of demographic variation.

A significant finding of the study was the strong positive relationship between mentorship-oriented leadership and learning satisfaction. All four leadership dimensions were positively and significantly correlated with satisfaction components. The strongest correlation was observed between emotional support and emotional satisfaction ($r = 0.54$), affirming the critical role of affective mentorship in enhancing student engagement and well-being. These results align with Bandura's Social Cognitive Theory, particularly the concepts of self-efficacy and observational learning, whereby mentorship creates a conducive psychological and behavioral environment for positive learning outcomes.

In conclusion, the study confirmed that effective mentorship-oriented leadership contributes meaningfully to learning satisfaction. It underscores the need for educational institutions, especially in vocational contexts, to foster structured and emotionally intelligent mentorship practices that address not only skill development and guidance but also cultural inclusivity and emotional connection.

5.2. Recommendations

Based on the findings, the following recommendations are proposed for practice, policy, and future research:

- 1) Institutionalization of Mentorship Programs

Educational institutions should develop formal mentorship frameworks embedded in academic and student support services. These programs should provide clear roles for faculty mentors, offer training, and ensure accountability through evaluation mechanisms.

Mentorship should go beyond academic advising and focus on personal development, emotional support, and career alignment.

2) Faculty Development and Emotional Intelligence Training

Instructors should undergo continuous professional development in mentorship-oriented leadership, especially in areas related to relational communication, empowerment strategies, and inclusivity.

Emotional intelligence training should be integrated into teacher education to cultivate empathy, active listening, and reflective practices.

3) Promotion of Cultural Responsiveness

Institutions must address the lower scores in cultural responsiveness by providing training on cultural awareness and inclusivity.

Curricula and classroom practices should integrate multicultural perspectives, and mentorship interactions must be adapted to accommodate students' cultural identities and learning styles.

4) Enhancement of Facilitative Learning Environments

Given the strong link between guidance/goal alignment and facilitation, learning environments should be structured with clarity in objectives, accessible support resources, and timely feedback.

Mentorship efforts should help students set short-and long-term goals aligned with their academic and vocational pathways.

5) Future Research Directions

Future studies may adopt mixed-methods or longitudinal designs to explore how mentorship practices evolve and affect student success over time.

Research can also explore the mentor's perspective, providing a holistic view of the mentoring dynamic.

Comparative studies between vocational and academic institutions, or among different provinces and cultural regions, may offer additional insights into the generalizability of the findings.

5.3. Final Reflection

This study contributes to the growing discourse on mentorship as a leadership strategy in higher education. In the vocational education context — where students often navigate academic uncertainty, career ambiguity, and personal transitions — mentorship-oriented leadership offers a holistic, relational, and inclusive approach to fostering satisfaction and success.

By embracing mentorship as both a mindset and a practice, educational institutions can better prepare students not just for graduation, but for lifelong learning, professional achievement, and personal growth.

References

1. C. M. Januszka, "Culture, literacy, and learning: Taking Bloom in the midst of the whirlwind," *Kappa Delta Pi Record*, vol. 44, no. 3, pp. 141, 2008
2. L. C. Ehrich, B. Hansford, and L. Tennent, "Formal mentoring programs in education and other professions: A review of the literature," *Educ. Adm. Q.*, vol. 40, no. 4, pp. 518–540, 2004, doi: 10.1177/0013161X04267118.
3. C. Pfund, et al., "Training mentors of clinical and translational research scholars: a randomized controlled trial," *Acad. Med.*, vol. 89, no. 5, pp. 774–782, May 2014, doi: 10.1097/ACM.0000000000000218.
4. V. Y. Womack, et al., "The ASPET mentoring network: enhancing diversity and inclusion through career coaching groups within a scientific society," *CBE Life Sci. Educ.*, vol. 19, no. 3, p. ar29, 2020, doi: 10.1187/cbe.19-10-0195.
5. L. Van Dam, et al., "Does natural mentoring matter? A multilevel meta-analysis on the association between natural mentoring and youth outcomes," *Am. J. Community Psychol.*, vol. 62, no. 1–2, pp. 203–220, Apr. 2018, doi: 10.1002/ajcp.12248.
6. M. Cross, et al., "Benefits, barriers and enablers of mentoring female health academics: An integrative review," *PLoS One*, vol. 14, no. 4, p. e0215319, Apr. 2019, doi: 10.1371/journal.pone.0215319.
7. R. Ghosh and T. G. Reio Jr, "Career benefits associated with mentoring for mentors: A meta-analysis," *J. Vocat. Behav.*, vol. 83, no. 1, pp. 106–116, 2013, doi: 10.1016/j.jvb.2013.03.011.

8. J. C. Junn, et al., "Virtual mentoring: A guide to navigating a new age in mentorship," *Acad. Radiol.*, vol. 30, no. 4, pp. 749–754, Apr. 2023, doi: 10.1016/j.acra.2022.08.014.
9. J. Ryan, "Strategic activism, educational leadership and social justice," *Int. J. Leadersh. Educ.*, vol. 19, no. 1, pp. 87–100, 2016, doi: 10.1080/13603124.2015.1096077.
10. J. F. Waljee, et al., "Mentoring millennials," *JAMA*, vol. 323, no. 17, pp. 1716–1717, May 2020, doi:10.1001/jama.2020.3085.
11. A. Bandura, *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1986. ISBN: 9780138156145.
12. T. Bingham and M. Conner, *The New Social Learning: A Guide to Transforming Organizations Through Social Media*. San Francisco, CA: Berrett-Koehler Publishers, 2010. ISBN: 9781605097022.
13. K. E. Kram, *Mentoring at work: Developmental relationships in organizational life*, University Press of America, 1988. ISBN: 9780819167552.
14. B. M. Bass, "From transactional to transformational leadership: Learning to share the vision," *Organ. Dyn.*, vol. 18, no. 3, pp. 19–31, Winter 1990, doi: 10.1016/0090-2616(90)90061-S.
15. H. Lei, Y. Cui, and M. M. Chiu, "The relationship between teacher support and students' academic emotions: A meta-analysis," *Front. Psychol.*, vol. 8, p. 2288, Dec. 2017, doi: 10.3389/fpsyg.2017.02288.
16. J. Cohen, *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. New York, NY: Routledge, 2013. ISBN: 9780203771587.
17. B. Dreer-Goethe, "The impact of mentor support and high-quality connections on student teachers' psychological safety and engagement during practicum," *Front. Educ.*, vol. 10, p. 1499749, Mar. 2025, doi: 10.3389/feduc.2025.1499749.
18. R. Keijzer, R. van der Rijst, E. van Schooten, and W. Admiraal, "Towards emotional responsive mentoring of at-risk students in last-resort programs," *Empir. Res. Vocat. Educ. Train.*, vol. 13, no. 1, p. 22, 2021, doi: 10.1186/s40461-021-00129-9.
19. M. T. Wang and J. S. Eccles, "Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school," *Child Dev.*, vol. 83, no. 3, pp. 877–895, 2012, doi: 10.1111/j.1467-8624.2012.01745.x.
20. G. Crisp and I. Cruz, "Mentoring college students: A critical review of the literature between 1990 and 2007," *Res. High. Educ.*, vol. 50, pp. 525–545, 2009, doi: 10.1007/s11162-009-9130-2.
21. L. T. Eby, T. D. Allen, S. C. Evans, T. Ng, and D. L. DuBois, "Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals," *J. Vocat. Behav.*, vol. 72, no. 2, pp. 254–267, 2008, doi: 10.1016/j.jvb.2007.04.005.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of GBP and/or the editor(s). GBP and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.