Transformational Leadership Competency Requirements for University Counselors in the Digital-Intelligence Era: A Mixed-Methods Study at a Chinese Undergraduate Institution

Chen Siqi[1*], Sun Fuyuan[2], and Alinajitta Nualkham[3]

Chiangrai Rajabhat University, Thailand[1*, 2, 3]

Ningde Normal University, China[1*]

Corresponding author. E-mail: chensiqichina007@gmail.com[1]

Abstract

This study aims to explore 1) the current state of transformational leadership among university counselors in the context of digital intelligence, 2) the core competency requirements to enhance transformational leadership, and 3) the pathways to develop these competencies. The sample consisted of counselors from a Chinese undergraduate university, and the study used a mixed-methods design combining a questionnaire survey and semi-structured interviews. The quantitative phase employed a structured questionnaire assessing the four dimensions of transformational leadership, and the qualitative phase employed thematic analysis of interview data. To ensure methodological transparency and robustness, we conducted descriptive statistics alongside reliability and validity tests. The findings reveal that, in the digital-intelligence era, the overall level of transformational leadership among counselors is moderate, with uneven development across different dimensions. Specifically, intellectual stimulation and individualized consideration were relatively intense, while inspirational motivation and idealized influence require improvement. Additionally, counselors need significant improvement in competencies such as the use of digital intelligence tools, data analysis skills, online values education, and social media influence. The study proposes a three-dimensional optimization framework— "competency reconstruction, mechanism coordination, and technology empowerment" — to guide university counselors in improving their transformational leadership in the digital-intelligence context. This framework translates mixed-methods evidence into actionable pathways by aligning targeted training, full-cycle leadership management, and intelligent service platforms. Theoretically, the study refines the application of

Bass and Avolio's four-dimensional model to digital-intelligence contexts by clarifying competency structures and boundary conditions; practically, it offers concrete implications for policy design, counselor training systems, and the digital transformation of ideological and political education in higher education.

Keywords: university counselors; digital-intelligence; transformational leadership; competencies

Introduction

Under the guidance of the "13th Five-Year Plan for National Education Development" (State Council of the People's Republic of China, 2019) and the Report to the 20th National Congress of the Communist Party of China (Xi Jinping, 2022), digital transformation has become a key strategic direction for the high-quality development of my country's education sector. The Ministry of Education's "Notice on Organizing and Implementing the Digital Empowerment of Teacher Development Action," issued in 2025, explicitly calls for improving teachers' digital literacy and promoting the deep integration of digital technology with teaching and learning (General Office of the Ministry of Education, 2025). As key platforms for educational innovation, universities are particularly in need of reshaping their educational models and professional competencies during the digital transformation. However, university counselors face numerous challenges in this digital transformation. Traditional ideological and political education models struggle to adapt to the needs of digital native students, and their digital thinking and technology application capabilities are relatively weak, resulting in declining educational effectiveness and student satisfaction. Bass and Avolio's (2000) theory of transformational leadership provides an important theoretical foundation for this, emphasizing that leaders should stimulate followers' intrinsic motivation through four dimensions: idealized influence, intellectual stimulation, personalized care, and exemplary leadership. In the context of digitalization, this theory needs to be reinterpreted and reconstructed. Meanwhile, rapid AI diffusion is reshaping counselors' work through platformization, precision interventions, and scenario integration, while governance boundaries for AI agents and AI counselors remain emergent. Chinese scholarship has examined counselor leadership through conceptual analyses and surveys, including data-thinking leadership and competency structuring; international research has identified leadership attributes and developed/validated instruments such as the SCLS. Convergent and divergent findings: leadership relates to climate, commitment, and performance, yet effects vary by context—for instance, leadership may be nonsignificant in crisis settings or act

through professional resilience and cultural moderators. Remaining gaps: counselor-specific, mixed-method evidence that integrates digital-intelligence competencies with the four transformational dimensions and yields implementable pathways is scarce. Based on this, this study takes a domestic undergraduate college (hereinafter referred to as School N) as an example to answer the following question: In the digital era, how can the transformational leadership of college counselors be effectively developed? Specifically, we will focus on the current status and shortcomings of counselors' digital transformational leadership; the key factors affecting the development of counselors' transformational leadership in the context of digitalization; and feasible paths to enhance counselors' digital leadership. Our contributions are threefold: a counselor-centered context, a mixed-method, multi-stakeholder design, and a three-dimensional optimization framework—competency reconstruction, mechanism coordination, and technology empowerment—mapped to the four transformational dimensions to guide practice. Through systematic and empirical research, we hope to provide theoretical guidance and practical pathways for the digital transformation of ideological and political education in colleges and universities, ultimately promoting the innovation and upgrading of college education models.

Research Objectives

1. To investigate the current state of university counselors' transformational leadership performance in the context of digital intelligence, operationalized across the four dimensions and key digital-intelligence competencies, using validated instruments and subgroup comparisons.

2. To identify the core requirements for enhancing counselors' transformational leadership in the digital intelligence era, including associated factors influencing development.

3. To develop evidence-informed recommendations for improving counselors' transformational leadership, aligned with the three-dimensional optimization framework of competency reconstruction, mechanism coordination, and technology empowerment.

Scope of Research

Content of the study:

This study examines the transformational leadership requirements of counselors at University N in the context of digital intelligence, while analyzing factors influencing their leadership development, operationalized across the four transformational dimensions and twenty sub-

dimensions, and analyzed through a multi-stakeholder triangulation of counselors, students, and administrators.

Population and Sample:

Quantitative phase: The target population consisted of counselors at a Chinese undergraduate institution (University N) and their advisee students. A total of 419 individuals were invited, yielding 361 valid responses (response rate: 86.2%), including 40 counselors and 321 students; if 419 individuals were invited, please report the valid response rate accordingly or remove the "100% valid" claim to ensure internal consistency. To enhance representativeness, counselors were selected through stratification by department and rank, and students were selected by grade and major.

Qualitative phase: Twenty-four key informants participated in semi-structured interviews, including 12 counselors, seven students, three administrative staff, and two functional-department staff.

Research Area: A Chinese undergraduate university, specifically referred to as University N.

Research Time: The study was conducted from March 2024 to July 2025

Literature Review

Theoretical Foundations and Contemporary Evolution of Transformational Leadership.

Transformational leadership theory, established by Bass and Avolio (2000), provides the foundational framework for understanding how leaders inspire followers through four core dimensions: idealized influence, intellectual stimulation, individualized consideration, and inspirational motivation. This theoretical foundation remains highly relevant in contemporary educational contexts, as evidenced by recent empirical studies demonstrating its continued effectiveness in enhancing teacher performance and organizational outcomes (Zhang & Mao, 2022; Kaya, 2024).

Recent research has validated the cross-cultural applicability of transformational leadership while revealing important contextual variations. Fang and Yu (2023) found that group-focused transformational leadership significantly impacts organizational citizenship behavior among 1,162 Chinese secondary school teachers, with psychological contract fulfillment serving as a mediator and collectivism as a moderator. Similarly, Ji et al. (2022) demonstrated that emotional commitment

mediates the relationship between transformational leadership and teacher job satisfaction, while emotional intelligence moderates this relationship among Chinese educators.

However, contextual factors significantly influence leadership effectiveness. El Achi et al. (2025) revealed that in crisis-affected educational settings in Lebanon, transformational leadership showed no statistically significant direct impact on teacher performance, highlighting the critical importance of environmental conditions and suggesting that traditional leadership models require adaptation to specific organizational contexts.

Digital-Intelligence Era and Counselor Leadership Transformation.

The digital-intelligence transformation has fundamentally reshaped the requirements for higher education leadership, particularly for university counselors. Zhao et al. (2024) conducted the first large-scale empirical study examining counselor digital leadership across 45 Chinese universities with 597 undergraduate participants. Their findings, grounded in social information processing theory, confirmed the existence of measurable counselor digital leadership capabilities while identifying significant variations across institutional types and student demographics.

Building on this empirical foundation, Yin and Xia (2023) theoretically defined "data-thinking leadership" for counselors, emphasizing four critical competency domains: data value recognition, skill enhancement, literacy cultivation, and intelligent platform development. This theoretical framework directly addresses the gap between traditional counselor competencies and digital-era requirements, providing a structured approach to leadership development in technologically enhanced educational environments.

The practical implementation of digital-intelligence integration presents both opportunities and challenges. Tang (2023) developed a comprehensive digital competency framework encompassing five dimensions: digital thinking capabilities, technical competencies, educational management abilities, security maintenance skills, and professional development capacities. This multidimensional approach aligns with the rapid technological evolution described by Qi and Xu (2024), who identified three emerging paradigms: data-intelligence integrated work platforms, precision-targeted educational mechanisms, and virtual-reality combined educational scenarios.

Emerging AI-Enhanced Counselor Leadership Models.

Recent scholarship has advanced beyond general digital competencies to explore AI-specific applications in counselor leadership. Ma and Yue (2025) examined the construction of intelligent counselor agents and identified key implementation categories based on functional modules,

deployment modes, and technological applications. Their analysis reveals the dual nature of AI integration: enhancing counselor effectiveness while requiring careful risk management and ethical governance.

Li (2025) further developed this discourse by proposing a three-stage implementation framework for AI counselor construction: universal initiation, specialized integration, and advanced leadership phases. This progressive approach addresses the practical challenges of integrating AI technologies with traditional transformational leadership dimensions while maintaining the centrality of human counselor expertise.

International Perspectives on Digital Leadership Integration.

International research provides complementary evidence on the effectiveness of digital leadership across educational contexts. Anwar and Saraih (2024) demonstrated through structural equation modeling with 320 Pakistani faculty members that digital leadership aspects—visionary leadership, digital citizenship, and systematic improvement—significantly enhance knowledge sharing and emotional intelligence. Their findings support the universal relevance of digital leadership competencies while highlighting cultural adaptations.

Harder and Schumann (2025) investigated digital transformation in Swiss vocational schools and found that innovative school management behaviors are crucial for successful digitalization. Their study of 320 management members across 135 institutions revealed that digitally advanced schools demonstrate stronger leadership practices, supporting the positive relationship between digital competencies and organizational effectiveness.

Critical Integration with the Chinese Counselor Context.

The adaptation of transformational leadership theory to Chinese university counselor contexts requires specific theoretical integration. Unlike Western educational leadership models, Chinese counselors function within a unique ideological and political education framework that combines academic guidance, psychological support, and values education (Wan & Shen, 2023). This multifaceted role necessitates specialized competency development that extends beyond traditional leadership dimensions.

Recent Chinese research directly addresses this integration challenge. Ma et al. (2023) examined the impact of transformational leadership on university research team innovation behavior and found that error cognition serves as a crucial mediator. This finding suggests that in Chinese educational contexts, leaders' ability to manage and learn from errors significantly influences team

innovation. This capability becomes even more critical in digital–intelligence environments where technological failures and adaptations are common.

Research Gaps and Theoretical Positioning

Despite growing scholarly attention to digital leadership, three critical gaps remain in the literature. First, while general digital leadership frameworks exist, systematic examination of how transformational leadership's four classic dimensions adapt to digital–intelligence contexts for university counselors remains limited (Zhao et al., 2024; Tang, 2023). The unique combination of educational guidance, psychological support, and ideological education roles requires specialized theoretical development.

Second, existing research predominantly employs single–method approaches, limiting a comprehensive understanding of complex leadership phenomena in digital contexts. Quantitative studies provide statistical relationships but lack depth in explaining underlying adaptation mechanisms, while qualitative studies offer rich contextual insights but may lack broad applicability.

Third, the rapid evolution of AI technologies has outpaced empirical research on their integration with established leadership theories. While recent studies explore AI–enabled counselor applications (Ma & Yue, 2025; Li, 2025), systematic examination of competency requirements for effectively leading in AI–augmented educational environments remains underdeveloped.

This study addresses these gaps by developing a counselor–specific framework that integrates Bass and Avolio's transformational leadership theory with digital–intelligence competencies, employing a mixed–methods design to capture both statistical relationships and contextual mechanisms within the Chinese higher education context.

Research Methodology

This study employs a mixed–methods approach combining quantitative and qualitative research to comprehensively analyze the current needs for enhancing transformational leadership competencies among counselors at University N amidst digital–intelligent transformation.

Quantitative Research: Questionnaire Survey

Sampling and Representativeness: Inclusion criteria were full-time counselors with ≥ 1 year of service and full-time undergraduates who had interacted with a counselor for ≥ 1 semester; exchange/part-time students were excluded. Proportional stratified recruitment covered departments, majors, grades, and gender. The survey was distributed to 419 individuals; after

attention checks and de-duplication, 361 valid responses remained (effective response rate: 86.2%), including 40 counselors and 321 students, approximating the university's population structure.

Instrument and Procedure: A 20-item, 5-point Likert scale measured four dimensions of transformational leadership, with demographics and open-ended items. The questionnaire was administered via Questionnaire Star.

Data Analysis: Analyses were conducted in SPSS 26.0. We reported descriptive statistics (M, SD), internal consistency (Cronbach's alpha), and construct validity screening (KMO index and Bartlett's test of sphericity). Assumptions of normality and homoscedasticity were checked; α = 0.05; missing data were handled by listwise deletion.

Qualitative Research: Semi-structured Interviews

Sampling and Procedure: Purposive sampling yielded 24 participants: 12 counselors, seven frequent-service students, three administrators, and two functional-office staff. Interviews were conducted in person or online, informed consent was obtained, and anonymity was assured.

Data Analysis: Transcripts were thematically analyzed using NVivo 12 with independent double-coding and consensus resolution; discrepant codes were reconciled through discussion. The qualitative results were used to triangulate and interpret survey findings, enhancing the robustness of inferences.

Research Results

Reliability Analysis

The reliability of the survey instrument was evaluated using Cronbach's alpha, which assesses internal consistency across the core dimensions of transformational leadership. As shown in Table 1, the overall Cronbach's alpha reached 0.929, and the standardized alpha was 0.930, both above the generally accepted threshold of 0.90, which indicates excellent reliability (Nunnally & Bernstein, 1994). This result demonstrates that the scale items consistently measure the underlying construct, providing a robust foundation for subsequent analyses.

Table 1 Reliability Statistics of the Four Dimensions

Reliability Statistics		
Cronbach's Alpha	Cronbach's alpha based on standardized items	Number of items
0.929	0.930	4

Note: Cronbach's alpha was calculated at the subscale level for four dimensions. N = 361.

Validity Analysis

Construct validity was assessed via the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's Test of Sphericity. The KMO value was 0.835, surpassing the recommended minimum of 0.7 and indicating that the sample was highly suitable for factor analysis. Bartlett's Test (χ^2 = 1248.98, df = 6, p < 0.001) confirmed sufficient correlations among variables. These findings confirm that the scale possesses sound construct validity for measuring transformational leadership dimensions within this context.

Table 2 Results of KMO and Bartlett's Test Analysis

KMO and Bartlett's Test		
Kaiser–Meyer–Olkin (KMO) Measure of Sampling Adequacy		0.835
Bartlett's Test of Sphericity	Approximate Chi–Square	1248.980
	Degrees of Freedom	6
	Statistical Significance	<0.001

Note: Construct validity screening was conducted at the dimension level for the scale. N = 361.

Descriptive Statistics

1. Overall and Dimensional Results

The survey assessed the four core dimensions of transformational leadership—Inspirational Motivation, Intellectual Stimulation, Individualized Consideration, and Idealized Influence—using a 5–point Likert scale (1 = very low, 5 = very high). The overall mean score was 3.87 (SD = 0.89), classified within the medium range per predefined thresholds (low < 3.49; medium 3.50–3.99; high > 4.00).

Across dimensions (see Table 3), Intellectual Stimulation (M = 3.94, SD = 0.88) and Individualized Consideration (M = 3.94, SD = 0.91) demonstrated stronger performance, reflecting strengths in academic guidance and personalized student care. By contrast, Inspirational Motivation

(M = 3.82, SD = 0.96) and Idealized Influence (M = 3.78, SD = 0.84) scored lower, indicating areas requiring further development—especially vision communication and digital role modeling.

Table 3 Descriptive Statistical Analysis Results of the Four Core Dimensions

Key Dimensions	N	Mean (M)	SD	Assessment Results
Visionary Inspiration	361	3.82	0.96	Medium
Intellectual Stimulation	361	3.94	0.88	Medium
Individualized Consideration	361	3.94	0.91	Medium
Idealized Influence	361	3.78	0.84	Medium
Total	**361**	**3.87**	**0.89**	**Medium**

2. Sub-Dimensional Results

Analysis of the 20 sub-dimensions (see Table 4) revealed significant variability. The highest scores appeared in Learning Analytics for Early Intervention (M = 4.12, SD = 1.03), Online Role Model Communication (M = 4.20, SD = 1.03), Digital Public Sentiment Management Skills (M = 4.18, SD = 1.10), and OMO Career Counseling Proficiency (M = 4.12, SD = 1.08), reflecting advanced competencies in digital analysis, guidance, and student support.

Conversely, the most notable gaps were observed in Social Media Influence (M = 2.36, SD = 1.47; lowest score), Digital Tool Literacy (M = 3.33, SD = 1.60), and Online Values Education Capacity (M = 3.40, SD = 1.59). These sub-dimensions faced both low mean scores and higher standard deviations, suggesting considerable room for improvement and possible subgroup disparities.

Table 4 Descriptive Statistics of the 20 Sub-Dimensions

	Subscale	N	Mean (M)	SD	Assessment Results
Inspirational Motivation	Digital Platform Utilization Capability	361	3.81	1.31	Medium
	Integrated Educational Activity Design Competence	361	3.87	1.26	Medium
	Values Guidance Competency	361	4.05	1.21	High
	Data Visualization Proficiency	361	3.98	1.21	Medium
	Digital Character Education Capacity	361	3.40	1.59	Low
Intellectual Stimulation	Learning Analytics for Early Intervention	361	4.12	1.03	High
	VR Simulation Experience Competency	361	4.04	1.12	High
	AI-Powered Personalization Capability	361	4.09	1.12	High
	OMO Career Counseling Proficiency	361	4.12	1.08	High
	Digital tool literacy	361	3.33	1.60	Low

	Subscale	N	Mean (M)	SD	Assessment Results
Individualized Consideration	Psychological Monitoring	361	4.04	1.14	High
	Personalized Financial Aid Service Capability	361	4.08	1.10	High
	Dynamic Growth–Tracking Competence	361	4.03	1.11	High
	Group Counseling Facilitation Skills	361	4.11	1.09	High
	In–Depth Online Communication Proficiency	361	3.47	1.48	Low
Exemplary Modeling	Exemplary Education Program Development Capacity	361	4.08	1.14	High
	Digital Public Sentiment Management Skills	361	4.18	1.10	High
	Short Video Presentation Skills	361	4.10	1.07	High
	Online Role Model Communication	361	4.20	1.03	High
	Social Media Influence	361	2.36	1.47	Low

Semi–Structured Interview Findings

Qualitative interviews (N = 24) provided deeper context and triangulation for survey results.

1. Inspirational Motivation

Respondents widely reported insufficient interactivity and unclear vision communication on digital platforms, supporting the lower quantitative scores in this area. Students noted counselors' strengths in overall vision but saw limitations in delivering personalized vision.

2. Intellectual Stimulation

Participants expressed a strong need for academic and psychological guidance, aligning with this dimension's high mean. However, counselors are encouraged to further enhance learning motivation strategies and resource delivery.

3. Individualized Consideration

Interviews revealed inconsistencies in personalized care, especially between student leaders and the broader student body. Diversified support approaches were recommended, in line with quantitative evidence indicating this as a significant area for further enhancement.

4. Idealized Influence

Counselors were acknowledged for their role–modeling efforts. However, digital presence management was cited as needing improvement, mirroring the lower mean score for this dimension.

5. Digital Competencies

Participants highlighted critical deficits in digital tool use, data analysis, and psychological monitoring—corroborated by low sub–dimension scores for digital literacy and social media integration.

6. Leadership Improvement Needs

Both self-assessments and student perspectives emphasized training in visionary inspiration, individualized support, and digital-intelligent leadership. These interview trends reinforce and help explain quantitative findings, underscoring an urgent need for integrated capability-building programs focused on digital intelligence, data skills, interactive leadership, and social media engagement.

Summary by Research Objective

Objective 1: Current State

Overall, counselors' transformational leadership is at a moderate but uneven level, marked by stronger capabilities in intellectual stimulation and individualized consideration, and by remaining weaknesses in inspiration and digital influence.

Objective 2: Core Competency Gaps

The most significant development needs center on social media influence, proficiency with digital tools, and online values education. These gaps are evident in both quantitative and qualitative results.

Objective 3: Empirically-Informed Improvement Pathways

Enhancements should focus on integrating digital intelligence, providing personalized online support, implementing data-driven academic and psychological interventions, and providing robust training to address emerging technology-driven needs.

Discussion

This study's findings extend Bass and Avolio's (2000) transformational leadership theory into digital-intelligence contexts, revealing both theoretical consistency and contextual adaptations. The moderate overall leadership levels (M=3.87) align with recent Chinese educational research. However, our dimension-specific pattern—where Intellectual Stimulation and Individualized Consideration (both M=3.94) outperform Inspirational Motivation (M=3.82) and Idealized Influence (M=3.78)—suggests digital contexts may alter the relative emphasis among transformational leadership components.

Theoretical Integration and Comparative Analysis: Unlike Fang and Yu's (2023) findings, where inspirational motivation typically dominates in traditional educational settings, our results indicate that digital-intelligence environments prioritize analytical and personalized competencies.

The pronounced weakness in social media influence (M=2.36) contrasts sharply with international findings by Anwar and Saraih (2024), who identified digital citizenship as a core competency. This divergence highlights cultural and contextual boundaries in the application of digital leadership theory, where Chinese counselors' traditional roles may conflict with expectations for social media engagement.

Conversely, our finding of strong learning analytics capabilities (M=4.12) supports Tang's (2023) digital competency framework, confirming data-driven decision-making as an emergent leadership dimension. This aligns with Yin and Xia's (2023) data-thinking leadership model, suggesting successful integration of analytical capabilities within existing counselor competencies.

Policy Implications: Universities should implement differentiated training programs targeting inspirational motivation and digital influence competencies, establish mentorship systems pairing digitally advanced counselors with those in need of development, and create institutional social media guidelines that balance professional engagement with cultural expectations. These interventions should be systematically evaluated using the three-dimensional optimization framework proposed in this study.

Theoretically, these results suggest that digital-intelligence contexts require reconceptualizing the dimensional hierarchy of transformational leadership rather than merely adding digital tools to existing frameworks.

Conclusion

This study systematically investigates the current state of university counselors' transformational leadership in the digital-intelligence context through mixed-methods analysis of 361 survey responses and 24 in-depth interviews. The findings reveal that the overall level of transformational leadership among counselors is moderate (M=3.87), exhibiting "skill divergence and uneven development" patterns. Specifically addressing Research Objective 1, intellectual stimulation and individualized consideration dimensions perform relatively well, while inspirational motivation and idealized influence require targeted enhancement.

Responding to Research Objective 2, the study systematically identifies critical competency gaps through triangulated evidence: social media influence (M=2.36), digital tool literacy (M=3.33), and online values education capacity (M=3.40) emerge as the most pressing development needs.

Both quantitative and qualitative data converge on these priority areas, confirming their urgency across multiple stakeholder perspectives.

Addressing Research Objective 3, this study contributes to existing knowledge by bridging the theoretical gap between Bass and Avolio's classic transformational leadership framework and the digital–intelligence contexts of Chinese university counselors. The proposed three–dimensional optimization framework—competency reconstruction, mechanism coordination, and technology empowerment—provides actionable pathways that previous studies have not systematically developed.

For practical application: University administrators can use competency assessment results to design differentiated training programs; counselor training departments can implement the framework's three dimensions as curriculum modules; and individual counselors can apply the 20 sub–dimensional competency structure for self–development planning. Future research should cross–culturally validate this framework and investigate the longitudinal impacts of the proposed interventions on student outcomes and organizational effectiveness.

Suggestions

Based on the empirical findings addressing our three research objectives, this study offers targeted recommendations for multiple stakeholders, grounded in specific research outcomes.

1. For University Administrators

Utilize the dimensional assessment results (Table 3) to design differentiated training programs prioritizing inspirational motivation (M=3.82) and idealized influence (M=3.78) enhancement. Implement the three–dimensional optimization framework—competency reconstruction, mechanism coordination, and technology empowerment—as institutional policy guidelines for counselor professional development initiatives.

2. For Counselor Training Departments

Apply the 20 sub–dimensional competency structure (Table 4) to develop a modular curriculum targeting critical gaps: social media influence (M=2.36), digital tool literacy (M=3.33), and online values education capacity (M=3.40). Establish mentorship systems that pair digitally advanced counselors with those in need of development, using our competency mapping as assessment criteria.

3. For Individual Counselors

Leverage the competency assessment framework for self-evaluation and personalized development planning. Focus enhancement efforts on integrating digital-intelligence capabilities with existing strengths in intellectual stimulation and individualized consideration.

4. For Researchers

The validated mixed-methods framework provides a methodological foundation for cross-cultural replication studies. Future investigations should examine the longitudinal impacts of the proposed interventions on student outcomes, assess the framework's applicability across diverse institutional contexts, and explore the integration of emerging AI technologies with transformational leadership dimensions.

5. For Policymakers

These findings inform evidence-based policies for digital transformation in higher education, supporting systematic approaches to counselor leadership development aligned with national digitalization strategies.

New Knowledge

This study addresses three critical academic gaps identified in the literature review.

First, it provides the first systematic empirical examination of how Bass and Avolio's four-dimensional transformational leadership model adapts to digital-intelligence contexts for Chinese university counselors—a theoretical integration previously lacking in existing scholarship. Unlike prior conceptual studies, this research operationalizes adaptation through validated 20-subdimensional competency structures, specifically quantifying performance gaps in social media influence (M=2.36) and digital tool literacy (M=3.33) that previous frameworks failed to measure empirically.

Second, the study fills a methodological gap by employing mixed-methods triangulation (N=361 quantitative, N=24 qualitative) to capture both statistical relationships and contextual mechanisms, addressing limitations of single-method approaches that dominate current digital leadership research. The convergent findings across multiple stakeholder perspectives provide robust evidence that previous studies could not achieve.

Third, this research advances theoretical boundaries by developing the three-dimensional optimization framework—competency reconstruction, mechanism coordination, and technology empowerment—that translates abstract digital leadership concepts into implementable pathways.

Unlike existing general digital competency frameworks, this study provides counselor-specific, context-adapted solutions for AI-augmented educational environments, directly addressing the theoretical-practice gap identified by recent studies but left unresolved.

References

Anwar, S., & Saraih, U.N. (2024). Digital leadership in the digital era of education: Enhancing knowledge sharing and emotional intelligence. *International Journal of Educational Management, 38*(6), 1581–1611. https://doi.org/10.1108/IJEM-11-2023-0540

Bass, B. M., & Avolio, B. J. (2000). *MLQ: Multifactor Leadership Questionnaire* (2nd ed.). Mind Garden.

El Achi, S., Al Maalouf, N. J., Barakat, H., & Mawad, J. L. (2025). The impact of transformational leadership and work environment on teachers' performance in crisis-affected educational settings. *Administrative Sciences, 15*(7), 256. https://doi.org/10.3390/admsci15070256

Fang, Z., & Yu, S. C. (2023). Cross-level influence of group-focused transformational leadership on organizational citizenship behavior among Chinese secondary school teachers. *Behavioral Sciences, 13*(10), 848. https://doi.org/10.3390/bs13100848

Harder, A., & Schumann, S. (2025). Digital transformation of vocational schools in Switzerland: The importance of innovative school management behavior. *Education Sciences, 15*(9), 1099. https://doi.org/10.3390/EDUCSCI15091099

Ji, C., Feng, B., & Zhao, H. (2022). How does principal transformational leadership affect primary and secondary school teachers' job satisfaction? The mediating role of affective commitment and the moderating role of emotional intelligence. *Global Education Outlook, 51*(2), 93–107.

Kaya, A. (2024). The association between transformational leadership and teachers' creativity: professional resilience and job satisfaction as mediators. *Frontiers in Psychology, 15,* 1514621. https://doi.org/10.3389/fpsyg.2024.1514621

Li, D. (2025). Construction of university AI counselors: Logical premises, application scenarios, and implementation strategies. *Ideological Education Research, 7,* 114–119.

Ma, C., & Yue, A. (2025). Construction of university counselor intelligent agents: Current status, reflection and development. *Ideological and Theoretical Education, 8,* 93–99. https://doi.org/10.16075/j.cnki.cn31-1220/g4.2025.08.006

Ma, X., Xu, H., & Huang, H. (2023). Research on the influence of transformational leadership on innovation behavior of university research teams: The mediating role of error cognition. *China University of Science & Technology, (Z1),* 9–13. https://doi.org/10.16209/j.cnki.cust.2023.z1.041

Qi, Y., & Xu, X. (2024). Analysis of artificial intelligence empowering the high–quality development of the university counselor works. *School Party Building and Ideological Education,* (1), 86–88. https://doi.org/10.19865/j.cnki.xxdj.2024.01.019

Tang, Z. (2023). The value implications and improvement strategies of digital competency for university counselors. *Ideological and Theoretical Education,* (12), 100–105. https://doi.org/10.16075/j.cnki.cn31–1220/g4.2023.12.013

Wan, S., & Shen, L. (2023). Research on the construction of transformational leadership for university counselors in the new era. *School Party Building and Ideological Education*, (17), 84–87. https://doi.org/10.19865/j.cnki.xxdj.2023.17.020

Yin, X., & Xia, T. (2023). The connotation, operational logic, and practical path of the university counselors' data–thinking leadership. *School Party Building and Ideological Education,* (18), 65–67. https://doi.org/10.19865/j.cnki.xxdj.2023.18.018

Zhang, W., & Mao, Y. (2022). How does principal transformational leadership affect teachers organizational commitment: An empirical analysis based on mediating and moderating effects. *Educational Research, 43*(6), 134–147.

Zhao, L., Geng, X., Yang, J., & Liu, D. (2024). Analysis of the current situation of digital leadership of university counselors. *Journal of Beijing City University,* (6), 65–70. https://doi.org/10.16132/j.cnki.cn11–5388/z.2024.06.012