

**CASE STUDY**

# Improving student affairs administration in vocational higher education through digital media: A case study of Shenzhen Polytechnic University

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## ABSTRACT

This case study investigates the digital transformation of student affairs administration in vocational institutions, taking Shenzhen Polytechnic University (SZPU) as a representative example. Grounded in Chickering's student development theory, the research identifies a critical gap: While SZPU's digital platforms strongly support technical competence and career purpose, they offer underdeveloped resources for students' academic, personal, and professional growth. Through a qualitative analysis of institutional documents and a digital audit of SZPU's public platforms—benchmarked against the integrated student services model of Foothill College in California—the study reveals how digital structures currently prioritize administrative and industry-aligned functions over developmental support. In response, the study proposes a localized conceptual model aligning student development principles with the digital ecosystems of vocational higher education. This model adapts Western developmental theory to the Chinese vocational context by integrating core academic, career, and personal development pillars with dedicated modules for ideological and civic education and international exchange, all supported by a centralized digital ecosystem. The findings suggest that intentionally designed digital student affairs platforms, informed by theory and cross-cultural benchmarking, can enhance institutional support, foster student engagement, and advance the quality of holistic education in China's rapidly expanding vocational higher education sector.

**Key words:** student affairs, vocational higher education, student development theories, Chickering's seven vectors, digital transformation

## INTRODUCTION

The rapid expansion of vocational education in China has garnered significant attention from both academia and policymakers. Vocational institutions now constitute 56.2% of the nation's higher education sector, with at least 55 colleges expected to transition into vocational universities by 2024, underscoring the sector's strategic importance in national education reform (Ministry of

Education of the People's Republic of China, 2025). Despite this growth, Chinese vocational education has historically prioritized skill acquisition, often at the expense of holistic student development. Increasingly, educators and scholars recognize that success in modern workplaces depends not only on technical competencies but also on soft skills, such as communication, critical thinking, and emotional intelligence (Liu, 2025). Within China's vocational education context, however, soft

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skills have often been treated as secondary to professional training (Dong, 2021). As a result, institutional mechanisms for fostering integrated personal, social, and career development remain limited (Muslim *et al.*, 2023).

Student development theory (SDT), which originated in Western higher education research, provides a comprehensive lens for understanding these multidimensional aspects of growth. As higher education moved beyond the traditional *in loco parentis* approach, students came to be viewed not as dependents requiring regulation, but as autonomous individuals in need of informed professional support (McNeely, 2024). This shift provided the impetus for the emergence of SDT, which integrates foundational concepts from psychology and sociology (McNeely, 2024). Frameworks such as Chickering's seven vectors, Perry's cognitive development scheme, Kohlberg's stages of moral development, and Super's career development theory collectively illuminate the psychological, social, and moral dimensions of student learning and identity formation.

Building on these theoretical foundations, this case study examines the digital development of student affairs at Shenzhen Polytechnic University (SZPU)—a representative example of China's new generation of vocational universities navigating the transition toward student-centered, digitally supported education management. The study identifies a gap in the digital delivery of student affairs services, evident in the current scope of information and support available on the university's official website. Through benchmarking against international best practices, particularly the model employed by Foothill College in California, this research explores how digital platforms can enhance student engagement, improve resource accessibility, and support holistic student development.

The primary objective of this study is to propose a conceptual framework for optimizing digital student affairs in Chinese vocational universities. By integrating insights from SDT and international case comparisons, the study emphasizes proactive, student-centered digital strategies that align with global trends in higher education. Accordingly, the central research question is: How can the digital transformation of student affairs strengthen institutional support systems, foster student autonomy, and advance the overall quality of vocational education in China?

## THEORETICAL FRAMEWORK

Theory provides an essential framework for understanding complex educational phenomena, offering a lens through which institutional practices and student experiences can be more clearly interpreted. As

Strayhorn (2015) observes, theoretical perspectives enable researchers to identify underlying patterns that might otherwise remain unnoticed, while various frameworks can reveal distinct interpretations of the same issue. In this case study, SDT serves as the guiding framework for analyzing the digital transformation of student affairs at SZPU. While numerous theories describe college students' identity development, Chickering and Reisser's seven vectors theory remains one of the most enduring and influential approaches (Chapman, 2025). Each theory explains student growth from a particular perspective, shaped by its own contextual assumptions and limitations (Magolda & Magolda, 2023). Collectively, these psychosocial, cognitive-structural, moral, and career-oriented theories have significantly advanced current understanding of how students mature intellectually and personally within higher education environments (Sandeep, 2011). Applying this theoretical lens allows the present study to connect individual students' needs and digital engagement experiences with broader institutional and educational goals.

In the context of vocational institutions, where student affairs have traditionally prioritized administrative management over holistic support, theory provides a critical tool to re-evaluate existing practices. It offers a structured means to determine the ways in which digital initiatives can better support developmental outcomes, particularly autonomy, identity formation, and career readiness. As Magolda (2023) emphasizes, student affairs work becomes most effective when grounded in theory, ensuring that interventions are intentional, evidence-based, and aligned with the institutional mission.

### ***Chickering's seven vectors***

To guide the analysis of student growth within SZPU's digitalized student affairs system, this case adopts Chickering and Reisser's theory of identity development as a core analytical framework. The theory outlines seven developmental vectors, each representing a key pathway along which students progress toward personal identity development and connection with others in interpersonal and broader social contexts (Chickering & Reisser, 1993). These vectors offer valuable guidance for educators and student affairs practitioners in designing environments that support holistic student development through academic, social, and digital initiatives. They are defined as follows. Vector 1 (V1): Developing competence—Cultivating intellectual, physical, and interpersonal skills. Vector 2 (V2): Managing emotions—Progressing toward emotional balance and self-regulation. Vector 3 (V3): Moving through autonomy toward interdependence—Developing self-directed responsibility alongside an understanding of mutual reliance. Vector 4 (V4): Developing mature inter-

personal relationships—Building tolerance, empathy, and capacity for intimacy across differences. Vector 5 (V5): Establishing identity—Sharpening self-definition and recognition of one's authentic self. Vector 6 (V6): Developing purpose—Aligning and pursuing vocational, personal, and interpersonal goals. Vector 7 (V7): Developing integrity—Guiding behavior through affirmed values, balancing self-interest with social responsibility (Chickering & Reisser, 1993).

By applying this framework, the analysis evaluates how SZPU's digital student affairs ecosystem does or does not facilitate progress along these critical developmental pathways.

## METHODOLOGY: DESCRIPTIVE CASE STUDY VIA DOCUMENT AND DIGITAL ANALYSIS

### Case context

This research employs a descriptive case study methodology focused on SZPU as a representative institution within China's expanding vocational higher education sector. While SZPU possesses a strong structural foundation and institutional reputation, it faces multiple challenges in the digital delivery and holistic orientation of its student affairs administration. Current digital tools—such as course schedules, student platforms (*e.g.*, the Shenzhen Polytechnic i-Learning Platform and Vocational Education Cloud Platform), and basic student-life functionalities—are accessible through its student affairs portal. However, comprehensive developmental resources, including career guidance, psychosocial support, digital leadership modules, and soft-skills training are either dispersed or inadequately highlighted (Figures 1 and 2). This digital layout suggests that SZPU's student affairs priorities remain oriented toward operational management and basic support rather than proactive developmental programming aligned with SDT.

Two critical issues emerge from this context. First, despite SZPU's success in aligning curricula with industry demands, providing technical training, and securing strong employment outcomes, its digital student affairs framework lacks integrated services that foster emotional intelligence, interpersonal relationships, identity development, and career purpose. This gap limits opportunities for students to engage in developmental experiences beyond the classroom and training workshops. Second, as student services increasingly migrate online, the absence of a unified digital portal for holistic student development—encompassing mentorship, leadership building, intercultural adaptation, and career planning—hinders intuitive student access. Given the theoretical emphasis placed on autonomy, identity, purpose, and integrity within Chickering and



**Figure 1.** Navigation architecture of SZPU's public student portal homepage. Note: Screenshot from the publicly accessible SZPU website (<https://www.szpu.edu.cn/xs.htm>). Reproduced under fair use for the purpose of academic research and analysis. SZPU, Shenzhen Polytechnic University.



**Figure 2.** Content page reached via the "Student Affairs" hyperlink from the SZPU portal homepage. The page lists administrative functions and processes, reflecting the operational scope of the designated student affairs section. Note: Screenshot from <https://www.szpu.edu.cn/jyjx1/xssw.htm>; reproduced under fair use. SZPU, Shenzhen Polytechnic University.

Reisser's (1993) seven vectors, SZPU's current digital design offers few visible pathways for students to navigate or engage in self-development beyond technical competencies.

This contextual analysis sets the stage for the subsequent analytical phase of this case study, in which the SDT framework will be applied to examine how SZPU might redesign its digital student-affairs services. The following section benchmarks these observations against an international model of best practices and proposes a conceptual model tailored to vocational higher education in China.

### Benchmarking international practice: Foothill college student services

Career and technical education (CTE), often referred to as vocational training, serves learners across multiple stages—from middle and high school to postsecondary education. At the postsecondary level, CTE programs are typically provided by community and technical colleges that focus on equipping students with specialized, career-oriented skills (Wood, 2024).

To contextualize SZPU's digital landscape within global standards, this study benchmarks against Foothill

College in California, which is ranked the top community college in the United States for 2026 (NICHE, 2025). As a leading provider of CTE, Foothill College represents a structurally comparable institution with a mission centered on career-oriented, applied learning. Its student services model provides a relevant comparative case for vocational universities like SZPU.

According to its official website (Foothill College, 2025), Foothill's student affairs system is organized into clearly defined domains, including counseling, orientation and admissions, disability resources, health and wellness, tutoring and academic support, and career and transfer planning (Figures 3 and 4). The overall design reflects a developmental philosophy that frames student services as an integrated support network rather than as a set of administrative processes.



**Figure 3.** The primary "Counseling & Student Services" portal for Foothill College. The landing page presents an integrated menu of support domains, including counseling, academic success, and wellness. Note: Screenshot from <https://www.foothill.edu/services/>; reproduced under fair use.



**Figure 4.** Detailed subsection view of Foothill College's student services portal, showing the "Basic Needs & Wellness" and "Academic Success" resource categories. Note: Screenshot from <https://www.foothill.edu/services/>; reproduced under fair use.

A key feature of Foothill's approach lies in its holistic coverage of students' needs across academic, personal, and career dimensions. The digital platform presents resources in an accessible and intuitive manner through both in-person and virtual channels, thereby enhancing inclusiveness and ease of use. The structure of the portal emphasizes transitional support, particularly through its "Transfer & Career Planning" section, which explicitly assists students in preparing for employment or further

study. This focus underscores the institution's recognition that student development extends beyond the classroom to encompass lifelong learning and workforce readiness.

Foothill's model offers valuable implications for SZPU, as both institutions share a commitment to applied education and career preparation. The comparative analysis suggests that SZPU could strengthen its digital student affairs platform by adopting a more integrated and student-centered design—one that unifies career services, wellness resources, and developmental advising within a coherent digital framework. Such integration would transform the platform from a primarily administrative tool into an environment that actively supports holistic student growth and engagement through proactive, data-driven services.

The main menu at the top includes core institutional functions (e.g., teaching affairs, scientific research, and campus life). Access to the dedicated student affairs section, whose administrative content is detailed in Figure 2, is provided only via a secondary hyperlink panel, indicating its subordinate placement within the site's informational hierarchy.

### **Data sources and collection**

The dataset for this analysis consisted of institutional documents and publicly accessible digital content, collected in October 2025. These sources include the following.

#### *Strategic and planning documents*

Official university mission statements, vision documents, and excerpts from *Shenzhen Polytechnic University Higher Vocational Education Quality Report (2024 Edition)* (Shenzhen Polytechnic University, 2025). These documents provided insight into SZPU's educational philosophy and long-term objectives.

#### *Curriculum outlines and program descriptions*

Publicly available strategic and curriculum documents from SZPU's official website, published on February 21, 2025, that explicitly mentioned student learning, development, or support. They were reviewed with particular attention to soft skills, moral education, and career guidance. These components were often integrated into industry partnership agreements, reflecting SZPU's approach to integrating academic training with vocational outcomes.

In addition, a key part of the data collection involved a structured digital communication audit of the official SZPU websites in both English and Chinese. The audit sought to identify a centralized hub for student support and affairs—beyond the basic enrollment and admi-

ssions information typically available. In particular, the audit targeted menus and quick links associated with terms such as "student affairs", "campus life", and "mental health" to evaluate the accessibility and comprehensiveness of SZPU's digital infrastructure for student services. The audit employed a systematic search procedure applied to each website. All top-level menus, secondary navigation items, and quick-link panels were manually examined using a predefined set of keywords (e.g., "student affairs", "campus life", "mental health", "advising", "career services"). Each identified section was then followed through its internal hyperlinks to assess whether the institution provided a centralized student-affairs portal or a dispersed set of support pages. This approach ensured comprehensive and replicable identification of all student-support content.

### ***Analytical framework and procedures***

The dataset consisted of institutional documents and publicly accessible digital content collected from the official websites of 63 public vocational undergraduate institutions in China (Ministry of Education of the People's Republic of China, 2025). The documents were subjected to systematic conceptual content analysis using Chickering's seven vectors as the *a priori* coding framework. Alignment levels were determined based on the frequency, explicitness, and institutional centrality of textual references to each developmental vector, resulting in a four-level scale (very high, high, moderate, low) calibrated to the extent to which each vector was explicitly emphasized, structurally integrated, or merely implicit within institutional documents.

### **POSITIONALITY**

The author's positionality is defined by a dual expertise: Professional involvement in vocational education and scholarly familiarity with Western SDT. This combination of perspectives orients the author toward identifying both alignment and divergence between Chickering's framework and SZPU's digital practice. To ensure analytical rigor and mitigate the potential bias of imposing an external lens, the analysis process was anchored in explicit textual and visual evidence from the primary sources. Furthermore, the interpretive approach is guided by a principle of "cultural translation", acknowledging that developmental theories are not universal templates but must be critically examined within specific sociocultural settings. This reflexive stance provides a more nuanced and transparent account of the analytical process.

### **CASE PRESENTATION AND FINDINGS**

The analysis reveals that SZPU's strategic documents and public-facing content are highly consistent in prio-

ritizing industry needs, leading to a selective emphasis on certain developmental vectors.

### ***Findings on digital communication transparency***

The digital audit reveals a distinct institutional priority in the organization of the SZPU website. While the site maintains prominent, clearly defined sections for "industry-education integration", "talent cultivation", and "recruitment", it currently lacks a centralized platform explicitly labeled and dedicated to "student affairs" or "psychosocial support". Content related to the developmental vectors of emotional management (V2), autonomy (V3), identity (V5), and integrity (V7) is dispersed across various sections, reflecting a fragmented, distributed approach to student support. This structure highlights the institution's strong focus on academic and vocational development while simultaneously revealing opportunities to better integrate resources that promote emotional management, autonomy, and identity formation. The prominence of the vectors of competence (V1) and purpose (V6) in the digital content aligns with SZPU's commitment to cultivating technically skilled and career-oriented graduates, providing a solid foundation upon which to expand holistic student development through digital means.

## **DISCUSSION AND RECOMMENDATIONS**

### ***Redefining holistic development***

The case study reveals that SZPU has effectively applied key elements of Chickering's framework to advance its primary mission of providing high-quality vocational training aligned with national economic objectives. This finding highlights a theoretical divergence: The institution's definition of "holistic development" shifts the focus from individualized psychosocial growth as defined in Chickering's theory to demonstrable professional competency that contributes to the collective. The emphasis on "moral and professional excellence" (SZPU's motto) effectively reinterprets autonomy and integrity as moral and political compliance, a necessary cultural translation of Western theory into the Chinese vocational education and training (VET) context.

The digital communications audit substantiates this interpretation. By failing to dedicate visible digital real estate to psychosocial support, the university sends a tacit message that these nontechnical areas, while present in policy, are not central to the student's public-facing developmental journey.

### ***A localized framework for student services at SZPU***

In response, this study proposes a localized conceptual framework that integrates the integrated student services

structure exemplified by Foothill College with the specific developmental and ideological priorities of Chinese vocational universities. This adapted model retains the foundational pillars of academic, career, and personal development while introducing two essential local dimensions: (1) Ideological and civic education, reflecting China's emphasis on students' moral and political development, and (2) international and cross-cultural exchange, aligning with SZPU's global engagement mission.

At the system level, a digital empowerment platform underpins all student affairs operations, enabling data-driven decision-making and individualized support. This infrastructure operationalizes SZPU's "smart campus" strategy and provides the technological foundation for integrating SDT into practical management processes.

### **Recommendations**

To address the documented gaps and the significant digital communication deficit, SZPU should leverage international best practices, such as the comprehensive student affairs model demonstrated by institutions like Foothill College. The primary recommendation is to create a centralized "student success and wellness" microsite, which could help remedy the lack of transparency and visibility in current offerings. This portal should be designed to structure resources according to the psychosocial needs outlined in the Foothill model. For example: (1) Wellness and support—centralized access to mental health counseling, student health services, and basic needs support. (2) Engagement and identity—clear pathways to student government, clubs (e.g., via an Inter-Club Council model), leadership programs, and cultural events (e.g., a Heritage Series) to foster community and identity development. (3) Rights and conduct—an accessible digital version of the Student Handbook, framing conduct and grievance procedures through the lens of integrity and accountability in alignment with SDT.

Furthermore, to foster intellectual autonomy (V3), SZPU could embed a mandatory, credit-bearing "Applied Ethics and Critical Decision-Making" module into the capstone year. This course would use VET-specific case studies to promote self-directed ethical reasoning and the critical evaluation of professional standards, aligning with the goal of developing students' intellectual independence. To enhance sense of purpose (V6) and integrity (V7), institutional reporting on career purpose should incorporate a "Social Contribution" metric. This would incentivize faculty to integrate nonvocational community service or volunteering into the curriculum, ensuring that students connect their professional development not just to employment outcomes but to a broader sense of social responsibility.

By adopting these strategies, SZPU would not only bridge existing gaps but also build a more holistic and accessible digital framework that supports students' development across multiple dimensions.

### **CONCLUSION**

This case study highlights the critical role of digital transformation in improving student affairs communication and fostering holistic development within Chinese vocational universities. The analysis of SZPU reveals that the institution's digital platforms prioritize the cultivation of technical competence and career orientation, aligning with its core mission of industry-education integration. However, the study also identifies a significant opportunity: To enrich this digital ecosystem by intentionally incorporating resources that foster students' autonomy, emotional well-being, and identity development. Such an enhancement would contribute to a more holistic framework for student growth, aligning digital student affairs with the broader objectives of vocational education modernization.

Informed by international benchmarks—notably Foothill College's integrative and student-centered digital services model—this study proposes a localized framework tailored to the context of SZPU and other Chinese vocational institutions. The adapted framework integrates the traditional academic, career, and personal development pillars with two additional components: (1) Ideological and civic education, which aligns with national moral education goals, and (2) international and cross-cultural engagement, which reflects SZPU's global mission. The entire model is underpinned by a digital empowerment layer that facilitates data-driven services, personalized guidance, and continuous student engagement through an interconnected online platform.

This localized framework bridges Western student development theories, such as Chickering's seven vectors, with the educational priorities of China's vocational universities. It redefines holistic development as a process that balances professional excellence with civic responsibility and moral awareness. Strengthening the digital infrastructure of student affairs can therefore serve as a strategic tool for promoting student autonomy, fostering social and emotional growth, and elevating the overall quality and inclusiveness of vocational higher education in China.

### **LIMITATIONS AND FUTURE RESEARCH**

Although this study offers a theoretically informed examination of digital student affairs at SZPU, several limitations should be acknowledged. First, the analysis relies primarily on institutional documents and publicly available digital content. These sources provide insights

into official policy and design but may not capture the nuances of on-the-ground practice, student lived experiences, or informal support networks on campus. Second, the single-case design limits the generalizability of the findings. SZPU represents a leading and well-resourced vocational university, and institutions with different regional, financial, or administrative conditions may exhibit distinct developmental patterns.

These limitations point to several avenues for future research. Empirical studies employing interviews, surveys, or ethnographic methods are needed to assess how students and staff actually engage with digital student-affairs systems and whether these systems support developmental outcomes in practice. Comparative research across multiple vocational institutions would clarify the extent to which the patterns observed at SZPU reflect national trends or local particularities. Finally, future studies could investigate how indigenous educational values and cultural norms can be effectively combined with student development theories to create digital ecosystems that both respect local traditions and support holistic student growth in higher education.

## DECLARATIONS

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Liang YJ contributed solely to the article.

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Not applicable.

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Not applicable.

### **Conflict of interest**

The author has no conflicts of interest to declare.

### **Use of large language models, AI and machine learning tools**

None.

### **Data availability statement**

No additional data.

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