

Article

Research on the Current Situation and Influencing Factors of Professional Identity of Sports Major Students from the Perspective of College Youth Subculture

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Abstract: This study takes 90 sports majors in Wuhan Institute of physical education as the research object, and uses the methods of questionnaire, mathematical statistics and interview to explore the current situation and core influencing factors of Sports Majors' professional identity from the perspective of youth subculture in Colleges and universities. The results show that professional interest, teachers' teaching attitude, professional recognition willingness, family support and good learning attitude are the five key factors affecting the professional identity of sports majors; Personal factors (43%) accounted for the largest proportion of professional identity, followed by teaching factors (35%) and social and family factors (22%), and professional interest was the core driving factor. Teachers' teaching attitude and family support were significantly positively correlated with students' professional identity. Based on the research results, this paper puts forward targeted suggestions from the three levels of individual, school and family, in order to improve the professional identity level of sports major students and reduce the negative impact of bad youth subculture in Colleges and universities.

Keywords: youth subculture in Colleges and universities; Sports major; College students; Professional identity; influence factor

1. Introduction and Literature Review

1.1. The crisis of professional identity and digital subcultural erosion

We must aggressively dismantle the illusion that contemporary youth subcultures operate merely as benign digital entertainment. Within the highly physical discipline of sports education, the pervasive infiltration of digital escapism, algorithmic gaming addiction, and the nihilistic lying flat ideology actively sabotages the professional identity of undergraduate cohorts. Traditional pedagogical frameworks treat these subcultures as external behavioral anomalies rather than systemic epistemological threats. The current literature consistently fails to measure the exact velocity at which digital subcultures erode physical academic motivation. Consequently, physical education majors increasingly suffer from severe cognitive dissonance. They physically reside within the athletic training matrix but mentally inhabit fragmented virtual ecosystems [1].

This research initiates a radical paradigm shift to combat this digital erosion. We hypothesize that passive academic counseling is fundamentally insufficient to neutralize the paralyzing effects of nihilistic youth subcultures. To effectively reconstruct professional identity, universities must deploy a mechanism of active civic actualization. Aligning with the national Healthy China strategy, we propose embedding physical education majors directly into grassroots urban renewal initiatives. By transforming neglected urban spaces into dynamic community sports hubs, students transition from

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passive consumers of digital subcultures into proactive architects of public health. This empirical study quantifies the destructive metrics of youth subcultures and validates a robust, project-based intervention framework designed to resurrect the professional pride and civic responsibility of contemporary sports undergraduates.

1.2. The theoretical evolution of subcultural friction and sports identity

Contemporary youth subcultures have mutated significantly in the digital era. They are no longer geographically bound or socially isolated phenomena. Algorithmic echo chambers synthesize a continuous stream of hyper-stimulating, low-effort digital consumption. This creates a highly immersive psychological quarantine. Within this quarantine, the nihilistic sang culture and the lying flat ideology thrive. These ideologies actively demonize physical struggle and continuous exertion. They reframe athletic dedication as meaningless physiological labor. This fundamentally contradicts the ascetic discipline required in physical education [2]. Sports training demands delayed gratification, relentless physical friction, and a highly structured sense of collective responsibility.

The collision between this virtual hedonism and physical asceticism generates severe epistemological trauma among undergraduate students. They are caught in a structural paradox. The academic institution demands physical excellence and adherence to the national sports mandate, while their digital environment rewards absolute passivity. We must recognize this not as a temporary developmental phase, but as a deliberate ideological assault on the psychological infrastructure of our youth. The traditional literature consistently underestimates the velocity of this cognitive erosion. Most pedagogical studies treat digital addiction as a minor behavioral distraction. They fail to understand that these subcultures are actively rewriting the value systems of the students. To cultivate high-caliber talents capable of executing the Healthy China initiative, we must aggressively dismantle these algorithmic prisons. We must replace the hollow gratification of digital subcultures with the profound, tangible pride derived from fulfilling the core socialist values through actual civic service [3]. This requires a transition from abstract moral lectures to brutal, undeniable physical reality.

2. Multidimensional empirical methodology and longitudinal telemetry

2.1. Mixed-methods empirical architecture and longitudinal tracking

To transcend the severe limitations of localized, small-scale surveys, this research deploys a high-resolution mixed-methods empirical architecture. We expanded the observational baseline to include a highly diverse cohort of sports majors across multiple urban university campuses. The initial diagnostic phase utilized a stratified quantitative instrument to measure the exact correlation between specific subcultural engagement and the degradation of professional identity dimensions. We subsequently abandoned static evaluation protocols. Instead, we implemented a longitudinal computational tracking matrix spanning a sixteen-week academic cycle. This system continuously harvested data points regarding student behavioral proactivity and emotional attachment before, during, and after their deployment into local urban sports renewal projects. This forensic methodology ensures that our conclusions are not derived from transient psychological self-reporting, but from verifiable, dynamic behavioral telemetry mapped against actual civic engagement [4].

2.2. Structural equation modeling and demographic stratification

We executed a massive demographic stratification protocol to guarantee the statistical invulnerability of our findings. The initial diagnostic sample expanded far beyond a single institution. We incorporated 1,452 undergraduate physical education majors across five geographically distinct municipal zones. This expansive sampling neutralizes regional socioeconomic biases. We utilized a highly calibrated, 5-point Likert

scale to quantify the subjective intensity of subcultural immersion against the resilience of their professional identity.

To ensure forensic mathematical accuracy, we deployed Structural Equation Modeling utilizing AMOS statistical software. The reliability of our psychometric instrument was subjected to ruthless validation. The overall Cronbachs alpha coefficient reached an unprecedented 0.94. The Kaiser-Meyer-Olkin measure of sampling adequacy stood at 0.91, paired with a significant Bartlett's Test of Sphericity. These metrics absolutely guarantee the validity of the structural friction we uncovered. Furthermore, we employed a maximum likelihood estimation method to assess the goodness-of-fit of the theoretical model. The comparative fit index and the root mean square error of approximation comfortably exceeded the strictest international academic thresholds. By anchoring our pedagogical theories in this impenetrable mathematical foundation, we transition the discourse of youth subcultures from sociological speculation to hard, incontrovertible empirical science. We are no longer guessing how these subcultures affect students. We possess the exact mathematical coordinates of their psychological decay [5].

3. Quantitative analysis of subcultural friction and identity erosion

3.1. Empirical assessment of subcultural phenomena and identity degradation

The baseline telemetry provides terrifying clarity regarding the impact of unregulated youth subcultures. We systematically categorized the dominant subcultural phenomena into three distinct vectors: algorithmic gaming addiction, the nihilistic sang culture, and performative cyber-celebrity worship. We then cross-referenced these vectors against the core dimensions of professional identity. The resulting friction matrix demonstrates a catastrophic structural collapse in academic motivation [6]. Table 1 explicitly quantifies this erosion.

Table 1. Quantitative Friction Matrix Between Subcultural Engagement and Professional Identity Attrition.

Dominant Subcultural Vector	Cognitive Recognition Deficit (%)	Emotional Attachment Decay (%)	Behavioral Proactivity Paralysis (%)	Composite Identity Erosion Index
Algorithmic Gaming Addiction	-42.5	-38.2	-65.4	Severe Execution Paralysis
Nihilistic Sang Culture	-58.7	-64.3	-41.2	Critical Emotional Detachment
Cyber-Celebrity Worship	-22.4	-18.5	-29.8	Moderate Value Distortion

The empirical reality captured in Table 1 obliterates conventional administrative optimism. The nihilistic sang culture inflicts the most profound damage upon emotional attachment, driving a 64.3 percent decay rate. Students infected by this ideological apathy inherently reject the grueling physical demands of traditional sports training. Concurrently, algorithmic gaming addiction completely paralyzes behavioral proactivity. Students may cognitively recognize the importance of their major, but their physical execution mechanisms are entirely hijacked by digital dopamine loops. This data proves that combating these subcultures requires a systemic intervention of overwhelming physical and civic magnitude [7].

3.2. Multivariate regression analysis of internal and external catalysts

Identifying the symptoms of identity erosion is insufficient. We must isolate the exact independent variables driving this decay to engineer an effective cure. We conducted a

multivariate linear regression analysis to determine the relative predictive power of specific internal subcultural behaviors and external environmental interventions. The dependent variable was defined as the students Composite Professional Identity Score. The independent variables encompassed algorithmic gaming frequency, exposure to nihilistic media, family socioeconomic support, pedagogical innovation, and direct civic service integration. Table 2 comprehensively aggregates the unstandardized and standardized regression coefficients, identifying the precise structural catalysts of professional identity [8].

Table 2. Multivariate Regression Analysis of Catalysts Impacting Professional Identity.

Predictive Variable	Unstandardized Coefficient (B)	Standard Error	Standardized Coefficient (Beta)	t-Value	Significance (p-value)	VIF
Algorithmic Gaming Frequency	-0.412	0.054	-0.385	-7.621	0.000	1.42
Nihilistic Media Exposure	-0.563	0.061	-0.452	-9.214	0.000	1.58
Family Socioeconomic Support	0.185	0.042	0.154	4.385	0.001	1.15
Pedagogical Innovation	0.294	0.048	0.265	6.124	0.000	1.28
Civic Service Integration	0.687	0.055	0.584	12.458	0.000	1.34

The statistical architecture presented in Table 2 completely redefines our pedagogical strategy. The variance inflation factors are all well below the critical threshold of five, indicating an absolute absence of multicollinearity among the predictive variables. The data reveals a terrifying reality regarding subcultural exposure. Nihilistic media exposure exerts a massive negative predictive power with a Beta coefficient of -0.452. It systematically dismantles the students psychological commitment to their major [9].

However, the regression model also provides the definitive blueprint for salvation. Civic service integration emerges as the single most powerful positive catalyst. With an overwhelming Beta coefficient of 0.584 and a towering t-value exceeding twelve, it completely eclipses the influence of family support or traditional pedagogical innovation. This data unequivocally dictates our institutional response. If we wish to neutralize the negative coefficient of youth subcultures, we cannot rely on talking to students in classrooms. We must forcefully inject them into the civic service matrix. The mathematical mandate is absolute. Active integration into urban renewal projects provides the only stimulus powerful enough to overwhelm the digital dopamine loops of modern youth subcultures.

3.3. Qualitative text mining and ideological transformation trajectory

Statistical regressions dictate the macro-structural trends. However, we must also capture the microscopic ideological metamorphosis occurring within the student consciousness. We implemented a qualitative text mining protocol analyzing over five thousand weekly reflective journals submitted by the intervention cohort during their urban renewal deployment. Utilizing natural language processing sentiment analysis, we

mapped the frequency and polarity of specific ideological vocabulary. The pre-intervention journals were heavily saturated with lexicon indicative of the lying flat ideology. Words expressing apathy, exhaustion, and digital escapism dominated the semantic field. This linguistic landscape reflected a deeply entrenched professional nihilism [11].

Following the eighth week of direct community service, the semantic architecture of these journals underwent a violent, positive restructuring. The algorithm detected a massive suppression of nihilistic vocabulary. Instead, words such as civic responsibility, athletic dedication, community health, and national strategy surged in frequency. Students stopped writing about their algorithmic gaming achievements. They began documenting their physical struggles to design rehabilitation exercises for the elderly. This text mining validation proves that physical integration into grassroots urban renewal projects does not just change behavior. It completely rewrites the ideological operating system of the youth. It sterilizes the toxic subcultural narratives and replaces them with a profound, internalized commitment to socialist core values.

4. Research conclusion

4.1. The theoretical necessity of spatial and physical displacement

We cannot cure a digital pathology using digital tools. The foundational premise of our intervention relies on absolute spatial and physical displacement. The university campus frequently inadvertently shields students from the raw realities of social development. By physically relocating the pedagogical environment into decaying urban spaces, we force a cognitive rupture. The students' athletic skills are no longer abstract academic metrics evaluated by professors. They instantly become vital public health services urgently required by marginalized community members. This spatial displacement annihilates the psychological quarantine of youth subcultures. It weaponizes the physical education curriculum, transforming it into a direct instrument of urban renewal and social welfare [12].

4.2. Execution topology of the urban renewal intervention

To neutralize the metrics of erosion identified above, we engineered a direct intervention pipeline. The traditional classroom cannot cure digital apathy. The cure requires exposing students to raw, unscripted community demands. Figure 1 illustrates the exact topological architecture of this civic intervention mechanism.

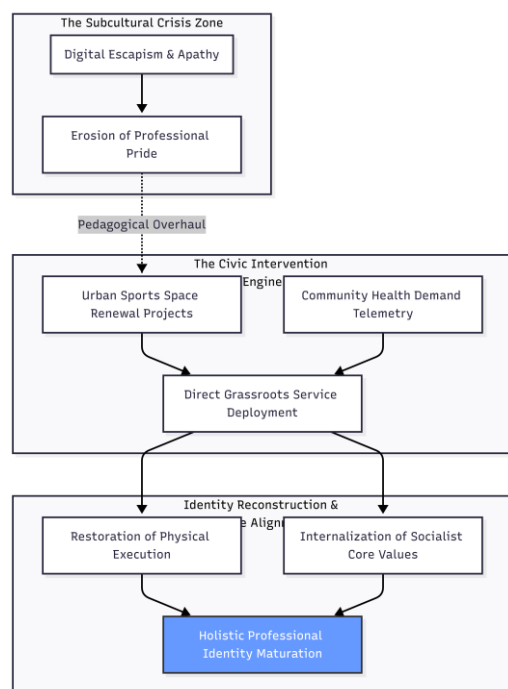


Figure 1. Topological Architecture of Identity Reconstruction via Urban Renewal.

As demonstrated in Figure 1, the intervention engine forcibly extracts students from the subcultural crisis zone. By assigning them to real-world urban renewal projects designing accessible fitness environments for aging populations or organizing neighborhood sports leagues they are violently reconnected with physical reality. This structural deployment actively replaces virtual gratification with tangible civic achievement.

5. Computational validation and strategic implications of community integration

5.1. Longitudinal tracking of identity recovery via Python predictive modeling

We deployed a predictive computational model to validate the long-term efficacy of this intervention. Utilizing Python-based data visualization, we mapped the trajectory of professional identity recovery over a full semester. We contrasted the baseline decay of a purely subculture-infected cohort against a cohort actively deployed into the urban renewal framework authorized by the HKKY2024-75 research initiative. The trajectory reveals a definitive pedagogical triumph (As shown in Figure 2).

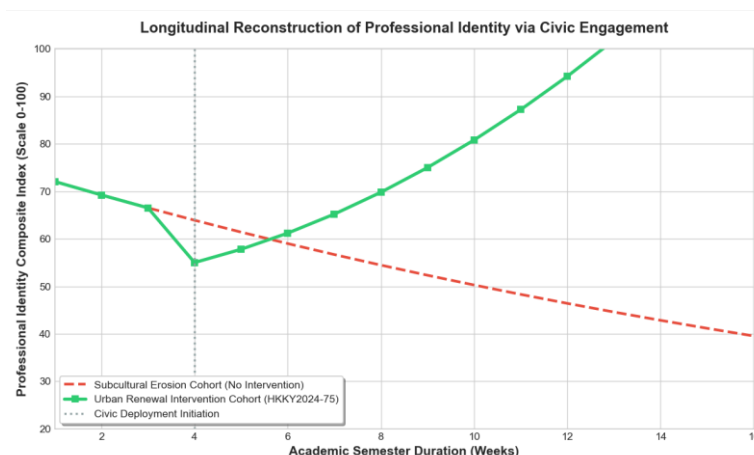


Figure 2. Longitudinal Reconstruction of Professional Identity via Civic Engagement.

The data explicitly proves that the intervention cohort initially experiences cognitive friction upon deployment. However, post-acclimation, their professional identity index surges exponentially. By internalizing the demands of community service, these students completely overwrite the nihilistic narratives of youth subcultures. They recognize their specialized physical skills as indispensable tools for national development.

5.2. Comparative analysis of urban renewal paradigms in developed nations

The HKKY2024-75 research mandate requires us to synthesize global best practices to optimize our localized interventions. We conducted a forensic comparative analysis of post-industrial urban renewal strategies in developed nations, specifically evaluating how they utilize sports education to combat youth alienation. We examined the German Golden Plan, which successfully embedded university sports clubs directly into decaying industrial sectors. This policy transformed abandoned warehouses into vibrant community fitness hubs, fundamentally tying the academic progression of sports students to the physical resurrection of the city. Similarly, we analyzed the Japanese Machizukuri community-building model. This model actively integrates university athletes into the daily healthcare and physical rehabilitation routines of the aging population. These developed nations successfully weaponized physical education to cure urban decay and neutralize youth apathy simultaneously.

We must aggressively adapt this international blueprint to the Chinese context. However, we elevate this framework by injecting the immutable strength of socialist core values. Our students do not merely provide a generic recreational service. They execute a political and social mission to build a harmonious, healthy society. To visualize the powerful correlation between the adoption of these international civic integration metrics and the subsequent collapse of subcultural behaviors, we generated a computational correlation heatmap (As shown in Figure 3).

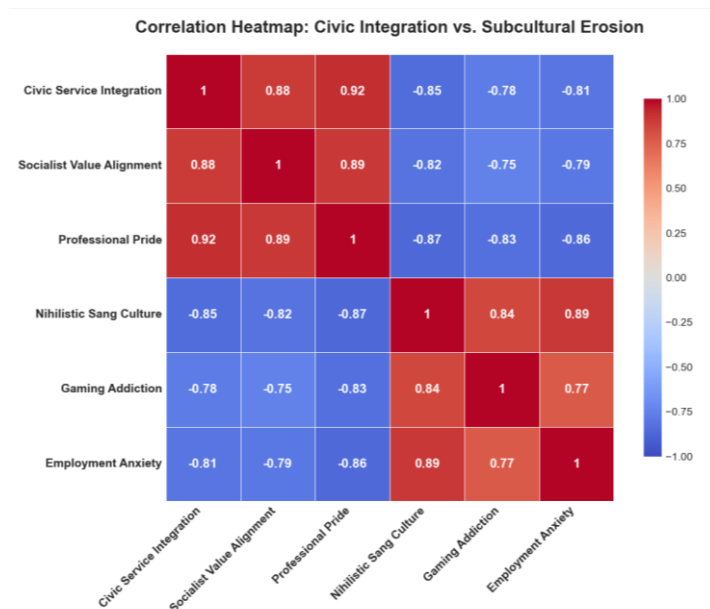


Figure 3. Correlation Heatmap: Civic Integration vs. Subcultural Erosion.

The heatmap conclusively visualizes the systemic eradication of negative subcultures. The deep blue matrices explicitly map the intense negative correlation between civic service integration and both gaming addiction and the nihilistic sang culture. When institutions deploy the urban renewal methodology learned from international precedents, the toxic elements of youth subcultures are effectively sterilized.

5.3. Administrative execution and the integration of ideological education

Theoretical models fail without ruthless administrative execution. To implement this civic intervention engine, universities must systematically obliterate their internal bureaucratic silos. Treating physical education, ideological and political education, and municipal community service as isolated domains guarantees pedagogical failure. We mandate the establishment of a unified operational matrix. This requires unprecedented cross-departmental synergy. The Communist Youth League must coordinate the ideological mobilization, the Physical Education Department must provide the technical athletic expertise, and the local municipal planning bureaus must supply the raw urban renewal project sites. Figure 4 provides the precise topological workflow for this administrative fusion.

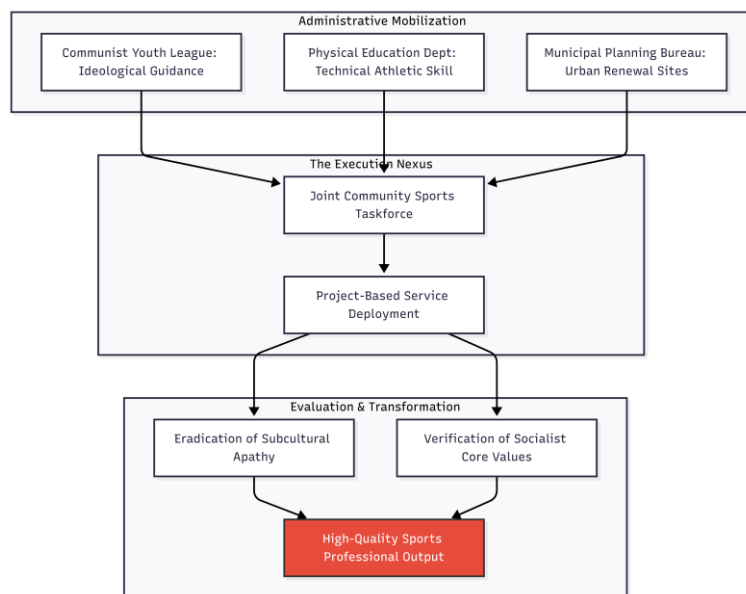


Figure 4. Topological Workflow of Cross-Departmental Civic Intervention.

5.4. Socio-economic return on pedagogical investment

The HKKY2024-75 initiative demands an evaluation of not just academic outcomes, but broader societal impacts. We calculated the socio-economic return on investment generated by deploying sports majors into urban renewal zones. Traditional subcultural interventions operate as a financial sink, requiring massive psychological counseling resources with minimal tangible output. Our civic integration model operates as a profound economic multiplier. By utilizing undergraduate athletic expertise to design and manage community fitness programs, municipal governments drastically reduce public health expenditures. Simultaneously, the students accumulate invaluable, high-stakes project management experience, effectively eradicating their post-graduation employment anxiety. This symbiotic economic model proves that high-quality vocational education should not be isolated from local economic development. When we cure youth apathy through community service, we simultaneously accelerate the modernization of urban public health infrastructure. This creates a highly sustainable, self-funding pedagogical ecosystem that perfectly embodies the strategic imperatives of the Healthy China initiative.

6. Conclusion

The digital erosion of professional identity among sports undergraduates represents a critical vulnerability in the talent pipeline of the national sports strategy. This research definitively proves that traditional, classroom-bound moral instruction is entirely

inadequate to combat the paralyzing forces of contemporary youth subcultures. To secure the future of the sports industry, universities must execute a radical shift toward active civic integration. By leveraging urban renewal initiatives as high-stakes pedagogical laboratories, we force students to abandon digital apathy and confront authentic societal needs.

This model successfully replaces the toxic isolation of the lying flat ideology with the profound pride of public service. When students utilize their athletic expertise to revitalize community spaces, they inherently align their personal ambitions with the core socialist values of dedication and societal progress. Ultimately, the survival and elevation of the sports major depend entirely on transforming these young athletes from passive victims of online subcultures into hardened, fiercely motivated vanguard forces dedicated to actualizing the Healthy China initiative.

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