



The 20<sup>th</sup> National and International Conference  
"Strengthen knowledge to drive education and integrate across sciences for sustainable development"  
December 3, 2025 Online Via Zoom

---

## THE RELATIONSHIP BETWEEN VOLUNTEER TEAM MANAGEMENT AND TEAM BUILDING EFFECTIVENESS OF PRIVATE UNIVERSITIES IN GUANGZHOU, CHINA

Zhu Muqing<sup>1</sup> Pratuang Phumpatrakom<sup>2</sup> Patitham Samniang<sup>3</sup>  
Master Degree in Educational Management, Rattana Bundit University, Thailand  
Corresponding author: 906813391@qq.com

### Abstract

The objectives of this research were: 1) to study the current status of volunteer team management of private universities in Guangzhou, China. 2) to study the relationship between volunteer team management and team building effectiveness of private universities in Guangzhou, China. and 3) to propose guidelines for the development of volunteer team management of private universities in Guangzhou, China.

The population of this study were members of volunteer teams from 29 private universities in Guangzhou with total number of 630,000 volunteer members. The sample size was calculated with a probabilistic sampling method at 99% confidence level, the required sample were 339 volunteer members. The 470 questionnaires were distributed to collect data with online platform. The total number of valid questionnaires were 451. Descriptive statistics, correlation analysis and regression analysis were used to analyze data.

The research found that volunteer team management in private universities in Guangzhou showed generally positive performance. It was positively correlated with team building effectiveness, with leadership styles, communication mechanism, resource allocation, task cohesion, and incentive system having significant impacts. The study proposed guidelines encouraging universities to support student participation and improve team management systems.

**Keywords:** Volunteer Team Management, Team Building Effectiveness and Private universities

### Introduction

Following the 2019 implementation of a categorized management policy for private education in China, private universities have transitioned toward quality-oriented development. Guangzhou has become a prominent hub for youth volunteerism. However, private universities continue to face challenges such as limited resources, poor coordination, high volunteer turnover, and underdeveloped management systems. Research has predominantly focused on public universities, leaving private institutions underrepresented.

This study aims to bridge this gap by analyzing volunteer team management in private universities in Guangzhou through the theoretical lenses of Transformational Leadership and Team Effectiveness. The goal is to provide theoretical insights and practical strategies for building stronger, more cohesive volunteer teams.

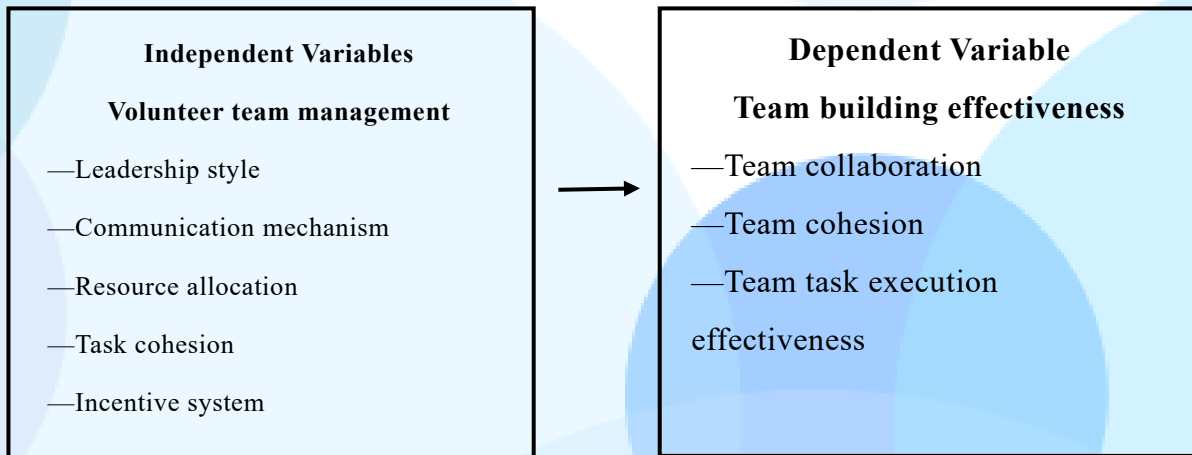
### Research Objectives

1. To study the current status of volunteer team management of private universities in Guangzhou, China.

2. To study the relationship between volunteer team management and team building effectiveness of private universities in Guangzhou, China.

3. To propose guidelines for the development of volunteer team management of private universities in Guangzhou, China.

### Scope of the Research



### Hypotheses

H1: The leadership style in volunteer team management is positively correlated with the effectiveness of team building.

H2: The communication mechanisms in volunteer team management are positively correlated with the effectiveness of team building.

H3: The resource allocation in volunteer team management is positively correlated with the effectiveness of team building.

H4: The task cohesion in volunteer team management is positively correlated with the effectiveness of team building.

H5: The incentive systems in volunteer team management are positively correlated with the effectiveness of team building.

### Literature Review

#### 2.1 Theoretical Foundations

Transformational Leadership Theory, first introduced by Downton (1973) and later expanded by Burns (1978) and Bass (1999), contrasts with transactional leadership by emphasizing intrinsic motivation, shared vision, and alignment with organizational goals. Bass (1996) further refined the framework through the Multifactor Leadership Questionnaire (MLQ), identifying four key dimensions: charisma, individualized consideration, intellectual stimulation, and inspirational motivation. In the Chinese context, scholars such as Li and Shi (2006) and Meng (2013) localized the theory by integrating cultural elements, including moral modeling and collective values, with Li and Shi's (2006) Transformational Leadership Questionnaire (TLQ) widely validated for its applicability.

Team Effectiveness Theory has evolved from Ancona's (1988) early work focusing on task-related outcomes to Goodman's (2005) expansion that incorporates a team's long-term growth potential. Domestic studies (Zhang, 2019) have further identified leadership,



trust, and cohesion as critical determinants of team effectiveness, particularly in complex organizational settings. Together, these theories provide a robust conceptual framework for examining how leadership styles and management practices impact the performance and cohesion of volunteer teams.

## **2.2 Overseas Research**

**Volunteer Management.** International research on volunteer management underscores the importance of strategic recruitment, matching volunteer expertise to organizational needs (Ashfaq et al., 2021), and adopting context-specific approaches to avoid one-size-fits-all models (Lucas, 2014). Pines (2013) highlighted the holistic nature of volunteer management, emphasizing continuous processes such as training, performance evaluation, and retention mechanisms.

**Team Building.** Studies abroad often ground team building in life cycle theory (Rahmanniyay et al., 2019), focusing on interpersonal dynamics (Sulaiman et al., 2012), member complementarity (Ruble et al., 2019), and multi-dimensional evaluation frameworks (Leitão et al., 2019). Trust (Moura et al., 2019) and dynamic analysis approaches (Mathieu et al., 2020) are repeatedly identified as key factors in sustaining effective teams, indicating that successful team building is a multi-layered and evolving process.

## **2.3 Domestic Research**

**Volunteer Management.** Chinese scholarship has concentrated on the relationship between government institutions and volunteer organizations (Guo & Guo, 2010), exploring motivational complexity (Sun, 2013) and identifying persistent gaps in recruitment and training systems (Wu & Meng, 2012; He, 2014). Research from Taiwan (Yang, 2019) further demonstrates how legal frameworks and market-oriented management practices can offer innovative incentive and training models for volunteers.

**Team Building.** Domestic literature emphasizes pragmatic team-building strategies, including communication mechanisms and incentive systems (Zeng, 2002). Li (2023) discusses how traditional Chinese philosophies, such as collectivism and harmony, shape collaboration norms, while studies by Jin (2010) and Jiang et al. (2013) provide insights into optimizing specialized teams to improve performance and cohesion.

## **2.4 Research Gaps**

Although extensive studies on volunteer management and team building exist both internationally and domestically, three notable gaps remain:

1) Limited focus on private universities. Most existing research concentrates on public institutions or community-based volunteer groups, leaving the unique context of private universities underexplored.

2) Insufficient integration of leadership theory into volunteer management. Few studies systematically apply Transformational Leadership Theory to analyze volunteer team dynamics in higher education, particularly regarding how leadership styles affect team-building outcomes.

3) Lack of empirical models linking management and team effectiveness. While prior studies discuss volunteer management practices and team cohesion, there is little empirical research connecting these concepts to measure team building effectiveness systematically.



## Research Methodology

### 1. Population and Sample

The population of this study were members of volunteer teams from 29 private universities in Guangzhou with total number of 630,000 volunteer members. Using a probabilistic sampling method with a 99% confidence level, the required sample size was determined to be 339 participants.

### 2. Research instruments

The questionnaire designed in this study, after the content validity and reliability evaluation, shows that the questionnaire is applicable and reliable. During the survey, the online questionnaire platforms were used to ensure comprehensive coverage of the sample, aiming to maximize the response rate. The final results of actual questionnaire recovery and validity processing are as follows:

Number of questionnaires distributed: 470

Number of returned questionnaires: 452

Number of valid questionnaires: 421

Questionnaire efficiency: 93.14%

After questionnaire screening, the effective sample (n=421) comprehensively reflects the demographic features of volunteer team members in private universities in Guangzhou.

1) Gender: The sample shows a balanced gender structure, with females accounting for 51.78% and males 48.22%, indicating near-equal participation.

2) Academic year: Sophomores form the largest group 49.88%, followed by freshmen 33.73% and juniors 16.39%, suggesting a slight decline in engagement with academic progression.

3) Team roles: Most respondents are general members 63.90%, with 24.23% serving as departmental leaders and 11.88% as organizers or overall leaders, reflecting varied levels of responsibility.

4) Participation frequency: Nearly half of the volunteers 49.64% engage "relatively frequently," while 31.12% report "moderate" participation and fewer describe their involvement as "rare" or "very rare" (13.78% combined).

5) University activity frequency: Activities are most often organized "1–3 times per semester" 56.29%, with smaller shares reporting monthly 13.78% or weekly 8.55% events, and 21.38% noting no fixed schedule.

6) Interest in volunteering: Respondents mostly report "moderate interest" 38.24% or that they "quite like" volunteering 34.20%, though 24.22% express some level of dislike.

7) Satisfaction with management: Opinions are mixed, with "moderate satisfaction" 34.92% most common, while 35.15% express higher satisfaction and 29.93% report dissatisfaction.

### 3. Data collection

The data collection for this study primarily involved questionnaire surveys and interviews. After the questionnaires were collected, the research team conducted a rigorous screening and organization of the data. The criteria for determining invalid responses include the following situations: 1) The questionnaire had to be completed in more than 60 seconds to ensure serious participation and prevent perfunctory responses; 2) The target population included volunteer team members from private universities in Guangzhou. Responses from individuals who completed the questionnaire multiple times,



showed no interest in the topic, or clearly demonstrated inconsistent answers were excluded.

All valid questionnaires were processed using specialized data entry software, with repeated verification steps performed to ensure data integrity. After entry, preliminary descriptive statistical analyses were carried out to review the overall data distribution and identify any missing values, creating a solid foundation for subsequent in-depth analysis.

According to the research framework and sample size calculation, a total of 470 questionnaires were distributed, and 452 were collected. After screening out 31 invalid responses, 421 valid questionnaires were obtained, achieving an effective response rate of 93.14%. The data set covered volunteer team members from all 29 private universities in Guangzhou, ensuring complete sample coverage and strong reliability for this study.

Looking ahead, future research may broaden the sampling scope to include private colleges in other parts of Guangdong and across China. At the same time, incorporating public universities as a comparative group would enable multidimensional analysis of factors such as institutional environment, resource allocation, and organizational structure. Such comparative work could reveal shared traits, differences, and the mechanisms behind volunteer team management under varied university systems, offering valuable insights for policy enhancement and cross-regional application.

#### **4.Data Analysis**

The data analysis for this study was conducted in a systematic sequence. Initially, the Index of Item-Objective Congruence (IOC) was utilized to assess the suitability and reliability of the questionnaire items. Subsequently, raw data were cleaned and preprocessed to ensure accuracy and consistency. Following this, tests of reliability and validity were carried out on the questionnaire. Descriptive analyses and hypothesis testing were then performed to explore the distribution of the data and examine group differences. Finally, correlation and regression analyses were applied to investigate the relationship between volunteer team management and team effectiveness.

#### **Research Results**

In this study, the reliability of each scale dimension was evaluated using Cronbach's Alpha coefficient. All coefficients exceeded 0.80, demonstrating strong internal consistency and confirming that the scale items were appropriately designed for further statistical analysis.

Subsequently, a validity assessment was conducted through the KMO and Bartlett's Test of Sphericity. The KMO value of 0.855 and the highly significant Bartlett's Test result ( $p < 0.001$ ) indicated excellent sampling adequacy and supported the structural validity of the measurement instrument, confirming the data's suitability for factor analysis.

Descriptive statistics revealed that most mean scores ranged between 3.6 and 4.0 on a five-point Likert scale, suggesting a generally favorable evaluation across the five management dimensions: leadership style, communication mechanisms, resource allocation, task cohesion, and incentive systems. Nevertheless, slightly lower ratings were observed in areas such as resource utilization efficiency, access to key resources, and leadership role modeling, highlighting opportunities for targeted improvement.

The correlation analysis further demonstrated that all five management dimensions exhibited significant positive associations with team building effectiveness (See table 1 for data details) . Moreover, multiple regression analyses confirmed that each

management dimension had a significant predictive effect on team building effectiveness. Diagnostic checks revealed no multicollinearity concerns ( $VIF < 2$ ), while all F-tests were significant ( $p < 0.001$ ). The adjusted  $R^2$  values ranged from 0.104 to 0.213, aligning with acceptable explanatory power levels for social science research and underscoring the robustness of the regression models.

Overall, these findings provide empirical support for all five hypotheses (H1-H5) and confirm that volunteer team management in private universities in Guangzhou exerts a significant positive impact on team building effectiveness. Among the five dimensions, incentive systems demonstrated the strongest influence, followed by resource allocation, communication mechanisms, leadership style, and task cohesion.

Table 1: Correlation and Regression Results of Volunteer Team Management Dimensions on Team Building Effectiveness

Management Dimension	Pearson Correlation (r)	Regression Coefficient ( $\beta$ )	Significance (p)	Hypothesis Result
Leadership Style	0.376	0.376	$p < 0.001$	Supported
Communication Mechanisms	0.408	0.411	$p < 0.001$	Supported
Resource Allocation	0.411	0.417	$p < 0.001$	Supported
Task Cohesion	0.323	0.325	$p < 0.001$	Supported
Incentive Systems	0.458	0.463	$p < 0.001$	Supported

## Discussion

This study investigates the connection between volunteer team management and team-building effectiveness in private universities in Guangzhou, China. At the outset, relevant literature and theoretical frameworks were reviewed both domestically and internationally to define and contextualize the core constructs, including leadership style, communication mechanisms, resource allocation, task cohesion, and incentive systems, and to establish the research scope. Data were collected through a questionnaire survey administered to 421 student volunteers. The findings reveal that volunteer team management is strongly and positively associated with team-building effectiveness.

In sum, the results underscore that well-structured management practices are crucial for enhancing team collaboration, team cohesion, and team task execution effectiveness within volunteer teams in private universities, offering meaningful theoretical contributions and actionable recommendations for improving the quality and long-term impact of volunteer services.



---

## Recommendations

### 1. Practical Recommendations for University Implementation

#### 1.1 Enhance Transformational Leadership Training

The findings demonstrate that leadership style significantly affects team cohesion and member engagement. Universities are advised to establish structured student leadership development programs rooted in transformational leadership principles. These should emphasize vision-setting, ethical role modeling, and individualized mentorship. A mentorship system pairing senior and junior student leaders should be introduced to ensure leadership continuity and team development sustainability.

#### 1.2 Establish Transparent and Multi-Channel Communication Mechanisms

Survey and interview results revealed issues such as delayed feedback and asymmetric information flow. It is recommended that volunteer teams institutionalize communication practices through regular briefings, digital collaboration platforms (e.g., messaging apps, shared documents), and clear feedback loops to promote information efficiency, enhance trust, and strengthen internal coordination.

#### 1.3 Optimize Resource Allocation and Supervision Systems

To address static and inefficient resource management, universities should simplify application procedures, implement dynamic evaluation mechanisms, and improve resource utilization. Partnerships with local governments and communities are encouraged to secure funding and professional guidance. Additionally, universities should integrate volunteer projects into innovation and entrepreneurship platforms to extend project value and social impact.

#### 1.4 Implement Competency-Based Task Assignment Mechanisms

The study reveals that vague responsibilities and mismatched task assignments hinder team performance. Volunteer teams should develop a competency-interest-based task assignment framework, aligning roles with members' skills, experiences, and preferences. Standardized role descriptions and task planning templates should be adopted to clarify responsibilities and improve task efficiency.

#### 1.5 Adopt a Demand-Oriented Project Management Approach

Some volunteer projects lacked clear goals or relevance to community needs. Universities should shift toward a demand-driven project design, supported by community needs assessments and regular evaluations. This ensures that volunteer activities align with real-world demands, serve target populations effectively, and support students' personal and professional development.

#### 1.6 Establish a Tiered and Integrated Incentive System

Given the strong positive correlation between incentive mechanisms and team performance, universities are advised to build a diversified and structured reward system. Internal incentives may include certificates, honors, leadership opportunities, and academic credits, while external incentives could involve scholarships, internships, and public recognition. The entire system should operate with fairness, transparency, and consistency to sustain volunteer engagement.

### 2. Academic Recommendations for Future Research

#### 2.1 Expand Sample Scope and Diversity

Future research should include a broader range of institutions, incorporating both private and public universities from different regions. Comparative analyses will offer deeper insights into how institutional contexts influence volunteer management models, enhancing the generalizability and applicability of research findings.



## 2.2 Promote Interdisciplinary Research Approaches

Volunteerism in higher education intersects with disciplines such as education, sociology, psychology, and management. Future studies should adopt interdisciplinary methodologies, integrating diverse theoretical frameworks to enrich analytical perspectives and strengthen theoretical contributions.

## 2.3 Emphasize Long-Term Impact of Volunteer Experience

Future research should focus on the long-term effects of volunteer participation on students' personal growth, career development, and civic responsibility. A comprehensive evaluation framework that links organizational management, individual development, and social contribution would help embed volunteerism more deeply into talent development systems.

## 2.4 Strengthen Legal and Policy Support Studies

Scholars are encouraged to explore the legislative development of volunteerism, including the potential enactment of sector-specific laws such as an "Education Volunteering Act" or "Community Volunteering Regulations." These policies would help clarify organizational responsibilities, protect volunteer rights, and promote the standardization and professionalization of volunteer services in higher education.

## References

- Ashfaq, F., Butt, M., & Ilyas, S. (2021). Volunteering: What drives and retains it? An analysis of motivational needs together with organizational policies and practices. *Qualitative Research Journal*, 21(2), 189–205.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9–32.
- Bass, B. M. (2014). Individual capability, team performance, and team productivity. In *Human performance and productivity* (pp. 179–232). Psychology Press.
- Bass, B. M., Avolio, B. J., & Atwater, L. (1996). The transformational and transactional leadership of men and women. *Applied Psychology*, 45(1), 5–34.
- Benrazavi, S. R., & Silong, A. D. (2013). Employees' job satisfaction and its influence on willingness to work in teams. *Journal of Management Policy and Practice*, 14(1), 127–140.
- Burns, J. M. (1978). *Leadership*. Harper & Row.
- Goodman, D. W., Ginsberg, L., Weisler, R. H., Cutler, A. J., & Hodgkins, P. (2005). An interim analysis of the quality of life, effectiveness, safety, and tolerability (qu.e.s.t.) evaluation of mixed amphetamine salts extended release in adults with ADHD. *CNS Spectrums*, 10(S20), 26–34.
- Leitão, J., Pereira, D., & Gonçalves, Â. (2019). Quality of work life and organizational performance: Workers' feelings of contributing, or not, to the organization's productivity. *International Journal of Environmental Research and Public Health*, 16(20), 3803.
- Lucas, J. (2018). Toward delegation: Social policy centralization in Toronto, 1870–1929. *Journal of Policy History*, 30(2), 272–300.
- Mathieu, J. E., Luciano, M. M., D'Innocenzo, L., Klock, E. A., & LePine, J. A. (2020). The development and construct validity of a team processes survey measure. *Organizational Research Methods*, 23(3), 399–431.
- Moura, I., Dominguez, C., & Varajão, J. (2021). Information systems project team members: Factors for high performance. *The TQM Journal*, 33(6), 1426–1446.



The 20<sup>th</sup> National and International Conference  
"Strengthen knowledge to drive education and integrate across sciences for sustainable development"  
December 3, 2025 Online Via Zoom

- Rafferty, R., Fairbrother, G., & Cashin, A. (2023). Maximising leadership coaching training outcomes: A randomised controlled trial. *International Journal of Evidence Based Coaching and Mentoring*, 21(2), 146–161.
- Ruble, K., Paré-Blagoev, J., Cooper, S., Martin, A., & Jacobson, L. A. (2019). Parent perspectives on oncology team communication regarding neurocognitive impacts of cancer therapy and school reentry. *Pediatric Blood & Cancer*, 66(1), e27427.
- Siangchokyoo, N., Klinger, R. L., & Campion, E. D. (2020). Follower transformation as the linchpin of transformational leadership theory: A systematic review and future research agenda. *The Leadership Quarterly*, 31(1), 101341.
- Smith, C. D., Balatbat, C., Corbridge, S., Dopp, A. L., Fried, J., Harter, R., & Sinsky, C. (2018). Implementing optimal team-based care to reduce clinician burnout. *NAM Perspectives*, 8(9), 1–13.
- Sulaiman, W. I. W., Mahbob, M. H., & Hassan, B. R. A. (2012). An analysis on the effectiveness of team building: The impact on human resources. *Asian Social Science*, 8(5), 29–36.
- Tam, D. A., Chessum, T., & Leopold, J. (2012). The challenge of innovation and the high-performance team. *HERD: Health Environments Research & Design Journal*, 5(3), 66–73.
- Tanghe, J., Wisse, B., & Van Der Flier, H. (2010). The formation of group affect and team effectiveness: The moderating role of identification. *British Journal of Management*, 21(2), 340–358.
- Guo, X. (2020). The influence mechanism of transformational leadership on employee job crafting. *Modern Business*, (22), 2.
- Guo, L., & Guo, J. (2010). Strengthening volunteer organization management and integrating volunteer team resources. *Economist*, (5), 2.
- Jiang, Y., Pan, E., & Liang, H. (2013). Cross-functional team member selection method for new product development considering indicator expectations. *Operations Research and Management*, 22(4), 204–211.
- Jin, L. (2010). Study on elements of knowledge management system in university research teams: An empirical analysis from the Ministry of Education's innovation teams. *Management Review*, 22(5), 7.
- Li, C., & Shi, K. (2005). The structure and measurement of transformational leadership. *Acta Psychologica Sinica*, 37(6), 803–811.
- Li, M., & Luo, N. (2020). The impact of transformational leadership on organizational commitment: The mediating role of employee self-efficacy. *Tourism Review*, (21), 15–17+21.
- Lin, Y. (2023). Redefining influence with innovative thinking: The founding of McKin China's influence marketing unit. *China Advertising*, (8), 68–69.
- Meng, H., et al. (2013). A re-examination of the connotation and measurement of transformational leadership in the Chinese context. *Journal of Management*, 10(3), 375.
- Nie, Y. (2021). Problems and countermeasures in the post-evaluation of agricultural construction projects in China: A case study of factory-style greenhouse farming projects. *China Agricultural Digest: Agricultural Engineering*, 33(4), 3.
- Wang, R. (2019). Reflections on team building in IT project management. In *Proceedings of the 2019 National Forum on Educational Innovation and Development (Vol. 3, pp. 335–338)*.



The 20<sup>th</sup> National and International Conference  
"Strengthen knowledge to drive education and integrate across sciences for sustainable development"  
December 3, 2025 Online Via Zoom

- Wu, D., & Meng, X. (2012). The development status and reflections of community NGOs in China: From the perspective of social capital. *Journal of Beijing University of Technology: Social Science Edition*, 12(2), 6.
- Wu, Z. (n.d.). A study on the relationship model of transformational leadership, organizational innovative climate, and innovation performance: Theoretical and empirical analysis based on Chinese enterprises (Doctoral dissertation, Shanghai Jiao Tong University).
- Xia, S., & Shao, Y. (2019). Types, structures and measurement of employee followership behaviors in Chinese organizational context. *Enterprise Economics*, 38(7), 136–144.
- Yang, D. (2019). Study on legal risks and prevention in volunteer services in China. *Chizi*, (19), 194.
- Zhang, Q. (2019). Research on the impact of transformational leadership on team performance. *Modern Business*, (19), 3.
- Zeng, Y. (2002). A brief discussion on team building in project management. *Shanghai Commerce*, (3), 4.
- Deng, Z. (2013). Team building in engineering project management. *Chinese and Foreign Entrepreneurs*, (35), 56–57.
- He, K. (2014). Analysis of volunteer management issues in social work organizations: A case study of social work organizations in Zhuhai. *Heilongjiang Education: Theory and Practice*, (5), 3.
- Sun, J. (2013). Practices and reflections on strengthening volunteer team building. *Journal of Fuzhou Party School*, (3), 4.