



## Developing a management guideline for the supervision of facilities and environment for college of Economics and Management in Guangxi Agricultural Vocational and Technical University

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### ABSTRACT

The objectives of this research were: 1) to investigate the opinions of students and teachers regarding issues related to the supervision of facilities and the environment at the College of Economics and Management at Guangxi Agricultural Vocational and Technical University; 2) to explore the opinions of students and teachers on the need for a management guideline for supervising facilities at the College of Economics and Management at Guangxi Agricultural Vocational and Technical University; and 3) to develop a management guideline for supervising facilities and the environment at the College of Economics and Management at Guangxi Agricultural Vocational and Technical University. This research utilized Guangxi Agricultural Vocational and Technical University as a case study. We will divide the population into two groups: 612 students and 128 teachers. The research instruments employed in this study were questionnaires. We analyzed and presented the collected information and data in terms of frequency, percentage, mean, and standard deviation. The study's results rated the problem of facility and environment supervision in vocational colleges at the "highest" level. The study also rated the need for management guidelines to oversee facilities and environments in a vocational college at the highest level. The management guideline is composed of six units, which are: 1) Purpose of Supervision, 2) Composition and main duties of the supervisory group, 3) Rules for implementing the supervision of campus facilities and environment, 4) Main forms and methods for supervising campus facilities and environment, 5) Principles for addressing the results, and 6) The working system for supervising campus facilities and environment. All 6 units are assessed by three experts, and they indicate that the management guidelines are acceptable.

### Origin and significance of the issue

With the rapid development of China's higher education, university facilities, and environmental supervision, service organizations responsible for ensuring the smooth conduct of university teaching and scientific research have increasingly become an important research field. With a large number of students and faculty members living and working in universities on a daily basis, the quality of university facilities

and environments is critical to their health and well-being (Wang, 2022, pp. 202-204). At the national level, China has clearly proposed that while caring for and serving students, it should provide targeted services based on their growth and development needs, proactively address their relevant demands in both study and life, and educate and guide them throughout this process of care, assistance, and service. In the new era, the connotation of university facilities and environments is gradually enriched as educational environments at home and abroad develop and change to meet the needs of students. As a new medium, the current university facilities and environment have become a vital aspect of education, enabling "smooth and silent" learning while providing services to students. Therefore, the quality of supervision and service provided by university facilities and environments plays an important role in the development of higher education in China (Li et al., 2021, pp. 112-113). More and more scholars have participated in the research on the construction of university facilities and environmental supervision systems and have made beneficial explorations on the construction issue and obtained many valuable viewpoints and insights. However, they have not conducted in-depth research on the construction of university facilities and environmental supervision systems, and they mostly stay in the abstract theoretical framework. Facilities and environmental supervision services in colleges and universities involve highly practical knowledge. At present, there are relatively few studies combining the reform of facilities and environmental supervision services in higher vocational colleges. Lacking effective practical experience, it is difficult to touch the particularity of contradictions and often lack guidance in specific operations (Zhang, 2018, pp. 30-32). Considering the ongoing development and deepening of higher education reform, the establishment and continuous improvement of modern university systems will inevitably introduce many new requirements for managing facilities, environmental supervision, and services in higher vocational colleges. We believe that it is necessary to conduct more research in this important field to better provide teachers and students with higher-quality guarantee services.

## **Objectives**

1. To investigate the opinions of students and teachers towards problems of the supervision of facilities and environment for the College of Economics and Management in Guangxi Agricultural Vocational Technology University.
2. To investigate the opinions of students and teachers towards the needs of a management guideline for the supervision of facilities and environment for the College of Economics and Management at Guangxi Agricultural Vocational Technology University.
3. To develop a management guideline for the supervision of facilities and environments at Guangxi Agricultural Vocational Technology University.

## **Literature review**

The Facilities and Environment Management guideline is a document that regulates and guides school administrators, teachers, students, and other relevant personnel to use and maintain various facilities and equipment on campus to protect and improve the campus environment. It contains policies, regulations, procedures, and measures designed to ensure the safe and effective use of campus facilities and to regulate and protect the campus environment.

The definition of the facilities and environment management guideline should generally include the following contents: 1) Facility management provisions, including the use of facilities and equipment and maintenance and cleaning norms and requirements. These rules can cover all kinds of campus facilities, such as classrooms, laboratories, libraries, sports venues, and restaurants. 2) Safety management measures: specific guidance on how to prevent accidents and respond to emergencies, such as fire safety, electrical

appliance safety, drug safety, wastewater treatment, drinking water management, site management, garbage sorting, etc. These measures are designed to ensure the safety of school facilities and the health of teachers and students. 3) Environmental protection norms: including measures to protect and improve the environment. The regulations can cover provisions in areas such as waste management, water conservation, noise control, greening, and more, with the aim of creating a livable environment. 4) Supervision and responsibility: Clarify the responsibilities and obligations of relevant responsible departments or individuals, including maintenance of facilities, handling of emergencies, supervision of environmental management, etc.

In summary, the Facilities and Environment Management guideline is a guidance document designed to promote the regulation of the use and management of campus facilities and to protect and improve the campus environment. Through the effective implementation of the provisions and measures in the manual, the overall management level of the campus and the safety and well-being of teachers and students can be improved.

From the four theoretical angles of institutional change theory, new public management theory, new public service theory, and target management theory, this paper makes an in-depth study on the basic situation, research tendency, and problems of the theoretical research on university facilities and environmental supervision and explores the management service mode and entity operation mechanism of university facilities and environmental supervision. It provides a theoretical basis for determining the objectives of university facilities and environmental supervision, proposing solutions, and scientifically compiling management guidelines for responsible officials at all levels.

Institutional change theory, proposed by Douglass C. North in the 1970s (Fu, 2004), states that the key factor to promote or hinder institutional change is the ratio of cost and benefit of institutional change. When the expected benefit is greater than the expected cost, the smart will be the main body to promote the realization of institutional change. The theory of institutional change is an important method to study the evolution of the supervision mode and system of university facilities and environment. In order to build a high-level supervision system of university facilities and environment, improve service quality, and meet the service needs of teachers and students, institutions must be strengthened. Only by establishing a scientific, systematic, and standardized management mechanism can we better promote the supervision of university facilities and environments. This study starts from the institutional theory to study the department responsible for the supervision of university facilities and environment (that is, the logistics management department), a special organization, especially to study the complex system of university facilities and environment supervision. The evolution of the supervision mode of university facilities and environments is the process of the change from the self-run logistics mode to the new logistics management mode and the process of the new system replacing the old system. Under the conditions of a socialist market economy, with the strengthening of the division of labor between colleges and universities, it is easy for schools to obtain corresponding services through market transactions, especially post-college facilities and environmental supervision services, and transaction costs are greatly reduced. Therefore, the services of university facilities and environmental supervision should be more provided by the market to achieve high efficiency and quality and reduce management and operation costs.

The new theory of public administration proposed by Jane-Erik Lane in 1980 (Denhart, 2004, pp. 101-200), the new public management theory, is a theory that re-studies the management method of the public sector based on the business management idea. In the 1980s, under the influence of the trend of information and globalization, the original public administration management model no longer meets the needs of development, and people need a more transparent and efficient way to improve public services. The new public management theory came into being under such circumstances. In a strict sense, although there is no consistent theoretical position and unified and clear model, the new public management contains several basic connotations: (1) the decentralization of public service organizations; (3) implement a limited-term contract system for the employment of senior personnel and fully monetize incentives; (4) Division of

labor between the formulation and implementation of public services; emphasis on cost reduction; shift from policy to management to quantitative methods and efficiency standards that emphasize performance and evaluation. Although the new public management theory lacks further empirical evidence in the current practice of university facilities and environmental supervision, it needs to be continuously improved in the process of development to enrich its theoretical basis. However, the management ideas and modern management methods contained in the new public theory, such as its emphasis on the contract system of employees, the implementation of quantitative evaluation of efficiency, and the establishment of a reasonable performance appraisal and evaluation mechanism, have important inspiration and reference significance for improving the enthusiasm and service efficiency of enterprises and personnel in the supervision of university facilities and environment. It also plays an important guiding role in the theoretical research and practical operation of China's university facilities and environmental supervision. The new public service theory was proposed by Janet V. Denhardt & Robert B. Denhardt in 2010 (Chen, 2015). The essence of the new public service theory is the reflection and sublation of the new public management theory. Represented by B. Denhardt, this theory pays more attention to the public interest and the value of people's livelihoods and proposes to establish a new theory that is more suitable for modern public management practice and more in line with the needs of the development of modern citizens' crazy association. In the process of building a new mode of operation for college facilities and environmental supervision, the new public service theory proposes to establish a new management mode and system that is more in line with the actual situation of college facilities and environmental supervision in China, aiming at the theoretical core, value orientation, system construction, and operation mode of college facilities and environmental supervision. Critical absorption of other theories and their cores related to university facilities and environmental supervision, and more profound thinking, helps us to construct and discuss a new model of university facilities and environmental supervision systems.

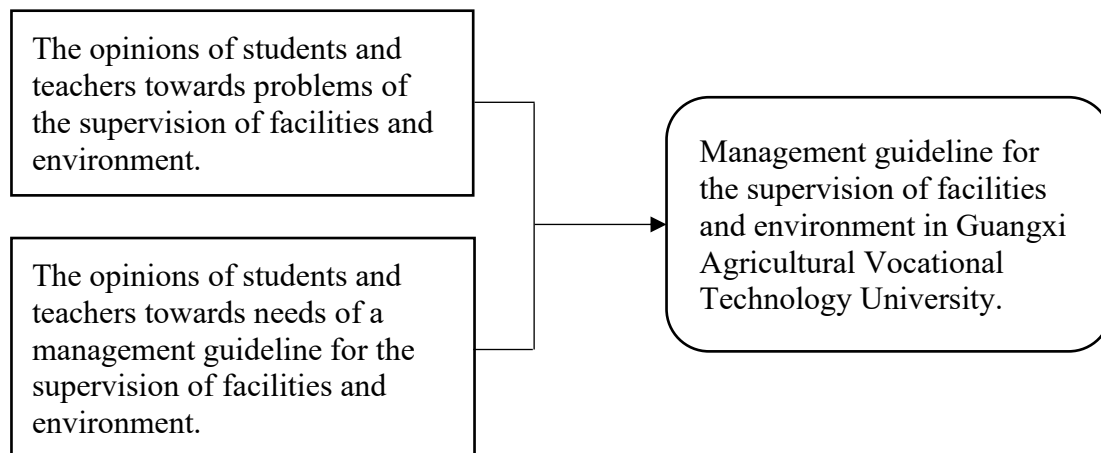
Management by objectives (MBO) theory, proposed by Peter Drucker in the 1950s (Ryan, 2004, pp. 6-15), is a management system based on Taylor's scientific management and behavioral science theory, which appeared in the United States in the mid-1950s. Management by objectives is a management philosophy that transforms the needs of the organization into personal goals. By dividing the development direction and expected goals of the organization in a given period and transforming them into personal development goals within the organization, the fulfillment of organizational goals is achieved through the realization of personal goals. In the theory of management by objectives, employees should participate in all levels of management, negotiate and formulate goals together, clarify their own goals and responsibilities, and achieve the motivation of all levels and members of the responsibility, and give full play to their maximum potential.

The management of university facilities and environmental objectives is to determine the overall work objectives and responsibilities according to the purposes of the school facilities and environmental supervision and then decompose them accordingly to each department, each post, and each management link. In this process, it is necessary to implement corresponding management means such as planning, organization, command, and supervision; formulate detailed assessment measures and methods; and evaluate, supervise, and adjust the operation process to achieve the ultimate goal of target management. At present, management by objectives is one of the most scientific and effective management methods in the supervision process of university facilities and environments.

The above four theories are the theoretical basis for the supervision of university facilities and environment and provide a powerful theoretical basis for solving the problems existing in the current reform and building a new supervision model of university facilities and environment and the operation mechanism of enterprises. The construction process of the new college facilities and environment supervision mode is the process of replacing the old system with the new system. In this process, we should study and formulate the supervision method of college facilities and environments based on the enterprise management concept and establish a new management mode and system that is more in line with the actual situation of China's

college facilities and environments. Management by objectives is one of the most scientific and effective management methods in the supervision process of university facilities and environments. Therefore, the above theories have important guiding significance for the research of university facilities and environmental reform.

## Conceptual framework



**Figure 1** Conceptual framework

## Methods

We conducted this study using surveys.

### 1. Population and sample

In this research, the College of Economics and Management in Guangxi Agricultural Vocational and Technical University will be used as a case study. The population and samples will be divided into groups; namely, 612 students and 128 teachers. The method of stratified random sampling will be adopted.

### 2. Research instruments

For the investigation of problems and needs, the main research instruments will be 1) questionnaires and 2) a set of questions for three focus group discussions.

### 3. Data Collection

1) Data and information will be collected online by email.

2) Questionnaires designed for students and teachers are completed online. At the same time, through face-to-face Q&A or follow-up interviews, questionnaires will be issued, the purpose of the survey and the benefits obtained from it will be explained, the appointment date and time will be arranged, the date of receiving and returning the questionnaire will be recorded, the questionnaire information will be collected by statistics and tabulation, and the data will be sorted out and summarized.

### 4. Data analysis and statistics

The data and information towards the problems and needs collected from the sample groups were analyzed, interpreted, and presented in terms of frequency, percentage, mean, and standard deviation. We evaluated the respondents' opinions using a five-point Likert rating scale. Moreover, the comments and ideas from the focus group discussion meetings were analyzed through content analysis and then used for the evaluation and approval of the strategic guidelines for the respondents' perceptions of problems with

facilities and environmental regulation in vocational college in terms of correctness and suitability by using IOC (index of congruence).

## Results

For the research results, it can be concluded as follows.

1. The problems of the supervision of facilities and environment for college of Economics and Management in Guangxi Agricultural Vocational Technology University.

**Table 1** Problems of the supervision of facilities and environment in vocational college for students

Questions	N=612		Level of problems
	$\bar{X}$	S.D.	
1. Do you think the supervision of facilities and environment is not well management.	4.69	0.67	Highest
2. You don't have confidence in school facilities and environmental supervision.	4.56	0.51	Highest
3. Do you think that the management guideline for the supervision of facilities and environment has not been paid attention to?	4.51	0.55	Highest
4. Do you think the management guideline for the supervision of facilities and environment affect the quality of study and life?	4.51	0.21	Highest
5. You don't believe in the relevance of management guideline for the supervision of facilities and environment.	4.52	0.53	Highest
6. You think the school does not pay attention to the supervision of facilities and environment.	4.62	0.28	Highest
7. You think the school does not pay attention to the development of campus facilities and environmental supervision and management personnel.	4.69	0.34	Highest
8. You don't think the school attaches importance to the management of the quality of the supervision of facilities and environment.	4.67	0.52	Highest
9. You don't think the school values the supervision of facilities and environment.	4.64	0.40	Highest
10. You don't believe your school values campus facilities and environmental monitoring activities.	4.54	0.23	Highest
11. Don't you think support staff can get more encouragement and reward instead of criticism and blame?	4.53	0.35	Highest
12. Do you think the university encourages teachers and students to give their opinions on campus facilities and environmental improvement?	4.55	0.29	Highest
13. Don't you think with the emphasis on "putting people first" in schools, the authorities care about teachers' feelings?	4.56	0.21	Highest

14. You don't think support staff are rewarded and recognized for their excellence.	4.62	0.36	Highest
15. You don't think support staffs have reasonable solutions to the problems they encounter in the process of monitoring campus facilities and environment.	4.62	0.41	Highest
16. You do not consider the risks to the safety of university facilities and environment to be minimized.	4.51	0.55	Highest
17. You believe that the procedures for monitoring campus facilities and environment do not show respect for the daily needs of teachers and students.	4.64	0.67	Highest
18. You won't find the administration's improvements to campus facilities and environment helpful.	4.59	0.34	Highest
19. You don't think the school knows who's making all the decisions.	4.52	0.53	Highest
20. You don't think the school campus facilities and environmental supervision work is well distributed and well distributed.	4.62	0.28	Highest
21. You don't think the school has complicated rules and regulations and doesn't take into account teachers' innovative ideas.	4.51	0.21	Highest
22. You don't think support staff are responsible for their campus facilities and environmental supervision.	4.62	0.52	Highest
23. You think it is impossible for colleagues to trust each other as support staff.	4.59	0.40	Highest
24. You don't believe in a harmonious relationship between school support staff and teachers and students.	4.54	0.23	Highest
25. You think the distribution of campus facilities and environmental supervision work is unfair to teachers and students.	4.53	0.35	Highest
26. You think there is no communication between support staff and teachers and students in the school.	4.55	0.29	Highest
27. You do not believe that the university values the participation of campus personnel and the supervision of campus facilities and environment by external personnel.	4.56	0.21	Highest
28. You think the university's pay for support staff is unreasonable.	4.68	0.36	Highest
29. You don't think the school provides good quality facilities and environment.	4.68	0.41	Highest
<b>Total</b>	<b>4.55</b>	<b>0.21</b>	<b>Highest</b>

According to table 1, it is indicated that most of students rated the problems of discipline's supervision of the instructors in vocational college at the highest level of average score at 4.55 (S.D.=0.21). Among them, "1. Do you think the supervision of facilities and environment is not well management" and

“7. You think the school does not pay attention to the development of campus facilities and environmental supervision and management personnel” were the highest level (4. 69), indicating that students feel that the school does not pay attention to the daily discipline’s supervision, and there is no professional discipline’s supervision team responsible for related work. “28. You think the university's pay for support staff is unreasonable” and “29. You don't think the school provides good quality facilities and environment” were the second highest level (4. 68), indicating that students also realize that the school's supervision of facilities and environment work is weak and has not been systematically supervised; Usually, students also believed that the school facilities and environment lacks sufficient support, and relevant facilities and equipment are insufficient.

**Table 2** Problems of the supervision of facilities and environment in vocational college for teachers

Questions	N=612		Level of problems
	$\bar{X}$	S.D.	
1. Do you think the supervision of facilities and environment is not well management.	4.58	0.20	Highest
2. You don't have confidence in school facilities and environmental supervision.	4.57	0.20	Highest
3. Do you think that the management guideline for the supervision of facilities and environment has not been paid attention to?	4.55	0.20	Highest
4. Do you think the management guideline for the supervision of facilities and environment affect the quality of study and life?	4.53	0.21	Highest
5. You don't believe in the relevance of management guideline for the supervision of facilities and environment.	4.55	0.21	Highest
6. You think the school does not pay attention to the supervision of facilities and environment.	4.54	0.20	Highest
7. You think the school does not pay attention to the development of campus facilities and environmental supervision and management personnel.	4.59	0.20	Highest
8. You do not think the school attaches importance to the management of the quality of the supervision of facilities and environment.	4.55	0.21	Highest
9. You don't think the school values the supervision of facilities and environment.	4.53	0.20	Highest
10. You don't believe your school values campus facilities and environmental monitoring activities.	4.54	0.21	Highest
11. Don't you think support staff can get more encouragement and reward instead of criticism and blame?	4.57	0.19	Highest
12. Do you think the university encourages teachers and students to give their opinions on campus facilities and environmental improvement?	4.56	0.21	Highest



13. Don't you think with the emphasis on "putting people first" in schools, the authorities care about teachers' feelings?	4.56	0.20	Highest
14. You don't think support staff are rewarded and recognized for their excellence.	4.56	0.21	Highest
15. You don't think support staffs have reasonable solutions to the problems they encounter in the process of monitoring campus facilities and environment.	4.55	0.21	Highest
16. You do not consider the risks to the safety of university facilities and environment to be minimized.	4.54	0.21	Highest
17. You believe that the procedures for monitoring campus facilities and environment do not show respect for the daily needs of teachers and students.	4.56	0.21	Highest
18. You won't find the administration's improvements to campus facilities and environment helpful.	4.55	0.20	Highest
19. You don't think the school knows who's making all the decisions.	4.56	0.20	Highest
20. You don't think the school campus facilities and environmental supervision work is well distributed and well distributed.	4.56	0.20	Highest
21. You don't think the school has complicated rules and regulations and doesn't take into account teachers' innovative ideas.	4.53	0.21	Highest
22. You don't think support staff are responsible for their campus facilities and environmental supervision.	4.54	0.21	Highest
23. You think it is impossible for colleagues to trust each other as support staff.	4.53	0.21	Highest
24. You don't believe in a harmonious relationship between school support staff and teachers and students.	4.55	0.20	Highest
25. You think the distribution of campus facilities and environmental supervision work is unfair to teachers and students.	4.55	0.19	Highest
26. You think there is no communication between support staff and teachers and students in the school.	4.56	0.21	Highest
27. You do not believe that the university values the participation of campus personnel and the supervision of campus facilities and environment by external personnel.	4.56	0.20	Highest
28. You think the university's pay for support staff is unreasonable.	4.57	0.22	Highest
29. You don't think the school provides good quality facilities and environment.	4.58	0.21	Highest
Total	4.58	0.39	Highest

According to table 2, it is indicated that the problems of the supervision of facilities and environment in vocational college in the opinions of teachers and administrators are at the highest level ( $\bar{X}=4.58$ , S.D. =0.39). Among them, "7. You think the school does not pay attention to the development of campus facilities and environmental supervision and management personnel" was the highest level (4.59), indicating that the school does not pay attention to the daily campus facilities and environmental supervision, does not do a good job in supervision, and does not establish a professional supervision team to take charge of relevant work. "1. Do you think the supervision of facilities and environment is not well management" and "29. You don't think the school provides good quality facilities and environment" were the second highest level (4.58), indicating that teachers are also aware of the weak supervision of campus facilities and environment, and have not been systematically managed. At the same time, it is also believed that the school campus facilities and environmental supervision lack sufficient support, and the relevant facilities and equipment are insufficient.

## 2. Needs of the management guideline for the supervision of facilities and environment in vocational college

**Table 3** Needs of the management guideline for the supervision of facilities and environment in vocational college for students

Questions	N=612		Level of needs
	$\bar{X}$	S.D.	
1. You need to comment on the school's campus facilities and environmental monitoring system.	4.57	0.24	Highest
2. You need to use campus facilities and environmental monitoring systems and work to put them into practice.	4.57	0.24	Highest
3. You think efforts should be made to improve campus facilities and environmental supervision system.	4.56	0.23	Highest
4. You think it is necessary to have good campus facilities and environmental supervision system.	4.59	0.25	Highest
5. You think the school needs to pay attention to the evaluation of teachers and students on the quality of current campus facilities and environmental supervision.	4.57	0.24	Highest
6. You need to be encouraged when campus facilities and environmental regulations are work.	4.57	0.24	Highest
7. You think it is necessary to investigate campus facilities and environmental regulatory systems in other schools to find a favorable approach.	4.59	0.25	Highest
8. You need to consider in advance the difficulties and problems that may be encountered in the construction of campus facilities and environmental regulatory systems.	4.57	0.24	Highest
9. You need to strictly follow the campus facilities and environmental regulations.	4.57	0.25	Highest
10. You believe that all teachers and students need to follow the campus facilities and environmental regulations.	4.56	0.22	Highest

11. Do you think there needs to be a comprehensive inspection of campus facilities and environment?	4.58	0.25	Highest
12. You need a well-developed system of campus facilities and environmental supervision.	4.59	0.25	Highest
13. You need to interact with support staff on campus facilities and environmental monitoring systems.	4.58	0.24	Highest
14. You need immediate feedback on the performance of your support staff.	4.55	0.24	Highest
15. You need to learn about campus facilities and environmental regulations in your free time.	4.55	0.25	Highest
<b>Total</b>	<b>4.57</b>	<b>0.24</b>	<b>Highest</b>

According to table 3, it is indicated that most of students rated needs of the management guideline for the supervision of facilities and environment in vocational college at the highest level of average score at 4.57 (S.D.=0.24). Among them, “4. You think it is necessary to have good campus facilities and environmental supervision system”, “7. You think it is necessary to investigate campus facilities and environmental regulatory systems in other schools to find a favorable approach” and “12. You need a well-developed system of campus facilities and environmental supervision” were the highest level (4.59), indicating that students think that in order to improve the effectiveness of campus facilities and environmental supervision, the school needs to establish a perfect campus facilities and environmental supervision and management system and implement it well. Students believe that the school should learn from the experience and management system of campus facilities and environmental supervision in other higher vocational colleges, and then combine the actual situation of the school to find effective measures to solve the problems existing in the current campus facilities and environmental supervision. Students also believe that a complete and advanced campus facilities and environmental monitoring system is also very important, because students hope to reflect campus facilities and environmental problems in a convenient and effective way in their daily study life, so as to get a quick solution.

**Table 4** Needs of the management guideline for the supervision of facilities and environment in vocational college for teachers

Questions	N=64		Level of needs
	$\bar{X}$	S.D.	
1. You need to comment on the school's campus facilities and environmental monitoring system.	4.49	0.52	High
2. You need to use campus facilities and environmental monitoring systems and work to put them into practice.	4.52	0.51	Highest
3. You need schools to improve campus facilities and environmental regulation.	4.61	0.63	Highest
4. You need to have good campus facilities and environmental supervision system.	4.63	0.47	Highest
5. You think the school needs to pay attention to the evaluation of teachers and students on the quality of current campus facilities and environmental supervision.	4.51	0.57	Highest

5. You need to be encouraged when campus facilities and environmental regulations are working.	4.62	0.30	Highest
6. You need to investigate campus facilities and environmental regulatory systems in other schools to find a favorable approach.	4.63	0.42	Highest
7. You need to consider in advance the difficulties and problems that may be encountered in the construction of campus facilities and environmental regulatory systems.	4.59	0.34	Highest
8. You need to strictly follow the campus facilities and environmental regulations.	4.53	0.31	Highest
9. You believe that all teachers and students need to follow the campus facilities and environmental regulations.	4.52	0.22	Highest
10. Do you think there needs to be a comprehensive inspection of campus facilities and environment?	4.55	0.36	Highest
11. You need a well-developed system of campus facilities and environmental supervision.	4.66	0.29	Highest
12. You need to interact with support staff on campus facilities and environmental monitoring systems.	4.59	0.27	Highest
14. You need immediate feedback on the performance of your support staff.	4.60	0.36	Highest
15. You need to learn about campus facilities and environmental regulations in your free time.	4.58	0.42	Highest
<b>Total</b>	<b>4.58</b>	<b>0.40</b>	<b>Highest</b>

According to table 4, it is indicated that most teachers rated the needs of the management guideline for the supervision of facilities and environment in vocational college at the highest level of average score at 4.58 (S.D.=0.40). Among them, “11. You need a well-developed system of campus facilities and environmental supervision” was the highest level (4.66), indicating that teachers believe that the supervision of facilities and environment is very important, because in addition to teaching and educating people, teachers also need high-quality campus facilities to carry out a variety of campus activities to enrich students' study and life, and they need to create a good campus environment to mold students' character and enthusiasm for learning professional knowledge. “4. You need to have good campus facilities and environmental supervision system.”, and “6. You need to investigate campus facilities and environmental regulatory systems in other schools to find a favorable approach” were the second highest level (4.63), indicating that teachers believe that In order to improve the effectiveness of campus facilities and environmental supervision, the school needs to establish a perfect campus facilities and environmental supervision management system and implement it well; It is believed that the school should learn from the experience and management system of campus facilities and environmental supervision of other higher vocational colleges, and then combine the actual situation of the school to find effective measures to solve the existing problems in campus facilities and environmental supervision.

### **3. Management guideline for the supervision of Facilities and Environment for Responsible Officials at Guangxi Agricultural Vocational Technology University**

The management guideline consisted of six units.

Unit 1 Purpose of Supervision.

Unit 2 Composition and main duties of the supervisory group.

Unit 3 Rules for the implementation of the work of the supervision of campus facilities and environment.

Unit 4 The main forms and methods of the work of the supervision of campus facilities and environment.

Unit 5 Principles of dealing with the results.

Unit 6 The working system of the supervision of campus facilities and environment.

## **Discussion**

### **1. Problems of the supervision of facilities and environment in vocational college.**

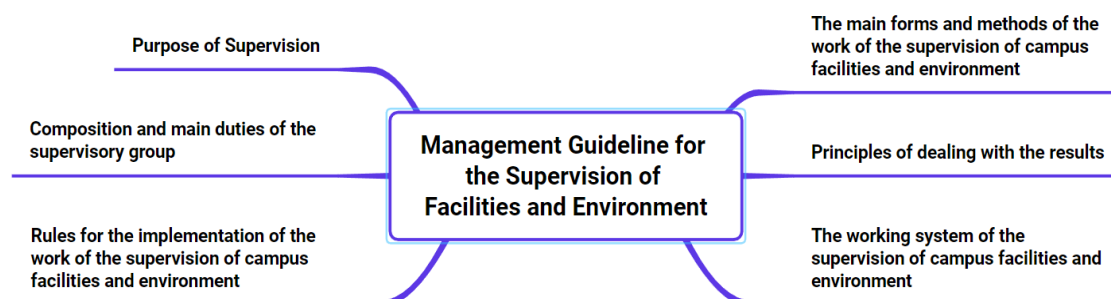
The survey results show that the school does not pay attention to the development of campus facilities and environmental supervision and management personnel are "the highest," which indicates that school leaders and departments do not pay much attention to the growth and training of campus facilities and environmental supervision and management personnel. Furuholt and KriStianSen (2014) pointed out in Economic benefits to stimulate logistics management that the quality of campus facilities and environmental supervision personnel is the key factor to determine the quality of logistics work. This study examines the current situation of campus facilities and environmental teaching supervision in British colleges and universities and the suggestions of teachers and students to improve campus facilities and environmental supervision. The sample included 754 students and teachers from 15 UK universities. Use frequency, percentage, mean, and standard deviation to calculate and analyze the collected data. The study believes that the role of campus facilities and environmental supervision personnel is to ensure the cleanliness and safety of the campus environment, including facility maintenance, green maintenance, sanitation, and safety. Although their work does not directly impart knowledge as teachers, their hard work provides a good learning and living environment for teachers and students, which indirectly promotes the improvement of the quality of education. Therefore, the work of environmental supervision personnel is equally important, and their quality and ability have a non-negligible impact on the quality of the campus environment. The logistics work is only as good as the quality of the supervisors. Excellent campus facilities and environmental supervision personnel should have professional knowledge, responsibility, service awareness, and emergency response ability. Professional knowledge enables them to correctly operate and maintain various facilities and equipment, responsibility makes them meticulous in their work, service consciousness makes them always put the needs of teachers and students in the first place, and emergency handling ability enables them to take rapid and effective measures in the face of emergencies to ensure the normal order of the campus. Highly qualified supervisors can reduce facility failures and extend facility life through preventive maintenance, resulting in cost savings. They are also able to respond to the needs and feedback of teachers and students in a timely manner, continuously optimize the service process, and improve the quality of service. In addition, the professionalism and affinity shown in their daily work can also influence students imperceptibly, and cultivate students' good habits of caring for public facilities and maintaining the public environment. On the contrary, if the quality of supervision personnel is not high, it may lead to the damage of campus facilities, the deterioration of environmental health, and even the occurrence of safety accidents, which will have a negative impact on students' study and life and reduce the overall image of the school.

### **2. The vocational college requires supervision of its facilities and environment.**

This study conducted a questionnaire survey on 612 students and 128 students and teachers in Guangxi Agricultural Vocational and Technical University. The questionnaire was modified on the basis of the original questionnaire, which has certain theoretical guiding significance and good reliability. This study also examines the needs and existing problems of the campus facilities and environmental supervision and management system, which is helpful for the construction of campus facilities and environmental supervision and management system. This is consistent with some of the points made by Friska (2019). Friska used the FIU satisfaction model to study students and faculty at the University of Sumatra. Regarding the satisfaction of campus facilities and environmental supervision and service quality, the analysis shows

that safety, campus environment, service scope, communication with teachers and students, and campus life have an impact on teachers and students' satisfaction with the quality of campus facilities and environmental supervision. First of all, it is necessary to build perfect and responsive campus facilities and an environmental supervision and management system.

## Originality and body of knowledge



**Figure 2** Body of knowledge

## Suggestions

### 1. Focus on the construction of facilities and environmental supervision teams.

First of all, we must strengthen the sense of competition and implement the contract appointment system for all staff. Competition is the core of the market economy; the competition of talents is the driving force of their own development. The implementation of full recruitment, competition, and two-way choice can enhance each employee's sense of crisis and urgency so as to cherish their positions more. Secondly, we should optimize the team structure. Logistics organizations should constantly introduce new policies to attract talent, mobilize elite soldiers, and strengthen and enrich the logistics team, which is the guarantee of the sustainable development of the logistics support system. In addition, a training system should be established to comprehensively improve the quality of the existing personnel in logistics. At present, the requirements of teaching, scientific research, and life services of teachers, students, and staff are getting higher and higher, and the level of logistics support needs to be strengthened and improved to meet the needs. The level of service guarantee is determined by the quality of the logistics staff. Only by constantly training the staff and improving their knowledge and skills can they remain in an unchanging position in the market competition.

### 2. The construction of campus facilities and environmental supervision and management systems.

The premise of building a supervision and management system for campus facilities and environments is as follows: First, the supervision organization should grasp the form and characteristics of campus facilities and environment supervision according to its own internal and external environment, traditional habits and characteristics of composition, and choose the supervision mode suitable for its own development. Second, it is necessary to grasp the coordination relationship between campus facilities and environmental supervision and various elements of university organizational culture. Only scientific combination and reasonable allocation can realize the overall optimization of campus facilities and environmental supervision systems.

The construction of perfect campus facilities and environmental supervision and management systems should be in line with its own reality, with its own characteristics, so as to be scientific, correct,

and clear. To construct a perfect campus facilities and environmental supervision and management system, it is necessary to investigate and analyze the recognition level of teachers and students so as to coordinate and adapt the campus facilities and environmental supervision and management system with the basic quality of teachers and students. Too high a standard is difficult for teachers and students to accept, and too low a standard will not be meaningful to improve the quality of campus facilities and environmental supervision. The campus facilities and environmental supervision and management system should fully reflect the service concept, management mode, and development direction of the supervision organization. It is necessary to give full play to the wisdom and creativity of the masses, pool wisdom, and select the value standards that meet the characteristics of the campus facilities and environmental supervision and management system and reflect the wishes of teachers and students through top-down and bottom-up repeated confirmation.

3. Focus on the training of facilities and environmental supervision teams. Strengthening the training of facilities and environmental supervision teams is beneficial to the relevant departments because it improves the working abilities of personnel and makes them competent for present and future work tasks. This training helps the organization gain a competitive advantage, improves the quality of work and service levels, and ensures the efficient operation of the logistics performance system. For the logistics workers themselves, it is also the need to realize self-value. The training of the facilities and environmental supervision team must be linked to the career development and strategic objectives of the university organization and must be in line with the knowledge, skills, and job characteristics of the staff.

4. Strengthen communication with clients. Any service management that does not understand the needs of the service cannot adjust and develop realistic plans and working methods. Facilities and environmental regulatory organizations continue to strengthen and improve the fundamental task of internal management, which, in the final analysis, is to provide good service to the service object. The satisfaction degree of the service objects to the service project, service quality, and service effect is the most important factor to judge the service level and guarantee ability. The key to the long-term development of facilities and environmental regulatory organizations is to adapt to the needs of service objects and continuously meet the growing service needs of service objects. Therefore, establishing a sound communication mechanism is a problem that should be seriously considered by university facilities and environmental supervision organizations. University facilities and environmental supervision organizations can improve the communication effect with service objects through investigation and visits, questionnaires, publicity, the establishment of complaint mechanisms, symposiums, and other ways so as to eliminate misunderstandings, enhance understanding, understand needs, improve measures, and improve services so as to tap the service potential of the organization and improve the economic benefits, social benefits, and market competitiveness of the organization.

5. Strengthen the enforcement of the regulatory process. Executive power refers to the ability of an organization or an enterprise to implement strategic goals, which is the core of enterprise competitiveness. University facilities and environmental supervision departments should also integrate the concept of executive power into their daily management work. The nature of the work and management reality of university facilities and environmental supervision require that the service guarantee work of university facilities and environmental supervision needs to have sound and detailed rules and regulations for standardization and standardized guidance. However, to make the system guide the workflow, standardize the service quality, and implement the effectiveness of supervision in daily work, it is necessary to strengthen the execution force in the management process. Starting from the actual situation of university facilities and environmental supervision, in order to improve organizational execution, in addition to strategic planning, organizational settings, staffing, and other factors, special attention should be paid to the control of execution links.

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