

Study on the Influence of Modern Information Technology on Student Management in Higher Vocational Colleges

Ke Wang^{1,a}, Deyi Yang^{2,b}

¹Philippine Christian University, Manila, Philippine

²Luohe Vocational Technical College, Luohe, Henan, China

^awkkhappy@126.com, ^b65625859@qq.com

Keywords: Modern information technology; higher vocational colleges; student management; influence

Abstract: In recent years, with the expanding scale of higher vocational colleges, the difficulty of higher vocational college student management and complexity also rising, the traditional student management mode and method has been difficult to meet the demand of the development of higher vocational colleges, should be more with the role of modern information technology and advantages, improve the higher vocational college student management quality and efficiency. The rapid development of information technology has made it widely used in the field of education, and also has an important impact on the student management of higher vocational colleges, promoted the innovation of the working methods of student management, and also improved the level and effectiveness of student management. Based on this, this paper analyzes the influence of modern information technology on student management in higher vocational colleges, and explores the innovative strategies of student management in higher vocational colleges under the background of information.

The development of information technology has promoted great changes in people's production and life, and has also had an important impact on the field of education. In recent years, as the higher vocational college student management difficulty and the complexity of promotion, the higher vocational college student management is facing great challenges, with the help of information technology innovation in higher vocational college student management methods and enhance the level of higher vocational college student management and results has become an inevitable trend, which makes the modern information technology for higher vocational college student management influence more significant.

1. The Influence of Modern Information Technology on the Student Management in Higher Vocational Colleges

In order to improve the level and effectiveness of student management in higher vocational colleges, information technology has been widely used. With the help of the advantages of modern

information technology, the quality and efficiency of student management in higher vocational colleges have been promoted, and the influence of modern information technology has been further enhanced. Specifically, the influence of modern information technology on student management in higher vocational colleges is mainly reflected in the following aspects.

1.1 Manage the Impact of the Information Systems

Integrating management information system in student management in higher vocational colleges can greatly improve the efficiency of student management in higher vocational colleges. In recent years, with the rapid development of information technology, office informatization has also been expanded to higher vocational colleges, and the application of various special software can provide strong support for the management of students in higher vocational colleges. For example, student course selection system, student status information management system, campus card management system, student dormitory management system and library management system, with the support of these management systems, the efficiency of student management in higher vocational colleges can be greatly improved, and the quality of student management in higher vocational colleges can be better guaranteed. For example, in the process of student management, students' relevant information can be input into the student status information management system at the beginning of entering the school. When needing to find the students' information, you only need to log in the system to input the students' name to realize the quick query of the student information. You can effectively query the students' information without looking through the students' paper learning files, which greatly improves the efficiency of student management. In addition, the application of management information system also helps to improve the quality of student management in higher vocational colleges. Taking the library management system as an example, the system realizes the computer management of library procurement, cataloging, retrieval, statistics and other aspects, and helps to improve the management efficiency and service quality of higher vocational college libraries. With the help of this system not only facilitates the library management, but also can provide convenience for students' book retrieval, book borrowing, convenient for students to retrieve materials and return information, can provide students with more convenient and efficient services.

1.2 The Impact of the Network and Instant Messaging Tools

The network and instant messaging tools are widely used in the management of higher vocational college students, and the application of the corresponding network and instant messaging tools will also have an important impact on the management of students in higher vocational colleges. First of all, in the developed network environment, the student management work is more efficient, which can realize the immediate communication with the students, and greatly improve the efficiency of the student management work. In addition, with the support of the network, student management is also more diversified. For example, student management can be carried out through blogs, email, wechat, forum or QQ, which is convenient and efficient. Taking the employment guidance for students as an example, the recruitment information can be directly published on the relevant forums or on the websites of higher vocational colleges. Students in need can learn about the recruitment information by browsing the relevant forums or school websites. For another example, teachers can carry out student management with the help of wechat groups, publish relevant notices or messages through wechat groups, and receive feedback from students in time, so as to realize efficient communication with students. Teachers can also communicate directly with students through E-mail, which can significantly improve the efficiency of student management in higher vocational colleges.

1.3 Modern Information Technology Brings New Challenges to Student Management

Modern information technology has an important influence on the management of students in higher vocational colleges, and its influence is in many aspects. In addition to improving the quality and efficiency of student management in higher vocational colleges, modern information technology will also bring new challenges to the management of students in higher vocational colleges. With the rapid development of information technology, the application of information technology in the field of education will become more and more profound and more extensive, and the corresponding educational concept and student management concept and management mode will also change, and the development of information technology will also promote the change of students' thinking mode. All these will bring new challenges to the management of students in higher vocational colleges. It is necessary to combine the new changes and new characteristics brought by information technology, constantly explore the innovative ways of student management in higher vocational colleges, improve the level and effectiveness of student management in higher vocational colleges, and lay a foundation for the healthy growth and comprehensive development of students.

2. Innovative Strategy of Student Management in Higher Vocational Colleges under the Background of Informatization

2.1 With the Help of Information Technology to Shape the Education of Information Campus

Education is the main purpose of higher vocational colleges. With the help of information technology, more students should be guided to participate in the construction of information campus, and students can get training and development in this process. Student management in higher vocational colleges is a systematic and complex task, which not only involves a large amount of financial and material resources consumption, but also needs to invest a lot of human resources to stimulate the enthusiasm of students to participate, which can not only help higher vocational colleges to save human resources, but also enable students to get more exercise. Influenced by the complexity and systematization of student management in higher vocational colleges, schools should strengthen the information construction and improve the efficiency and quality of student management with the help of information technology. School leaders should realize the trend of informatization and give more support and investment in information construction (Figure 1). They should not only formulate information construction plans, but also clarify the goals of information construction, and give full play to the leading role in the process of informatization construction, so as to ensure the efficient development of informatization construction in higher vocational colleges. School leaders should not only skillfully use the information office system themselves, but also put forward corresponding suggestions to the information office system from the perspective of student service and management, and constantly optimize and improve the information office system. In addition, the campus should also strengthen the training of student managers, strengthen their information technology literacy, guide them to actively apply information technology to carry out student management, and use the advantages of information system to improve the level and effect of student management.

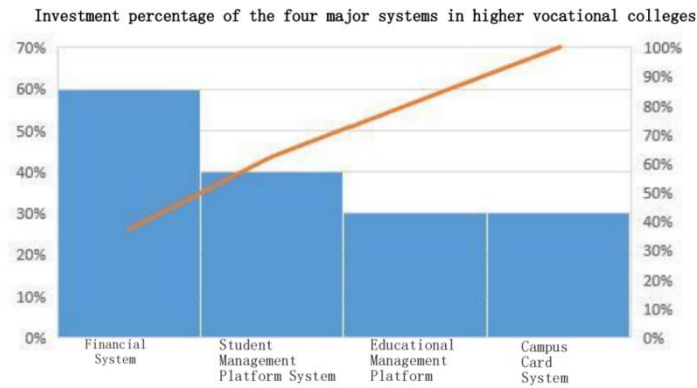


Figure 1: Investment percentage of the four major systems in higher vocational colleges

The information construction of higher vocational colleges can not only help the efficient development of student management, but also provide convenience for students' study and life. For example, the implementation of the campus one-card system (Figure 2), where students' library card, access control card and meal card are concentrated on one card, can not only better avoid the risk of card loss, but also bring greater convenience to students. The building of educational information campus not only needs the majority of staff to have a high information literacy, but also the students need to have the corresponding information literacy. In the process of student management, attention should be paid to the cultivation of students' information literacy, which should not only help students to improve the level of information technology, but also guide students to correctly apply information technology and stay away from the bad information in the network, so as to form a good informationized campus environment.

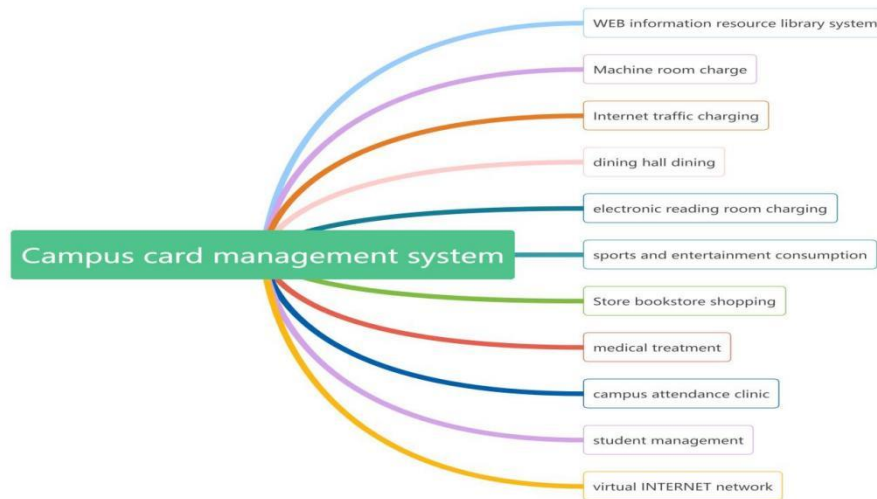


Figure 2: Campus card system

2.2 Create an Information-Based Education Model

The implementation of campus one-card can not only provide convenience for students' life and study, but also provide a more comprehensive data reference for the management of students in higher vocational colleges. The campus one-card not only records the information data of the students' life and study, but also binds the students' ID and connects it to the students' mobile phones^[1]. Through data analysis, students' consumption status, learning status and Internet access

status are understood. Combined with these data analysis structures, they can provide targeted and personalized services for students, so that big data can provide strong support for student management in higher vocational colleges and improve the quality of student management. Counselors are the main person responsible for student management, and the counselors will also have an important impact on students. Therefore, counselors play a vital role in student management. In order to give full play to the role of counselors in student management, information technology should be used to build a bridge and platform for efficient communication between counselors and students. Higher vocational colleges can establish a characteristic network platform for counselors, which can communicate with students efficiently, conduct mental health education for students, help students relieve pressure, and promote their physical and mental health development. Students in higher vocational colleges are generally characterized by weak foundation and weak learning ability, which makes them under great pressure in learning. At the same time, students in higher vocational colleges will also face huge employment pressure, which will affect the mental health of students. However, students are usually not willing to directly report their own problems to the counselors, and they are lack of emotional expression and catharsis outlet, which further increases the risk of psychological problems for students. The establishment of the characteristic tutoring platform for counselors can provide an outlet for students to express their emotions and vent. Students can log on the platform to communicate with the counselors anonymously and seek their help, so as to better relieve pressure and ensure the healthy physical and mental development of students^[1].

2.3 Improve the Student Management System

Perfecting the student management system can not only better serve the student management, but also promote the innovative application of information technology. Combined with the information needs of student management, the system is improved and improved on the basis of the original student management system to improve the information level of student management in higher vocational colleges. A leading group of informatization work (Figure 3) should be established, with the principal as the group leader, responsible for the leadership and guidance of campus informatization construction. The leading group of the informatization work is not only the main body of the campus informatization construction, but also the provider of the informatization campus service, but also the improvement of the student management system, which can provide strong support for the construction of the campus informatization and the student management work. For example, an information collection system is established in terms of attendance. When students encounter emergencies, they can communicate with the counselor in the form of electronic leave request and complete the leave online, which is very convenient and fast, which not only simplifies the leave process, but also realizes the paperless operation of leave. Attention should also be paid to improving the utilization rate of the student management platform (Figure 4). Professional teachers can directly input students' attendance into the student management platform as the basis for students' attendance. Counselors can directly obtain relevant information about students' attendance, such as being late, leaving early, or absenteeism, etc. For students' late arrival, early leave, or absenteeism, counselors can send disciplinary warnings to students directly through the platform, and students can also quickly receive relevant warnings through the platform. In addition, the student evaluation system should be further improved in combination with the information construction of student management, and the student evaluation should be carried out based on the information platform. Instructors and professional teachers are required to input students' daily performance into the information collection system, and then the system gives a comprehensive evaluation based on students' performance in various aspects. This way not only changes the

previous result evaluation, realizes the process evaluation of students, but also can better ensure the objectivity and scientific nature of students' evaluation [2].

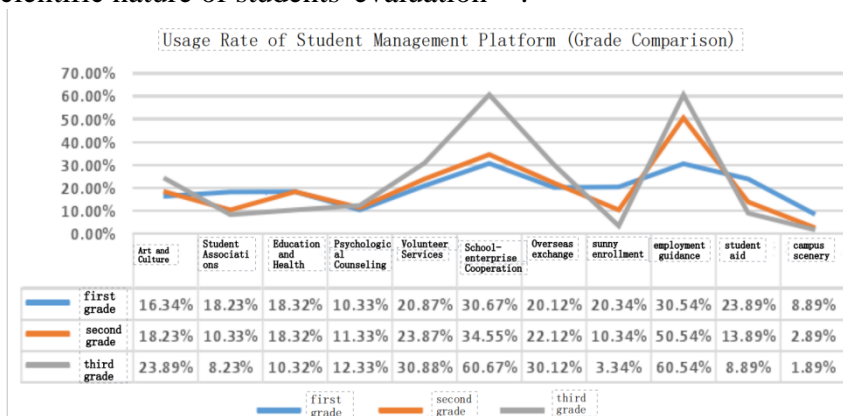


Figure 3: Utilization rate of the student management platform

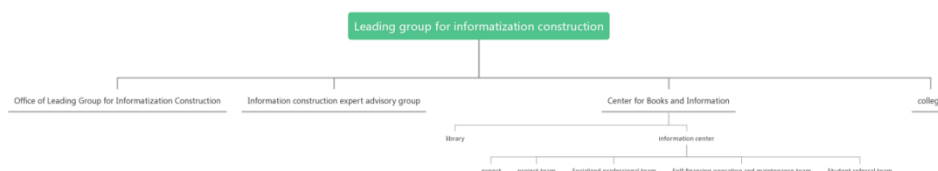


Figure 4: Information work system structure

2.4 Improve the Campus Wireless Network Coverage

The construction of student management informatization in higher vocational colleges should improve the campus wireless network coverage, which is the premise and foundation of student management informatization. To improve the campus wireless network coverage, we need to start from the following aspects: First, more wireless access points (AP) should be built (Figure 5). A sufficient number of AP should be set up on campus, including dormitories, teaching buildings, laboratories, libraries and other areas, to ensure the coverage and transmission speed of wireless network signals. Second, the equipment should be updated in time. The old wireless equipment should be replaced in time, and more advanced equipment can improve the coverage and transmission speed of the wireless network. Thirdly, we should strengthen the management of wireless network and establish strict network security norms, so as to ensure the stable operation and security of the network. Fourth, the network setting should be optimized. Through the monitoring and analysis of the network bandwidth and signal intensity, the network is optimized and adjusted to improve the network transmission speed and user experience. Fifth, guidelines for the use should be provided. To provide use guidelines for the majority of teachers and students to help them use the network correctly, avoid affecting the network use of other users, and improve the utilization rate of campus wireless network.

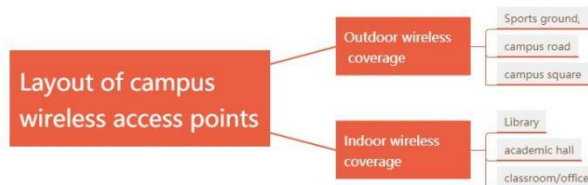


Figure 5: Layout of campus wireless access points

2.5 Maintain Network Information Security

Maintaining the campus network security is the key to the construction of student management information^[3], but also the protection of the vital interests of the school and the majority of teachers and students, so the security management of the campus network should be strengthened. While school networks cannot be exposed to advanced hackers as some large businesses and institutions are, campus networks are subject to security threats both from within and outside. In order to better guarantee the campus network security, we should first strengthen the network security management, establish a perfect security management system, strengthen the network security awareness education, in order to improve the security ability of teachers and students in the use of the network. At the same time, a perfect network security system should be established (Figure 6), including firewall and other network security facilities, install virus and Trojan prevention software, real-time monitoring and timely block, isolation and investigation, to ensure the safe and stable operation of campus network. Secondly, network identity authentication and access control should be strengthened to realize user identity authentication, limit the access of unauthorized users, avoid the network from being attacked by external invaders, and prevent network data leakage. Again, we should pay attention to strengthening the password security, set different passwords for the school network equipment, administrators and users respectively, and do a good job in password protection, to avoid password leakage. Finally, the level of network technology should be continuously improved. In addition to strengthening the security management of the network, schools should also strengthen the training and learning of network personnel, improve their technical level, and realize the double guarantee of technology and security strategy. In short, the maintenance of campus network security needs to prevent and adjust from the security management system, network security equipment, login authentication, password security and network technology and other aspects, to ensure the smooth operation of network security, to protect the rights and interests of campus network teachers and students and information security.

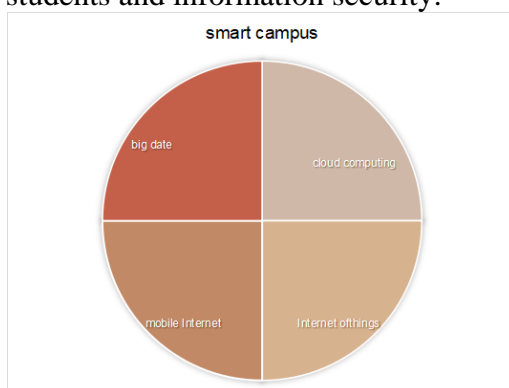


Figure 6: Campus network security architecture

3. Conclusion

The development and application of modern information technology not only promotes the improvement of production efficiency, but also changes people's lives to a large extent, and also has an important impact on the field of education. The management of students in higher vocational colleges is no exception. The application of modern information technology has improved the information level of student management in higher vocational colleges, and promoted the innovation of student management, making student management more convenient and efficient. We should fully realize the advantages and role of information technology, and combine the needs of student management work in higher vocational colleges, strengthen the information construction,

improve the level of student management information, and help the efficient development of student management work^[4].

References

- [1] Liu Qin. *Exploration of university Student Management Strategy Innovation based on Internet Development—evaluation "Research on the Innovation of University Student Management Mode under the Background of Internet"* [J]. *Leadership Science*, 2023 (01): 161.
- [2] Zhu Shuo. *Design of Employment Information Management System for University Students based on Data Mining Technology* [J]. *Information recording materials*, 2022, 23 (11): 220-222.
- [3] Lu Chaoyang. *Suggestions on informationization reform of University Student Management in the era of Big Data* [J]. *Chinese Journal of Multimedia and Network Teaching (China)*, 2022 (08): 153-156.
- [4] He Jin. *Research on the application of Data Mining Technology in College Student Employment Information Management System* [J]. *Heilongjiang Human Resources and Social Security*, 2022 (13): 79-81.