



Current Situation and Optimization Strategies of Student Status Management in Universities

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Abstract: Student status management is an important part of higher education institutions' work, which is crucial for maintaining teaching order, safeguarding students' rights and improving educational quality. In recent years, with the expansion of higher education enrollment scale and the development of information technology, higher education institutions have faced new opportunities and challenges in student status management. This article discusses the problems that exist in SSM, including the deficiencies in institutional construction, informationization construction, data confidentiality, personnel professional qualifications, and service improvement, and proposes strategies for solving these problems. The proposed optimization strategies cover improving the management system and process, enhancing team qualities, promoting information.

Keywords: Student status management, optimization strategies, information technology, people-oriented

1. Introduction

Student status management (SSM) refers to the management of the entire process from student enrollment, academic record changes (including transfer of school, suspension of studies, resumption of studies, and expulsion), to graduation qualification review^{[1][2]}.

SSM plays a vital role in universities. It constitutes an essential component of standardized management in schools, being directly associated with the stability of the teaching order and the establishment of the student learning atmosphere. SSM not only contributes to maintaining the authenticity and validity of academic qualifications and the integrity of education but also serves as a significant basis for gauging the quality standards of talent cultivation. However, SSM faces many problems in practice. Such as information management problems, including outdated information and security risks; complicated transfer procedures for student records; and incomplete and inefficient procedures for suspension and resumption of studies. SSM also has problems with unscientific management of grades and inconsistent implementation of graduation examination standards, as well as inadequate management of student records, including incomplete content and low utilization efficiency. This can lead to the damage to the interests of the students. For example, in a college, due to a system upgrade and poor data management, some students' records were lost or corrupted. Mark was one of the students affected. At the time of graduation, due to the lack of records, he could not make his graduation application. The strategies proposed in this paper can improve educational management efficiency, optimize management processes, promote inter-departmental cooperation; safeguard student rights, ensure fairness and impartiality, and promote student development; promote the construction of educational informatization, enhance information management levels, and provide data mining support for decision-making.

2. Literature Review

SSM holds immense significance in higher education. It guarantees the teaching order, standardizes student admission and registration, and precludes teaching chaos. It can facilitate students' academic progress, record and monitor learning situations, identify problems promptly, and stimulate students to study diligently. It is also conducive to enhancing the school management level and education quality, as well as providing data support for school decision-making. It optimizes resource allocation and improves teaching methods and management models.

Xie^[3] reports that SSM is an indispensable and significant component of higher education management. It pertains to the management of the entire learning process of students throughout their stay at school. With the continuous expansion of enrollment majors and the increase in enrollment numbers, an increasing number of problems have been exposed in the current SSM of higher vocational colleges. The in-depth reform of higher vocational education has raised new requirements for the SSM of higher vocational colleges. This paper analyzes the problems existing in SSM in higher education management and proposes improvement strategies.

Jin^[4] reported that the quality of SSM in colleges and universities influences the sustainable development of colleges and universities. The article commences from the current situation of SSM in colleges and universities, and establishes new concepts and adopts new methods to enhance work efficiency and solidly advance student loan management. Based on a meticulous analysis of the problems existing in the SSM process, practical suggestions and countermeasures were presented.



Li^[5] reported that the prosperity and development of higher vocational colleges has imposed new pressure and challenges on the management of student status in higher vocational colleges. To enhance the efficiency of SSM in higher vocational colleges, it is necessary to scrutinize the issues of traditional SSM methods, form a modern SSM system, and achieve the goal of efficient SSM.

Deng^[6] reported that as colleges and universities have modified their enrollment plans and augmented enrollment tasks in recent years, the number of students on campus has risen year by year. In order to guarantee the normal progress of education and teaching, enhance the management of daily teaching affairs, and intensify the management of students' academic records, it has become the core content of student management in colleges and universities in recent years. Due to the particular source of students in higher art colleges, art students possess distinct personalities and alternative thinking, and there are numerous difficulties in academic record management. Strengthening academic record management in higher art colleges can not only reinforce the management of students' daily lives in higher art colleges but also supervise students' learning and improve the teaching quality of higher art colleges.

Kong et al.^[7] reported that modern distance education student management exhibits the traits of rapid development, large scale, wide distribution, high management complexity, late initiation, strong policy orientation, intricate student management processes, and the quality of management personnel demands improvement. There exist issues such as low precision of electronic student registration, high error rate of student information, difficulty in modification, and difficulty in collecting electronic photos. We should adopt multiple channels to remain in contact with students to enhance the accuracy of electronic student registration; employ multiple methods to verify key student information; and prolong the collection period of graduation photos.

Jiang et al.^[8] reported that the legalization of graduate student status handling in the new era confronts issues such as imperfect regulations and systems for student status handling, an incomplete law enforcement system for student status handling, and an incomplete supervision and guarantee system for student status handling. We should facilitate the profound integration of expulsion regulations and work practices, advance the deep integration of education management concepts and legal thinking, and reinforce the in-depth cooperation between legal affairs agencies and graduate management departments.

Up to now, there are relatively few articles on student record management, and the majority of the focus lies in the informatization of student records. Xue^[9] reported that in the digital campus environment, the electronicization of student information gives rise to credential risks and security challenges, and the key business processes of student electronic file management should be identified. Under the utilization of information technology, it is necessary to clarify the constituent elements of student electronic files with credential attributes, clarify the overall requirements for the credential maintenance of student electronic files, and clarify the integrated approach of credential protection of student electronic files. Establish a service system for credential authentication of student electronic files to achieve credible management of student files.

Ji^[10] reported that the current informatization of student academic record management has issues regarding data sharing and authenticity. The academic records and various management elements related to the academic records should be optimized and integrated through system integration to strengthen the organic connection among the academic record information, so as to facilitate retrieval and utilization and ensure its maximum efficacy.

Ma^[11] reported on the significance of accompanying archive management data in education evaluation, particularly the precise evaluation of student development, teacher performance, and policy effects through the electronic academic archive system. The article proposed that relying on information technology and big data, the dynamic data generated in the education management process can be utilized to enhance teaching diagnosis, evaluate public policies, and improve the efficiency of education governance through advanced data analysis approaches.

Sun^[12] reported on establishing a stand-alone visual retrieval system for university student records through data sharing and visual tools (such as the "Everything" search software). The author proposed that by renaming batches of student record copies and combining them with information such as student names, rapid and efficient file retrieval can be accomplished. This system has low investment costs and is simple to operate, but compared with content-based intelligent retrieval, it still has drawbacks such as file name length restrictions.

Another article^[13] reported that the current graduate student status system of East China Normal University does not support the application and process approval management of student status changes, has poor browser compatibility, slow system response, is difficult to support secondary development of new services, and does not support mobile-based service access. We should adopt an independent research and development model and design and implement a new generation of graduate school information system based on the popular open source framework AngularJS and Spring Boot to support new student status business needs, improve system performance and improve system usability.

In conclusion, these documents have investigated and deliberated on issues related to student registration management from diverse perspectives, encompassing the current situation, problems, countermeasures of student registration management, and the application of new technologies in student registration management.

3. Current situation of SSM

In recent years, the enrollment scale of universities has been expanding annually, which reflects the escalating demand for high-level talents in the market and students' aspiration for higher-level education. Nevertheless, the increase in the number of students has also posed challenges to SSM^[14]. The workload of SSM has significantly increased. How to efficiently and accurately manage a large amount of student information has become an urgent problem for universities to

solve^[15]. With the rapid advancement of higher education and the progress of educational informatization, the current state and existing issues of SSM have become increasingly prominent, mainly manifested in the following aspects:

SSM system construction: The preponderance of universities have established a comparatively comprehensive SSM system, encompassing regulations concerning student enrollment, registration, major transfer, suspension, resumption, and withdrawal. However, certain universities have exhibited lax enforcement of the SSM system, giving rise to the system being virtually non-existent.

SSM team building: Universities generally attach significant importance to the construction of SSM teams and enhance the professional level and management capability of SSM personnel through training, exchanges, and other means. However, the SSM team undergoes frequent changes, and for newcomers who commence working in SSM, there might be scenarios where they are not familiar with the business for at least a year. This gives rise to inefficient work and even the omission of some tasks and work errors. Simultaneously, some SSM personnel lack a sense of responsibility and execution, which affects the smooth advancement of SSM work^[16].

SSM information construction: With the advancement of information technology, SSM in universities has gradually accomplished electronicization and networking, enhancing management efficiency^[17]. However, currently many universities still have deficiencies in the construction and maintenance of information systems, resulting in problems such as non-standard data management and poor information transmission^[18]. Universities are required to establish more comprehensive information management systems to fulfill the demands of SSM, enhance management efficiency and service quality.

Data security and privacy protection: In SSM, involving a large amount of personal information of students, how to ensure the security and privacy protection of data has become an important issue that university managers must face^[19]. Strengthening data security management and establishing effective information protection mechanisms are important tasks for optimizing SSM.

Quality improvement and student services: The core of SSM should center on students and establish a "people-oriented" management philosophy. This implies that in the management process, not only should attention be given to the accuracy and completeness of student data, but also to the individual differences and needs of students, providing personalized services and support. Currently, students' focus on their own rights and interests has increased, demanding that universities not only achieve accurate and timely SSM but also innovate management models and service approaches to safeguard students' legitimate rights and interests.

Therefore, universities should strengthen their attention to SSM, improve relevant rules and regulations, enhance the professional quality of management personnel, promote the informatization and modernization process of SSM, in order to better serve the teaching and talent cultivation work of the school. Optimizing SSM strategies has become an important component of improving the quality of higher education.

4. SSM optimization strategy

The SSM optimization strategy is a comprehensive process aimed at improving the efficiency, accuracy, and scientificity of SSM to better serve the growth of students and the development of schools. In response to the current situation and existing problems of SSM, this article proposes the following SSM optimization strategies:

4.1 Improve management systems and processes to ensure the standardization and efficiency of SSM work.

The SSM system and process constitute the basis for guaranteeing the smooth advancement of SSM work. Universities should formulate and improve their SSM systems based on relevant policies issued by the higher education authorities and their own actual situations. These systems should clearly define management responsibilities and authority, and standardize operating procedures. In key processes such as new student enrollment, academic year registration, student status alterations, and issuance of academic certificates, relevant regulations should be strictly adhered to in order to ensure the standardization and solemnity of SSM.

4.2 Enhance the quality of the SSM team and improve their ability to solve practical problems.

Enhancing the quality of the SSM team is a significant aspect of SSM work in universities. Universities should attach considerable importance to the training and education of SSM personnel and enhance their professional skills and management capabilities through regular professional training, experience sharing, case analysis, and other activities. Establish a mentorship system, in which experienced mentors are assigned to each newcomer to offer one-on-one guidance and facilitate their learning and growth in practice. Prepare a detailed work manual, encompassing operational procedures, precautions, and common problem solutions for various businesses, for newcomers to consult at any time. Encourage new employees to actively provide feedback on the difficulties and problems encountered in their work, in order to offer timely support and assistance.

Pay attention to cultivating the sense of responsibility and execution of SSM personnel, enabling them to fully recognize the significance and complexity of SSM work and dedicate themselves to work with a high sense of responsibility and mission. Additionally, universities should establish and refine the assessment and incentive mechanism for SSM personnel and stimulate their work enthusiasm and innovative spirit through reasonable evaluation and rewards. Universities should further elevate the overall quality of the SSM team.

4.3 Facilitate the informatization construction of SSM and achieve centralized data management.

With the rapid advancement of information technology, the informatization of SSM has emerged as an inevitable trend. Through the establishment of a unified student information management platform, centralized storage, sharing, and dynamic update of student data can be accomplished, dismantling information silos and enhancing management efficiency. Simultaneously, advanced technologies such as big data and cloud computing are employed to deeply excavate and

analyze student enrollment data, providing a scientific basis for educational reform and management decision-making^[20]. For instance, Linyi University has introduced an "Information Service Management Platform" to attain full-process information management of student information databases, student status information, academic operations, experimental systems, student records, accommodation information, and access control information at various levels such as graduate students, undergraduate students, and international students. This not only simplifies the management process but also enhances the efficiency and accuracy of teaching operations.

SSM staff originate from diverse majors, and there exists a certain disparity in their comprehension and utilization of university student management systems. In practical work processes, it is requisite to optimize the student management system to facilitate SSM staff to undertake their work better. Specific measures can be adopted in the following aspects.

Interface optimization: Simplify interface design, improve user friendliness, and ensure that users can intuitively and quickly find the desired functions.

Functional improvement: Based on actual needs, add or adjust system functions such as grade analysis, course recommendations, etc., to enhance the practicality and personalized service capabilities of the system.

Data verification: Strengthen data input verification to ensure the accuracy and completeness of data, such as limiting input length, format verification, etc.

Security Enhancement: Adopting encryption technology to protect sensitive data, setting strict access permissions to prevent data leakage and illegal access.

Performance optimization: Optimize database query and storage strategies to improve system response speed and stability, ensuring normal operation even in high concurrency situations.

Compatibility considerations: Ensure that the system runs well on different operating systems and browsers, improving user experience.

User feedback mechanism: Establish user feedback channels, collect and process user opinions in a timely manner, and continuously optimize system functionality and interface design.

In addition, promoting electronic office, such as electronic version of student records^[21], reduces the use of paper records, which is both environmentally friendly and convenient.

4.4 Strengthen data security control and establish an effective information protection system.

As the working basis of big data technology, the Internet has certain security risks. In SSM, ensuring data security and privacy protection requires two aspects: strengthening data security management and establishing effective protection mechanisms. The specific solution strategy is as follows:

Strengthen data security management: Enhance the security awareness and skill training of internal personnel. Ensure that they strictly comply with data security and privacy protection regulations to prevent data leakage due to improper operations. Introduce advanced management systems, conduct regular system security checks and vulnerability fixes to ensure that the system is not vulnerable to external attacks.

Establish an effective information protection mechanism: implement strict data access control to ensure that only authorized personnel can access sensitive data. Introduce data encryption and transparent encryption technologies to protect the security of data during transmission and storage. Establish a sound emergency response mechanism for data breaches, which can quickly respond and reduce losses in the event of a data breach.

Strengthen collaboration among departments: Establish a joint working mechanism, which requires multiple departments such as the student registration department, information department, security department, and publicity department to jointly achieve SSM data security and privacy protection. Clarify the responsibilities of each department, establish a cross departmental collaboration mechanism, and jointly promote SSM data security work.

Develop unified standards and norms: Jointly develop standards, norms, and processes for the security and privacy protection of student data, ensuring the security of data in all aspects such as collection, storage, transmission, and use.

Strengthen technical protection: Adopt encryption technology, access control, data anonymization and other means to enhance the security protection capability of student data.

Conduct regular audits and evaluations: Regularly conduct security audits and risk assessments on SSM data to promptly identify and rectify security risks.

Establish an emergency response mechanism: Develop an emergency plan for student data security, which can quickly respond and effectively handle any security incidents such as data breaches.

Through these measures, a multi departmental joint and comprehensive SSM data security and privacy protection system can be formed. It has certain significance for avoiding data risks.

4.5 Multidimensional innovation and people-oriented approach to enhance the quality of SSM and student services.

In response to the demand for quality improvement and student services, SSM can make improvements and innovations in the following aspects.

Establishing a "people-oriented" management philosophy: Managers need to deeply understand the connotation of "people-oriented" and make it the core guiding ideology of SSM. Always consider the needs and interests of students when formulating management policies, processes, and services.

Pay attention to the accuracy and completeness of student enrollment data: adopt advanced technological means, such as database management systems, to ensure the accurate entry and timely updating of student enrollment data. Regularly verify student enrollment data, identify and correct errors, and ensure data integrity.

Pay attention to individual differences and needs of students: collect students' opinions and suggestions on SSM through questionnaire surveys, symposiums, and other methods. Based on student feedback, adjust management strategies and service content to provide personalized support and assistance.

Provide personalized services and support: Establish a student counseling service window to provide one-on-one consultation and guidance for students. Using big data analysis to identify students' different needs and provide customized service solutions.

Innovative management models and service methods: Introducing advanced information technologies such as artificial intelligence and cloud computing to enhance the efficiency and convenience of SSM. Explore new service models, such as online processing and self-service, to improve student satisfaction and participation.

Enhance students' overall management experience: Regularly organize students to evaluate SSM work, identify problems in a timely manner, and make improvements. Strengthen communication and exchange with students, establish mutual trust, and jointly create a good management atmosphere.

By establishing a "people-oriented" management philosophy, focusing on the accuracy and completeness of student data, paying attention to individual differences and needs of students, providing personalized services and support, innovating management models and service methods, and enhancing students' overall management experience, quality issues in SSM can be effectively addressed. By doing so, students' service needs can be better met. This approach is beneficial for improving the overall quality of student status management.

Additionally, reinforcing home-school cooperation and communication, as well as intensifying the supervision and evaluation of SSM, are also indispensable components of SSM. Schools should establish a home-school communication mechanism, regularly report students' academic and SSM status to parents, and listen to their opinions and suggestions. The supervision and evaluation of SSM work are crucial for ensuring its effectiveness and continuous improvement. Schools should establish an SSM supervision and evaluation mechanism, regularly inspect and evaluate SSM work, and promptly rectify any identified problems. Simultaneously, encourage teachers, students, and all sectors of society to provide opinions and suggestions on SSM work, and promote the continuous improvement and optimization of SSM work. Through supervision and evaluation, the standardization and effectiveness of SSM work can be guaranteed, and the management level and social reputation of the school can be enhanced.

5. Conclusion

This article focuses on SSM in higher education, highlighting its critical role in maintaining academic order, safeguarding student rights, and enhancing educational quality. With the expansion of higher education and the progress of information technology, the student management system is facing new challenges. First, although most universities have established SSM systems covering various aspects, some are not strictly enforced. Second, the construction of the SSM team is being paid attention to, but personnel changes frequently, and newcomers take a long time to become familiar with their duties, and some personnel lack responsibility and execution ability. Third, information construction has gradually become electronic and networked, but there are problems with data management and information transmission. At the same time, challenges also exist in data security and privacy protection, as well as meeting the needs of individualized student services.

In response to these problems, the article proposes optimization strategies. First, the management system and process should be improved, with rules and procedures being refined and standardized based on policies and school conditions. Second, the quality of the team should be enhanced by providing training and other activities to enhance skills, establishing mentorship programs to train newcomers, and improving the evaluation and incentive mechanism. Third, the informationization construction should be promoted, with a unified platform being established to manage data, the use of technology to mine and analyze data, and the optimization of various aspects of the system; strengthen data security control by starting from management and mechanism, including staff training, technical protection, and enhancing cooperation among departments. Fourth, it is also necessary to adhere to the multi-dimensional innovation and people-oriented philosophy, pay attention to student data and needs, provide personalized services, innovate management and service models, and strengthen cooperation and supervision and evaluation with families. These strategies are of great significance for improving management efficiency, safeguarding rights, and promoting informationization, and provide reference for the improvement of SSM in higher education.

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