

Research on the Construction and Optimization of Incentive Mechanisms in Higher Education Management

Xin Gao, Honghao Liu, Junhuan Hu*

Tianjin College, University of Science and Technology Beijing, Tianjin 301830, China

**Author to whom correspondence should be addressed.*

Copyright: © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: This article explores the construction and optimization of incentive mechanisms in higher education management. It analyzes the current status of incentive mechanisms for teachers and students, pointing out existing problems. The incentive mechanism is constructed from multiple dimensions such as salary and career development, and optimized through the establishment of a scientific assessment and evaluation system, strengthening information construction, and creating a good cultural atmosphere. The aim is to improve the quality of higher education and cultivate outstanding talents.

Keywords: Higher education management; Incentive mechanism; Construction; Optimization; Assessment and evaluation system

Online publication: April 28, 2025

1. Introduction

With the continuous development of higher education, the importance of higher education management has become increasingly prominent. As a key component, incentive mechanisms directly affect teachers' enthusiasm for teaching and students' enthusiasm for learning. However, there are many deficiencies in the existing incentive mechanisms. Therefore, in-depth research on the construction and optimization of incentive mechanisms in higher education management is of great significance to the long-term development of universities.

2. Analysis of the current status of incentive mechanisms in higher education management

2.1. Current status of teacher incentive mechanisms

The General Secretary pointed out: "National prosperity, national rejuvenation, and educational development require us to vigorously cultivate and build a high-quality professional teacher team with high moral standards,

superb professional skills, a reasonable structure, and vitality. We need a large number of good teachers to emerge.” This is a profound argument about the construction of a high-quality teacher team in the new era, which provides fundamental guidance for strengthening the construction of college teachers in the new era, as well as the innovation of college teacher governance and incentive mechanisms ^[1]. Salary, career development, and spiritual incentives are important components of incentive mechanisms for college teachers. However, some colleges and universities currently have deficiencies in these three aspects.

In terms of salary incentives, most universities implement a performance-based pay system, which aims to link salary with teaching and research achievements. However, the salary structure in some universities is unreasonable, with a high proportion of basic salary and rigid adjustments, and a small gap in performance pay, which is difficult to reflect differences in teachers’ work. This leads to poor salary incentive effects and frustration of outstanding teachers’ enthusiasm.

Regarding career development incentives, professional title promotion is significant for teachers. Some universities overemphasize scientific research in their evaluation standards and ignore teaching quality, making it difficult for teaching-oriented teachers to advance and limiting their development space ^[2]. At the same time, the content of teacher training has a low match with actual needs, lacking systematicity and pertinence. Teachers’ enthusiasm for participation is low, and professional growth and career development are difficult to promote effectively.

At the level of spiritual incentives, some universities motivate teachers by selecting honorary titles. However, the selection process has insufficient transparency and unclear standards. The selection results cannot fully reflect teachers’ work performance, and teachers have low recognition of their honors. Therefore, spiritual incentives fail to fully play their role.

2.2. Current status of student incentive mechanisms

Scholarships, honorary incentives, and practical incentives should play a key role in incentive mechanisms for college students. However, some universities face many problems in their implementation.

Regarding the scholarship system, some universities have a single evaluation criterion that overly emphasizes academic performance, ignoring the comprehensive ability cultivation of students in social practice, sports, and other aspects. This leads to a one-sided pursuit of scores by students. Additionally, limited scholarship amounts and narrow coverage make it difficult for most students to receive adequate incentives, hindering the full mobilization of their learning enthusiasm.

In terms of honorary incentives, the forms are relatively single, mostly involving the issuance of certificates of honor and the selection of outstanding student leaders. These incentives lack sustainability and systematicity, making it difficult to form long-term guidance for student behavior. Their role in cultivating students’ moral character and behavioral habits is limited ^[3].

For practical incentives, although some universities provide internships and training opportunities, the practical teaching content is often separated from reality. The assessment and evaluation mechanism is also imperfect, lacking scientific and objective standards. This results in low student participation and enthusiasm, and difficulty ensuring the quality of practical teaching.

3. Construction of incentive mechanisms in higher education management

3.1. Construction of teacher incentive mechanisms

Universities can construct scientific and reasonable teacher incentive mechanisms from multiple dimensions,

including salary, professional title evaluation, training, and honorary incentives.

In salary design, universities should refer to industry and local economic levels to establish reasonable basic salary standards. They should also establish a dynamic adjustment mechanism linked to teaching experience and professional titles. Performance-based pay assessment indicators need to be further refined, covering dimensions such as teaching, scientific research, and social services. Teaching quality evaluation should adopt multiple methods, such as student evaluations and peer reviews. Scientific research evaluation should consider both paper quality and achievement transformation. Social services should be rewarded based on teachers' contributions to activities such as community service ^[4]. Additionally, special bonuses should be established to encourage teachers to achieve outstanding results in teaching reform and major scientific research projects.

In the professional title evaluation process, it is necessary to break the single mode dominated by scientific research achievements and build a diversified evaluation system. Different evaluation focuses should be highlighted according to teacher types, and the evaluation process should be simplified to ensure fairness and impartiality.

Regarding teacher training, universities should conduct demand research and develop personalized training plans based on teachers' disciplines, career stages, and individual needs. They should provide diverse training forms, such as academic exchanges and online courses, and establish a career development fund to support teachers' teaching and academic innovation.

At the level of honorary incentives, universities should establish an open and fair honor and award system, setting up multi-level honorary awards. When selecting awardees, they should widely solicit opinions from teachers and students. The achievements of award-winning teachers should be promoted through campus media and other channels to play an exemplary role. Furthermore, university administrators need to strengthen communication with teachers, pay attention to their work and life, provide support, and offer teachers opportunities to participate in school management and decision-making to enhance their sense of belonging and enthusiasm.

3.2. Construction of student incentive mechanisms

In terms of evaluation criteria, universities should abandon the single performance-oriented approach and build a comprehensive quality evaluation system. Apart from academic performance, the scope of evaluation should include students' performance in social practice, scientific and technological innovation, cultural and sports activities, volunteer services, and other aspects. Detailed quantitative scoring standards are developed to objectively evaluate students' performance in various aspects, ensuring fairness and scientific rigor in scholarship evaluations ^[5].

Regarding scholarship types, universities should enrich the variety of scholarships and establish multiple awards such as academic excellence awards, progress awards, social practice awards, and scientific and technological innovation awards to cater to the needs and strengths of different students. Simultaneously, the amount and coverage of scholarships are increased to motivate more students and stimulate the learning enthusiasm of the entire student body.

In addition to traditional honor certificates and commendation conferences, universities should organize activities such as "Outstanding Student Style Exhibitions" and "Campus Star Selections." The achievements of outstanding students are widely promoted through platforms like campus radio, bulletin boards, and WeChat public accounts, allowing more students to learn from their advanced experiences. An honorary medal system

is established to award commemorative medals to students who excel in academics, moral character, social practice, and other aspects, enhancing students' sense of honor and pride. Furthermore, more development opportunities are provided for outstanding students, such as participating in domestic and international academic exchanges and learning from renowned experts and scholars, to encourage them to continuously pursue excellence.

Universities should establish a comprehensive practical teaching assessment and evaluation mechanism, incorporating students' performance in practical teaching into the course assessment scope. Through a combination of process and result-based evaluations, a comprehensive assessment of students' practical abilities is conducted. Universities should set up practical teaching scholarships and special awards to provide material incentives to students who excel in practical teaching, stimulating their enthusiasm for participation. Simultaneously, cooperation with enterprises and social institutions should be strengthened to provide students with more internship, training, and innovation and entrepreneurship opportunities, allowing them to hone their skills and enhance their overall quality through practical experiences. Additionally, industry experts are invited to participate in practical teaching guidance, evaluate and provide feedback on students' practical achievements, improving the quality and effectiveness of practical teaching^[6].

4. Optimization of incentive mechanisms in higher education management

4.1. Establishing a scientific assessment and evaluation system

In terms of evaluation indicators, the previous single-focused evaluation model, emphasizing only teaching or scientific research, should be changed. Instead, a comprehensive evaluation indicator system covering multiple dimensions such as teaching, scientific research, social services, and teacher ethics should be constructed. In the teaching dimension, apart from considering conventional indicators like the completion of teaching plans and student attendance rates, it is also necessary to focus on innovative teaching methods and the improvement of student learning outcomes. In the scientific research dimension, attention should be paid not only to the number of published papers and project applications but also to the quality, influence, and transformation value of scientific research achievements. In the social service dimension, the effectiveness of teachers' participation in activities such as industry consulting, technology promotion, and community education should be included in the evaluation scope. In the teacher ethics dimension, a comprehensive assessment of teachers' professional ethics and dedication should be conducted through multiple channels such as student evaluations, colleague mutual evaluations, and parent feedback^[7].

Regarding evaluation methods, a diversified approach combining quantitative and qualitative evaluations should be adopted. Quantitative evaluation relies on data analysis to objectively quantify teachers' teaching workload and the number of scientific research achievements. Qualitative evaluation, on the other hand, involves expert reviews, peer reviews, student symposiums, and other methods to conduct in-depth analyses of teachers' teaching quality, scientific innovation ability, and contributions to social services. Additionally, the 360-degree evaluation method can be introduced to widely collect feedback from students, colleagues, superiors, and social service recipients, ensuring the comprehensiveness and objectivity of evaluation results.

During the evaluation process, it is important to focus on the organic combination of process evaluation and summative evaluation. Establishing process-based records for teachers' teaching and scientific research work, tracking their progress in real-time, and providing timely feedback and guidance. At the same time, periodic summative evaluations are conducted such as annual and term evaluations to provide a scientific basis

for teachers' salary adjustments, professional title promotions, and position appointments.

In terms of evaluation philosophy, it is essential to establish a student-centered developmental evaluation concept. This involves focusing on students' individual differences and development potential and emphasizing the cultivation of their independent learning ability, innovative thinking ability, and team collaboration ability. It is necessary to abandon the traditional evaluation concept that solely relies on examination results as the only criterion and shift towards a comprehensive evaluation of students' learning process, overall quality, and ability development^[8].

Regarding evaluation indicators for students, a diversified evaluation indicator system should be constructed. Apart from academic performance, indicators such as students' classroom participation, homework completion quality, group project performance, social practice experience, scientific innovation achievements, and cultural and sports expertise should be included in the evaluation scope. For example, for science and engineering students, evaluation indicators such as experimental operation skills and scientific research project participation can be added. For liberal arts students, the evaluation can be strengthened in areas such as paper writing ability and social research achievements.

In terms of evaluation methods for students, multiple evaluation approaches should be integrated. A combination of formative evaluation and summative evaluation can be adopted. Formative evaluation methods, such as classroom questioning, group discussions, and phased tests, can help timely understand students' learning progress and identify existing problems. Summative evaluation methods, including final exams and course papers, can comprehensively assess students' learning outcomes. Additionally, encouraging students to conduct self-evaluation and peer evaluation can cultivate their abilities to reflect on themselves and evaluate others.

4.2. Strengthening the informatization construction of incentive mechanisms

In terms of system function design, it should include data collection and management capabilities. Teachers can input their personal teaching, research, and other work information online, and the system automatically categorizes, organizes, and stores the data to ensure accuracy and completeness. Additionally, the system should possess assessment and evaluation functions. Based on preset assessment indicators and algorithms, the system automatically analyzes and evaluates teachers' work data, generates assessment and evaluation reports, and provides data support for teachers' salary calculations and reward distributions. Furthermore, the system should also have communication and feedback functions, allowing teachers to query their personal assessment and evaluation results, salary details, and other information through the system, and to submit appeals and suggestions regarding evaluation results. Managers can also use the system to timely understand teachers' needs and opinions, enabling effective communication and feedback^[9].

Regarding system security, advanced encryption technology and access control mechanisms should be employed to ensure the security and confidentiality of teacher information. Simultaneously, data backup and recovery mechanisms should be established to prevent data loss and guarantee the stable operation of the system.

The platform should include a function for promoting incentive policies. Through various forms such as graphics, videos, and more, it should provide students with detailed introductions to the school's scholarship system, honorary recognition programs, practical incentive measures, and other incentive policies, enabling students to fully understand the content and requirements of the incentive mechanisms. Additionally, the platform should offer a function for applying for incentive programs, allowing students to submit scholarship

applications, honorary title declarations, and participation applications for practical projects online. The system automatically reviews and processes the application materials and promptly provides feedback on the review results. Furthermore, the platform should also include a student growth archive function to record students' performance and achievements in learning, practical activities, cultural and sports events, and other aspects, providing data support for comprehensive quality evaluation and personalized development.

To enhance students' user experience, the platform's interface design should be simple and clear, and the operation process should be easy and convenient. Meanwhile, efforts should be made to strengthen the mobile terminal construction of the platform, facilitating students' access to the platform and obtaining incentive services anytime and anywhere through mobile devices such as smartphones.

4.3. Creating a positive incentive cultural atmosphere

Universities should focus on the planning and organization of campus cultural activities, offering a diverse range of academic and technological events, sports and artistic activities, and social practice opportunities. These provide a platform for teachers and students to showcase their talents and develop their abilities. For instance, academic lectures, scientific research forums, and innovation and entrepreneurship competitions can stimulate enthusiasm for scientific research and foster a spirit of innovation among teachers and students. Sports events, cultural and artistic performances, and community cultural festivals enrich extracurricular life, cultivate teamwork, and aesthetic appreciation. Volunteer service and social research activities enhance social responsibility and practical skills^[10].

Simultaneously, strengthening the campus cultural environment by creating unique campus cultural landscapes and facilities fosters a strong cultural atmosphere. Campus radio, newspapers, and websites can promote the school's educational philosophy, achievements, and the advanced deeds of teachers and students. This promotes positive energy and creates an uplifting public opinion atmosphere.

In terms of promotional content, it is essential to highlight not only the policies and implementation methods of the incentive mechanism but also successful cases and typical experiences. This allows teachers and students to directly perceive the positive impact of the incentive mechanism. For example, promoting the teaching experiences and successful research outcomes of teachers who have received teaching achievement awards can inspire other teachers. Sharing the study methods and growth experiences of students who have received scholarships and honorary titles sets an example for other students.

Regarding promotional methods, diversified channels should be adopted. Besides traditional campus radio, notice boards, and newspapers, new media platforms like WeChat public accounts, Weibo, and Douyin can be fully utilized for precise and personalized promotion. Additionally, organizing thematic lectures and seminars on the incentive mechanism provides face-to-face answers to teachers' and students' questions, gathers their opinions and suggestions, and enhances the promotional effect.

5. Conclusion

Constructing and optimizing incentive mechanisms in higher education management is a systematic and complex project, crucial for the long-term development of universities and the quality of talent cultivation. By establishing a scientific and reasonable incentive mechanism, improving the assessment and evaluation system, strengthening information construction, and creating a positive incentive cultural atmosphere, the enthusiasm, initiative, and creativity of teachers and students can be fully stimulated. This provides powerful support for the

high-quality development of universities. In the future, universities need to continuously explore and innovate incentive mechanisms to adapt to the demands of the times and make positive contributions to cultivating more outstanding talents.

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Zheng L, 2023, Innovation in Governance and Incentive Mechanisms for University Teachers. *Theoretical Circle*, (11): 98–101 + 14.
- [2] Cui M, 2024, Innovation of Incentive Mechanism for Teaching and Scientific Research of University Teachers in the Context of Educational Reform. *Knowledge Warehouse*, 40(16): 187–190.
- [3] Jiao Y, 2024, Research on Incentive Mechanisms in University Human Resource Management Based on Teacher Needs. *Employment and Security*, (07): 181–183.
- [4] Luo Z, 2024, Exploring Strategies for Optimizing the Salary Incentive Mechanism for University Teachers. *Journal of Hanjiang Normal University*, 44(03): 39–45.
- [5] Hou Y, Wang B, 2024, Exploring Issues and Optimizing Strategies for Incentive Mechanisms for Physical Education Teachers in Universities. *Sports Boutique*, 43(04): 4–7.
- [6] Huo Y, 2023, Exploring Human Resource Management and Administrative Reform in Universities, Cultural Development Publishing House, China.
- [7] Qi S, 2024, Research on Optimizing the Incentive Mechanism for Teachers in HY Private Universities, dissertation, Shandong Jianzhu University.
- [8] Guo E, 2023, The Value Implication and Practical Path of Incentive Mechanisms for Young Teachers in Private Universities. *Journal of Huanghe Science and Technology College*, 25(09): 23–27.
- [9] Chen J, 2023, Research on Optimizing the Performance Appraisal and Incentive Mechanism for University Teachers. *The Guide of Science & Education*, (21): 78–80.
- [10] Sun Y, 2023, Research on Performance Appraisal and Incentive Mechanisms for University Teachers. *Journal of Tianjin Sino-German University of Applied Sciences*, (03): 71–74.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.