Research on the Optimization Strategy of Teachers' Teaching Task Allocation under the System of Selecting Classes and Walking Classes in Ordinary Senior High Schools

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Abstract: With the implementation of the new college entrance examination system, the distribution of teaching tasks among ordinary senior high school teachers is unbalanced, the amount of tasks is uneven, and the role adaptation is difficult. This paper outlines an optimization strategy involving dynamic teacher allocation and scientific quantitative distribution, and analyzes the role of the strategy in balancing the teacher structure, reducing workload and promoting professional development. The finding aims to provide a reference for improving the allocation of teaching tasks under the course-selection and class-shifting system.

Keywords: class selection and shift system; Assignment of teaching tasks; Teacher deployment; Quantitative standards; Collaborative management

Introduction

The implementation of the new college entrance examination course selection and shift system has broken the traditional teaching organization form, and the distribution of teachers' teaching tasks has been unbalanced, which interferes with the teaching quality and cross-disciplinary teaching ability. Optimizing task allocation strategy is related to the smooth implementation of course selection and shift system, the improvement of teaching efficiency and the professional growth of teachers.

1. The Existing Problems In The Allocation Of Teaching Tasks Under The System Of Selecting Courses And Moving Classes In Ordinary High Schools

1.1 The Imbalance In The Structure Of Subject Teachers Is Prominent

In the "3+1+2" or "3+3" mode of the new college entrance examination, students' independent choice of subjects makes the demand for subjects non-linearly. In the "3+1+2" mode, physics and chemistry are the core subjects of the selection combination, and the number of candidates is often concentrated due to the restrictions of college majors. The number of liberal arts candidates such as politics and history is affected by professional coverage and subject difficulty, and the distribution is significantly different. The preference of selecting subjects leads to the imbalance between supply and demand of subject teachers [1]. Physics and chemistry teachers undertake interdisciplinary course teaching task and tiered

teaching task, and their work is full or even overloaded. Because of the small number of candidates and redundant teacher resources, the implementation of hierarchical teaching in geography and biology intensifies structural contradictions. Key teachers are mostly responsible for high-level teaching classes, and novice teachers are often assigned to basic classes, which leads to the development gap of subject echelon and affects the improvement of subject teaching quality and the construction of professional growth system.

1.2 Uneven Distribution Of Teaching Tasks

The system of selecting courses and moving classes breaks the original fixed teaching framework of administrative classes and builds a new dynamic teaching organization system with subject teaching classes as the basic unit, which undoubtedly increases the complexity of the allocation of teaching tasks. The obvious difference in the number of subjects selected directly becomes the key factor to determine the base of teaching tasks. Those teachers in popular subjects need to undertake teaching tasks in multiple classes and hours, but also face the situation of increasing the content of preparing lessons, increasing the amount of homework correction, extending the time of after-school counseling, and so on, all of which lead to a significant increase in workload. Although the total class hours of unpopular subjects are relatively low, due to frequent cross-class teaching and the strong mobility of students, more energy is required for teaching organization and classroom management. This, in turn, leads to rising corresponding costs. The superposition of non-teaching tasks further intensifies the contradiction. When teachers undertake daily routine teaching work, they also need to perform a series of new responsibilities such as student course selection guidance, career planning guidance and instructional resource development and curriculum construction.

1.3 The Transformation Of The Roles Leads To The Problem Of Task Adaptation

In terms of individualized guidance for students, the student tutorial system stipulates that teachers must have professional abilities such as career planning guidance, strategic analysis of subject selection, and psychological adjustment of learning. However, most teachers have not been systematically trained and cannot come up with scientific and effective guidance methods. In the process of curriculum implementation, hierarchical teaching design, school-based curriculum development and other work have higher standards for curriculum design, resource integration and teaching evaluation ability. Traditional teacher training focuses on imparting subject knowledge, which makes teachers lack the ability in curriculum construction. The change of role is inconsistent with their own ability reserves, which makes the assignment of teaching tasks difficult to meet professional expertise and development demands. This reduces the implementation effect of teaching tasks, increases the possibility of job burnout, and hinders the in-depth development of the teaching reform of course selection and shift system.

2. the optimization strategy of teaching tasks allocation under the system of selecting courses and moving classes in ordinary high schools

2.1 The Construction of a Dynamic

Deployment Mechanism

Build a big data-driven forecast model for the demand of subject teachers. Integrate the data of subject selection over the years, the application conditions of colleges and college major aptitude evaluation results. Judge the course selection trend of each subject in advance. Implement the flexible flow mechanism of teachers in the region. Coordinate the situation of subject teachers among schools in the school district, and balance the distribution of subject teachers through walking and taking classes across schools. Conduct cross-disciplinary training for teachers within the school, and encourage teachers with unsaturated demand for disciplines to participate in the auxiliary teaching of popular disciplines. For example, geography teachers can participate in the interdisciplinary course research and development of environmental science. This improves the utilization efficiency of resources. Regularly carry out the evaluation of the structure of teachers in disciplines. Dynamically adjust the staffing and post setting of teachers according to the course selection, and ensure the balance between supply and demand of teachers in disciplines.

2.2 The Development of Scientific Quantitative Task Allocation Standards

A multi-dimensional quantitative task index system, covering teaching hours, lesson preparation amount, complexity of class management, length of after-class counseling, and other factors, is established. With the help of weighted assignment method, the workload coefficient of teachers is calculated, and hierarchically classified teaching task allocation is promoted. Different class-hour coefficients are assigned based on subject difficulty and class levels. The teaching tasks for advanced classes and basic classes are converted at a ratio of 1.2:1. The intelligent course scheduling system is utilized to optimize teaching tasks combinations, and the flexible allocation mechanism of teaching task is implemented. This allows teachers to choose their own teaching task categories within a certain range according to their professional ability, and focus on curriculum development or student mentoring.

2.3 Implementation of Accurate Matching Strategy Between Ability and Tasks

The implementation of an accurate matching strategy between teachers and tasks is crucial. Implement the matrix evaluation of professional ability, construct the ability evaluation model from multiple dimensions such as subject teaching, curriculum development and career guidance, sketch the portrait of ability, create a database of teaching task requirements, clearly define the ability requirements and quality norms of different types of teaching tasks, and implement the dynamic adjustment method of task allocation according to the analysis of the matching between ability and task requirements. For example, give priority to teachers with career planning qualifications to academic advising position for student course selection, and letting teachers with outstanding curriculum design ability undertake school-based curriculum development [2].Create a platform to improve teachers' ability, change the demand for teaching tasks, and carry out hierarchical and classified training activities. These activities should cover special training contents such as subject-integrated teaching and personalized counseling strategies, thereby promoting the

compatibility between teachers' ability and teaching tasks.

2.4 Improve The Collaborative Management System Of Teaching Tasks

Set up a collaborative management team comprising the "administrative class head teacher + subject teacher + tutor", define the scope of responsibilities and collaborative steps for all parties in student management, teaching development and academic counseling. Build a collaborative management platform for teaching tasks to collect teaching information, such as curriculum setting, student attendance, homework feedback, etc.This will enable instant information exchange and joint decision-making among multiple stakeholders.

Implement project-based teaching task management by creating project teams for comprehensive tasks, such as school-based curriculum research and development and interdisciplinary teaching. Share the task pressure through teamwork. Carry out dynamic supervision of the whole process of teaching task implementation. Regularly evaluate the process and effectiveness of task completion, and promptly detect and address collaborative problems during task execution.

3. The Role Of The Optimization Strategy For Teaching Task Allocation Under The System Of Selecting Courses And Moving Classes In Ordinary High Schools

3.1 Optimize The Allocation Of Educational Resources And Balance The Structure Of Subject Teachers

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With the help of in-deep analysis of big data and flexible teacher circulation in the region, the dynamic teacher deployment mechanism accurately matches the supply and demand of subject teachers. The flexible teacher flow system implemented in the region effectively breaks the inherent barriers between schools, rationally reallocates surplus teachers from overstaffed schools to those with teacher shortages schools, and effectively addresses the structural imbalances in subject teachers. Cross-training activities carried out within schools strongly encourage teachers of less saturated disciplines to actively participate in the auxiliary teaching of popular disciplines, fully revitalize idle teacher resources, and significantly improve the overall utilization efficiency of teacher resources. Regular evaluation of the teacher structure and dynamic adjustment of staffing according to the

evaluation results can ensure that the number of subject teachers is always aligned with the actual needs of students in course selection. This approach effectively avoids overloading of teachers in some disciplines and waste of teacher resources in others. Finally realize the efficient and optimal allocation of educational resources an ensure balanced and stable progress in teaching cross various disciplines.

3.2 Reduce The Workload Of Teachers And Improve The Efficiency Of Teaching Implementation

The scientific quantitative task allocation standard relies on the multi-dimensional index system to measure workload. The hierarchical and classified task allocation is matched with the intelligent course arrangement system, which reduces the number of cross-class teaching instances and lower the cost of teaching organization and management. Different class hour coefficients compensate teachers for the extra labor paid by high-level teaching classes. The flexible allocation system allows teachers to choose their own tasks,thereby arousing their enthusiasm for work. Reasonably arrange the combination of teaching tasks, so that teachers can focus more on preparing lessons, teaching and personalized counseling. This prevent a decline in teaching quality due to heavy workloads, ensure the high-quality implementation of teaching plans, and promote the overall improvement of teaching efficiency.

3.3 To Promote The Professional Development Of Teachers And Strengthen Teaching Team Cooperation

The matching strategy of abilities and tasks is based on the ability matrix evaluation and task demand analysis.This approch aims to achieve an accurate fit between expertise and teaching tasks, plans a professional growth route suitable for personal development, fills the lack of abilities through hierarchical and classified training, and helps them change from a single subject teaching to a compound role such as curriculum development and career counseling [5]. The collaborative management system of teaching tasks clarifies the division of responsibilities, realizes information exchange, builds a multiple agent collaboration platform, and adopts project-based task management to enhance the level of teamwork.

Conclusion

Analyzing the current situation and identifying problems, and implementing optimization measures such as dynamic allocation and quantitative allocation can effectively balance the teaching staff, reduce the workload of teachers and promote mutual cooperation among teachers. These methods provide practical direction for the reasonable arrangement of teaching tasks in the course selection and shift system, and help the reform of high school education and teaching to go deeper.

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