

Institutional Reconstruction and Ecological Iteration: The Evolutionary Trends and Practical Mechanisms of the Flexible Class System in American High Schools during the 21st Century

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ABSTRACT

In the 21st century, global basic education has shifted from standardized cultivation to personalized development, with flexible modular class rotation systems becoming the core pathway of curriculum reform. American high schools have gradually moved beyond fixed-hour models, giving rise to four major transformative trends: establishing small learning communities to restructure school organizations, refining graduation requirements to standardize course selection systems, creating a nationwide unified student support framework, and implementing diversified comprehensive admission evaluations for universities. Using Lincoln College in San Francisco as a case study, this paper examines the internal and external supporting conditions required for implementing class rotation systems in the United States: decentralized school management structures, diverse admission evaluation mechanisms, social collaborative safeguards, ample curriculum resources, professional tutoring teams, and appropriate campus spaces. Currently, under China's "Three New" reforms, course selection and class rotation systems often face challenges such as superficial implementation, limited course combinations, coarse management, and delayed evaluation. Drawing on U.S. practices, Chinese high schools should enrich tiered elective courses, improve student development guidance systems, integrate them with comprehensive college entrance examination evaluation reforms, and leverage course selection and class rotation to achieve students' holistic and personalized development.

1. Introduction

Since the 21st century, global basic education has undergone a paradigm shift from "standardized instruction" to "personalized development," with profound transformations in curriculum design serving as the core hallmark of this transformation (Camacho & Legare, 2016; Høydahl & Skjelbred, 2024; Eaude, 2025). The flexible scheduling system in U.S. high

schools—a key institutional framework designed to address students' diverse needs and optimize resource allocation—has exhibited significant evolution throughout the 21st century, shifting from traditional "fixed schedules and uniform pacing" toward a model characterized by modularity, personalization, and interdisciplinary integration. This shift reflects ongoing reflections and institutional innovations within American education regarding what constitutes quality high school education.

Lincoln High School serves as a paradigmatic example of the shift toward flexible class scheduling systems in the United States, providing an invaluable case study for analyzing this educational trend. Located in Portland, Oregon, this century-old public high school boasts a diverse student body spanning various ethnic and socioeconomic backgrounds. Since the 21st century, Lincoln has systematically implemented reforms: introducing "modular scheduling" in the early 2000s to shorten class durations and increase instructional frequency; adopting "hybrid flexible scheduling" in the 2010s to integrate online and offline learning components; and recently developing "competency-based personalized learning pathways." This evolutionary trajectory vividly illustrates the profound transformation of U.S. high school models—from optimizing time management to fundamentally reshaping the learning experience. The case not only demonstrates innovative approaches to curriculum design empowered by technology but also highlights the delicate balance between flexibility and structural integrity in institutional reforms.

Currently, China's regular high schools are undergoing the in-depth implementation of reforms centered on "new curricula, new textbooks, and the new college entrance examination system," with course selection and flexible class arrangements becoming key institutional mechanisms for implementing elective compulsory courses and promoting students' comprehensive and individualized development (Li & Wang, 2021). However, practical challenges such as "formalistic implementation of flexible classes," limited course combinations, inadequate management of flexible class arrangements, and lagging teaching evaluations have constrained the effectiveness of these reforms (Yu, 2021; Li & Wang, 2021; Bao, 2022). Against this backdrop, a systematic examination of the evolution trends of the flexible class system in American high schools during the 21st century goes beyond mere "institutional transplantation." Instead, it aims to reveal the underlying logic and constraints governing the operation of this system through case studies, providing theoretical references and empirical insights for the localized practice of high school curriculum reform in China.

2. The New Trend of Mobile Class Systems in American High Schools Since the 21st Century

2.1 Establish a learning community and implement a new flexible class scheduling system

In the 21st century, the most significant transformation in American high school organizational structures has been the rise of "community-based" high schools, also known as Small Learning Communities or schools-within-schools. A Small Learning Community refers to a school model where certain high schools are divided into small, self-governing groups composed of students

and teachers. To address issues such as excessive student enrollment and declining educational quality resulting from high school consolidations since World War II, restructuring models like schools-within-schools have gradually emerged. These small, community-based schools share shared infrastructure—including libraries, athletic fields, and laboratories (Jia, 2008)—enabling efficient utilization of resources. The Small Learning Community model encompasses several variants, including academies, schools-within-schools, house plans, and magnet schools (Provenzo & Provenzo, 2009).

The "academy" model refers to schools organized into thematic subunits responsible for specific curricula. Vocational colleges integrate academic and vocational education, offering work-integrated learning opportunities to prepare students for further studies or employment. The "school within a school" is a small autonomous program housed within a larger campus, with its own distinct culture, curriculum, staff, budget, and space. The "class-based program" divides students into hundreds of groups that can span different grade levels. Magnet schools attract students from the entire district through specialized core courses. The rise of small learning communities has also been driven by increased social investment, with non-governmental organizations providing technical support and funding—such as Green Colleges receiving equipment grants or learning opportunities. This model fosters full participation and is worthy learning from by China.

2.2 Determine the course category and specify the required credits

Entering the 21st century, American high school curricula have changed little compared to those of the "shop-and-go high schools" of the 1980s. Each state establishes subject areas and graduation credit requirements, with courses offering limited elective options. Taking the San Francisco Unified School District as an example, its graduation standards are based on the University of California admission criteria: students must earn a total of 230 credits, including 40 in English, 30 in mathematics, 30 in social sciences, 20 in science (one each in biological sciences and physical sciences), 20 in foreign languages, 10 in arts, 20 in physical education, 5 in health education, and 5 in college and career preparation—totaling 180 credits—with the remaining 50 credits consisting of electives. Each subject is studied over one semester, with a minimum of 5 credits required for passing. The assessment standards for American high schools are largely driven by university admissions, making them somewhat passive; however, enrollment requirements across the country are becoming increasingly diverse. China's unified college entrance examination system has fostered a culture of "score supremacy," and only educational reform may enable the implementation of a flexible class system. Nevertheless, the relatively low graduation standards in American high schools have led to a continuous decline in pass rates, so whether such a system can genuinely improve teaching quality and talent development remains a matter requiring careful consideration.

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Table 1: High School Graduation Standards for the San Francisco Unified Campus

(SFUSD, 2019)

Subject Area	Graduation Requirements for the San Francisco Joint Campus	Duration of study
a- Social sciences *	30	3 years
b- English	40	4 years
c- Mathematics	30	3 years
d- Science	20	2 years
e- Foreign language	20	2 years
f- Art	10	1 years
Sports	20	2 years
Health	5	1
University and Career	5	1
Take as an elective course **	50	5 years
TOTAL	230	

Note: Letters a–f in the table represent different subject areas; there is also a g for other subjects.

*The required economics course was originally classified as an elective sociology course under Category G, but has now been reclassified as a mandatory sociology course under Category A.

**One of the courses must be from Category G.

2.3 Establish a nationwide model to enhance tutoring quality

In the early 21st century, the United States optimized its student counseling system supporting the flexible class scheduling model, with two major improvements: first, establishing specialized counseling research centers to support teacher training and educational research; second, implementing a nationwide counseling program framework that established unified standards. Meanwhile, the "No Child Left Behind Act" explicitly recognized the value of counseling services in fostering students' physical and mental well-being, academic development, prevention of behavioral issues, and mental health protection (U.S. Department of Education [USDOE], 2002). In 2003, the Center for School Counseling Outcome Research & Evaluation (CSCORE) was founded, dedicated to enhancing educational opportunities and outcomes for all children by identifying and developing research-based, effective school counseling practices. The center's

primary missions include: first, conducting and disseminating research findings on vocational, social-emotional, and academic interventions; second, providing K–12 educators and practitioners with evidence-based decision-making tools, evidence-supported practices, and program evaluation resources; third, leading international efforts in assessing the effectiveness of school counseling interventions and programs (Center for School Counseling Outcome Research [CSCOR], 2019).

Also in 2003, The ASCA National Model: A Framework for School Counseling Programs was published. This national model encompasses four key dimensions: foundation, implementation, management, and accountability. The foundation layer defines project objectives, student criteria, and teacher professional competencies; the implementation layer includes both direct and indirect student services; the management layer standardizes assessment tools and procedures; and the accountability mechanism relies on data analysis to evaluate counseling effectiveness. The model provides a framework for implementing student counseling programs, and its second edition further refined the system, strengthening support for the implementation of the flexible class schedule.

2.4 Explore enrollment methods and implement a flexible class scheduling system accordingly

The implementation of the flexible class system in American high schools relies on a comprehensive college admissions framework. The U.S. education system features regional autonomy, with state universities independently establishing their admission policies. The transition from elementary to high school admissions demonstrates three key characteristics: first, flexible assessment methods—SAT and ACT exams are administered multiple times annually, while AP exams are held once per year, with SAT scores offered in two categories for student selection; second, tiered admission criteria where prestigious institutions prioritize academic excellence, whereas community colleges maintain more lenient entry requirements to support students' course choices; third, diversified evaluation criteria that consider not only test scores but also academic performance, recommendation letters, extracurricular activities, interviews, and other comprehensive factors (Angoff, 1971). Beyond these distinctive high school graduation assessment systems, the United States continuously innovates evaluation models to deliver optimal educational outcomes. In recent years, a new assessment model—the "A New Model"—has emerged. On May 10, 2017, the MTC Alliance (Mastery Trans Consortium [MTC], 2018), comprising over 100 top private high schools, introduced a student evaluation system called the Competency Portfolio. This model features two key aspects: "First, no numerical scores or grade levels—are replaced by continuous tracking, documentation, and assessment of eight core competencies (see Figure 1), reporting students' mastery levels of these competencies through descriptive evaluations accompanied by visual radial diagrams. Second, academic reports are decoupled from specific courses, omitting subject names and focusing solely on competency mastery levels and related descriptions." (Wang, Qi, & Xie, 2018) While the "new model" cannot yet replace the existing evaluation system, it clearly demonstrates that the supporting evaluation framework for the class rotation system—which places greater emphasis on students' individuality and differences—is continuously being refined (National Association for College

Admission Counseling [NACAC], 2023). Therefore, as China adopts this model, it should also pay close attention to the design and implementation of student evaluation mechanisms.



Figure 1: MTC Student Evaluation System – "New Model"

(Mastery Transcript Consortium [MTC], 2018)

3. Analysis of Case Studies on the Implementation of Flexible Class Scheduling Systems in American High Schools Since the 21st Century

3.1 Case Study of Lincoln High School: Quality and Diversity Coexist

Lincoln High School is a comprehensive public high school located in the Sunset District, serving students in grades 9 through 12. Part of the San Francisco Unified School District, it maintains a student-to-teacher ratio of 1:19 and employs small-class teaching methods. The school boasts a strong tradition and enjoys a distinguished reputation within the community for providing exceptional college-preparatory education. It ranks among the top 50 schools out of over 3,500 in California and was ranked 499th nationally in 2018, placing it in the top 2% of U.S. public high schools.

Lincoln High School operates under a college-style flexible curriculum system, featuring six specialized colleges covering business, digital media, teacher education, environmental studies, biotechnology, and architectural engineering. The school offers both compulsory and elective courses, complemented by over 60 student clubs and 28 inter-school sports programs. Its educational approach prioritizes meeting students' diverse needs through offerings such as AP courses, AVID programs, JROTC, immersive Chinese language learning, and arts/sports competitions, supported by comprehensive services including academic tutoring, college

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preparation assistance, and mental health support. The school boasts an outstanding faculty team and a rich array of academic and cultural activities tailored to students' multifaceted development needs. The Teacher Education College provides most courses focused on liberal arts studies; the Green College delivers innovative curricula teaching cutting-edge green technology concepts and skills; the ACE College offers bridging courses in architecture and engineering to prepare students for future careers in these fields; Business School students study banking accounting and finance-related subjects; while Digital Media Design students explore courses related to consulting technologies.

3.2 Course Structure: Integration of In-Class and Out-of-Class Activities

3.2.1 Required Courses

The required curriculum at Lincoln High School covers six areas: History/Social Science, English, Mathematics, Laboratory Science, a Foreign Language Other than English, and Visual & Performing Arts. Additionally, students must complete California-mandated courses in Physical Education (for two years), Health Education, and College and Career Education (each for one semester). The program is meticulously designed to cater to students' interests and individual needs. To graduate from Lincoln High School, students must earn the required credits across all these compulsory courses.

3.2.2 University Preparatory Elective Courses

According to the regulations of the San Francisco Joint Campus, students are required to complete a selection of elective courses, specifically Category G courses (see Table 2). These courses span one academic year, and students may choose from the listed courses labeled a–f or from the limited range of available electives. For the 2018–2019 academic year, Lincoln High School will offer 23 elective courses across four fields: Mathematics or Computer Science; History or Social Sciences; English; and Interdisciplinary Studies.

Table 2: Statistics on the Structure of University-Level Preparatory Elective Courses

Discipline/Duration: College-Preparatory Electives – Recommended duration: 1 year				
Curriculum	AP/UC Honors	Suit grade	Classroom Environment	Course Category
AP computer science	yes	11/12	classroom	Mathematics – Computer Science
AP Principles of Computer Science	yes	9/10/11/12	classroom	Mathematics – Computer Science
AP psychology	yes	11/12	classroom	History/Social Sciences

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AVID10 (AVID 10)	/	10	classroom	Interdiscipline
AVID11 (AVID 11)	/	11	classroom	Interdiscipline
AVID12 (AVID 12)	/	12	classroom	Interdiscipline
AVID 9 (AVID 9)	/	9	classroom	Interdiscipline
Honors Course in Child Development	yes	11	classroom	Interdiscipline
Children, Families, and Communities	/	12	classroom	History/Social Sciences
Critical Thinking and Social Change	/	11/12	classroom	History/Social Sciences
Economy	/	12	online	History/Social Sciences
Economy	/	11/12	classroom	History/Social Sciences
Entrepreneurial Function 1	/	11/12	classroom	Interdiscipline
Entrepreneurial Functions 2	/	11/12	classroom	Interdiscipline
Entrepreneurial Functions/Self-Employment	/	11	online	Interdiscipline
Honors Course in Ethnic Studies	yes	11/12	classroom	History/Social Sciences
Life Science Courses for Students in the College	/	10/11 /12	classroom	Interdiscipline
Green College 1: Introduction to Environmental Issues	/	10	classroom	Interdiscipline

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Green College 2: Introduction to Environmental Issues	/	11	classroom	Interdiscipline
Introduction to Education	/	10	classroom	History/Social Sciences
Leadership 1	/	11/12	classroom	History/Social Sciences
Marketing, Sales, and Services	/	10/11 /12	classroom	English
Management of personal money	/	10	online	Interdiscipline

3.2.3 Student Service Programs

In American high schools where electives are freely chosen, student services constitute a distinctive component designed to provide essential support for students throughout their academic and daily lives. Lincoln High School's service offerings encompass five main categories: academic support, health center services, disciplinary assistance, nutrition programs, and after-school tutoring.

The first section covers academic support services. Lincoln High School offers a range of programs designed to assist students academically, including academic advisors—specifically grade-level advisors, English Language Learner (ELL) advisors, AVID (Advancement Via Individual Determination) advisors, and college application counselors. Grade-level advisors address students' various academic and personal concerns; other advisors may guide students in course selection and help them plan their curriculum and university applications. The school also operates a College Career Center that provides information on employment opportunities and higher education, conducts career aptitude assessments, holds regular parent meetings to enhance parents' understanding of American universities, and informs them about tuition fees and related matters.

The second section concerns health services. Lincoln High School has established a health center with three primary objectives: first, to provide students with support in physical health, mental health, and counseling services; second, to offer parental support and facilitate communication between parents and schools; third, to assist student activity groups, thereby enhancing students' educational experience.

The health center is staffed with: 1 full-time registered nurse responsible for health education, school medical services, distribution of sexual health supplies, and administration of immunization vaccines for teachers; 2 licensed clinical psychotherapists providing psychological counseling to students; 3 certified physiotherapists offering therapeutic interventions such as massage and acupuncture for students with disabilities; 1 speech therapist assisting students with

language difficulties in recovery; 1 Student Psychology and Emotional Management Coordinator facilitating communication with students to identify academic stressors and provide stress relief; and 1 Peer Resources Coordinator managing student conflicts and coordinating programs. Lincoln High School also employs two Discipline Coordinators and a resident armed police officer, with the Discipline Department overseeing student discipline and the Attendance Department handling attendance and leave management. Three parent liaisons (proficient in Spanish, Chinese, and African American English) provide translation and home-school communication services for non-English-speaking parents. Nutritional services include breakfast and lunch provision for students. After-school support offers comprehensive assistance through youth centers, homework tutoring programs, remedial classes, evening schools, and online learning platforms.

3.3 Student Support: Ensuring Personal Development

The successful implementation of the flexible class schedule system in U.S. high schools demonstrates that student support systems play an indispensable role in this process. Lincoln High School has appointed numerous counselors—specialized instructional and psychological advisors—who each oversee distinct responsibilities.

3.3.1 Grade Advisor

Grade advisors are primarily responsible for all student-related matters. Lincoln High School assigns one grade advisor to each of the four high school grades. Their responsibilities include: guiding students in selecting elective courses, entering course selections into the computer system, scheduling and rescheduling classes; managing student academic records; providing psychological counseling; maintaining discipline at major events; assisting students in developing and monitoring their course and schedule plans throughout high school, addressing issues promptly, holding meetings with parents, and communicating with them; preparing information regarding various exams; and discussing any additional support needs students may have.

3.3.2 English Learner Consultant

The English Language Learner Consultant (ELL) primarily designs courses for students with limited English proficiency, monitors their progress, and coordinates exit plan assessments and related procedures. The "redesignation" process involves assisting immigrant students with inadequate English skills to achieve a level equivalent to that of native speakers, enabling them to complete regular course content without additional language support.

3.3.3 AVID Consultant

As early as three decades ago, the AVID (Advancement Via Individual Determination) program was launched at the state level. Lincoln High School has implemented it for seven years, with its first graduating class completing their studies in 2011. The program aims to ensure all students achieve the following objectives: first, gain admission to a four-year university; second, complete college preparatory courses—including College Advanced Placement and Honors programs—at Lincoln High School; third, earn all required A-G course credits specified by the University of

California; fourth, actively participate in the school's core activities; and fifth, develop into well-rounded, responsible members and leaders within a democratic society.

The AVID program is a specialized class designed for students committed to academic excellence. It provides additional support not only for high school academics but also for navigating university admission processes—including completing the A-G curriculum and advancing college application procedures. AVID counselors monitor student performance and academic progress, provide timely interventions for underperforming students, develop tailored solutions, assist with college applications, and guide students in selecting appropriate courses and completing all required application steps.

3.3.4 University Application and Career Planning Consultant

The primary responsibilities of university application and career planning consultants are to assist students in selecting appropriate universities, explain the application procedures and requirements, and support them in successfully applying. These consultants are well-versed in university admission criteria and timelines, provide career planning guidance sessions for students across all academic years, and offer tailored assistance based on each student's specific circumstances.

3.3.5 Health Center Consultant

The Health Center Consultant is primarily responsible for the coordinated management of the health center and provides professional services to students with special educational needs and those with mental disorders, including psychotherapy and social work (such as assisting with applications for government benefits).

When discussing student counselors, the ratio of counselors to students warrants particular attention. Lincoln High School offers superior resources, with separate teaching support and psychological counseling services to better assist students; in contrast, schools with poorer conditions typically have fewer counselors—some even lack dedicated counselors for new immigrants or students with limited English proficiency.

3.4 Organizational Management: Integrated with School Students

Like other U.S. high schools that implement a flexible class system, Lincoln High School employs an elective-based and credit-based curriculum, resulting in relatively blurred distinctions between "grades" and "classes." The school is organized around teaching classes rather than fixed homeroom teachers or permanent class structures, making administration particularly complex. Lincoln High School adopts a diversified, multi-tiered management framework that integrates school-wide governance with student management.

3.4.1 School Management

School management primarily consists of three key components: the Head of Discipline, student counselors, and homeroom teachers.

The Discipline Director has three primary responsibilities. First, managing serious disciplinary violations by students, such as imposing suspension or expulsion. Second, collaborating with

local police or courts to handle problematic students and those serving sentences outside of prison. Third, addressing students whose conduct significantly disrupts classroom learning. For such students, teachers record their disciplinary offenses, after which school security personnel escort them to the Discipline Director or student counselor for guidance.

In addition to assisting students with academic challenges mentioned above, student counselors also provide guidance on both academic and personal matters. Upon enrollment at Lincoln High School, each student is assigned a counselor (at the San Francisco Union Campus, each counselor oversees approximately 500 students; (Fang, 2006)). The primary responsibilities of student counselors include three key areas: first, guiding students in course selection and assisting them in entering course information into the system; second, maintaining communication with parents—counselors contact parents when students fail courses or exhibit absenteeism to help parents manage their children's academic progress; third, offering support to students experiencing emotional distress, short-term psychological difficulties, or mental health conditions, including providing psychotherapy for those with severe depression. Lincoln High School has approximately 2,100 students and eight counselors, resulting in a ratio of about 263 counselors per student.

Home supervisors exercise relatively limited oversight over students. They typically serve concurrently as teaching staff, primarily responsible for maintaining classroom order during events such as announcements, student representative elections, and examinations. Consequently, most home supervisors do not pay close attention to students' academic performance or discipline.

3.4.2 Student Management

High school students in the United States demonstrate a high level of self-management, and Lincoln High School is no exception. Student governance at Lincoln High School operates on two levels: the Student Council (also known as the student self-government body) and the Principal's Student Cabinet, which respectively oversee the organization of student activities and facilitate communication between upper and lower levels of administration.

The primary responsibility of the Student Union is to organize various student activities across the school, including coordinating events for school clubs, student societies, cultural performances, and other small-scale events; it also organizes school-wide dance parties. Additionally, the school's newspaper and radio station are operated and managed by students. Members of the Student Union come from student unions at all grade levels. Election of members involves two rounds: a first-round vote by each grade level selects representatives, followed by a second-round school-wide vote where the candidate with the most votes becomes president, with vice presidents, student activity coordinators, secretaries, and other positions subsequently appointed (Fang, 2006). Student Union members not only collaborate with the principal and faculty to plan activities but may also be elected as representatives to serve on the Campus Education Board.

The Student Council, serving as a supplement to the Student Union, consists of two student representatives elected from each homeroom class. These representatives typically meet with the principal weekly to convey the needs and aspirations of their classmates, while also relaying the school's expectations and requirements to the students. They may even collaborate with

homeroom students to discuss challenging issues facing the school or administration, providing further feedback to the principal. Together, the Student Union and the Student Council form a crucial foundation for student self-governance, safeguarding the democratic rights of the majority of students in American high schools.

4. Conclusion and Implications

The flexible class system in American high schools has a history of over 100 years, having developed a comprehensive institutional framework encompassing curriculum design, management, and assessment. While this system enjoys a solid foundation, it still requires ongoing refinement through continuous reflection and research. As China actively promotes the implementation of this teaching model, it should draw insights and considerations from the practices of American secondary schools.

4.1 Conditions for Implementing the Flexible Class System in the United States

Research on the development history of the flexible class system in American high schools demonstrates that it is a product of U.S. secondary education reform and was designed to meet the demands of educational restructuring. Its successful implementation can be attributed primarily to two fundamental factors: foundational conditions.

4.1.1 External Conditions

From a macro perspective, American societal values, educational objectives, educational system, and diverse stakeholders collectively create a fertile environment for the implementation of the flexible class scheduling system.

In terms of philosophy, the ideals of freedom and equality are deeply ingrained in American culture. This is reflected in high school education through respect for students' autonomy and choices, recognition of individual differences, and a commitment to fostering well-rounded citizens for society and competent members for families (Burton, 2016; Heck et al., 2004). Consequently, in U.S. high schools, students can select appropriate courses and educational pathways based on their actual academic abilities, personal interests, and future aspirations.

In terms of the education system, the United States is a federal nation where the public school system operates under state jurisdiction. Consequently, the federal government has neither authority to regulate private schools nor control state-run public schools; administrative oversight of the entire educational system resides at the state level. Under this decentralized framework, universities—particularly private ones substantial autonomy in their operations. Variations in university admission policies have prompted American high schools to implement flexible class systems, teaching methodologies (Duis, 1995). student assessment frameworks designed to facilitate college readiness and ensure smooth transition from high school to university education. Given the diversity of U.S. universities, high schools must offer varied curricula tailored to individual student needs, leading to the development of the elective-based curriculum system.

The implementation of the flexible class system in American high schools has received support from various stakeholders, with active participation from governments, universities, and

communities. Governments provide schools with publicly funded personnel such as nurses and psychologists; universities train the necessary teaching staff (including academic tutors), offer college preparatory courses, or dispatch university faculty to teach high school students about college curricula and admission requirements, thereby facilitating the smooth delivery of high school programs (Wilken, 2023; Allen Gill, 2011). Communities also ensure student safety and activities through measures like on-campus police presence. In summary, American high schools benefit from a well-established social support system.

4.1.2 Internal Conditions

The flexible class system in American high schools has evolved over more than a century and primarily manifests the following characteristics in school educational practices.

First, high schools should offer a wide range of diverse courses. For example, Lincoln High School provides courses covering all six academic levels (A–G), with each subject offering between 10 and over 20 courses, each further graded to accommodate different student needs. These courses include both required and elective components, ensuring the acquisition of fundamental knowledge and skills while catering to students' interests and individual differences. Without such comprehensive course offerings, it would be challenging to effectively implement the flexible class scheduling system.

Second, high schools in the United States have established a comprehensive system for student counseling and guidance services. These counselors and instructional advisors receive specialized training, possessing expertise in areas such as psychological counseling. The U.S. education system also provides a national framework for student support services, supported by dedicated research institutions that offer relevant studies, guidance, reference materials, and professional development programs for school counselors. A key component of this system involves conducting psychological assessments and academic guidance to help students understand themselves better, make informed course selections, and clarify their future career goals and professional paths.

Third, the architectural design of U.S. high schools creates favorable conditions for flexible class scheduling. High school buildings are typically low in height but feature spacious interiors, making course selection and class rotation straightforward. Storage cabinets are installed along corridors to facilitate student storage needs. Given the limited number of classrooms, each classroom is allocated exclusively during non-class hours (morning or noon) to maximize utilization efficiency. All classrooms are used for subject-specific classes throughout the day; frequently used rooms are designated as permanent subject classrooms, while others are flexibly assigned to accommodate diverse needs, thereby optimizing the use of school space resources.

Clearly, implementing the elective course system requires both external and internal prerequisites. First, all stakeholders must recognize students' right to choose; second, students need to be taught how to make informed choices and learn effectively; third, schools must provide the necessary space and teaching resources for course selection.

4.2 Insights from the Flexible Class System in American High Schools

Based on the historical development and practical outcomes of the flexible class system in U.S.

high schools, and in response to the current reform requirements for China's high school education, implementing this teaching model in regular high schools requires attention to the following key aspects.

4.2.1 Course Structure and Course Selection

Enhancing curriculum diversity, expanding student choices, and fostering individual development are key requirements of China's current high school education reform. High schools must leverage curricula and their implementation to deliver personalized educational experiences that support students' holistic growth. Particularly, the selection of examination subjects in the national college entrance exam directly influences students' course choices.

To implement the course selection and flexible class scheduling system, schools must develop appropriate curricula and strike a balance between national curriculum standards and school-based curricula, between compulsory and elective courses, and between college entrance examination requirements and students' personal preferences. Regardless of how the flexible class system is implemented, ensuring proper execution of the national curriculum and compulsory courses remains essential—a fundamental requirement for high school education. In this regard, it is crucial to clearly define students' range of choices and their level of selectivity.

Implementing elective course systems requires expanding the variety and number of courses offered. These courses should align with student interests and meet societal development needs, without being confined to existing school resources. Schools must actively create conditions for offering such courses when students request them. Elective courses serve as a foundation for students' personalized development rather than relying on pre-existing school offerings; only courses designed from a student perspective can truly provide genuine freedom in course selection. Of course, student choices also require guidance and support. Conducting thorough research on students' learning needs is essential before schools introduce these programs. Only when the number of available courses reaches an adequate level can true freedom in course selection be achieved.

4.2.2 Selection of Cultivation Programs and Student Selection

The counseling system in American high schools holds significant importance, as it enables traditional school education to move beyond the confines of mere preaching and rote instruction. Counseling or guidance differs from conventional teaching methods; building upon traditional education, it adopts a student-centered approach that emphasizes support and psychological assistance, thereby empowering students to make independent judgments, choices, and decisions. High school students clearly lack the ability to make sound choices, so schools must focus on developing this capacity and assisting students in making informed decisions—this is precisely the purpose of establishing a school counseling system.

Upon entering high school, students may feel confused and uncertain about their future development and the wide range of courses available. The guidance system serves not only to help students choose appropriate courses and academic paths (academic counseling), but also to assist them in self-awareness and establishing initial directions for their future development (career counseling), thereby preventing arbitrary or purely utilitarian subject selections. Currently,

regular high schools in China are advancing the establishment of student development guidance systems, which is linked to the expansion of elective courses, increased subject options in the college entrance examination, the promotion of personalized student development, and the diversification of high school programs. How to integrate China's current high school education context and needs to develop and refine this guidance system constitutes a crucial aspect of implementing the elective course and flexible class scheduling system.

4.2.3 Managing the National College Entrance Examination and Flexible Class Scheduling Systems

Historically, due to the influence of China's college entrance examination system, educational practices aimed at preparing students for these exams have often been labeled as "exam-oriented education," and criticism of this approach has persisted (Organisation for Economic Co-operation and Development [OECD], 2024; Wu et al., 2025; Zheng et al., 2025; Weng & Peng, 2026). In reality, a closer examination of the flexible class system in American high schools reveals that it is largely designed to meet the demands of university admissions. The curriculum design and course offerings in U.S. high schools are primarily aligned with college admission requirements. Cultivating talent for higher education remains a fundamental mission of general high school education. Given the limited collaboration between universities and high schools, developing diverse curricula based on exam subjects to provide students with multiple choices has not only become essential but also entirely justified.

With the continuous differentiation in university admission methods and requirements, particularly the growing emphasis on comprehensive student evaluation by higher education institutions, high schools adopting the flexible class system may move beyond merely addressing exam-oriented preparation for college entrance tests. Instead, they will focus more on providing students with diverse learning content and domains to foster holistic development and the cultivation of individual strengths. Schools therefore need curriculum offerings that genuinely prioritize student needs. The relationship between the flexible class system and university admission mechanisms will remain interactive, presenting challenges for both universities and high schools.

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