

# A Proposed Model for an Academic Advising System based on Project Management Approaches

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## Abstract

**The effective and efficient academic advising is critical to promote the quality of talent cultivation in higher education. Compared with the developed countries, the academic advising in China is still at an early stage of development. In order to establish an excellent academic advising system, the theory of project management could be introduced to the area, which may guide the academic advising to develop in a healthy way suitable for China. This paper attempts to construct the academic advising system guided by the project management theory, thereby offering a reference for improving the quality of talent cultivation in Chinese universities.**

## Keywords

**Academic Advising; Project Management; Management Mode; System Innovation.**

## 1. Introduction

Undergraduate talent cultivation is the foundation of higher education and the source of development. At present, China's higher education is going through a critical transformation period, putting special emphasis on connotation development and quality improvement. Academic advising aims to help college students solve the problems and confusions encountered in the course learning, learning methods, and learning outcomes. At the same time, academic advising can assist the undergraduate students in finding the most suitable development direction, and finally realize the maximization of self-worth, according to their educational background, learning motivation, interest and ability[1]. In this context, more and more colleges and universities have gradually realized the importance of establishing an academic advising system for revitalizing undergraduate education and improving the quality of talent cultivation.

First, from the perspective of organizational management, the bureaucratic management model in colleges and universities limits the efficiency and effect of academic advising to a certain extent. Under the bureaucratic organizational system, which is pyramid-shaped, the decision-making power is held at the top of the pyramid, and the grass-roots personnel implement the results of the decision-making. The development of effective academic advising work needs to be clearly targeted about the specific needs of students. This is based on the daily practice of front-line teachers and administrators. If decision-makers have a limited understanding of the front-line guidance work, it is inevitable that there will be deviations in the formulation of academic advising policies and planning guidance system, which will affect the development of academic advising work.

Secondly, the bureaucratic organization also has the characteristics of specialization. Different departments of universities, and even different members of the same department, have corresponding division of labor and have clear responsibilities. However, the academic advising work is rich in content, and the development of its various functions requires the coordination and cooperation of teachers, teaching managers, academic management personnel and

multiple administrative departments, which is a systematic project that cannot be divided into sections. In practical work, it is easy to appear the awkward situation that each department acting on its own or the centralized management cannot be carried out, so that the academic advising work cannot be effectively promoted.

In order to establish a complete academic advising system and carry out guidance activities effectively, it is necessary to break the hierarchy and framework of the existing management model, be brave in innovation, and build a new management method that can promote the academic advising work. Therefore, introducing the perspective and method of project management into academic advising is not only of theoretical significance, but also of practical significance.

The structure of the follow-up content of this paper is arranged as follows: The second part demonstrates the feasibility of project management theory and method in academic advising work. The third part illustrates the significances of the project management theory in academic advising. The fourth part attempts to construct an innovative academic advising system of management mode under the guidance of project management theory, and explains how to transform the strategic tasks and goals of talent training in colleges and universities into executable tasks in academic advising from multiple dimensions in the project management. The fifth part proposes a module to conduct academic advising in a Chinese University, which describes the application of project management theory in academic advising. The last section concludes the full text and discusses future research directions.

## 2. Literature Review

Project management theory has been widely used in the field of enterprise management since the 1970s and 1980s, and it has rapidly expanded into many non-traditional fields after it has matured. The theory guides project managers to use systematic viewpoints, methods and theories to efficiently manage the complete process of the project from design, organization, guidance, control, evaluation and feedback under the condition of limited resources, so as to optimize the Resource allocation achieves project goals [11].

At present, many people in China have tried to introduce project management theory into the field of education management. In 2000, Wang Duanqing applied the method of project management to the undergraduate Education teaching reform project of the Chinese Ministry of Education. He improved the process management of the education reform project, and strengthened the target management, so as to promote the progress of the education reform project, establish a guarantee system for project implementation, and promote education. Reform the output of the results and improve the quality of the output results. Zong Hui (2018) explored the use of project management methods to improve the teaching effect of college employment guidance courses, and tried to design the reform of college employment guidance courses into four stages: initiation, organization preparation, execution, and evaluation feedback. He tried to set clear overall project goals and basic requirements, thus the sub-objectives of the project are reasonably divided. In the implementation stage, the learning resources are analyzed, integrated, processed, absorbed, and fed back according to the project plan, and the project results are gradually realized through independent learning and collaborative learning. Some colleges and universities also use the method of project management in the Innovative Experimental Plan of college students (Chai Ying, Xiao Xiao, 2018). Systematic planning and management are carried out from the three dimensions of content, level and time, covering all projects horizontally, penetrating all levels vertically, and controlling key nodes deeply. However, there is no research in China currently involving the use of project management methods to optimize the system and implementation of academic advising.

The research on academic advising in domestic and foreign academic circles is quite different. In many developed countries, based on their rich practical experience, the current research focus has shifted from the theoretical basis and system construction to the use of empirical research methods to explore the different implementation methods and effects of academic advising, student satisfaction, and guidance staff training and development. The research of Gaines (2014) shows that the traditional face-to-face tutoring method is still favored by students [2], but online communication tools such as websites, social media, and social networking sites are beneficial for students to seek consultation and interact with tutors [3]-[6] (Amador and Amador, 2014; Boylston and Jackson, 2008; Feghali et al., 2011; Gard et al., 2012). However, immature mentoring program design and mentors lacking professional skills will significantly reduce mentoring effectiveness and student satisfaction [7][8] (Henning et al., 2012; Al-Amri et al., 2012). Domestic scholars mainly conduct research on the connotation, current situation, and countermeasures of academic advising. Many scholars also introduce the academic advising system of foreign universities in the form of cases and make comparisons between China and foreign countries. Relatively speaking, these studies are relatively scattered, with few targeted countermeasures and suggestions, and there is no clear plan for constructing a reasonable and efficient academic advising system for college students [9]. Compared with the developed countries, the Chinese research and practice on the specialization, standardization, and diversification of academic advising is obviously insufficient. Shang Hang and Zhang Dexiang (2019) conducted research on 7,198 undergraduates from 56 colleges and universities in China. Guidance questionnaire survey found that the students' overall satisfaction with the academic advising work in Chinese colleges and universities is not that satisfying, and the implementation effect of academic advising is not ideal. It is called for Chinese colleges and universities to establish an academic advising system for undergraduates as soon as possible to promote college students development [10].

The section headings are in boldface capital and lowercase letters. Second level headings are typed as part of the succeeding paragraph (like the subsection heading of this paragraph). All manuscripts must be in English, also the table and figure texts, otherwise we cannot publish your paper. Please keep a second copy of your manuscript in your office. When receiving the paper, we assume that the corresponding authors grant us the copyright to use the paper for the book or journal in question. When receiving the paper, we assume that the corresponding authors grant us the copyright to use the paper for the book or journal in question. When receiving the paper, we assume that the corresponding authors grant us the copyright to use.

### **3. The Significance of Project Management in Academic Advising**

The completion of academic advising tasks has the characteristics of one-time, unique, time-limited, multi-objective, etc. A complete set of academic advising process starts from brewing the advising process and ends with evaluating the advising results, forming a complete life cycle. These characteristics are consistent with the definition of "project" in project management theory. The establishment and effective operation of the academic advising system requires the coordination and cooperation of multiple departments within the university. Under the circumstance of scarce resources and limited time, colleges and universities use the method of project management to promote the construction and improvement of the academic advising system, which will help to standardize the operation of academic advising and realize scientific management, thereby improving the guidance efficiency and optimization of students' guidance effect.

### **3.1. It is the Path Choice to Realize Academic Advising from Design to Implementation**

On the one hand, the construction of the academic advising system is an exploratory process for most universities in China at present. As a strategic deployment of the goal of improving the quality of personnel training in universities, it needs to rely on the implementation of different academic advising projects as a carrier to clarify the needs of the target population, perceive the motivation and resistance in the environment where the project is located, so as to optimize the design of the academic advising system and avoid the system design falling into the predicament of working behind closed doors.

On the other hand, in the early stage of the construction of the academic advising system, it is necessary to use standardized project management methods to decompose the macro goals of the academic advising system, convert them into specific and operable projects, screening or sorting according to the priorities of the project goals when owning the limited resources, so as to achieve the strategic goals. Therefore, introducing the concept of project management to the academic advising field meets the requirements of establishing the academic advising system from the top-level design to the implementation process.

### **3.2. It can Provide an Effective Method for the Management of the Academic Advising System**

Compared with the hierarchical management model with strict hierarchy and clear division of labor, the biggest advantage of project management is that it focuses on comprehensive management, and its flat organizational structure can more efficiently deal with complex changes in the management process. First of all, the implementation object of the academic advising work is students, which are highly personalized. In some projects, there may be a situation of "one person, one plan", which is difficult to operate in batches; Secondly, the implementation of academic guidance will involve multiple departments, and the implementation personnel and management process need to be unified and coordinated; thirdly, academic advising has to strive for the necessary human, material and financial resources while the existing college evaluation indicators and teacher evaluation systems tend to focus on scientific research. As a highly flexible management method, project management can be adjusted and innovated according to the actual situation of different projects, use various management modes and measures to handle conflicts in resources, manpower and time limit, thereby improving the efficiency of solving complex problems in academic advising.

## **4. Construction of Academic Advising System based on Project Management**

### **4.1. Set up a Management Organization for the Academic Advising Project and Establish a Project Information Communication System**

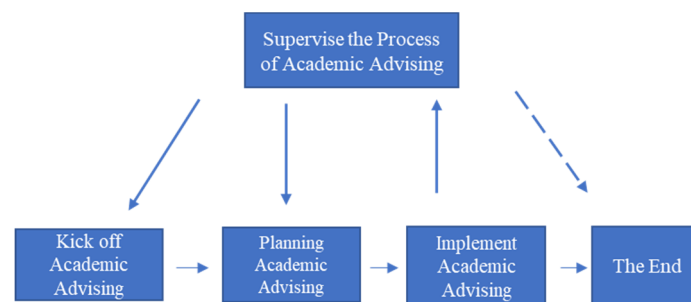
The management organization of the academic advising program is not limited to the existing high-level leaders and administrative departments of colleges and universities. It needs to include all stakeholders. In addition to various administrative departments, it also involves secondary colleges, related teachers and students. Even relevant social forces may even be included when permitted. The diversification of management subjects provides infinite possibilities to promote the construction of the academic advising system by combining the efforts of all parties, and it is also a test for the construction of the management organization.

Combined with the existing organizational structure of colleges and universities, the academic advising project management organization can be divided into three levels. The decision-making level is composed of school leaders and the academic advising working committee, which is responsible for the selection of projects, the prioritization of projects, and the

allocation of resources. The management level is composed of various functional departments of the school. A university-level academic advising center can be established to be responsible for the design of advising project plans and evaluation plans, as well as the project group management. The executive level is the colleges, who is responsible for the daily operation of the project and collecting relevant basic data for evaluation and optimization. At the same time, it is necessary to establish regular information communication channels between different management levels and between different management entities at the same level, so as to exchange information in a timely manner and remove obstacles for the smooth progress of the project. It is also of great importance to establish an information sharing platform to summarize and save important data in the entire project cycle, as an important basis for project evaluation, optimization and re-decision.

#### 4.2. Design a Virtuous Cycle Process of Academic Advising Project Implementation, Evaluation, Feedback, and Optimization

Project management goes through five processes of initiation, planning, execution, control and closure [11]. In the early stage of the establishment of the academic advising system, the evaluation and optimization of the project should still be maintained even when the project is completed. The management process can be demonstrated as Fig.1.



**Fig 1.** The Management Process of Academic Advising

The evaluation of academic advising includes three levels: the evaluation of the learning results of the students being instructed, the evaluation of the effectiveness of the instructor's work, and the evaluation of the operation of the entire project. Among them, the first level of assessment aims to help students improve their study habits or improve their learning ability, thereby improving learning outcomes. This is the primary goal of academic advising and the basic responsibility of the instructors. The second level of assessment is a professional assessment of instructors. The third level focuses on the macro-operation of the academic advising project, and the evaluation results are used as the direct basis for optimizing the project, which is used to judge the advantages and disadvantages in the current system and operation, and finally define the ways to maintain the advantages and improve the disadvantages. The written assessment results need to be transformed into practical actions to obtain improvements, and the assessments at these three levels are integrated with each other, thereby promoting the maturity of the academic advising program, improving the academic advising system, and improving the guidance effect [12].

#### 4.3. Screening and Sorting of Academic Advising Projects According to the University Strategic Goal of Talent Training

The commonly used academic advising activities can be divided into two categories: diagnosis and treatment guidance and developmental guidance [13]. In the diagnosis and treatment guidance, the instructor is the leader, and it mainly focuses on analyzing the problems existing in the students and seeking solutions. Such projects mainly include academic warning and

assistance, involving fewer stakeholders, simple social relations, low management costs, and easy implementation. For students who encounter academic difficulties, if the early warning and assistance programs operate effectively, they will have a large marginal utility and directly improve their academic level. For such students, diagnosis and treatment programs are just in need and are applicable to almost all colleges and universities.

Developmental guidance is based on the student development theory proposed by American educator Crookston, focusing on the comprehensive long-term development of students, aiming to promote their rational thinking, interpersonal and natural interaction, behavior awareness, problem-solving ability and decision-making evaluation ability. This type of guidance project is extremely rich in content, usually involves multiple subjects, requires more resources at runtime, and may overlap with each other. When planning this type of guidance project, it must be strictly guided by the university talent training goals. The university teaching work and students' characteristics must be screened, selected, integrated, and prioritized, so that the academic advising system can be beneficial for the university talent training work.

## **5. Implementation of the Academic Advising System based on Project Management**

### **5.1. Focus on the Overall Goal of Improving the Quality of Talent Training, and Make Top-Level Design for the Implementation of Academic Advising**

The university leaders should closely focus on the overall development plan and talent training goals of the university, combine the characteristics of students and local social and economic development, and incorporate the improvement of the academic advising system into the university strategic policy, and build a macro framework for the academic advising system based on this.

### **5.2. Highlight the Role of Colleges and Promote the Implementation of Academic Advising with Projects as the Carrier**

With the continuous deepening of higher education reform, the mode of secondary management of colleges and universities has been widely used in the teaching management of colleges and universities. Daily teaching and student management work are concentrated in secondary colleges, and the university administrative department is responsible for macro management and provide necessary support. In this context, as a content highly related to teaching and student work, the implementation of the academic advising project should also refer to this management model, mobilizing the enthusiasm of secondary colleges, and giving the secondary colleges full autonomy. Teachers and administrators in secondary colleges undertake the routine management and teach the professional courses. They keep close contact with students, learn about their professional backgrounds, and understand their living conditions and personality characteristics. Therefore, they have the advantage to investigate students' needs, which work effectively when designing academic advising projects, carrying out advising activities, and tracking advising effects according to de student's demand.

Under the background of the comprehensive promotion of the credit system reform in colleges and universities in China, students' demands for academic guidance can be classified into three modules: academic assistance, excellence training, and life planning. Each of these modules requires the cooperation of multiple departments in the university. Taking the academic assistance program, which is the key component in academic advising system, as an example, we try to propose an academic advising model based on project management approach, aiming to establish the Academic Advising Center to coordinate the academic assistance work of each major in the college. The specific working mode and process are shown in Figure 2.

As the management department in the academic assistance work, the Academic advising Center is at the core of the academic assistance system. It organizes and coordinates the close interaction between the Academic Affairs Office and the Student Affairs Office of the college. According to the academic situation, the student status is analyzed to determine whether the student is suitable to stay in the same class, or needs to be held back. At the same time, the Student Affairs Office will inform students and parents timely, analyze the specific conditions of each student need assistance in learning, and conduct psychological counseling or medical intervention if necessary. The Academic advising Center quickly organizes and arranges study assistance. Professional teachers, outstanding students of the same major, and counselors play the roles of professional mentors, peer mentors and growth mentors, providing comprehensive and multi-level study guidance for students who encounter academic crisis, including Professional knowledge learning, learning skills and experience sharing, learning attitude and motivation counseling, etc. The assistance work takes the semester as a cycle. At the beginning of the new semester, the Academic Advising Center refers to the latest learning situation and academic level assessment provided by the Academic Affairs Office, summarizes the effect of the previous round of assistance, and optimizes the content and process of the next round of assistance. They interact with the Student Affairs Office to track students' situation and communicate with the students' parents in a timely manner.

This project operation system fully motivates the professional teachers, administrators and outstanding student representatives to participate in academic advising. Moreover, other relevant resources inside and outside the college, such as the students' parents, also get involved to maximize the advising effect, so as to help the students get out of the academic crisis as soon as possible, and realize the goal of improving student learning.

### 5.3. Standardize the Management Process, Reasonably Control the Management Strength, and Establish a Professional Management Team

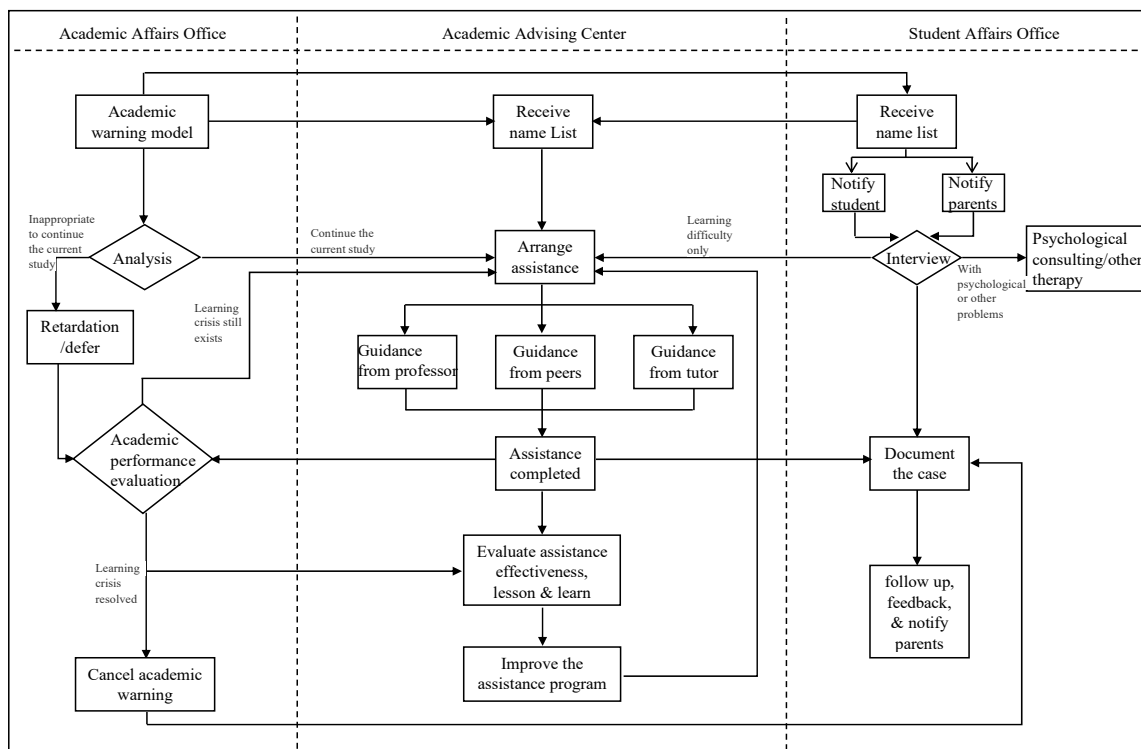


Fig 2. The proposed model of an academic advising system for a Chinese University

The academic advising system has been transformed from a piece of paper planning into a guiding activity that can really benefit students, which is inseparable from the escort of standardized and reasonable management forces. After the top management of the university has completed the top-level design of the academic advising system, a comprehensive academic advising center can be established to guide secondary colleges to enrich academic advising programs, carry out guidance activities, regularly track project results, and coordinate various resources required for academic advising activities. In addition, the center needs to select and train full-time or part-time academic advisors, regularly organize the guidance activities at a higher level, and complement the guidance programs of secondary colleges to provide students with more comprehensive academic services.

## 6. Conclusion

All in all, the establishment and improvement of the academic advising system in colleges and universities is in line with the general direction of accelerating the formation of a higher-level talent training system in Chinese higher education. Project management is highly goal-oriented and can jump out of the traditional management mode flexibly in the process of task execution. Therefore, it has strong practical significance in the establishment of the academic advising system in Chinese universities and in the process of advising project implementation. Due to the lack of existing data collection, this paper does not evaluate the effect of the academic advising system established using this method. This requires empirical research on the basis of long-term tracking of the results of academic advising work and the acquisition of sufficient samples and real-world data. This is also a future research direction worthy of further exploration and expansion.

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