

# **A Research into Scientific Secretary's Work under Industry-Study-Research Cooperation in University**

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**Abstract:** The scientific research in colleges and universities is making a transition toward a combination of production, education and research. Under this circumstance, the research capacity of colleges and universities and the scientific research output are strongly associated with the scientific secretary that whether his management method is scientific, standard and appropriate is crucial. By analyzing the current situation of the scientific secretary's work, we find some existing problems and put forward some countermeasures and suggestions to fit the scientific research tendency of industry-study-research cooperation.

**Key words:** Industry-study-research cooperation; Colleges and universities; Scientific secretary;

Science and technology level is very important as a significant symbol of modernization of the state and comprehensive national power. The research capacity of colleges and universities and the scientific research output are also the measuring standard of colleges' soft power. With the development of science and technology, S&T and Economy in One is inevitable. Industry-study-research cooperation is the tendency of scientific research in universities via utilizing the scientific research environment for deeper technology development and promoting industrialization of university's science and technology innovation achievements<sup>[1]</sup>. The scientific secretary plays a role that communicates and delivers the higher-up messages which has a significant impact on the output of scientific research findings at colleges and universities.

## **1. The scientific secretary's post responsibilities in colleges at the tendency named industry-study-research cooperation**

The combination of production, education and research is an effective path to promote the conversion of Science and technology innovation achievements at universities and scientific research institutions. It closely linked the government, company, universities and

scientific research institutions together<sup>[2]</sup>, which transforms the science and technology innovation achievements into industrial strength so that regional economies grows and the cooperation has become one significant researching field in colleges and universities.

The scientific secretary assists his supervisor for daily affairs about scientific research mainly as drafting the scientific research plan, summarization, method and regime. He also participates the formulation of rules and regulations about scientific research management and cooperate with the competent leadership to make it practicable and executable. Meanwhile, scientific secretaries should cooperate with administrative department of science and technology about scientific research project applications of all levels and all kinds then give the statistics for report. In addition, scientific secretaries should do the file management related to the local project applications, the academic lecture and the achievements. Scientific secretary's work also includes assisting chiefs about declarations of scientific research base, innovation team and research institution as well as the commercialization of research findings, industry-study-research cooperation and the construction and management of school-enterprise collaboration. In the end, scientific secretaries organize and declare the projects and rewards at all levels and all kinds, during which they do the process management and the project closing management of the projects in progress besides some associative works.

Thus it can be seen that scientific secretary plays a very important role in the scientific research management. The capacity of them has a strong influence on whole school daily research work, even on the overall level of research management.

## **2. Current situation of the scientific secretary's work**

Scientific secretary's work , just under such a background, can't suite the industry-study-research cooperation tendency. It's shown as follows:

### **2.1 Colleges attach insufficient importance to scientific secretary**

For quite some time, majority of colleges and universities don't attach enough attention to the importance of scientific secretary's work. It leads to a consequence that the level of scientific service of them stay in the primary stage. They usually think more of scientific effort than research administration including the scientific secretary and his work. As a result, accorded personnel allocation, training, treatment and professional-title evaluation lack of proper support. Scientific secretary can't concentrate on his work and shows insufficient working enthusiasm. At last, the management of scientific research is impacted.

## **2.2 The team of scientific secretaries is unstable in colleges and universities**

Personnel alteration is very often to scientific secretary, which gives rise to a not systematic and discontinuous work on scientific management work in institute. Colleges and universities usually pay more attention on the construction of teachers team than that of scientific secretaries', which deteriorates the rationality of secretaries' team structure<sup>[3]</sup>. Ones take charge of scientific secretary are likely either the ones who master specialized knowledge and skills but lack managerial knowledge or the ones who are opposite. The outcome is that the scientific secretaries are either zealous in scientific research management work or unable to join the scientific research activity<sup>[4]</sup>. The reality is that the professional qualities of scientific secretaries are uneven.

## **2.3 Scientific secretaries are often multiple-job holding**

With the educational levels improving, responsibilities of scientific secretaries become bigger and the amount of work grows sharply. Some of them are even multiple-job holding and so that they have no more time and energy to do the job as scientific secretary, the bridge and link, well. As the work to do is multifarious, which bring a image like heavy, miscellaneous and disorderly of scientific secretary's work. Organizational communication does not reach the designated position, which often caused by lacking of order and low efficiency, may lead that the project applications cannot be carried out in a timely manner and the project schedule can't finished in time. After long-term of work with such heavy, miscellaneous and disorderly work, scientific secretary should be depressed if he couldn't get affirmation and recognition. The result is that he becomes overstaffing and the scientific research can't go well.

## **2.4 Sense of accomplishment lacks among scientific secretaries**

Lack the awareness of his work's meaning and professional consciousness, scientific secretary may thought he is serving others and merits are other's. The title of his technical post and his treatment would not change which means there is little achievements and pride for him to catch. Low efficiency and passive attitude makes the ability of his work and management poorer.

## **2.5 Incentive policy lacks for scientific secretaries**

No incentive policy and regulation can be found to evaluate the scientific secretaries' work or stimulate them. We can seek the rules about the position statement or professional and technical titles, which has detailed examination and evaluation methods.

But this specialized, professional and scientific rules can not be found for scientific secretaries.

### **3. Essential qualities that scientific secretaries need under the background named industry-study-research combination**

In order to adjust the background so called industry-study-research cooperation and needs of university research work, scientific secretary must have a high degree of responsibility, solid technology basic skills, good interpersonal skills, management and organizational skills, writing skills and the ability to create a good social image, work on their own must be enthusiastic, attentive, patient, focused, perseverance of the "Five" standing<sup>[5]</sup>. Scientific research management under background of industry-study-research coordination operate, that ones need to have the following qualities as a scientific secretary.

#### **3.1 Professional dedication**

The essence of scientific secretary's work is service for the scientific research personnel. So they need to have the good moral tutelage, serious and responsible work attitude, and selfless dedication<sup>[6]</sup>. Firstly scientific secretary must love their work, have the strong sense of responsibility and mission, be willing to devote their strength to scientific research. In the management work, they need to follow the people-oriented management concept, communicate with research personnel actively, solve their difficulties in scientific research work as far as possible, make them devoted to scientific work wholeheartedly<sup>[7]</sup>. Besides that, scientific secretary also need to seek truth from facts and meticulous work style, objective and fair, patient and meticulous work style, use their own words and deeds to show the feature, image and level of college scientific research management, make extraordinary performance in the ordinary post. Scientific secretary often contact with leadership, take part in kinds of important meetings and reviewing the project application of scientific research personnel, etc. They often contact a lot of internal information and documents, scientific researchers' new frontier subject and research results, etc. So the secretary still need to obey the secrecy, it is also a professional ethics should be abode by managers<sup>[8]</sup>.

#### **3.2 Professional knowledge**

Scientific secretary whose work is very professional, serves the scientific researchers with high academic degree and wide scope of knowledge. Therefore, the management of scientific research involves various research direction and research content of different disciplines. The scientific secretary with insufficient scientific, cultural and professional knowledge, tends to lack the understanding of the fields, level and the latest progress of

the research of scientific researchers. It is difficult to communicate with and serves them effectively, resulting in the disadvantages at project application, funds application and resources obtaining. with further research, more and more interdisciplinary, scientific secretary should try to learn their own subject areas covered by the scope of management expertise, but also work constantly to strengthen and consolidate and accumulation, and supplements to grasp new content, so that it can carry on with the research staff deeper level of communication, understanding and grasp researchers working conditions, to facilitate make reasonable judgments and effective treatment during the research process problems, to fit the need of modern scientific research development .

### **3.3 Business skills**

Scientific Secretary has strong working affairs, involving a wide range ,it's responsibilities range from provide leadership for big ideas, drafting documents, to send a small project notice, to close a project application, its managers, executives and staff assistants and other multi-angle and role positioning, scientific Secretary are determined not only be familiar with all aspects of research management process, but also to master modern management tools and instruments as well as archives and other social scientific knowledge. Daily management of scientific research work, from research reporting, mid-term examination, concluding that the results-registration are using a dedicated computer software, a lot of research and the release of information to gather, store, organize, search, statistics, are inseparable from the computer. Proficiency in a variety of project management reporting software and systems, flexible use of the computer to complete research management work, not only standardized, but also efficient, this ability also is the secretary must master a research capacity. In addition, the scientific secretary should have a high degree of sensitivity to scientific information , master certain modern information processing capabilities make the right analysis and judgment to acquired information, skilled use of modern information processing means (Internet, email, SMS, fax etc.), timely and efficiently way to communicate information to go out to better accomplish various administrative tasks.

With the development of international exchanges and cooperation, cooperation in scientific research of universities at home and abroad more and more frequently. Scientific secretary should strive to improve their English level, to complete the international cooperation in scientific research and academic exchange activities to better organize. The management of daily research scientific need to contact a series such as application, contract, agreement, progress report and other documents necessary daily work , drafting some files and some on, strengthen the cultivation and improvement in the text, can be

twice the result with half the effort. And the secretary need to learn collect accumulated in daily work and research related documents, data, data classification archiving, regularly or irregularly provide files and resources sharing to the leaders and researchers.

### **3.4 Management ability**

For daily work, scientific secretary needs to deal with all aspects of the people and things, and work with scientific management theory as the guidance. By reading some professional books about management, such as *Management*, *Management Communication*, *Public Relations*, *Human Resource Management* and so on, understand and use the new theory, technology and method of modern management science. scientific secretary needs to have comprehensive analysis ability, organization and coordination competence, and flexible strain capacity. He should be good to prioritize and find the problems from the intricate relations or contradiction in the management process. Besides that, scientific secretary also needs to coordinate the relationship of leaders, different departments and researchers, solve the problem accurately and decisively. In the process of managing the daily affairs, he can be orderly, improve the work efficiency and management effectiveness. Scientific secretary needs to be good at language expression, have strong interpersonal skills and interactive capabilities. And in the management process, he should contact with various agencies and all kinds of personnel, establish a harmonious working relationship. The policy and instructions of superior departments, research situation of scientific research personnel and so on, all need to be conveyed to each other by scientific secretary to maintain good interactive relationship. Enhancing the cultivation and exercise of these ability will help to handle the situation encountered in management processes properly, make maximum use of human and material resources to provide complete services and protection for scientific research.

### **3.5 Innovation capacity**

The management work of science research is constantly evolving with the development of science and technology, inevitably there are many new problems, ideas and topic occurred during the process, which requires scientific secretary to explore, research, development and innovate to manage the object and raise the level of scientific research management. Scientific secretary needs to keep on learning scientific management theory, method and policy, strengthen the cultivation of the innovation consciousness, and improve the work efficiency. He should keep on studying and mastering modern management experience and methods, be good at draw lessons from the advanced experience of others, and combine with actual situation in work creatively,

and be skilled in seizing the characteristic and law of scientific research work, sum up experience from a mass of tiny work. In a word, scientific secretary should constantly strengthen their self-cultivation, promote innovation, make work more simple, easy, normative, high efficiency and scientific, make his due contribution to realize the improvement of the overall scientific research level for colleges and schools.

#### **4. Countermeasure and suggestion to improve the management level of university's scientific secretary**

Scientific research is a systematic engineering and scientific secretary's work is a part in scientific research system engineering. To do scientific secretary' work well, in addition to improve their self quality, the attention of the leadership, sound system are also very important external conditions. Analyzing the present situation of scientific secretary's management in colleges and schools, putting forward the solutions and measures targeted, the purpose is to promote the scientific secretary's management level and make scientific research work of university combined with production, education and research moving forward better.

##### **4.1 Strengthen the construction of university's scientific secretary team**

In addition to attach great importance to the full-time teachers training, colleges should also strengthen the construction of the scientific secretary. Improving the management system, management methods, incentive system and promotion system. Let the comrades engaged in scientific secretary work have a positive working atmosphere. Improve the identity of scientific secretary, make them have a positive attitude to face the multifarious work, overcome the tired feeling in work. Universities should establish special employment, evaluation, promotion and wage protection system, etc based on the practice of management, to mobilize their working enthusiasm, provide the chance to display their talent who have management talents in scientific research and are willing to work in the position of scientific research and management, so as to maintain the stability of scientific secretary team and enhance the overall strength.

When examining cadres or promoting titles, adopting some preferential policy to scientific secretary, arousing the work enthusiasm of them, is helpful to enhance the management level of scientific secretary and promote the great-leap-forward development of scientific research in university. Measures and increasing investment should be taken actively to provide them with necessary security of software and hardware and good working environment, inspire them to use their intelligence on jobs, improve the efficiency and quality of work, provide more quality services for university. For example, using scientific research management system, equipped with the scanner and so on.

#### **4.2 Set full-time college scientific secretary position**

For the situation that scientific secretary wears many hats, can't put all their energy into scientific research management, schools need to have a stable scientific secretary team. First of all, full-time scientific secretary position needs to be setted up. Stable scientific secretary can avoid management disjoined problem due to frequent changes of scientific secretary. Every departments' scientific secretary have a clear understanding about the scientific research direction of their own department, the focus and the scientific level of their own department teachers. They can contact to the related teachers directly in the work of project application, etc. So as to strengthen the pertinence of work and greatly improve the work efficiency.

#### **4.3 Carry out the training work for university's scientific secretary termly**

The course for university's scientific secretary should be organized termly, and opportunities should be created for them to go out to visit and learn. Conditional units can send scientific secretary to the university to study professional knowledge for year or half, or organize them to study in other place and exchange experience, enlarge their view. In university, scientific secretary is a part-time job of full-time teachers or other administrative personnel. They have never systematically studied knowledge of management, and few receives formal training hosted by scientific research management department. They are failure to take specialized training of modern management theory at a long term. So they can't be exposed to new ideas, and the traditional passive behavior and management modes are unable to adapt to the needs of the modern science development and the requirements of the scientific research management. Scientific secretary can't bring convenient to leadership, neither can't provide the perfect service for researchers. It restricts the play of the scientific research management and efficiency. When there is no high quality scientific manager, even if the scientific facilities and conditions are very good, scientific activities can't be carried out effectively. University can adopt many kinds of ways to carry out planned and systematic training for scientific secretary to make them constantly adapt to the new demand for jobs. Such as organizing various kinds of professional training course about project application, intellectual property, patent applications,etc, launching short-term training in computer, foreign language, official documents,etc, and inviting outstanding scientific manager to do lectures about related projects. Besides that, university can also sent them to visit and learn from schools or scientific management department of scientific institutions which have good experience in management. Through borrowing or other way to create the practice opportunity for them, and assign them tasks with a purpose target to rich work experience of them.

#### **4.4 Establish and improve the incentive competition mechanism for scientific secretary**

Colleges should establish and perfect the incentive competition mechanism, create a positive work atmosphere, arouse the enthusiasm and enterprise of scientific secretary in scientific management. Leadership should give scientific secretary pressure to make them be real assistants in scientific management. For example, taking appropriate rotational hillock system, regularly adjusting someone who is not suitable for scientific management. It's a pressure to on-the-job personnel, and also a kind of motivation at the same time. It can prompt scientific secretary to learn and improve their methods of management actively, improve the quality of the whole management team.

#### **Conclusion**

During the scientific management in colleges, scientific secretary should carry out all tasks, response for the specific implementation, and be a bond of the scientific activities in university. Colleges scientific management under the background of production-study-research cooperation, requires that scientific secretary must have a perfect personal qualities and strong professionalism. How to fully mobilize enthusiasm and subjective initiative of scientific secretary, giving full play to management function of scientific secretary, is the problem that should be pay attention to and be solved well during the colleges' scientific management work. Only in this way, university can ensure the orderly and efficient development of scientific research under the special working conditions that teachers are relatively scattered.

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