

# On the Significance and Measures of Improving Literature Reading Ability for Undergraduates

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**Abstract.** At present, the curriculum and training objectives of Chinese undergraduates pay less attention to the cultivation of their literature reading ability. More attention is paid to the study of textbook knowledge. This paper has studied the importance of literature reading ability for undergraduates, graduates and employees and the status quo of undergraduate education in China. This paper has also proposed measures to improve the literature reading ability of undergraduates by setting up literature reading training classes for undergraduates, adding literature reading links after specialized courses and offering paper writing courses. The improvement of the literature reading ability of undergraduates will have a positive impact on their future.

**Keywords:** Literature reading ability, training classes, undergraduate education.

## INTRODUCTION

Undergraduate education is the transition from high school to graduate education or work. Undergraduate programs should move from high school basics to a specialized field. College students should not only study general knowledge courses, but also study the latest researches in a large professional background. The undergraduate stage should also be the cultivation stage of independent exploration and thinking. The model of undergraduate education must not be limited to textbooks. Undergraduate education should enable students to understand the history and latest progress of their majors and understand the value of what they have learned. As a result, students will be more likely to innovate.

Most Chinese high school students still receive exam-oriented education. Exam-oriented education is usually regarded as a kind of educational system that regards improving students' exam-oriented ability as its main purpose. It attaches great importance to exam results, with recitation and memory as the core of teaching (Liu and Chen, 2020). The students spend a lot of time

studying textbooks and doing a large number of exercises to get better exam results. The advantage of exam-oriented education is that it can provide students with a relatively fair and just environment. But the one-sided education view of exam-oriented education as the educational goal has more and more adverse effects. In order to change the value orientation of score first in the old elite education period, China has put forward the task of developing diversified characteristics of ordinary high schools. However, due to the ideological influence of elite education stage, high school education still emphasizes the selection and elimination, focusing on the graduation rate. So in most high schools, the idea of "college entrance examination first" still prevails. Students in high school are more of a kind of memory thinking, learning existing knowledge and solving existing problems. For a long time, students lack the space and time to think independently, and they will not actively develop the consciousness of studying and the spirit of exploration related to thinking ability (Liu and Chen, 2020).

As explorers in the field of scientific research, graduate

students need to broaden their horizons, understand different fields, and grasp the research trends in the field of scientific research. In the training of graduate students, more attention should be paid to cultivate students' ability to find and solve problems independently. The writing of scientific papers also plays an important role in graduate education. Since most students do not begin to learn the writing of papers until the postgraduate stage, there will be many problems in the writing process of academic papers, such as irregular paper format, lack of innovation, lack of literature review and so on (Yu *et al.*, 2020). The ability of writing papers requires extensive literature reading. Similarly, the ability to find and solve problems independently also depends on literature reading. Only when you know enough about the research directions and problems of other experts, can you understand the existing research and put forward your own new insights. After summing up the previous research methods, the students keep exploring and put forward new solutions.

In work, the literature reading ability is also very important. Every unit and every department have to deal with a large amount of written materials every day. The timely and effective reading and processing of such written materials is fundamental to ensure that the work tasks can be done properly. If an employee has strong enough literature reading ability in the undergraduate stage, he or she can be more proficient in reading materials in work. In addition, when we meet difficulties in work and can't come up with a solution, we should consult and read the literature purposefully, which can help us solve the problem quickly. Therefore, literature reading ability is also indispensable in work.

However, many college students in China cannot read literature efficiently, or even have no literature reading experience in the undergraduate stage. It has caused great problems in reading and writing scientific papers for graduates and employees. Therefore, without the ability of reading literature, it will have a great negative impact on both further study and work.

## **SIGNIFICANCE OF LITERATURE READING ABILITY**

Reading enables us to learn, to think and to judge by ourselves. By effectively reading existing information, we can generate new approaches and discoveries. Literature reading, as a major part of academic reading, enables readers to improve their academic research ability and academic quality by reading previous studies. It promotes us actively to understand, reflect, critical explore and apply existing methods. Literature reading can broaden the scope of learning and improve our ability of understanding, absorbing and application. A broad academic vision is the basic academic accomplishment for academic researchers.

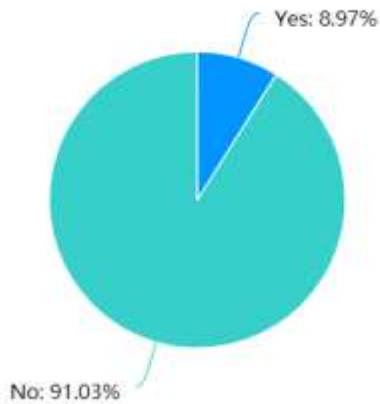
For undergraduates, literature reading ability is very important. Good reading ability can help college students

better read and understand textbook knowledge. This can improve students' learning efficiency. Relevant literature reading can also help students understand the cutting-edge research of their majors and understand the significance of learning their majors. It can stimulate students' interests in their majors. In the process of reading literature, students can not only learn new knowledge, experience the fun of studying cutting-edge academic issues and stimulate innovation potential, but also exercise the ability of independent thinking and put forward their own innovative ideas (Zheng and Chen, 2020).

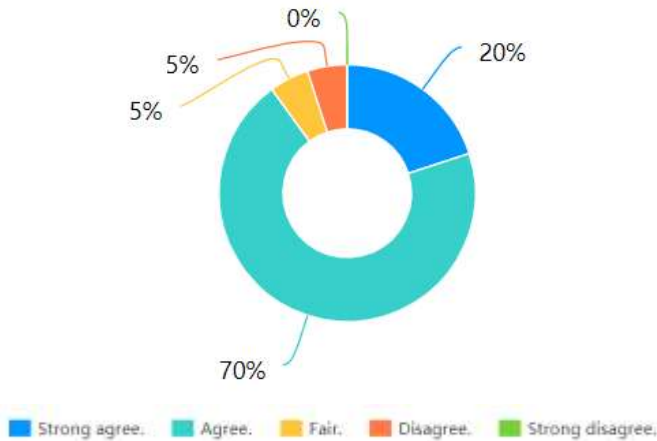
Nowadays, the trend of globalization and international competition is increasingly fierce. As high-level innovative talents, graduate students should constantly shape their own innovation ability, keep pace with the times, expand their scope of knowledge through reading literature, and improve their own connotation and innovation ability. In January 2017, the state council issued *the Outline of the 13th Five-Year Plan for National Economic and Social Development of the People's Republic of China*, proposing to improve the curriculum system of innovation and entrepreneurship education and improve students' literature reading ability.

For graduate students, literature reading helps clarify research problems and research methods. Literature reading is a basic way for graduate students to understand and master academic dynamics. And improving the level of literature reading is a necessary link for graduate students to cultivate their scientific research ability and innovation ability (Feng and Shen, 2014). Students are inspired by classroom teaching. If the students want to go further into academic field, they must have a lot of academic knowledge related to or similar to their own discipline. Literature reading is conducive to help graduate students sort out and summarize the literature on professional knowledge. Thus they can determine what research problems they decide to solve and what measures they will adopt. Literature reading also helps draw lessons from the existing literature, constantly improve and sum up more efficient and more complete research methods. The academic innovation of graduate students is based on the enduring and profound grasp of subject knowledge. Only through reading and thinking of literature can graduate students cultivate their own academic innovation ability. Due to the large amount of literature in the professional field, the distinction between difficulty and complexity, and other constraints, students cannot grasp the dynamic changes in the professional field in a timely and effective manner. Therefore, the scientific method of literature reading is very important.

For those who are already working, the ability of reading literature is also crucial. When encountering difficult problems in work, literature reading can help to find effective solutions and methods. Literature reading can also help people to improve the deficiencies in the



**Figure 1.** Survey results on whether literature reading course is offered at undergraduate level.



**Figure 2.** Degree of recognition of the fact that the literature reading courses are very helpful for the follow-up study or work.

current work and propose innovations. In the busy work every day, there will be a lot of written materials to read and deal with. Excellent literature reading ability will help us to finish our daily work efficiently. Therefore, literature reading ability is also an indispensable skill in work.

In a word, literature reading plays a very important role for undergraduates, graduates and those who have already worked. Therefore, it is of great significance to cultivate college students' literature reading ability.

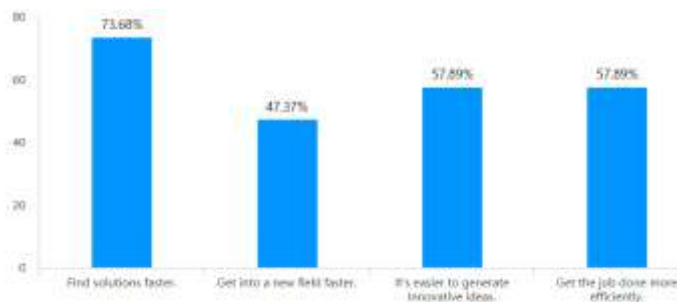
### Current Situation of Undergraduate Education

At present, most undergraduate education in China is conducted in a broad range. The main teaching method is still to explain the existing textbook knowledge. Taking electrical engineering undergraduate education as an example, during the four-year undergraduate study, the

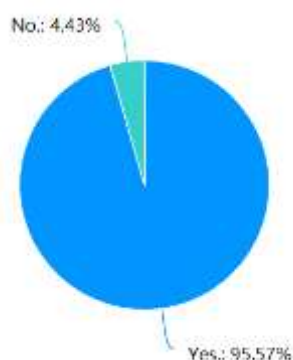
students will learn mathematics, physics, circuit, electromagnetic field, embedded system, computer, network security, coding and many other courses. The teaching mode of these courses is usually studying traditional textbooks and doing exercises after class. In the undergraduate experimental courses, the usual teaching method is also that the teachers assign the experimental tasks that the students need to complete and the students get the expected results through the methods given by teachers. In fact, this method continues the principles of high school education and tests the learning effect of students by answering questions given by the teachers to fix the correct answers. The traditional teaching method makes students lack of the ability to think independently. In the classroom, the teachers directly tell the students what they need to learn and how to learn. Teachers are only responsible for teaching, while students are only responsible for learning. The lack of interaction between teachers and students is not conducive to the cultivation of creative thinking of students, which is not in line with the goal of cultivating innovative talents in colleges. A more reasonable teaching mode should ask students to read by themselves, look for problems and find their own solutions. On the other hand, in traditional teaching mode, students can only learn the fixed principles and formats of the textbooks. The knowledge system of college students should keep pace with the times and keep up with the latest developments in the profession. Only in this way can we cultivate talents that are suitable for social development.

A questionnaire survey of 223 people in graduates and employees was done about literature reading. We collected the questionnaire results and analyzed the data. Figure 1 shows the survey results of whether they have taken literature reading courses at the undergraduate level. It has been shown that 91.03% of them have not received any literature reading training when they were undergraduates. It indicates that there is a serious lack of literature reading courses at the undergraduate level. Figure 2 shows that among those who have taken the literature reading courses, 90% of them strongly agree or agree that the courses have played a very helpful role in their follow-up study or work. Figure 3 shows the specific effects of literature reading courses in the follow-up study or work. The effective literature reading training can help find solutions faster and generate innovative ideas easier when people enter into a new field and encounter difficulties. Because literature reading can make us know the history and development tendency clearly. So we can get inspiration from predecessors' researches. As Isaac Newton famously said: "If I have seen further, it is by standing on the shoulders of giants."

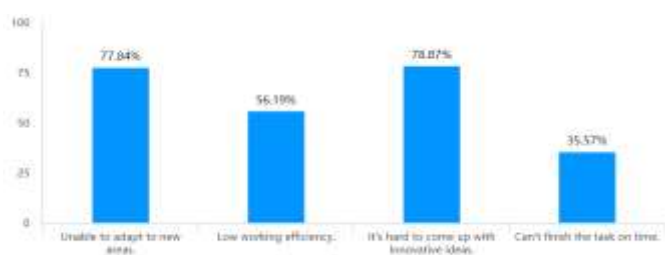
Figure 4 shows the survey results of whether those people who have not received literature reading training feel that the lack of literature reading courses has a negative impact on their subsequent learning or working.



**Figure 3.** Survey results on the specific effects of literature reading courses for the follow-up study or work.



**Figure 4.** Survey results on whether the lack of literature reading courses has a negative impact on future study or work.



**Figure 5.** Survey results on the specific effects of lack of literature reading courses for the follow-up study or work.

Among them, 95.57% think that it has negative influence. Figure 5 shows the survey results on the specific effects of lack of literature reading courses for the follow-up study or work. It's shown that it would be more difficult to solve the complication in study or work because of the lack of literature reading training. Because they can't find out the valuable information. As a result, it would lead lower efficiency and can't finish the tasks on time.

Figure 6 shows the survey results of the degree of recognition of the fact that it is necessary to offer literature reading courses in undergraduate study. 78.02% of them strongly agree or agree that it is

necessary to start literature reading courses in undergraduate stage. It has been shown that the literature reading courses at the undergraduate stage is in great demand.

It can be seen that the neglect of the cultivation of literature reading ability in undergraduate education will cause students to face great problems in follow-up study and work. Professional literature reading is very important for undergraduate students' professional learning, further study after graduation, and professional information acquisition in work. However, at present, undergraduates generally lack the ability of reading and using professional literature (Li *et al.*, 2012). Therefore, it is necessary to put forward effective measures to improve the literature reading ability of undergraduates.

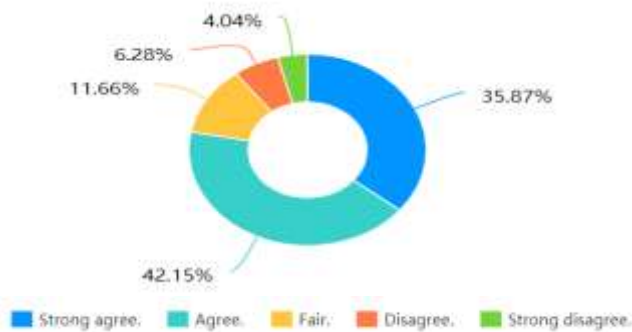
### Measures of Improving Literature Reading Ability of Undergraduates

Different from high school education, undergraduate education should be more about active learning rather than passive learning. In addition to the knowledge in textbooks, most of the knowledge students acquire comes from reading, including extracurricular books and literature (Zhu and Gao, 2018). The teaching of literature reading was originally a course for graduate students. However, with the rapid development of science and technology, the society has higher and higher requirements for talents. At the undergraduate stage, it is more and more urgent to carry out literature reading teaching and cultivate undergraduates' scientific research thinking and innovation ability. The ability of reading scientific research papers is considered as a basic skill for college students (Coil *et al.*, 2010). Engineering professors believe that getting college students to read more literature at the beginning of their studies can improve their writing and reading skills in specific subjects (Anthony and Lashkia, 2003; Lax, 2002).

Therefore, it is very important to strengthen the literature reading ability of college students. The cultivation of undergraduate literature reading ability should be combined with traditional teaching courses. On how to improve the literature reading ability of college students, I have three suggestions.

#### A. Add Requirement of Literature Reading to the Subject Cultivation Plan

First, add the requirement of literature reading to the subject cultivation plan. Undergraduate students can increase special courses in literature reading. In the literature reading class, students should be taught how to find the literature that they need. Literature retrieval is the basis of literature reading. It directly determines the richness and reliability of the information we have found,



**Figure 6.** Degree of recognition of the fact that it is necessary to offer literature reading courses in undergraduate study.

thus affecting the learning outcome. So how to search literature should be the first lesson of the literature reading courses. The teaching content of how to retrieve literature should include how to determine the topic and keywords to search, how to find the suitable database to search, and how to download the required papers.

Then how to find the key points in a literature, how to read the literature quickly and what order to read the literature should be taught. The number of literatures is very large, and the length of each one is also very long. If the students don't make a choice and don't know which one should skim and which one should read closely, it will become very difficult to get useful information. Therefore, it is also crucial for the research process to be able to select effective information from numerous literatures.

What's more, the summary of literature should be taken as a very important part of the course. Otherwise, even if the required literature is found, the key points cannot be clearly distinguished after reading, so it is impossible to effectively analyze and refine the literature. Even the understanding of the article appears error and deviation. It can make further innovation very difficult or lead to imprecise academic behavior.

Finally, how to make further innovation according to the literature reading is also the content that the literature reading class should teach students. Literature reading is not simply the pursuit of reading quantity. The fundamental purpose of literature reading is to understand the history and current situation of the researches and find out the shortcomings of the researches. So that students can make further improvement and innovation on the basis of the present researches. Therefore, how to find the innovation breakthrough point in reading literature is the most important part of this course.

## B. Add Literature Reading Section to Original Courses

After the teaching of these basic literature reading skills,

students should also be taught according to their majors. Different professional literature reading methods have different emphases. There are different theories about literature reading and writing in liberal arts, science and engineering. Different majors in each field will also have different points to focus on when reading papers. Truly efficient reading of literature in one's own field is the most essential.

How to search and classify the literature of the major is the knowledge that every college student should learn in class. These skills can help students quickly find the literature they need and master the key points. It will help improve learning efficiency effectively. As college students, we must keep abreast of the history and latest developments in our research fields. Only in this way can we innovate and make progress effectively.

An effective and quick way to do it is to add a literature reading section to each original course. Each specialized course should include the training and assignments of literature reading. According to the different courses, the teacher assigns the literature reading tasks related to this course. For the specific direction of the courses, students are required to read the latest research progress reports and make a report in class in the form of a group, describing their own ways to find literature and methods of reading literature. At the same time, the students talk about the new techniques or methods they have learned from the literature and offer their own suggestions for improvement. At the end of the report, other students can put forward their own questions and comments. The truth is in the debate. In the discussion, students can correct and improve themselves. The process of achievement presentation is a process of discussion, which can not only improve the logical thinking ability of students, but also exercise the language expression ability. The participation of students in collective discussion is a process of absorbing the opinions of others and revising their own viewpoints, which can draw on each other's strengths and spark ideas. After each group report, the teacher makes comments to point out the existing problems, so that the students can make faster progress. In the classroom, the traditional teaching mode should be changed, and the students should be the main body and the teachers should play a leading role. In this way, students can have a clear understanding of the problems to be solved in each course and have a clear plan for their future direction. Only in this way can the students put what they have learned into practice and gain the greatest value in the future development.

The teaching method accords with Bruner's teaching principle and constructivism learning theory. The viewpoints of Bruner's teaching principle mainly include learning view and teaching view, whose structure is shown in the Figure. 7. The view of learning reveals that the essence of learning is the process of actively forming cognitive structure. Learning includes three processes: acquisition, transformation and evaluation. The purpose

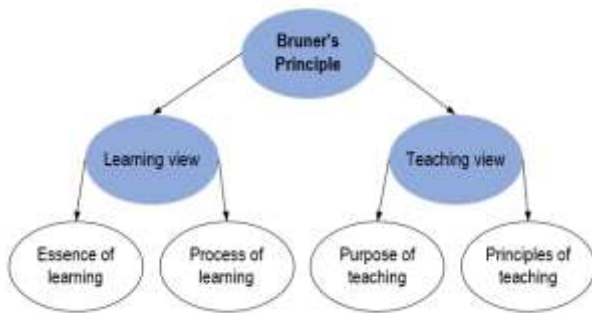


Figure 7. Bruner's teaching principle.

of teaching is to understand the basic structure of the subject, and he advocated discovery learning. Using discovery method in class, instead of presenting the conclusion directly to the students, students can explore and draw the conclusion by themselves, which is conducive to the development of students' subjective initiative. Adding literature reading section to original courses accords with the acquisition of Bruner's teaching principle. It also inspires the students' spirit of exploration. The teacher's comment process also follows the evaluation of Bruner's principle.

### C. Increase Paper Writing Courses

The ultimate purpose of literature reading is application. After reading literature effectively, the students should learn to put it into practice. Thesis writing is an important embodiment of literature reading achievements. Only through effective and extensive literature reading, can they write high quality scientific papers. The problems in the paper writing can also reflect the key points not noticed when reading literature. In the paper writing class, students can choose a topic according to their major. Then, literature search and reading can be conducted. After reading the literature, the students should find out the deficiency of existing research and make improvements. Finally they should write their research results in the format of scientific papers and present them in class. The teacher should give guidance on the deficiencies in the paper and correct and guide the problems in the corresponding literature reading. The paper writing courses also follows the learning view of Bruner. It is the result transformation of literature reading.

By offering literature reading training courses for undergraduates, adding literature reading links after specialized courses and increasing paper writing class, the ability of undergraduates of reading literature can be effectively improved. It not only teaches students how to read literature, but also how to write scientific papers.

More importantly, it enables students to master the most cutting-edge knowledge and research progress in the field. In the further study and work, the excellent literature reading ability will play an extremely important role.

## CONCLUSION

This paper analyzes the importance of literature reading ability to undergraduates, postgraduates and staff, and expounds the current situation of undergraduate education. Based on the analysis, the teaching goal of strengthening the reading ability of undergraduate literature is put forward. Aiming at the teaching goal, this paper has proposed three measures to effectively improve the literature reading ability of undergraduates by providing instructive literature reading courses for undergraduates, setting up literature reading sections for each specialized course and increase paper writing class. As a result, it can lay a solid foundation for undergraduate students to their study or work in the future.

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