A Study on the Promotion of Information Literacy of College Students in NBUFE Under the Background of “Internet + Smart Classroom”

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The new technical era is guiding the revolution of education and the most apparent part is information literacy in smart classroom, which conduces to self-study. There are three main steps to information literacy, including searching, comprehending, and applying information. Taking NBUFE students as subjects, the paper explores the current situation and analyzes the problems of students’ information literacy via SPSS analysis. The research finds that there is a positive correlation between information literacy and study effectiveness. At last, it presents some feasible and valid suggestions in the hope of bettering students’ information literacy, which exerts a positive impact on study effectiveness.

Keywords: smart classroom, information literacy, the usage of technologies, correlation analysis, study effectiveness

Introduction

Information literacy is a competence that requires students to acquire and sort out the needed information, grasping the main meaning or the key point.

The core of information literacy is the usage of technologies, including selecting information, classifying information, synthesizing information, and absorbing information to serve for enlarging the spectrum of original knowledge. To be specific, the first step is selecting. By virtue of websites or apps, the categories of information are presented and the key words are conducive to find out the main information. The next is classifying and synthesizing information. Based on the selected information, this step is necessary for students to make a further thought and facilitate information concise and comprehensive. The last step is absorbing the information. The usage of technologies is to acquire and accumulate the needed information. It also requires students master the ability proficiently.

The paper makes a research on the students’ information literacy, including current phenomena and problems. Through SPSS analysis, the research makes a further exploration on the relevance between information literacy and study effectiveness. Afterwards, related countermeasures are listed in the hope of improving information literacy.

Literature Review

A majority of scholars hold their own perspectives on this topic.

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Agosto (2005) states that information literacy is an essential skill for information era. He divides into 10 chapters while the core in chapters is combing information literacy with education. It contributes to problem-solving and decision-making more efficient. Besides, Bill and Sheila (2003) contend information literacy exerts far-reaching impact on higher education. It is not only the need for teachers but also for students. Liu and Xie (2019) state that information literacy determines the study result named “searching as learning”. In digital era, the development of advanced technologies extends the mode of study and life which is convenient to explore new field and knowledge. It is an essential part for students to search online information and share the viewpoints. Hence, students used them to make social communication and solve problems. In education, there are three learning stages, that is, receptive learning, critical learning, and creative learning and the development of three modes is closely linked with the usage of technologies. He and Zhong (2006) has investigated students’ attitude, learning strategies and modes to explore the related research on the usage of technologies. Various technologies have a logical connection through integrating or sorting out the information.

To sum up, scholars hold the viewpoints that information literacy, apparently, is a feasible and valid competence to improve study effectiveness.

Research Design

Taking students in Ningbo University of Finance and Economics for example, the study makes a research on the phenomena and problems of information literacy. The data stem from different majors in Ningbo University of Finance and Economics. The questionnaire is designed on the current situations and problems of the usage of technologies in different aspects, such as the frequency of applications and websites and the note-taking applications. Based on the questionnaire as the main research method, the data are collected fairly and randomly. The result of questionnaire finds that students’ information literacy is insufficient, such as the lack of consciousness and motivation. The significant part of research is SPSS analysis which is conducive to make a further exploration and find out the relevance between information literacy and study effectiveness.

Results and Discussions

Based on scholars’ previous research and major findings about information literacy, utilizing the questionnaire as the main method, after that, I make an investigation and analyze the data from the phenomena and problems of college students’ information literacy. Moreover, the relation between information literacy and study effectiveness will emerge through SPSS analysis, that is, positive correlation.

Lacking the Frequency of Using Applications and Websites

Taking question 2 and question 5 for example, the study is to figure out the inner relation. From Table 1, it is found that there is a close clue that the usage of websites and apps has the same tendency with learning, that is, positive correlation.

Through SPSS analysis, the data illustrate the link between information literacy and study effectiveness. To be specific, foreign websites and apps make a supplement on original knowledge, which is based on the native culture and background. Furthermore, owing to the understanding of English culture, the thoughts of critical English can be fostered, gradually. When the students used to apply it into study, the grades will improve as the expected.
A STUDY ON THE PROMOTION OF INFORMATION LITERACY OF COLLEGE STUDENTS IN NBUFE

Table 1

Question 2 and Question 5

<table>
<thead>
<tr>
<th>Question 2 and Question 5 Correlation Analysis</th>
<th>2. How often do you utilize the foreign websites or apps to aid your English learning?</th>
<th>5. What do you think of the effect of apps and websites in your study?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. How often do you utilize the foreign websites or apps to aid your English learning?</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>109</td>
</tr>
<tr>
<td>5. What do you think of the effect of apps and websites in your study?</td>
<td>Pearson Correlation</td>
<td>0.805</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>109</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 level (2-tailed).

Lacking the Frequency of Using Apps to Take Notes

Taking notes is regarded as the valid and efficient method to review the knowledge. Hence, in view of the limited time in class, students will inevitably omit some message informed by teachers. Question 3 and Question 6 explore the phenomena about utilizing the note-taking apps.

Table 2

Question 3 and Question 6

<table>
<thead>
<tr>
<th>Question 3 and Question 6 Correlation Analysis</th>
<th>3. What do you think of your information literacy when you search the needed information?</th>
<th>6. Do you prefer to use apps (such as GoodNotes) to take notes in class?</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. What do you think of your information literacy when you search the needed information?</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>109</td>
</tr>
<tr>
<td>5. Do you prefer to use apps (such as GoodNotes) to take notes in class?</td>
<td>Pearson Correlation</td>
<td>0.623</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>109</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 level (2-tailed).

Armed with the occasion, it is significant to understand the structure, highlights, and notes which exert essential impact on study. According to the table, it is mainly find out that students are unfamiliar with GoodNotes (an application to take notes) and also lack the instructions on how to utilize it. Consequently, the students, lacking the consciousness of using applications to take notes, are short of information literacy. Taking good notes is a microcosm of study effectiveness. Namely, it testifies the positive correlation between information literacy and study effectiveness.

Lacking the Access of Searching Information

Based on the tendency of using familiar applications and websites, Question 15 and Question 19 explore the significance of the access of searching information.

Being confronted with confusion on certain knowledge such as phrases, grammar, or collocation, students are supposed to acquire the needed information by virtue of websites or applications. Generally, students need to sort out and integrate the selected information. In other words, one approach could not reach a comprehensive understanding. Nevertheless, in accordance with the table, students state that they lack the
access to search information and then it triggers a consecutive effect, such as making an adverse effect on study and the reduced enthusiasm on improving information literacy.

Table 3

<table>
<thead>
<tr>
<th>Question 15 and Question 19 Correlation Analysis</th>
<th>15. Do you think lacking the access to searching information hinders the development of your English learning?</th>
<th>19. Do you often prefer to choose the familiar apps or websites?</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Do you think lacking the access to searching information hinders the development of your English learning?</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>109</td>
</tr>
<tr>
<td>19. Do you often prefer to choose the familiar apps or websites?</td>
<td>Pearson Correlation</td>
<td>0.396</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
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<td></td>
<td>N</td>
<td>109</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 level (2-tailed).

Lacking the Competence on Screening out the Information

Picking out the needed information is a basic step for absorbing and applying information and also a component of information literacy. Figure 1 researches the phenomenon on the frequency of sorting out the differences and similarities.

![Figure 1](image.png)

*Figure 1.* The habit of finding out the differences or similarities in selected information on study.

Finding out the differences and similarities is of significance to sort out the selected information and it is crucial for students to foster an ability on critical mind. According to the picture, various students are unwilling to sort out the selected information. In most cases, students often mix some incoherent information and then they will misunderstand on that. A series of trivial information will lead to unreasonable thoughts. Owing to lacking the step about recognizing the differences and similarities via technologies, the result of learning is not in accordance with expectation.

Lacking the Proficiency on Utilizing Applications

The picture depicts the frequency of learning new applications. Most students are unwilling to spend time in learning the whole functions of applications. By contrast, they are inclined to choose familiar applications.
Mastering the functions of technologies facilities students to make a further exploration on selected information, thus, students are supposed to spend extra time on learning the technologies. The picture depicts that a soaring number of students are not eager to learn the instruction of technologies and rest with the familiar applications. Under that condition, the mastery of information literacy is just as the tip of iceberg. Lacking the interest in learning a new application will be detrimental for collecting the needed information. When students are confronted with tough problems, they tend to be in a dilemma because of the restriction of applications.

To sum up, armed with the findings, it verifies the close relevance between information literacy and study effectiveness, namely, positive correlation.

**Countermeasures on Improving Students’ Information Literacy**

Being aimed at the phenomena and problems, the countermeasures are suggested as follows. First and foremost, news broadcasting is the optimal method to better information literacy. In viewing of the complex structure and variety, it requests students to get good command of the usage of comprehensive searching skills, picking out the best news via websites and apps. Furthermore, previewing the text is of significance opportunity to enhance information literacy. The usage of applications facilitates to solve the confusion on grammar, vocabulary, and sentence structure. The next is presentation. The preparation for presentation is also a process to enhance students’ information literacy by virtue of selected and integrated information effectively and apparently. Apart from that, test is a way to realize the merits and demerits in study which is also conducive to comprehending the knowledge. Gaining good grades drives students to make a supplement and absorb information thoroughly via websites and apps.

**Conclusion**

The thesis explores the current situations and problems on students’ information literacy and then makes a further discussion on the relevance between information literacy and study effectiveness. Through the questionnaire, the results emerge the essence of phenomena and latent problems. Based on the research, the trend in the figures embodies the positive correlation between information literacy and study effectiveness via SPSS analysis. As the figures depict, mastering proficient information literacy is a cornerstone for study. It is not only facilitating students to dig out more information, but also conducing to cultivating critical thoughts.
Moreover, the critical thoughts aid the improvement of study, more systematic and more logical. In the end, some feasible suggestions are put forward in the hope of facilitating the improvement of information literacy.

References