

An Empirical Study of College Students' Fragmented English Learning

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ABSTRACT. *This paper takes college students in some domestic universities as survey objects, investigates college students' English fragmented learning cognition, learning characteristics, and learning effects. It also analyzes the influencing factors of college students' English fragmented learning, and puts forward the guidance and teaching strategies, in order to explore how college students can use fragmented learning in the era of information technology to effectively optimize the learning experience*

KEYWORDS: *Fragmented English learning, empirical analysis, teaching strategies.*

1.Introduction

On August 20, 2018, the 42nd Statistical Report on Internet Development in China issued by China Internet Network Information Center (CNNIC) showed that as of June 2018, the number of Chinese Internet users reached 802 million, a year-on-year increase of 3.8%, and the Internet penetration rate is 57.7%. Among them, online education users reached 144 million. With the popularization of mobile intelligent terminal and the improvement of network infrastructure, the contents and methods of learning have undergone profound changes, and fragmented learning has emerged. However, this novel and flexible learning method also has some shortcomings. How to make full use of the advantages of the information age and how to effectively optimize the learning experience are important issues to be explored in the English education community.

2. Purpose, Design and Significance of the Research

2.1. Research Purpose

Fragmented learning has strong technical support. Cloud computing technology can aggregate a large number of resources into a large amount of storage, and has a huge computing power. It can aggregate and collaborate a large number of information and processor resources stored on personal computers, mobile phones and other mobile devices. 4G network quickly links the fragmented learning resources stored in the cloud to various mobile devices, and realizes synchronous interaction, which allows a variety of fragmented learning applications to help learners more autonomously and conveniently carry out fragmented learning. This study attempts to obtain the characteristics, rules, and influencing factors of college students' fragmented English learning through empirical analysis, and aims to provide reasonable support for college students' English learning research and teaching mode reform in the era of English fragmentation learning.

2.2. Research Design

Based on literature research and expert interviews, the research team has compiled a questionnaire on College Students' English Fragmented Learning Status to comprehensively investigate college students' English fragmented learning cognition, learning characteristics and learning effects. The subjects of this survey are college students from domestic universities and obtained 620 valid questionnaires. By testing the reliability and validity of the questionnaire, we found that the validity of the questionnaire in the three dimensions of learning attitude, learning resources and learning management reached 0.870, 0.889 and 0.929 respectively, with a KMO value of 0.926, which makes it suitable for factor analysis in subsequent studies.

2.3. Research Significance

This research enriches the basic methods of "Internet + teaching". Under the background that the academic circle is limited to the functional analysis of technology and equipment in promoting the change of teaching form, especially putting a lot of energy into the application and evaluation of micro class and MOOC class, this study attempts to go beyond the dialectical analysis of complete academic level, introduces the empirical research method, and provides a general and specific solution from the perspective of teaching. It is helpful to promote the deep learning of college students in the era of English fragmented learning, improve the learning effect, eliminate the superficial, utilitarian and one-sided defects of college students in the era of English fragmented learning, so as to not only promote the innovation of English teaching methods, but also improve the quality of College English teaching.

3. Findings and Discussion

3.1. Learning attitude

Table 1 shows college students' cognition and attitude towards English fragmentation learning. It can be seen that only 38.71% of the students understand this way of learning, and 31.94% of the students equate English fragmented learning with mobile learning. The proportion of students who like to study English in fragments is 42.58%, while the proportion of college students who are willing to use their usual fragmented time to study has reached 52.58%. On the whole, most students don't have a special understanding of English fragmentation learning style, but many students like and are willing to actively try this learning style.

Table 1 Analysis of English Fragmented Learning Attitude

Secondary indicators	Questions	Exact and Comparative Percentage	Mean/ Standard deviation
Cognition	1. I know fragmented English learning is a learning method.	38.71%	2.70(1.090)
	2. I think the fragmented learning style is the same as the mobile learning style.	31.94%	2.97(0.997)
Recognition	3. I like fragmented English learning.	42.58%	2.76(1.029)
	4. I am willing to use fragmented time for fragmented English learning.	52.58%	2.54(1.047)

3.2. Learning resources

Table 2 shows the types, content selection and acceptance of college Students' English fragmented learning resources. It can be seen that, in terms of the ability of resource selection and acceptance, the percentage of complete and relatively consistent choice is more than 50%, and the mean value is less than 3, which shows that the two abilities of college students in the process of English fragmented learning are relatively good. At the same time, we also found that in the process of resource type selection and resource content acceptance, due to the fragmented learning, the standard deviation is higher than 1, which shows that college students have significant differences in this option.

Table 2 Types and contents of English fragmented learning resources

Secondary indicators	Questions	Percentage of compliance	Mean value
Selection ability of resource type	5. I often choose complete and fluent resource types (such as text, pictures, audio and video).	71.94%	2.01(0.944)
	6. I choose to present fragmented English learning content in the form of text when the Internet speed is slow.	57.42%	2.33(0.99)
	7. I choose to present fragmented English learning content in the form of pictures, audio and video when the Internet speed is fast.	72.26%	2.02(0.936)
	8. The network traffic often exceeds because I do not consider the type of resources.	35.16%	2.96(1.212)
Receptivity of resource content	9. I often learn knowledge and skills related to my profession in English fragmented learning.	54.52%	2.41(0.912)
	10. I often learn some knowledge such as life care, science popularization and encyclopedia in English fragmented learning.	51.61%	2.52(0.954)
	11. I often study English test knowledge such as CET-4, CET-6, teacher qualification and so on in English fragmented learning.	41.29%	2.68(1.044)
	12. I often learn some news and entertainment knowledge in English fragmented learning.	51.61%	2.48(0.987)

Table 3 shows the results of acquisition ability of English fragmented learning resources. It can be seen that college students have a relatively good ability to obtain English fragmented learning resources. Only 37.74% of the students often use some online libraries for English fragmented learning, while more than 55% choose to search English fragmented learning resources through databases, fragmented learning software and search engines. It is worth noting that the standard deviation of students in using the network library, database and learning software for English fragmented learning is higher than 1, which shows that there are significant differences in students' answers to these questions.

Table 3 Analysis of acquisition ability of English fragmented learning resources

Secondary indicators	Questions	Percentage of compliance	Mean value
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Resource acquisition ability	13. I often use search engines (such as Baidu, Google, etc.) in English fragmented learning.	67.42%	2.07(0.965)
	14. I often use the online resources in English fragmented learning (such as doc88.com, Baidu Library, docin.com, etc.)	37.74%	2.77(1.085)
	15. I often use databases in English fragmented learning (such as CNKI, Wanfang, Cqvip, etc.).	55.81%	2.31(1.001)
	16. I often use learning apps in English fragmented learning (such as TED, WeChat, etc.).	56.13%	2.38(1.053)
	17. I can find solutions or materials on the learning resource platform (such as learning app, database, search engine, etc.).	60.97%	2.25(0.942)

3.3. Learning management

Table 4 shows students' English fragmented learning time. 48.39% say they know what fragmented time they could use to learn English, and 30.97% of them spend fragmented time in learning English very frequently and could do it every day. 26.45% of students say they don't have the habit of using their fragmented time to learn English. Judging from the mean and standard deviation of each question, the mean value of the three answers about the time of English fragmented learning is between 2.53 and 3.01, and the standard deviation is greater than 1, which shows that different students have great differences in using fragmented time for English learning.

3.4. Effect of fragmented English learning

Table 5 shows the management of English fragmented learning resources. It can be seen that only 37.19% of college students are able to sort out the fragmented English learning resources they have learned on a regular basis, but 59.35% of college students say they can classify the learning resources according to some standards or norms. 54.19% of college students say although they don't manage the fragmented English learning resources, they could find the corresponding resources relatively quickly when they were needed. In addition, 60.52% of college students say that they could solve the related problems according to the knowledge in the fragmented English learning resources. Judging from the mean and standard deviation, the mean values of the four questions are below 2.5, and the standard deviation is basically less than 1, which shows that college students generally have a strong sense of fragmented English learning resource management, and the difference is not significant.

Table 4 Analysis of time in College Students' fragmented learning

Secondary indicators	Questions	Percentage of compliance	Mean value
Learning time	19. I basically know what fragmented time I have	48.39%	2.53(1.046)
	20. I don't have the habit of planning fragmented time and seldom arrange and manage fragmented time.	26.45%	3.01(1.011)
	21. I spend my fragmented time to study every day.	30.97%	2.86(1.008)

Table 5 Analysis of Resource Management in English Fragmented Learning

Secondary indicators	Questions	Percentage of compliance	Mean value
Resource Management	22. I can organize my own learning resources regularly.	37.19%	2.67(1.035)
	23. I can classify the acquired fragmented learning resources according to certain specifications (such as knowledge, tools, cases, materials, etc.).	59.35%	2.35(0.826)
	24. I can quickly find my own stored knowledge when I need fragmented learning resources.	54.19%	2.36(0.873)
	25. I can use the knowledge gained from fragmented learning to solve specific problems.	60.52%	2.45(0.927)

Table 6 shows the correlation between the problem scores of each dimension and the total scores. It can be seen that there are significant correlations between learning attitude, learning resources, learning management and the total scores. From the perspective of relevance ranking, the correlation between total score and three dimensions of learning attitude, learning resources and learning management is higher, reaching above 0.8; the correlation between learning resources and learning management is higher, at 0.611; the correlation between learning attitude and learning resources, learning management is lower, only 0.566 and 0.485, respectively.

Table 6 Data correlation analysis

Learning	Learning	Learning	Score
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	attitude	resource	management	
Learning attitude	1	0.566	0.485	0.864
Learning resource	0.566	1	0.611	0.875
Learning management	0.485	0.611	1	0.825
Score	0.864	0.875	0.825	1

3.5. Data result discussion

Based on the structural equation model analysis of the influencing factors of English fragmented learning, we center on the following three aspects:

First of all, the factor load of the external factors such as the learning environment, value certification, and family support on college students is 0.87. External factors act on internal factors, which has a relatively large impact on the perception of college English fragmented learning. The better the external environment of English fragmented learning, the easier it is to stimulate its internal causes to carry out English fragmented learning, so as to obtain better English fragmented learning results.

Secondly, internal factors such as cognitive level, learning attitude, and information literacy have a direct and positive impact on the perception of fragmented English learning, with a factor load of 0.84. This shows that internal factors can directly affect the perception of English fragmented learning. The stronger the subjective initiative of college students in fragmented English learning, the stronger the perception of effect they can obtain, thus improving the effect of fragmented English learning.

Finally, external factors have a direct and positive impact on the perception of the effectiveness of fragmented English learning, with an impact coefficient of 0.14. Although this direct impact exists objectively, its impact on college students' perception of fragmented English learning is very small, which indicates that in the process of college students' fragmented English learning, external factors will first act on learning perception through college students themselves. Only by fundamentally improving students' interest and enthusiasm in English fragmented learning can its effectiveness be improved.

4. Learning guidance and teaching strategies

Compared with traditional learning, fragmented English learning is a learning method with the characteristics of the times. It will undoubtedly change people's learning habits in subtle ways and play a role with lifelong learning. How to avoid its weaknesses and enable learners to effectively carry out fragmented learning, combined with constructivist learning theory, we put forward some useful ideas.

4.1. Make clear the purpose and improve the ability

Constructivism holds that learning is not a mechanical passive acceptance of knowledge, but an active analysis, recognition, and integration into their existing knowledge system. Therefore, College English learners should improve their ability to process fragmented information. If they don't want to be overwhelmed by a lot of information, learners should combine their own interests and purposes to improve rational thinking and judgment. They need to have a clear purpose, actively filter irrelevant information and improve the efficiency of knowledge acquisition.

4.2. Cultivate active thinking ability to solve practical problems

Although in the short term, the trend English fragmented learning content is in line with the operating characteristics of information media and the habits of learners, short-term browsing or memory knowledge cannot realize the construction and effective use of meaning. The construction of knowledge is achieved through the interaction of new and old knowledge experience. Learning is to acquire knowledge on the one hand, and to solve problems on the other. It requires long-term training in advanced thinking or logical thinking in learning. Combined with specific English learning problems and purposes, learners need to obtain relevant information and extract original knowledge to explain certain phenomena, establish hypotheses, and test in some way. This connection and reflection is not only the key to constructivist learning, but also an ideal way for learners to construct knowledge and develop problem-solving abilities.

4.3. Integrate knowledge structure based on English learning needs

Fragmented learning knowledge is usually updated very quickly, which greatly reduces the advantages of the knowledge held by learners, but if used properly, it will become a useful supplement to the personal knowledge structure. Therefore, learners should design a structured English knowledge system based on their English learning needs, which helps to screen for fragmented information. First, clarify the topics of knowledge and how many branches under these topics can help learning, and which knowledge points each branch contains, which knowledge points are relatively complete, and which knowledge needs to be further updated or supplemented? Therefore, by effectively subdividing and organizing knowledge fragments from top to bottom, these knowledge fragments can also help learners simply understand the connection between fragmented information, and can restructure the overall structure of knowledge through reorganization, thereby becoming easy to understand and remember.

5. Conclusion

The rapid wave of the Internet has promoted profound changes in the field of education, which has led to significant changes in people's teaching and learning methods. Fragmented learning has become a new way of College English learning. In essence, fragmented learning refers to learners' processing of knowledge fragments in a short time by dividing learning content and learning time. College English teachers should take a correct view of the advantages and disadvantages of fragmented learning. Starting from the practical application and the characteristics of students' physical and mental development, they should actively learn advanced educational information technology, discover and develop a variety of teaching platforms, so as to make college English teaching more interesting, educational and humanistic. At the same time, teachers should also guide students to integrate fragmented learning system to achieve the organic combination of fragmentation and systematization.

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