

Effect of Vocational College Students Interested in Reading Professional Books in CAI Network

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Abstract.

In current higher vocational college, the computer aided teaching is widely used, but the students have low interest in reading the professional book. Aimed to this problem, the computer aided teaching platform is extended to the network, through the forum, micro-blog and e-mail and other means, the students can acquire teaching resources whenever and wherever in possible. The three dimensional interactive teaching model is formed to promote the students' interesting in professional knowledge learning. Through the analysis of the survey of 146 college students, following conclusions can be obtained: the computer aided teaching network platform can improve the interest of students in reading professional books, the interesting teaching courseware with rich content can improve subjective learning interest of students, it has good application value in teaching practice. The students accept expansion network teaching platform have higher interesting in reading professional books than the students accept reading paper books.

Introduction

In recent years, with the rapid development of computer and network technology, computer aided teaching mode is widely applied in higher vocational colleges. Combining the multimedia teaching mode with sound photoelectric and image processing technology, the sensory acceptance ability of students is stimulated, and the learning interest of the students is improved. The teaching efficiency is improved greatly in the past ten years. But at the same time, with the rapid development of science and technology, the higher vocational education is facing more opportunities and challenges, more and more students are using intelligent mobile phone and other high-tech products for reading books, the reading habits of students is changing[1], it puts forward higher requirements for the higher vocational education. The higher vocational education needs to provide a broad learning platform for students with richer connotation knowledge and more vivid and colorful teaching methods. The teaching quality and efficiency can be improved. More space and time are saved for developing the independent operations and activities for students. In order to cultivate high-quality talents with modern consciousness, in this paper the computer aided teaching platform is extended to the network, through the forum, micro-blog and e-mail and other means, the students can acquire teaching resources whenever and wherever in possible[2]. The three dimensional interactive teaching model is formed to promote the students' interesting in professional knowledge learning. Research results show that this mode has good application value in practice.

Computer aided teaching and network

Computer assisted instruction (CAI) is developed in this modern society, its development has made the teaching form and mode changed greatly, in order to improve the teaching quality and efficiency, CAI is integrated into the practice of teaching in all subjects through various forms of image and sound, CAI uses the open style teaching form, the dynamic electronic courseware, multimedia tutorials and man-machine interactive exercises and other means are used in the CAI system, students are defined as the teaching main body status in CAI, their enthusiasm of the students are mobilized and stimulated. The teaching quality is greatly improved. CAI overcome the problems of traditional such as teaching method is single, teaching content is too stiff, etc. So that students can overcome the limitation of space and time, their imagination and creativity are developed fully[3].

Computer aided teaching not only can reduce the unnecessary time, teacher imparting process cost is reduced, and improve teaching efficiency, but also has it has the characteristics of vivid expressing forming. The teaching content of computer aided teaching process is more simple and concrete, it can improve the efficiency of the students accept the teaching content, furthermore, the computer aided teaching also pay attention to combine chart and color, sound and images, dynamic and static. The form is novel with diversity. The current higher vocational teaching usually make the teaching content into an electronic courseware, courseware content is developed from easy to difficult step by step. Electronic courseware also can enlarge the text, change the color, the important contents are focused on and emphasized. It can deepen students' memories and impression. Electronic courseware can contain a large number of teaching contents, so it is able to span the boundaries of time and space, and the horizontal comparison is analyzed to strengthen communication and contacts between knowledge of different subjects[5].

The computer aided teaching can fully demonstrate its strong creativity and superiority, with the advent of micro-blog, blog and other communication platform, the computer aided teaching is faced with the problem of upgrading technology, platform extension etc.. In recent years, the number of vocational college students increased rapidly, the growing learning space requirements of students has contradictions to the existing education resources, our schools need to build more broad learning platform for students, and make more interesting courseware to meet the needs of students in Higher Vocational colleges.

According to the computer aided teaching based on network teaching platform, the computer assisted instruction is extended to the high-speed network, including network multimedia courseware system, multimedia classroom system network and the network distance education system. Existing multimedia classroom and teaching resources are limited in current vocational colleges, the network assisted teaching system platform should be constructed, it can enable students to acquire resources for learning professional whenever and wherever in possible through the network, also it can provide students with more flexible learning mode. The CAI teaching based on network teaching platform can enable students to use network access to the latest knowledge, and the students can use the computer, intelligent mobile phone and other equipment to download the latest software and professional knowledge in multimedia courseware system. The students can avoid in searching for a needle in a haystack like for collecting available data. So the new mode saves a large amount of data collection time for students. CAI teaching system based on network teaching platform not only can provide more res

ources for students, but also allows teachers to publish short learning resources by micro-blo g and forums. Through the email system of class, interaction with students is obtained. Stud ents use the email and forum and teachers to communicate and solve the problems in study.

All kinds of resources of network provided by the teaching platform can create a similar re al environment, promoting active exploration in the knowledge of students. The active learnin g and constructivism are completed.

Model research of Network CAI aided reading teaching

In this research, 150 questionnaire copies are developed. 2011 grade students are taken as the study objects, the multimedia classrooms are constructed, the effective questionnaire are 146 copies. Correlation analysis is applied in analysis of influence of auxiliary teaching of computer network to improve the professional books reading interest.

A. Research assumption

The rapid development of today's network, it provides a good platform for the dissemination of knowledge. But the excess data and scattered storage space increase the time and the difficulty for acquisition of appropriate data. Network computer-assisted teaching system can make the students more convenient access to learning resources, and it enables students to save the collection and screening time of the books, the interests are increased, so as to enable students to have more time for reading and studying. More books and information can be obtained in the information network platform, and the attraction for students is more. The students have higher interest in reading professional books. We propose assumption 1.

Assumption 1: On the network platform, the number of books and resources students can be obtained has positive correlation with the enhance interest of students reading professional books.

More and more researches think that computer aided teaching can improve the students' interest in learning professional books, network teaching platform provides professional books covers more knowledge, it can provide more help for students interested in ascension, the profound and more practical theories in simple language can stimulate students' interest in reading. The assumption 2 it proposed.

Assumption 2: The quality of professional books and students' interest in reading on the teaching network platform has positive correlation.

The computer aided teaching based on network teaching platform in Higher Vocational Colleges needs to build multiple system platforms on the campus network, such as multimedia courseware system, multimedia classroom system, network distance learning system, etc. Network teaching platform access speed is faster, it more can stimulate the students' desire of browsing, content classification is more detailed, and it is more can cultivate students' reading habits. Thus, assumption 3 is proposed.

Assumption 3: Design level of network teaching platform and interest enhancement of students' reading professional books has positive correlation.

B. Set of variables

a. Students interest variables of reading professional books

In this survey, the surveyed students is limited in the specified range of professional books, including professional foundation course books, professional skills and professional original books. The students' subjective professional books reading interest (SIT) is taken as the dependent variable, the authenticity of results is enhanced and ensured.

b.Parameters of network computer aided teaching platform

The parameters variables of network computer aided teaching platform are defined as the network source number, the speed of network access, network platform data classification and reading difficulty. The data availability are taken as regression variables

c.Control variables

In this paper, the students characteristic variables are selected as the control variables, where S1 denotes the students' gender, S2 is shown as students grade.

B.Construction of research model

In this paper, EViews7.0 software is used for analyzing the relationship between networked computer aided teaching and improvement of students' interest in reading professional books. In this paper, multivariate linear models are taken for the quantitative analysis of the relationship, and the hypothesis testing are taken for the mathematical processing, the model is shown as:

$$SIT_i = \alpha_i + \beta_1 CAIS_i + \gamma_1 S_1 + \gamma_2 S_2 + \varepsilon_i$$

In this formula, α_i is the constant item, β_i and γ_i are regression parameters, ε_i is the random disturbance term.

Networked CAI teaching effect on the students' interest in reading

A.Analysis of descriptive statistics

The parameters setting results are expressed in Table 1.

Table 1 Descriptive statistics

	Min	Max	Mean	Std. Deviation
SIT	1.19	4.06	2.0000	10.45727
CAIS ₁	1.05	5.6424	3.107324	15.03382
CAIS ₂	1.05	5.6424	3.107324	15.03382
CAIS ₃	1.05	5.6424	3.107324	15.03382
S ₁	0.0834	0.8216	0.349823	13.99959
S ₂	0.50	2.00	1.500000	14.53247

146 questionnaires data are taken with descriptive statistical analysis, and the results are shown in Table 1. The sample descriptive statistics results are obtained. We can get the conclusions as

following: first, the enhancement fluctuation of the ability of students in the school is big, and the gap between students reading ability is obvious. Second, the learning time of students use the multimedia classroom is more than the single machine learning, network teaching platform is facilitate to the students' spare time training reading ability. Third, although students come from the same school, but obviously numbers of girls are more than boys. And girls learning time averaged is more than boys, the test of students are more than boys. On the other side, girls average effort than boys. Fourth, students are come from four different classes, the teachers from lecturer to Professor in difference. The teacher's office level has an effect on the ability of students.

C.Networked computer aided teaching and correlation test of students' interest in reading

In this paper, the multiple linear regression method is used to test the relationship between the model and the interest enhancement. According to the analysis as above, the results of multiple linear regression estimation are expressed in Table 2.

Table 2 Results of multiple linear regression estimation

Dependent Variable: SIT

Method: Multivariable Linear Regression Model

Date: 10/02/12 Time: 21:27

Sample: 1 146

Included observations: 146

Convergence achieved after 4 iterations

Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
a	12.624711	20.873959	1.838700	0.000000
CAIS ₁	4.743978	2.368520	2.002929	0.045185
CAIS ₂	2.661123	2.567735	1.036370	0.050030
CAIS ₃	3.641078	2.520488	1.444593	0.048572
S ₁	2.478035	2.585062	0.958598	0.067761
S ₂	3.691586	0.566861	6.512329	0.000000
Mean dependent var	33.045977 S.D.dependent var		26.151130	
S.E. of regression	11.640598 Akaike info criterion		7.968462	
Sum squared resid	27.260938 Schwarz criterion		8.365275	
Log likelihood	22.628103 Hannan Quinn criter.		8.128246	
Avg. log likelihood	-3.823312			

By analyzing the table 2, we can get a preliminary conclusion: The number of computer assisted available instruction on platform is more, students has higher interest in reading professional books, and there is statistically significant positive correlation between the two items. So we get that the assumption 1 is real. The reason is that the computer aided reading teaching based on network platform can temporarily alleviate the students for the professional books demand. Because the school resource constraints, the students cannot get enough professional books, students can get the books part of the chapter through the Internet platform, it enables students to read these books in

their spare time. Through the interaction between teachers and students with micro-blog and e-mail, the limit of time and space are broken through, so that the students' reading interest is significantly improved.

Through multiple linear regression estimation, the results show that the CAIS2 coefficient is 2.66, the network teaching platform provides enough books, and it can stimulate students' interest in reading. This mode can enable students to spend more time and energy to read professional books. So the assumption 2 is ensured, at the same time, students have more convenient access to books, it provides more help for students and teachers. The micro-blog and emails of teachers can form the interactive network between students and teachers. The teachers can break through the limit of time and space to guide the students, so the quantity and quality of the students' reading professional books are greatly improved.

Conclusions

The computer has been applied in various fields, and the computer aided teaching has become an indispensable auxiliary teaching mode of education in the new century, it becomes the needs of social education development. Application and development of computer assisted instruction injects new vitality to the development of Higher Vocational Education in 21C. When higher vocational colleges use computer assisted teaching, we should think about the improvement of the computer aided teaching deeply, the computer assisted instruction platform based on network should catch up with the pace of the information age, and various colleges spend large amounts of time and money making electronic courseware. The education itself should be studied to meet the requirements of the information era. It can break through the limits of time and space for students, and it can provide a broader and more convenient learning platform. Research results show that the computer aided teaching network platform can improve the interest of students in reading professional books, the interesting teaching courseware with rich content can improve subjective learning interest of students, it has good application value in teaching practice.

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