

Study on the Computer Aided English Instruction from the Learning Perspective of Constructivism

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Abstract

Constructivism, one of the core development modes of teaching, receives certain external environment support and is extensively accepted and applied in the computer aided English instruction under the premises of rapid development of computer technology and constant innovation of college English instruction modes. Based on the status quo of computer aided English instruction, this essay has its practical value discussing the effects the constructivism had on the instruction and analyzing the three educational forms of it in the perspective of constructivism. The three forms are classroom education, network education and individual education.

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Introduction

Constructive learning mode was originally proposed by the Swiss psychologist Piaget who pointed out the connotation of cognition as a consistent knowledge construction which precisely refers to the generation and exchanging of the structure. His follow scholars did a number of researches on the constructivism and finally formed the theory.

In constructivism, the world existence is objective and there are disparities in the individual knowledge structures, experience accumulations and beliefs. Knowledge is the dynamic reflection of the objective world as well as an active construction process during which one's original cognitive structure, which keeps progressing in cognizing the objective world and emphasizes the sociality, initiative and situationality of the individual learning, plays an important role.

Constructivism was widely applied in the 90s and received growing attention from the theorists and the educational circle. Different kinds of constructivism directed educational modes gradually proved the applicability and scientificity of the constructive learning theory in showing the strong vitality of the unique learning mode with the widely applied computer network technology in college English instruction.

Constructive learning mode emphasizes the learners' active participation during the learning process which comes from the meaning construction by choosing necessary learning materials with other assistance. When in actual situations, learners can adjust and assimilate the new knowledge with their already accumulated learning experiences to further build the new knowledge connotations actively.

Concerning China's college English education, it is taught only as a foreign language; learners therefore can hardly get a real context of English as Chinese learners. There is no doubt that computer aided English instruction is an effective way improving the English learning environment.

Constructive learning mode is playing an indispensable role in today's computer aided English instruction due to its inspiration to the innovation and development of the traditional computer aided English instruction mode.

Features of constructive learning mode

Constructive learning mode develops constantly criticizing the traditional learning theories and it gradually becomes the important theoretical foundation of college education innovation due to its specificities in developing.

A Collaborative

The constructive learning theory emphasizes the importance of collaborative learning which can help better fit the learning regulation of objective development. Learners are learning in collaboration. The same learning context may have different effects on learners in different developmental stages while learners even in the same stages may have disparities in understanding the same objective reality.

Everyone is building his or her own special cognitive structure with their own learning methods while the close-ended cognition of a single individual can hardly get to a satisfaction. It is therefore essential to strengthen the learners' mutual cooperation during the process letting them perceive the ideas different from their own.

Learning from different and even opposite views, learners can then perfect their understanding on the objective world adjusting to the external and assimilating to the internal. Collaborations and discussions exist among teachers and students to achieve the goal of understanding the objective realities.

B Initiative

In the constructivist theory, subjective participation refers to not only the participation of the whole students but also the participation from beginning to the end. It contains not only direct involvement in action but also in mental, emotional and logical.

Students, the subjects of learning, are the practitioners of the active construction of knowledge connotations rather than the passive acceptors in external stimulus and receivers of knowledge instillation. College teachers are promoting and assisting the students' meaning construction and their main responsibilities are their active cognitive interventions during the whole teaching process.

Therefore, the constructivist learning theory has a requirement in improving students' subjective initiative in learning to better achieve the educational aim.

C Situational

The constructivist learning theory believes that the learners' learning is always linking with specific situations.

In real conditions, learners adjust and assimilate the new knowledge and theories with related experiences in their inherent cognitive structure which would be renewed and recombined (namely adjusting) if failed to assimilate the knowledge and theories offered by the new condition. Continuous circling of adjustment and assimilation formulate the construction of knowledge and theories.

It is also emphasized in the constructivist learning theory the design of the learners' learning context which is considered as the site of exploratory learning and discovery learning. Learners can do their learning with the help of various learning tools including certain software and information materials to achieve the expected effects.

The status quo of computer aided English instruction

The computer aided English instruction improves the teaching quality to a certain extent and adds mobility and interest to the class. At present, China's colleges are at the exploring stage in computer aided English instruction and there are deficiencies in computer aided technology application. This essay analyzes the present situation of computer aided English instruction with reference to a survey carried out in a college of Hubei province.

A From the students' perspective

1) Evaluation on the effects of computer aided English instruction

Chart.1 Survey on effects evaluation

Effects improving	speaking	listening	reading	writing	vocabulary
number	33	110	18	12	7
percentage	18.3%	61.1%	10%	6.7%	3.9%

We can see from Chart.1 that there were 61.2% students agreed with the improvement in listening with the help of computer aided English instruction, 18.3% agreed with the improvement in speaking and 10% agreed in reading improvement.

It showed that students themselves have begun to realize the improvements computer aided English instruction brought in every respects of their English proficiency especially in speaking, listening, reading and writing.

2) The recognition of computer aided English instruction

From the survey on students' recognition of computer aided English instruction (Fig.1), we can found that only 6% students strongly approval the teaching method, 32% basically approval and 9% do not mind; while 46% disapproval computer aided English instruction, 7% strongly disapproval it.

Therefore, appropriate designs and applications of computer aided English instruction in colleges are the key points directly affect the English teaching quality.

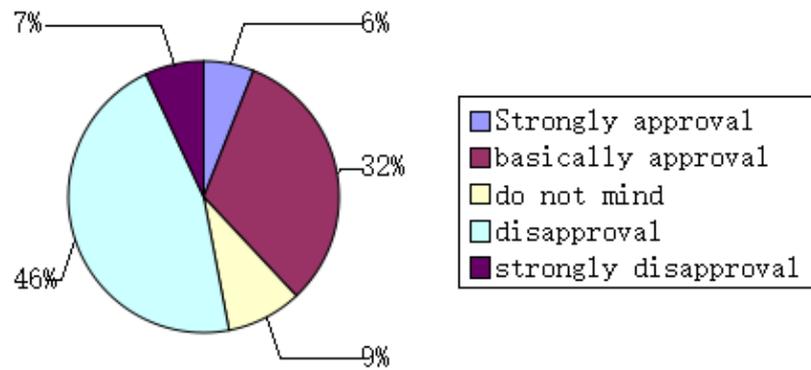


Fig.1 diagrammatic of recognition

B From the teachers' perspective

Chart.2 Survey on teachers' evaluations

Effects	improving perfecting environment	teaching	improving teaching efficiency	alleviating the burden of teaching
number	16		18	15
percentage	32.7%		36.7%	30.1%

Chart.2 shows the evaluations from college teachers to computer aided English instruction. 32.7% teachers believed that computer aided English instruction can help perfect the teaching environment, 36.7% teachers thought it can improve teaching efficiency and 30.1% of them believed that it can alleviate the burden of teaching.

All of these showed that the traditional English teaching mode has been replaced by the computer aided mode which developed students' subjective initiatives and improved the quality of college English teaching as well as time saving.

C From the students' and teachers' perspective

Chart.3 Survey on problems exit in computer aided English instruction (one may choose more than one options)

investigation index	Computer aided courseware			Quality of teachers		
	cumbersome	singleness	boring	fast delivering speed	old forms	unskilled operation
number	112	119	105	99	100	26
percentage	62.4%	66.3%	58.2%	54.6%	56.1%	15.4%

Statistics in Chart.3 showed that the main causes of the problems are the singleness of aided courseware and the cumbersome contents. Meanwhile, boringness is another reason causing problems.

The quality of teachers also counts a lot to the computer aided English instruction. Factors such as too fast delivering speed, the old teaching forms and the unskilled computer software operation etc greatly affect the teaching quality.

These factors further demonstrate the certain limitations in the application of computer aided English instruction.

The modes of computer aided English instruction from the perspective of constructivist learning

The theory of constructivist learning is widely popularized in the development of computer technology and can help coverage the shortage of computer aided English instruction. There are three forms of computer aided English instruction from the learning perspective of constructivism.

A Classroom education of English from the learning perspective of constructivism

The procedure of computer aided English teaching from the learning perspective of constructivism includes the combination of teachers' lecturing and students' independent learning which should be improved in group activities.

The concrete form of classroom education from the constructivist learning perspective includes three parts. Before class, teachers, with reference to the textbooks, should write a complete computer aided teaching plan which should then be put into the computer in the forms of sounds and flashes etc. Being available on the network, student scan read the plan and learning materials as early as possible.

In the class, teachers should first organize English learning activities to propose the basic teaching targets. Learning measures should also be introduced to students as guidance as they may be lost in the ocean of the network learning when they control the learning process.

The important and difficult points in learning are then pointed out by teachers who would demonstrates the teaching using computers aided instruction system to help students imitate. Students finally get the acquisition of control and are allowed to learn English in human-computer interaction. During the process, they can choose learning contents meeting their own demands to coordinate the learning.

Information of the chosen learning methods, learning contents, academic performances and the students' progresses are all recorded by the software of computer aided instruction and would be sent to the English teacher's host computer after class to help teachers know their learning status and offer targeted individual coaching and timely assistance.

B Network education of English in the learning from the learning perspective of constructivism

There are mainly two forms of English network education from the constructivism learning perspective, one is distance education and another is intensive education.

Intensive education, implementing English teaching activities in network classroom using local area network, has the features of learners centralized, teaching contents controllable and strong management. Teachers staying with students in the same classroom can make instant

responses to students' questions. They can also make timely adjustment supervising the students' learning conditions.

Therefore, when limited by funds and equipments, intensive education is the first step of computer aided English instruction. The disadvantages of intensive education are the limitations on information and on students' interaction only with their classmates. Get out of the classroom and the implement of distance education is the irresistible development trend.

Teachers and students in distance education are in different places. In online classes, for instance, students can stay at home or anywhere else to learn English entirely and systematically. They can ask questions through emails and send their suggestions to the system administrator to perfect and modify the teaching system.

Students can not only learn abundant English knowledge in distance education and improve their English application skills but also boost their subjective initiative.

C Individual education of English in the learning from the learning perspective of constructivism

The main focus of the English individual education in the constructivist learning perspective is the students, who start their own individual learning independently using computer technologies. Students independently choose their learning methods and contents according to their own English learning targets.

The students' learning progresses are controlled by themselves with scientific learning strategies and get rid of the constraints of teachers' lecturing, time and space as they can both learn in computer network classroom or at home. Students' individual education in the network learning is open since they can ask help from teachers at any time and can receive help from individual dialogue.

There are abundant learning resources for students' individual education in computer aided English instruction as they can use the learning materials in the console server as well as the Internet and campus network.

The individual education, however, lacks supervision. Students may waste their time and energy deviating from the learning targets choosing unworthiness contents. Thus in this education, the mode of students' independent learning should center on the guidance from teachers who should communicate timely with students.

Conclusion

The computer aided English instruction from the constructivist learning perspective mainly helps college English teaching to find the best educational plan.

This essay analyzed the three characteristics of collaborative, initiative and situational of constructivist education in the learning from the learning perspective of constructivism as well as the application situation and problems of the computer aided English instruction from three perspectives. It gained certain theoretical guidance value in finally promoting three forms of the instruction from the constructivism perspective.

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