

A Study on Intelligent Contents for Virtual University

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요 약

가상대학에서는 언제 어디서나 마우스나 키보드를 몇 번 누름으로써 쉽게 강의를 듣고 공부 할 수 있다. 많은 사람들은 가상대학이 시간을 절약할 수 있으며, 학습을 향상시킬 수 있으리라고 믿고 있다. 가상대학 강좌를 선택한 학생이 얼마나 학습했는지를 점검하기 위해서 강사는 얼마나 많은 학생이 이해했으며 학생들의 어려운 문제점이 무엇인지 반드시 알아야 한다. 이러한 조건들이 점검되지 못한다면, 가상대학 강좌는 매우 어렵고 지루하게 느껴질 것이다. 본 논문에서는 이해한 학생과 이해하지 못한 학생을 가르치는 쌍방향 지능형 강의 시스템을 소개한다. 컴퓨터 모의 실험 결과 쌍방향 가상 수업 시스템이 이해하지 못한 학생을 고려하지 않은 기존의 단방향 가상 수업 시스템보다 훨씬 효과적인 것을 입증했다.

Abstract

Virtual university can easily study the lecture only press the couple of mouse click or keyboard button anywhere and anytime, if you have a computer. Many people believe that virtual university, can save time and improve learning. To check how many students learn which selected some of virtual university courses, instructor must knows how to the understanding students and find out their difficult problems. Without checking this condition, it will be a very difficult and boring virtual university course. In this paper, we introduce the intelligent learning system. It has a full duplex direction that teaches understanding students and not understanding student. The computer simulation results confirms that full duplex virtual learning system has been proven to be much more efficient than one way direction which unfortunately does not consider to understanding problems.

Key words: Electronic Distance Learning , One Way Direction, Full Duplex Direction

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논문접수 : 2004. 3. 25.
심사완료 : 2004. 4. 9.

* This research was supported by Sangji University Research Fund , 2002

1. Introduction

Usually, unlike case that take class in school and acquire unit, can use internet and receive education service that correspond to academic curriculum. Cyber university enforced started from 2/3 years ago, but now it is communicating with contents of virtual university all over the country. And it was new access method of knowledge, and get affirmative estimation in meaning that give benefit of education to more people[1-2].

It is enforcing cyber university already in the world as well as our country each nation. If this cyber university is successfully operated, it does not need school bag anymore, and go running into lecture room hurry up for attendance. Cyber university which can easily understand the lecture only press the coupe of mouse click or keyboard button if you have a computer and internet any where, any place, anytime. Development of information technology of communications could supply more various and more quantity's knowledge and skill to more education consumers without restriction between time and place[3-6].

In the real classes, lectures and tutorials can be delivered on-line to a widely dispersed community of learners, using full broadcast and interactive audio facilities to complement the animated visual presentations. A wide range of features are included, one of those being the participants ability to raise their hands and be given control of the microphone to make a point or ask a question.

To understand all of a student which selected some of e learning course, teacher

must check that how many student to understand and what is the difficult problems. Without checking this condition, it will be a very difficult and a boring distance learning course. But, there are only one type of distance learning education of one way direction[7-10].

In this paper, we introduce of intelligent learning contents of full duplex direction that teach understanding student and not understanding student.

This paper is organized as follows: Section 2, we briefly explain the problem of conventional classes. Section 3 presents the blend e learning study. Section 4, we describe full duplex e learning solution. Finally, section 5 will give conclusions.

2. Blend learning method

Cyber university which can be easily understand by simply pressing the mouse click or clicking the by keyboard button if you will.

It can study design, administration, computers, chemistry, and physics. If this cyber university is successfully operated, it does not need school bag anymore, or no people to be running into classrooms late for attendance.

Cyber university which can easily understand the lecture only press the coupe of mouse click or keyboard button, if you have a computer and internet, any where, any place, anytime. Development of information technology of communications could supply more various and more quantity's knowledge and skill to more education consumers without restriction between time and place.

Broader uses of the term, blended learning suggest an even more sophisticated and useful approach: that of considering a wide range of traditional and e learning delivery modes to educate a learner/learners.

Development of information technology of communications could supply more various and more quantity's knowledge and skill to more education consumers without restriction between time and place. Specially, information technology of communications and education gave birth to new style off cyber university(virtual university) in higher education field. It is true that many people complain about cyber university, because it has many problems because it is just begin. Therefore, it must to research that develop the new brand learning style of cyber university offered full duplex understanding system.

Finally, it must solve the problems of cyber university. Fig.1 shows that teacher must determine how many students are understanding the course and student can ask a question in the teacher on line in the E distance learning using e-Learning test.

The purpose of establishing virtual university consortia is not to engage students in online learning; it is to increase access to higher education, enlarge the college-going population, promote economic development, and so on. Online learning is a means to achieve those goals. Consequently, we centered our attention on assessing how well today's models are achieving those goals.

3. Full duplex e learning

Instructors are family with an

Virtual University : E-Learning Test			
Course Name : CS302Multimedia Processor Name : Alice			
E-mail : yshong@sangji.ac.kr Tel : 033-742-1121			
<input type="button" value="Submit"/>		<input type="button" value="Rewrite"/>	
student1	student2	student3	student4
	medium		
student5	student6	student7	student8
	medium		
student9	student10	student11	student12
medium		medium	
student13	student14	student15	student16
			medium
student17	student18	student19	student20
		medium	
Total Students :: 20			
Understanded :: high : 10 medium : 6 low : 4			
Current Date : 2003-05-09 Current Time : 21:30:08.34			

Fig 1. E-Learning Test using Full Duplex Method

infrastructure that supports both instructor and students occupying the same classroom, and with most instructional delivery taking place while they are all present. This same text book same time delivery system is currently the norm and few instructors are familiar with other types of delivery.

In this paper, we outlines changes in infrastructure that are frequently necessary when one breaks from the traditional same textbook same time model. Not all of these are applicable to all implementations of distance independent education.

In this paper, we hope that it will serve that an instructor must tackle in moving from the same textbook/same time model to various forms of distance independent education.

We can further break down classroom activities in terms of the direction of communication and level of different understanding(such as beginners and expert).

In order to know, how many student to understand to in the distance learning course using fig. 2.

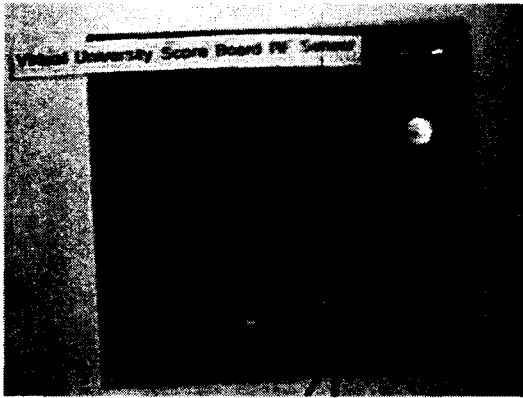


Fig 2. RF E-Learning Sensor

```

<html><head>
<script language="JavaScript">
function check() {
    var search;
    search = document.location.search.substring(1);
    if ( !search ) return;
    document.write(" Your score result...<p>");
    if ( search.indexOf("Q1=3") != -1) {
        document.writeln(" Question 1: Correct
        Answer..<br>");
        score += 20
    }
    else document.writeln("Question 1:wrong
        Answer..<br>");
    if ( search.indexOf("Q2=1") != -1) {
        document.writeln(" Question 2 : Correct ..<p>")
        score += 20
    }
    else document.writeln("Question 2:Wrong
        Answer..<p>");
    document.writeln("Your score<b>"+score+"</b>!!");
    }
score=0;
check();
</script>
</head>
<body>
<br><br><br>
<h3>american History Test</h3>
<hr>
    
```

```

2) Who is the first president in the america?<br>
<INPUT TYPE="radio" NAME="Q2" VALUE=1>
1. Kennedy. <br>
<INPUT TYPE="radio" NAME="Q2" VALUE=2>
2. Bush. <br>
<INPUT TYPE="radio" NAME="Q2" VALUE=3>
3. Washington.<P>

<input type value="Rewrite">
<input type=submit value="Submit">
</form>
</body>
</html>

<html>
<head>
<title> Full duplex E - Learning </title>
</head>
<script>
function winper()
{
    var form = document.vote
    var total=0

    if (form.mun1[0].checked) total += 24
    if (form.mun1[1].checked) total += 20
    if (form.mun1[2].checked) total += 15
    if (form.mun1[3].checked) total += 10

    if (form.mun2[0].checked) total += 24
    if (form.mun2[1].checked) total += 20
    if (form.mun2[2].checked) total += 15
    if (form.mun2[3].checked) total += 10

    if (form.mun3[0].checked) total += 24
    if (form.mun3[1].checked) total += 20
    if (form.mun3[2].checked) total += 15
    if (form.mun3[3].checked) total += 10

    if (form.mun4[0].checked) total += 24
    if (form.mun4[1].checked) total += 20
    if (form.mun4[2].checked) total += 15
    if (form.mun4[3].checked) total += 10

    form.total.value = total
}
<form name="fo" target="new">
1) How many students in the america.? <br>
<INPUT TYPE="radio" NAME="Q1" VALUE=1>
1. There are fifty states in the america.<br>
<INPUT TYPE="radio" NAME="Q1" VALUE=2>
2. There are thirty states in the america. <br>
<INPUT TYPE="radio" NAME="Q1" VALUE=3>
3. There are ten states in the america. <P>
    
```

4. Simulation

To understand all of a student which selected some of e learning course, teacher must check that how many student to understand and what is the difficult problems. Without checking this condition, It will be a very difficult and boring distance learning course.

In this paper, we introduce of intelligent learning contents of full duplex direction that teach understanding student and not understanding student. Fig 3 shows how to send a e learning condition who understanding course level. Also, these full duplex system takes advantage of benefits that is expected to make a positive contribution to solving information inequality, and understanding student and misunderstanding student as follows.

```

database
xpositive(symbol,symbol)
xnegative(symbol,symbol)

predicates
run
problem_is(symbol)
it_is(symbol)
positive(symbol,symbol)
negative(symbol,symbol)
clear_facts
remember(symbol,symbol,symbol)
ask(symbol,symbol)

goal
makewindow(1,15,7,"",0,0,25,80).
cursor(20,1).write(" A.").
cursor(22,1).write(" Full Duplex E Learning
System").
cursor(20,63).write(" SANG JI UNIVERSITY ").
makewindow(2,2,7,"< Explanation >",1,5,7,70).
write("\nThis is a program that seek any problem
with your answer against of computer's questions.").
write(" Therefore, your answer must be 'y' or
'n'.").
makewindow(3,15,14,">> Question and Answer
<<",8,14,11,50).
run.

clauses
run:-
patient_is(X),!,
sound(30,500).sound(30,200).sound(30,800).
sound(30,500).sound(30,200).sound(30,800).

sound(30,500).sound(30,200).sound(30,800).

makewindow(4,14,15,"< Result >",19,18,5,42).
write("\nYour problem may be a(n)
".X).nl.clear_facts.

```

```

run:-
sound(100,900).
makewindow(4,14,15,"< Result >",19,18,5,42).
write("W We can not tell you skill level
..Wn").clear_facts.
positive(X,Y) if xpositive(X,Y),!.
positive(X,Y) if not(xnegative(X,Y)) and ask(X,Y).
negative(X,Y) if xnegative(X,Y),!.
negative(X,Y) if not(xpositive(X,Y)) and ask(X,Y).

ask(X,Y):-
write(X," it ",Y," ?","Wn").
readln(Reply).
remember(X,Y,Reply).

remember(X,Y,y):-
asserta(xpositive(X,Y)).
remember(X,Y,n):-
asserta(xnegative(X,Y)),
fail.
clear_facts:-
retract(xpositive(_,_)).fail.
clear_facts:-
retract(xnegative(_,_)).fail.

problem_is( 2 order equation) if
it_is(formula of root ) and
positive(real root) and
positive(imaginary root ) and
positive(understanding for formula of root).

problem_is( 1 order equation) if
it_is(problem) and
positive(direct proportion) and positive(inverse
proportion ).
    
```

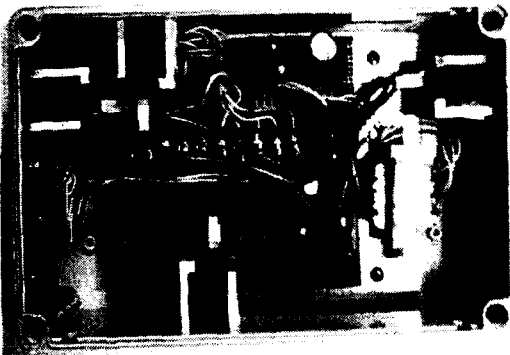


Fig 3. RF Sensor for Scoreboard

5. Conclusion

With the continuous progress of the digital

age, the distance education has been taking on in the world. People have changed their life style, demanding more information not only from their work but also their leisure activities. Electronic distance learning education course generally require more autonomous learning ability than more traditional courses because there is less interaction between course participants. The ideal objective of the distance learning education should be to provide more quality educational services to education consumers regardless time and space limitations.

Offering computing by distance education suffers from a number of problems. Foremost among them being the difficulty of student and teacher communication. Other problems with distance education are caused by mis understanding student and one way direction of e learning method.

Today's virtual university technology allow instructors to design distance learning courses that employ all the methods used in traditional class room and more.

To understand all of a student which selected some of e learning course, teacher must check that how many student to understand and what is the difficult problems. Without checking this condition, it will be a very difficult and boring distance learning course. In this paper, we introduce of intelligent learning contents of full duplex direction that teach understanding student and not understanding student. Also, these full duplex system takes advantage of benefits that is expected to make a positive contribution to solving information inequality, and understanding student and misunderstanding student. The computer

simulation results confirms that full duplex e learning system has been proven to be much more efficient than one way direction which not considering about understanding problems.

Reproduction Service No. ED 351007, 1992.

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