

Learning Management System

FIELD OF THE INVENTION

[0001] The present invention relates to a learning management system, and more particularly relates to a learning management system with a barcode generating unit for generating 2D barcode, and the student accesses the 2D barcode by using the communication device for performing the teaching instruction assigned by the teacher.

BACKGROUND OF THE INVENTION

[0002] Attending with the development and progress of technology, the computer has become a popular device and almost every family has at least one personal computer. The popularization of computer also leads to the development of internet. As a result, our daily lives are filled with internet. Because of the development of internet, the traditional concept that book as the only source of knowledge has changed, and it seems that one can learn anything through the internet without the need to go outside. Technological progress also leads to the changes of times. The usage of internet has expanded to the field of education. The fashion teachers teach in the classroom using the blackboard and the chalks has silently changed.

[0003] Some researchers discovered that the heavily loaded backpack will threaten the health of students. The heavily loaded backpack not only hurts the spine of the student but also changes the way to walk. That is, in order to maintain balance, the student carrying heavy

backpack will increase his walking speed and have his body bent forward. If such body style is kept for a long time, normal body growth may be affected, especially for younger students. In addition, attending with the increasing notice of environmental protection, energy conservation and carbon reduction have become more than just a slogan. The textbook, which wastes a significant amount of papers, has become a top issue to be resolved.

[0004] Based on the above mentioned research and the increasing notice of environmental protection, electronic school bag has been developed. The electronic school bag is a tablet in fact, and the tablet is loaded with the files of e-textbook (multimedia textbook), accessory teaching material, dictionary, digital note, e-books, calculators, and computer applications. The electronic school bag resolves not only the problem of heavily loaded backpacks but also the problem of paper waste. The prosperous internet also heats up the development of electronic school bag. In present, many universities, colleges, high schools, or elementary schools are eager to develop the usage of electronic school bag, and thus, gradually, teachers will not need to use the blackboard and chalks to teach in the classroom, instead, the way of teaching will be shifted to an e-learning platform and the students will be asked to access learning materials from the platform by using the electronic school bag.

[0005] For the students in university, college, senior high school, or junior high school, it is relatively easy to input the IP address or instruction assigned by the teacher. However, such input processes might be quite difficult for the younger students in the elementary

school. To teach the students how to do the actions such as inputting the IP address will waste a lot of time in the class. In addition, because various operating systems are available for the electronic school bags in present, there exists the compatibility problem between the e-learning platform and the electronic school bags, which would be a great inconvenience for the teachers.

BRIEF SUMMARY OF INVENTION

[0006] The technical problem to be resolved and the object of the present invention:

[0007] According to the convention art, since it would be quite hard for elementary school students to execute the instructions assigned by the teacher, lots of time in the class might be wasted to teach the student doing the instructions. In addition, the compatibility problem among the various operating systems of the e-learning platform and the electronic school bags may lead to the inconvenience during teaching.

[0008] Accordingly, it is a main object of the present invention to provide a learning management system, which has a barcode generating unit, and the student accesses the 2D barcode generated by the barcode generating unit by using the communication device for executing the teaching instruction assigned by the teacher.

[0009] The technical feature of the present invention for solving the problem:

[0010] In order to resolve the above mentioned problem, a learning management system is provided in accordance with the present

invention. The learning management system comprises a system end, a first communication device, and at least a second communication device. The system end includes an instruction generating unit and a barcode generating unit. The instruction generating unit is utilized for inputting a teaching instruction. The barcode generating unit is electrically connected to the instruction generating unit and is utilized for generating a 2D barcode according to the teaching instruction. The first communication device is communicated with the system end through a network and is utilized for inputting the teaching instruction by a teacher. The second communication device includes an accessing module. The second communication device is communicated with the system end through the network and is utilized for using by at least a student. The accessing module is utilized for accessing the 2D barcode. The student assesses the 2D barcode through the accessing module to perform the teaching instruction.

[0011] As a preferred embodiment, the system end of the learning management system further comprises a storage unit, a processing unit, a time recording unit, and a surveillance unit. The storage unit is electrically connected to the instruction generating unit for storing the teaching instruction. The processing unit is electrically connected to the storage unit and the barcode generating unit for showing the teaching instruction and the 2D barcode on a webpage. The time recording unit is electrically connected to the instruction generating unit for recording a time the teaching instruction inputted by the teacher. The time recording unit is also electrically connected to the processing unit to have the processing unit showing the time the

teaching instruction inputted by the teacher on the webpage. The surveillance unit is communicated with the accessing module for monitoring a condition the teaching instruction being performed by the student. The surveillance unit is also electrically connected to the processing unit to have the processing unit showing the condition the teaching instruction being performed by the student on the webpage.

[0012] As a preferred embodiment, the teaching instruction is selected from a group consisting of delivering homework, downloading teaching material, assigning an uniform resource locator (URL), and taking a roll call. The 2D barcode is a quick response code (QR Code). The first communication device is selected from a group consisting of a tablet, a desktop, a smart phone, a laptop, and a personal digital assistant (PDA). The second communication device is selected from a group consisting of a tablet, a smart phone, a laptop, and a PDA.

[0013] The improvement of the present invention in compared with the prior art:

[0014] In compared with the convention art, since it would be quite hard for elementary school students to execute the instructions assigned by the teacher, lots of time in the class might be wasted for teaching the student to perform the instructions. In addition, the compatibility problem among the various operating systems of the e-learning platform and the electronic school bags may lead to the inconvenience during teaching.

[0015] Accordingly, it is a main object of the present invention to provide a learning management system, which has a barcode generating unit, and the student accesses the 2D barcode generated by

the barcode generating unit by using the communication device for executing the teaching instruction assigned by the teacher. Thereby, the teacher would not waste the time in the class to wait for the students to execute the teaching instruction. In addition, since it is the only way to executing the teaching instruction by accessing the 2D barcode, there should be no compatibility problem among the various operating systems.

[0016] The embodiments adopted in the present invention would be further discussed by using the flowing paragraph and the figures for a better understanding.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] Fig. 1 is a schematic view showing a learning management system in accordance with a preferred embodiment of the present invention.

[0018] Fig. 2 is a schematic view showing a webpage for teacher in accordance with a preferred embodiment of the present invention.

[0019] Fig. 3 is a schematic view showing a webpage with 2D barcode in accordance with a preferred embodiment of the present invention.

[0020] Fig. 4 is a schematic view showing a webpage for student in accordance with a preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0021] There are various embodiments of the learning management system in accordance with the present invention, which are not

repeated hereby. The preferred embodiment is mentioned in the following paragraph as an example. It should be understood by those skilled in the art that the preferred embodiments disclosed in the following paragraph are merely an example instead of restricting the scope of the invention itself.

[0022] Fig. 1 is a schematic view showing a learning management system in accordance with a preferred embodiment of the present invention. As shown, the learning management system 1 comprises a system end 11, a first communication device 12, and a second communication device 13. The system end 11 includes an instruction generating unit 111, a barcode generating unit 112, a storage unit 113, a processing unit 114, a time recording unit 115, and a surveillance unit 116. The barcode generating unit 112 is electrically connected to the instruction generating unit 111. The storage unit 113 is electrically connected to the instruction generating unit 111. The processing unit 114 is electrically connected to the barcode generating unit 112 and the storage unit 113. The time recording unit 115 is electrically connected to the instruction generating unit 111 and the processing unit 114. The surveillance unit 116 is electrically connected to the processing unit 114.

[0023] The first communication device 12 is communicated with the system end 11 through a network 2, such as internet. The second communication device 13 is communicated with the system end 11 through the network 2. The second communication device 13 includes an accessing module 131. The accessing module is communicated with the surveillance unit 116. The first communication device 12 may be

selected from a group consisting of a tablet, a desktop, a smart phone, a laptop, and a PDA. The second communication device 13 may be selected from a group consisting of a tablet, a smart phone, a laptop, and a PDA.

[0024] The instruction generating unit 111 is utilized for inputting a teaching instruction. The barcode generating unit 112 is utilized for generating a 2D barcode according to the teaching instruction. The storage unit 113 is utilized for storing the teaching instruction. The processing unit 113 is utilized for showing the teaching instruction and the 2D barcode on a webpage. The time recording unit is utilized for recording the time when the teaching inputs the teaching instruction, and the processing unit 114 is capable to show the time recording when the teacher inputs the teaching instruction on the webpage. The surveillance unit 116 is utilized for monitoring the condition the teaching instruction being performed by the student, and the processing unit is capable to show the condition on the webpage. The first communication device 12 is used by a teacher and is utilized for inputting the teaching instruction. The second communication device 13 is used by a student, and the accessing module 131 is utilized for accessing the 2D barcode. The student accesses the 2D barcode through the accessing module 131 so as to perform the teaching instruction. The teaching instruction is delivering homework, downloading teaching material, assigning an uniform resource locator (URL), or taking a roll call for example.

[0025] To further clarify the embodiment of the present invention, the learning management system of the present invention being used in an

actual teaching situation is described below for a better understanding. In the present embodiment, the first communication device is a desktop, the second communication device is a tablet, and the teaching instruction is to download teaching material. Please referring to Figs. 1 to 4, wherein Fig. 2 is a schematic view showing a webpage for teacher in accordance with a preferred embodiment of the present invention, Fig. 3 is a schematic view showing a 2D barcode on a webpage in accordance with a preferred embodiment of the present invention, and Fig. 4 is a schematic view showing a webpage for student in accordance with a preferred embodiment of the present invention. As shown, when attending class, the teacher electrically connects the first communication device 12 to a projector (not shown) first. The projector is capable to projecting the webpage displayed on the first communication device 12 on a screen (not shown). Since communication between the first communication device 12 and the system end 11 has been established, the teacher is capable to input the teaching instruction of downloading teaching material by using the instruction generating unit 111 (that is to click the icon “teaching instruction” in Fig. 2 to execute the above mentioned operation). For example, the teacher may input the name of the teaching material and upload the corresponded file. However, the present invention is not so restricted.

[0026] When the input is completed, the teacher may generate the 2D barcode by using the barcode generating unit 112, that is to click the icon “generate” in Fig. 2, and the webpage for teacher will display the 2D barcode as shown in Fig. 3. The 2D barcode may be a quick

response code (QR Code). The image is projected to the screen by the projector at the same time. Since the second communication device 13 is also communicated with the system end 11, the student may access the 2D barcode on the screen by using the accessing module 131 of the second communication device 13. At this time, a webpage as shown in Fig. 4 would be displayed on the second communication device 13 for the student. The student may perform the teaching instruction of downloading teaching material assigned by the teacher directly. In addition, the webpage for student will also show the 2D barcode mentioned above such that the students in the back row can access webpage from the students in the front row to perform the teaching instruction of downloading teaching material assigned by the teacher so as to download the teaching material.

[0027] It should be noted that, when the teacher inputs the above mentioned teaching instruction, the storage unit 113 can store the teaching instruction as a backup and generate a database accordingly. The teaching instruction and the 2D barcode shown in Figs. 2 to 4 are processed by the processing unit to show on the webpage for the teacher. In addition, the time recording unit 115 can record the time when the teacher inputs the teaching instruction, and the processing unit 114 will have the recorded time shown on the webpage for teacher as shown in Figs 2 and 3. Moreover, the surveillance unit 116 may be utilized to monitor the condition of the teaching instruction being performed by the student, and as shown in the column “performance condition” of Fig. 2, the processing unit 114 will have the monitored performance condition shown on the webpage for the teacher to monitor

the performance condition of each of the students in time. In the present embodiment, the performance condition is shown by using seat number. If the student does not perform the teaching instruction, the respective seat number will not be shown on the webpage.

[0028] In addition, when the teacher needs to take a roll call in the class, the learning management system can be used to do the roll call. That is, after the teacher inputs the teaching instruction of taking a roll call and generates a 2D barcode, the student may access the 2D barcode through the accessing module 131. The name of the student will be shown on the webpage for the student and what he needs to do is to click his own name to complete the call. The surveillance module 116 will response such condition to the processing unit 114 simultaneously and the processing unit 114 will have this condition shown on the webpage for the teacher to notice the teacher that the student does attend the class.

[0029] In conclusion, by using the learning management system, the student may access the 2D barcode generated by the barcode generating unit 112 by using the second communication device 13 to perform the teaching instruction assigned by the teacher, thus, the teacher does not need to waste time for waiting the student to perform the teaching instruction or doing a roll call. In addition, since it is the only way to executing the teaching instruction by accessing the 2D barcode, there should be the compatibility problem among the various operating systems.

[0030] The detail description of the aforementioned preferred embodiments is for clarifying the feature and the spirit of the present

invention. The present invention should not be limited by any of the exemplary embodiments described herein, but should be defined only in accordance with the following claims and their equivalents. Specifically, those skilled in the art should appreciate that they can readily use the disclosed conception and specific embodiments as a basis for designing or modifying other structures for carrying out the same purposes of the present invention without departing from the scope of the invention as defined by the appended claims.

What is claimed is:

1. A learning management system, comprising:

a system end, including:

an instruction generating unit, utilized for inputting a teaching instruction; and

a barcode generating unit, electrically connected to the instruction generating unit, and utilized for generating a 2D barcode according to the teaching instruction;

a first communication device, communicated with the system end through a network, and utilized for inputting the teaching instruction by a teacher; and

at least a second communication device, communicated with the system end through the network, utilized for using by at least a student, and the second communication device including:

an accessing module for accessing the 2D barcode;

wherein the student assesses the 2D barcode through the accessing module to perform the teaching instruction.

2. The learning management system of claim 1, wherein the system end further comprises a storage unit, electrically connected to the instruction generating unit, for storing the teaching instruction.

3. The learning management system of claim 2, wherein the system end further comprises a processing unit, electrically connected to the storage unit and the barcode generating unit, for showing the teaching instruction and the 2D barcode on a webpage.

4. The learning management system of claim 3, wherein the system end further comprises a time recording unit, electrically connected to

the instruction generating unit for recording a time the teaching instruction inputted by the teacher, and electrically connected to the processing unit to have the processing unit showing the time the teaching instruction inputted by the teacher on the webpage.

5. The learning management system of claim 3, wherein the system end further comprises a surveillance unit, communicated with the accessing module for monitoring a condition the teaching instruction being performed by the student, and electrically connected to the processing unit to have the processing unit showing the condition the teaching instruction being performed by the student on the webpage.

6. The learning management system of claim 1, wherein the teaching instruction is selected from a group consisting of delivering homework, downloading teaching material, assigning an uniform resource locator (URL), and taking a roll call.

7. The learning management system of claim 1, wherein the 2D barcode is a quick response code (QR Code).

8. The learning management system of claim 1, wherein the first communication device is selected from a group consisting of a tablet, a desktop, a smart phone, a laptop, and a personal digital assistant (PDA).

9. The learning management system of claim 1, wherein the second communication device is selected from a group consisting of a tablet, a smart phone, a laptop, and a personal digital assistant (PDA).