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Class Performance Systems

November 2, 2008

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*Overview:* Class Performance Systems are an instructional tool that allows for all students to be engaged while assessing their understanding of the content. Each student is assigned a wireless key pad that teachers correlate to a number therefore teachers know who has each keypad. Teachers can assign multiple choice, true/false, or yes no questions for students to answer. Each keypad projects an inferred light that transmits the student's choice of answer to a receiver. The receiver is connected to a computer which in turn is connected to a projector. Questions can be typed into the program by the teacher or uploaded from ExamView Test Generator. In addition, questions can include pictures along with text. Teachers then can print study guides, reports, grades, and item and standard analysis reports. Furthermore, grades can be directly exported to InteGrade Pro. Keypads have a seventy-five foot range with the receiver and are durable up to a ten foot drop on cement.



## Study Guide

Session: ecosystems review

Class: Wheeler

Class Points Avg: 56.94 out of 100.00 (56.94%)

(Includes only students who took assessment)

1, Brandon	
Pad ID:	1
Student ID:	
You answered 13 of 24 questions correctly for a percentage of 54%.	
 2	Which answer below identifies all 5 abiotic factors?
A	Sun, moon, air, soil, water
B	Sunlight, air, soil, rain, water, temperature
 C	Air, water, soil, sunlight, temperature
D	Air, soil, sand, water, sun, moon
You answered A.	

*This is an example study guide for a student. The red X indicated an incorrect answer while the finger arrow indicates the correct answer.*

*Cost:* Class Performance System by eInstruction can be purchased in sets of sixteen pad systems, twenty-four pad systems, or thirty-two pad system. Included in the purchase of each Class Performance system eInstruction provides free site licenses and free software upgrades. There is no additional cost for using CPS on different computers.

A class set of sixteen keypads with the receiver and software costs \$995.00.

A class set of twenty-four keypads with the receiver and software costs \$1,495.

A class set of thirty-two keypads with the receiver and software costs \$1,995.

\*Costs are as of November 2, 2008 per [www.engaging-technologies.com](http://www.engaging-technologies.com).

J. Wheeler

Class Performance Systems

2 of 5



### *System Requirements for PC:*

- Intel Pentium II or higher processor
- One USB port
- A minimum of 256 MB RAM
- At least 300 MB of hard drive space for CPS software
- Microsoft Windows 2000, Windows XP Professional or Home Edition, or Windows XP Professional or Home Edition
- Screen resolution of 800x600 minimum
- Projection system

### *System Requirements for Mac:*

- Mac OS 10.3.9 or higher
- PowerPC G3 300 MHz or better
- 256 MB of physical RAM
- 200 MB of free hard disk space
- One open USB port
- 800 x 600 display or better

In addition, two AAA batteries are required for each wireless keypad.

*In class usage:* This picture demonstrates that twelve students are engaged in the activity, there is one minute to answer the question (which can be increased or decreased), the zero represents the number of students who have responded so far, and the green check would pull up an analysis of who answered correctly and in how much time it took them.

Start	End	$\pm$ 1:00 >	Grid				Verbal Question Only - Verbal Question	0
1	2	3	4	5	6	7	8	9
10	11	12						

*Overcoming obstacles with CPS:* With the use of Class Performance System by eInstruction, teachers may overcome many learning related problems and difficulties. First, each student is engaged with their own wireless keypad for responding. Teachers can see which students have not responded therefore allowing teachers to assess both formatively as well as summatively. In addition, CPS allows for quicker grading than alternative testing, once students respond to each question it is graded and teacher can then print correlating reports so students have grades quicker as well. As a social studies and science teacher this allows my multiple classes to use the same set of CPS throughout the day with little preparation of photocopying quizzes and tests. Quizzes and tests can be quickly uploaded from ExamView Test Generator. With CPS teachers can make sure students stay on task by noting which students have not clicked in their answers.

*NETS Standards:* Class Performance System by eInstruction meets the teaching standards set by International Society for Technology in Education. The National Educational Technology Standards include facilitating and inspiring student learning and creativity, designing and developing digital-age learning experiences and assessments, modeling digital-age work and learning, promoting and modeling digital citizenship and responsibility, and engaging in professional growth and leadership.

Class Performance System can support the first standard of facilitating and inspiring student learning and creativity due to the fact it is engaging for all students because they are all required to answer each question, which results can then be shown. Each student activity participates through their responses to the questions. In addition it also promotes self-reflection. Students can assess their understanding in order to guide their future learning and success. CPS meets the second standard of designing and developing digital-age learning experiences and assessments because it allows for either formative or summative assessment directly aligned to the content being taught. As for the third standard of modeling digital-age work and learning, the CPS allow the teacher to demonstrate their fluency in technology, and provides parents with feedback through the reports that are able to be utilized at the completion of a CPS activity. The fourth NETS standard indicates promoting and modeling digital citizenship and responsibility. CPS meets this standard by providing free licensure of their site and software when purchasing the product. Finally CPS meets the fifth standard of engaging in professional growth and leadership through integration of the CPS into the classroom modeling growth and being a lifelong learner. In addition the CPS allows for best practices through engaging every student promoting the effectiveness within the classroom of the Class Performance System.





*Environmental Factors:* While implementing the Class Performance System into the classroom, there are environmental factors to consider. First, all students must have a clear path between themselves and the receiver for the inferred light to transmit the signal. The receiver has a limited range from the computer being used of approximately six feet and must be set where all keypads can transmit to. In addition, a projection device is necessary where all students can see what is being projected. Another environmental factor to consider are the student maturity level, some students chose to use the wireless keypads as toys rather than a tool for the classroom. Finally, it is important to consider lighting of the room, the projection of the questions (which the color can be changed on) may impact students being able to view the questions.

*Benefits:* Benefits of the Class Performance System include fast analysis of student understanding, all students participate, keypads are durable and will not break if dropped from less than ten feet, CPS comes with a lifetime warranty, and requires little setup to use after the initial input of student information. In addition, for verbal assessment, there is little setup and can be used throughout an entire class. CPS also has the benefit of lower cost then comparative tools. Having data and reports to show for grading purposes and proof are a key benefit of the CPS as well.

*Drawbacks:* The drawbacks to the Class Performance System include that many students want to be the first to respond rather than analyzing the question to respond correctly, requires teachers to input information prior to use for each student that will be participating, and text has limited amounts of increasing of size so students with limited sight may have problems. Also, during usage batteries may need to be replaced. Keeping extra AAA batteries on hand may alleviate this problem. Finally, the receiver must be placed where each students' keypad can connect with, which means it must be properly placed but within six feet of the computer.

