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Program Offering
Free, on-demand ACT / SAT Prep

THE OPEN SOURCE TEACHING PROJECT

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Introduction

Open Source Teaching is the public service for a knowledge economy, allowing learners to empower themselves through new media, innovation, and choice.

The tools of a knowledge-based economy make it possible for larger proportions of society to benefit from new forms of media, where access to people with expert, applied knowledge becomes the new status quo for communication, teaching, and learning. Open Source Teaching is about learning opportunities and life, www.opensourceteaching.org.

Beliefs

- **Self-empowerment.** Provided with the opportunity, all learners have the capacity to empower themselves.
- **Access (Open Source).** All learners should have open access to expert and shared knowledge.
- **New Media.** New media will play an integral role in the delivery of open source teaching and learning platforms.
- **The Knowledge Economy.** The tools of a knowledge economy will enable our beliefs to empower the decisions of all learners.

"This belief in the importance of innate talent, strongest perhaps among the experts themselves and their trainers, is strangely lacking in hard evidence...**motivation** appears to be a more important factor than innate ability in the development of expertise." Ross, P. (August 2006). "The Expert Mind". Scientific American. 295 (2) pg. 64 - 71.

Our Deliverable for ACT / SAT Test Preparation. On or before the Fall of 2009, all learners will be provided free, on-demand access to in-depth and comprehensive training, applying *open source teaching* strategies that allow students to excel on the ACT and SAT.

We welcome your participation. Please send all inquiries to the attention of Dr. David Sevier at david.sevier@opensourceteaching.org.

Apply concepts of *open source teaching* to ACT / SAT prep, digitally archive the delivery of ACT / SAT prep classes currently offered in your school or district. Provide all students within your district 24-hour on-demand access to all archived ACT / SAT prep lessons taught by multiple instructors across all schools within your district and/or state.

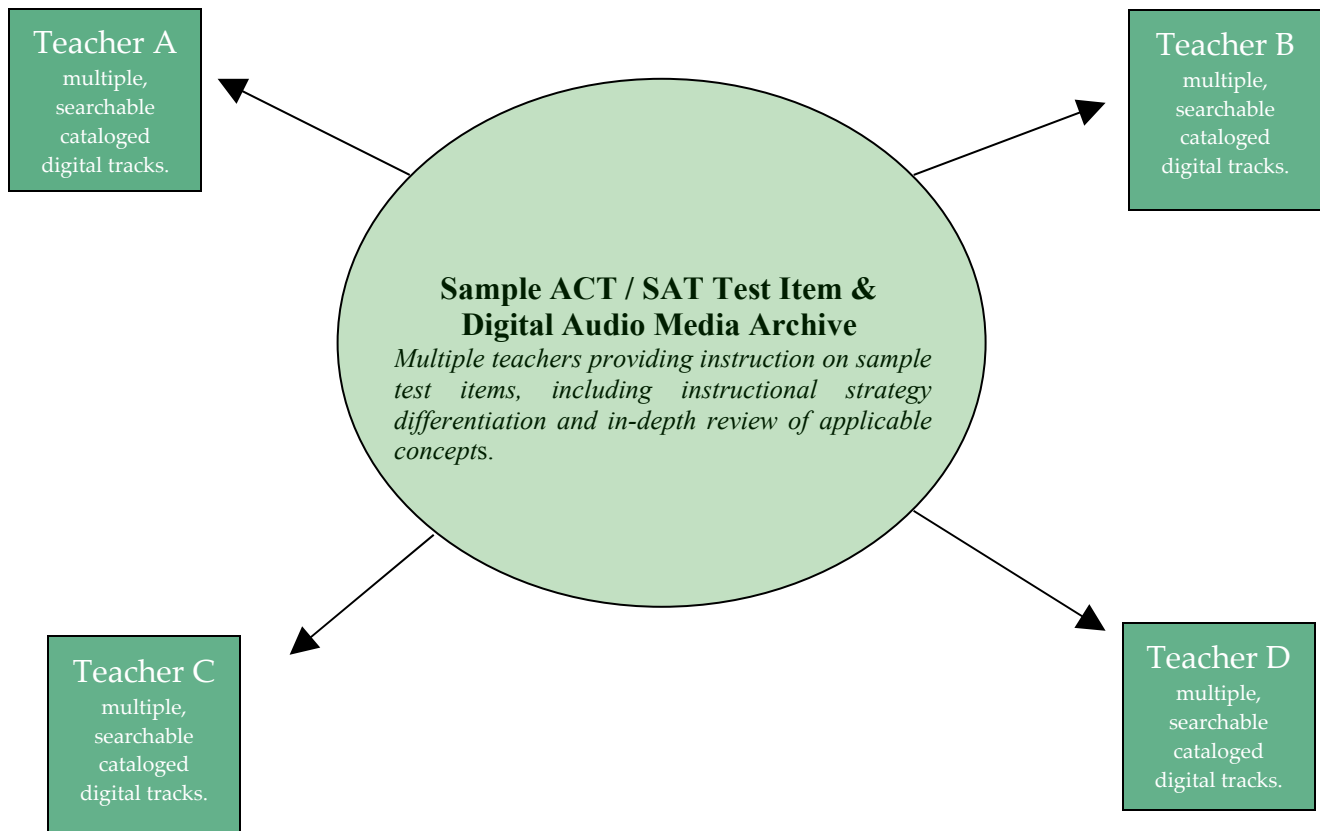
Students will be able to gain access to and/or download all mp3 audio files in a searchable format (CD, DVD, Computer, Completely Online, etc.) that can be applied to any media device that uses mp3 digital audio files.

The delivery of such instruction allows students to incorporate new media tools that are used daily outside of school into learning tools for their development on key indicators related to college access and success. *All captured media remains the sole property of the district in which it was captured.*

Students who do not have access to internet technology will be able to take full advantage of this deliverable simply through the use of a CD player. Our mission is to deliver innovative educational strategies that are immediately adaptable to all contexts in which learning takes place.

<http://www.opensourceteaching.org/collegeaccess/actsat.html>

**The student has the freedom to choose
between tracks among all digitally archived teachers.**



The user interface to deliver this strategy is readily available at no cost with very gracious storage capacity, including the ability to password and rights protect content among strictly defined and shared groups. Some readily available examples include: <http://esnips.com/tour/>, <http://www.ning.com>, <http://www.vox.com>, and/or <http://www.youtube.com>. The user interface will be customized based on the needs and preferences of the district.

These platforms provide an engaging delivery mechanism for students and also allow teachers to learn and share best practice teaching strategies.

What is expected of teachers?

1. Teachers will be provided 1 to 3 days of official release time from the district, related to digitally capturing (via audio media) their instructional expertise on specific sample test questions from a sample ACT / SAT test. No video will be recorded.
2. This capturing will have the feeling of a casual interview or conversation type setting, as if each instructor were providing one to one tutoring to a single student.
3. The capturing of instructional delivery for each question will be divided into two key ideas for each test question.
 - a. Idea 1: The **critical concepts** addressed in each question.
 - b. Idea 2: The **technical skills** required to correctly solve the question.
4. Representatives of open source teaching will take on the role of the student, and we will ask follow-up questions based on the two main ideas of 1) the concept and 2) the technical skills.
5. Based on the specific content area of instruction, each teacher will describe the instructional strategies used to explain the best methods for approaching such problems to students.
6. Each of the exact questions can be found at the following weblink: <http://www.actstudent.org/sampletest/index.html>. All questions will be taken exactly from this web page in the exact order as presented on the website.
 - a. Important note: For ACT's practice test, the approach to solving each of the identified questions is already provided within the following link, however, the goal of this initiative is to allow teachers to describe in greater more relevant and meaningful details so that students with varied learning strengths and styles can benefit.
7. The primary action that will be required of teachers is simply to share their best instructional strategies for approaching each of the presented sample test problems.
8. The exact interview questions are presented below:

The exact interview questions which will be asked of teachers for each sample test problem are identified below. All questions will be adapted based on their fit with the kind of questions asked within each of the content areas and administered test.

1. Based on the sample problem, what are the key concepts that a student should recognize as critical to attaining a correct response?
2. Based on the sample problem, what would you envision are the most common mistakes a student might make in forming a response?
3. Based on the sample problem, what are the specific technical skills required of a student to get this problem correct?
4. Additional follow-up questions, based on initial responses.
5. Questions will be adapted slightly, based on the content area.

For the ACT Test: All sample test questions will be taken from the following weblink, in the exact order as presented on the website.

<http://www.actstudent.org/sampletest/index.html>

For the SAT Test: All sample test questions will be taken from the following weblink, in the exact order as presented on the free practice test.

Important note: The user must first provide his / her sign up information before downloading the free test from the College Board.

http://www.collegeboard.com/student/testing/sat/prep_one/test.html

How will the interview schedule be organized?

It is preferred that 3 to 4 teachers are selected per content specific area. The following is an example of a typical interview schedule and format for teachers.

Session 1a	Separate Sessions	
½ Day (morning)	Math (Teacher A) – Science (Teacher A)	<i>Independent Interview Sessions</i>
Debrief		
Session 1b	Separate Sessions	
½ Day (afternoon)	English (Teacher A) – Math (Teacher B)	<i>Independent Interview Sessions</i>
Debrief		
Session 2a	Separate Sessions	
½ Day (morning)	Science (Teacher B) – English (Teacher B)	<i>Independent Interview Sessions</i>
Debrief		
Session 2b	Separate Sessions	
½ Day (afternoon)	Math (Teacher C) – Science (Teacher C)	<i>Independent Interview Sessions</i>
Debrief		
Session 3a	Separate Sessions	
½ Day (morning)	English (Teacher C) – Held in Reserve	<i>Independent Interview Sessions</i>
Debrief		
Session 3b	Separate Sessions	
½ Day (afternoon)	Held in Reserve – Held in Reserve	<i>Independent Interview Sessions</i>
Debrief		

Key Implementation Points

Interview Sessions

- It is anticipated that we will spend 2 interview sessions with each participating teacher.
- All interviews will be captured in half day sessions.
- It is recommended that the district compensate each teacher with at least a half day for planning, based on the subject specific sample test items covered within the following links (ACT or SAT):
 - <http://www.actstudent.org/sampletest/index.html>
 - http://www.collegeboard.com/student/testing/sat/prep_one/test.html.

Interview Breaks

- 5-10 minute breaks will be provided following each 30 to 40 minutes of interview session time.

Interview Edit Review and Debriefs

- A preliminary edit of captured interviews, including copies for all participating teachers and the district will be provided.
 - There will be ongoing opportunities for teachers and the district to provide additional suggestions and input regarding the interview process.
- A quick verbal debrief will be completed at the end of each interview session.
- An anonymous short survey of 5 – 10 questions will be completed at the end of each interview session.
- The feedback from the verbal debrief and the quick survey will help us continually improve our process.

What is the benefit for teachers?

Teachers participating in this incubation pilot will serve as the exemplary model of teacher best practice strategies and on-going teacher research that will be presented to state level decision makers in education.

The benefits of this initiative has the capacity to provide free, on-demand ACT prep for all students throughout the nation, including a specific example of how future state dollars devoted to teacher professional development can be used to help students learn from a variety of teachers and to help teachers learn from the best practice strategies of other teachers.

What will the deliverable look like?

ACT. The media track links will be embedded along each question (including the flexibility to choose between multiple teachers and tracks). The following sample questions are taken directly from a free ACT sample test, provided by ACT, found at the following link: <http://www.actstudent.org/sampletest/index.html>, retrieved June 19, 2006.

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1. Which of the following is equivalent to $(x)(x)(x)(x)$, for all x ? © 2006 by ACT, Inc. All rights reserved.

[A.](#) $4x$

On-demand media tracks, linked here.

[B.](#) x^4

[C.](#) $x + 4$

[D.](#) 4^x

[E.](#) $2x^2$

2. A rectangle is twice as long as it is wide. If the width of the rectangle is 3 inches, what is the rectangle's area, in square inches? © 2006 by ACT, Inc. All rights reserved

[F.](#) 6

On-demand media tracks, linked here.

[G.](#) 9

[H.](#) 12

[J.](#) 15

[K.](#) 18

3. A vendor has 14 helium balloons for sale: 9 are yellow, 3 are red, and 2 are green. A balloon is selected at random and sold. If the balloon sold is yellow, what is the probability that the next balloon, selected at random, is also yellow? © 2006 by ACT, Inc. All rights reserved

[A.](#) $\frac{8}{13}$

On-demand media tracks, linked here.

[B.](#) $\frac{9}{13}$

[C.](#) $\frac{5}{14}$

[D.](#) $\frac{8}{14}$

[E.](#) $\frac{9}{14}$

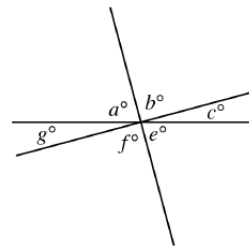
SAT. The following sample questions are taken directly from a *free* SAT sample test, provided by SAT to all users, found at the following link retrieved June 23, 2006. http://www.collegeboard.com/student/testing/sat/prep_one/test.html.

Note: The user must first provide his / her sign up information before downloading the free copy of this test provided by the College Board. The media track links will be embedded along each question (including the flexibility to choose between multiple teachers and tracks).

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1. If $4(t + u) + 3 = 19$, then $t + u =$

- (A) 3
- (B) 4
- (C) 5
- (D) 6
- (E) 7



Note: Figure not drawn to scale.

2. In the figure above, three lines intersect at a point. If $f = 85$ and $c = 25$, what is the value of a ?

- (A) 60
- (B) 65
- (C) 70
- (D) 75
- (E) 85

Questions 1 and 2: *On-demand media tracks, linked here, based on a school district's best instructors.*

3. If Marisa drove n miles in t hours, which of the following represents her average speed, in miles per hour?

- (A) $\frac{n}{t}$
- (B) $\frac{t}{n}$
- (C) $\frac{1}{nt}$
- (D) nt
- (E) n^2t

5. In the coordinate plane, the points $F(-2, 1)$, $G(1, 4)$, and $H(4, 1)$ lie on a circle with center P . What are the coordinates of point P ?

- (A) (0, 0)
- (B) (1, 1)
- (C) (1, 2)
- (D) (1, -2)
- (E) (2.5, 2.5)

Questions 3 and 5: *On-demand media tracks, linked here, based on a school district's best instructors.*

How does the process work?

ACT and SAT currently offer one completely free practice test online, available to all users at no cost. We are going to use these sample tests as the basis to demonstrate the power of *open source teaching* as an engaging and relevant learning tool for all learners.

1. The school and/or district selects the teachers it would like to digitally archive related to their specific instruction on targeted areas covered by the ACT / SAT, based on actual sample practice tests. The first set of archives will be based on practice tests provided by ACT or SAT that are freely available to all users.
2. Each identified teacher will require 1 to 3 days of official release time to sit down one on one with *open source teaching*, as we digitally archive the specific teacher's instruction related to the core concepts covered on the ACT /SAT and how these concepts relate specifically to exact questions on practice tests. This digital archive process will take place on each designated school or district site *at a location of the school's or district's choosing*.
3. The *open source teaching* process will allow each teacher to describe not only how to approach all sample problems on various practice tests, but also how each single type of question relates *in depth* to broader concepts that are tested in different ways across sample tests. Additionally, teachers will cover and address potentially common mistakes made by students in relationship to each sample question.
4. We will digitally catalog and edit all files into searchable mp3 audio tracks, each of which is less than two (2) minutes in duration, including supportive content material related to the ACT / SAT (CD, DVD, Computer, Completely Online, etc.).
5. Students will be able to customize instruction based on their own personalized areas for development related to the ACT / SAT, including on-demand instruction related to each of the kind of questions missed on practice administrations of respective tests.
6. Once cataloged and archived, all students will be able to create their own personalized media playlists related specifically to the areas of instruction in which they require the most instructional support.

7. All files will be on-demand and available for download at no cost to the user, 24 hours a day.

8. Students will be able to download, access, and play such files using any technology medium with the capacity to play mp3 files (CD, DVD, Computer, Completely Online, etc.). Students who do not have access to the internet, but have access to a CD player, will be able to fully maximize this instructional tool.

Sage Leadership Partners, Inc. can work directly with your district to deliver this powerful new media platform for teaching, training, and the reinforcement of learning.

All of these services are offered on behalf of Sage Leadership Partners, Inc. at no cost to the school, district, student, or family. **All archived media remains the sole property of the district in which the media was captured.**

Free ACT or SAT Sample Test

Free sample tests for the ACT and SAT are available at the following websites:

- <http://www.actstudent.org/sampletest/index.html>
- http://www.collegeboard.com/student/testing/sat/prep_one/test.html

A practice ACT test is available for download at the following web link: <http://www.actstudent.org/testprep/sambooks.html>. The official study guide for the SAT is available at www.collegeboard.org.

Sage Leadership Partners, Inc. can also collaborate with you and your district to maximize the potential of *open source teaching* across purchased sample practice tests from ACT and/or SAT vendors of the district's choosing.