# Extended Professional Development in Project-Based Learning

## Impacts on 21st Century Teaching and Student Achievement

Nate K. Hixson Jason Ravitz Andy Whisman

Link to FULL REPORT (with instrument): https://www.academia.edu/1999374/

Link to RESEARCH BRIEF: https://www.academia.edu/1999386/

Questions about the survey: Jason.Ravitz@gmail.com

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Thank you for agreeing to participate in this important survey. Your response will help WVDE understand more about teachers' instructional practices and how they relate to 21st Century Teaching and Learning.

There are no correct or incorrect answers. Please be candid in your responses and rest assured that the results of this survey are confidential.

We will use the information from this survey to develop a research report. However, no schools or teachers will be identified in this report. Your participation is voluntary and no one beyond the research staff will see your answers.

The WVDE understands that your time is precious. This survey should take no more than 20 minutes. Should you have any questions about this survey, please contact the Office of Research at . We look forward to your feedback.

NOTE: In recognition of the importance of this study, we have received external support from the Buck Institute for Education that will provide \$15 Amazon.com gift cards to 1 out of every 3 teachers who completes this survey.

## 1. Did you access this survey using a TinyURL link or an email that was sent from the WVDE?

I clicked on the link provided in the email from the WVDE.

I used the TinyRUL link that was faxed to our school. (Please enter the ID Code that came with your fax)

21st Century	<b>Feaching and L</b>	earning Surve	y [WVDE-CIS-2	28]
Answer for questions 1- on	3. In recent years – since 20	08 – has your teaching or pi	rofessional development incl	uded a SIGNIFICANT FOCUS
1. TECHNOLOG	Y INTEGRATION?			
◯ Yes, a significant fo	ocus in recent years			
O No				
2. FORMATIVE	and BENCHMARK	ASSESSMENTS?		
O Yes, a significant fo	ocus in recent years			
O No				
3. PROJECT BA	ASED LEARNING (	PBL)?		
O Yes, a significant fo	ocus in recent years			
O No				
4. Since 2008, I	have you HELPED	LEAD professional	development ses	sions on the
above topics, o	r on any other sign	ificant topics?		
O Yes				
O №				
	LENDAR YEAR s			
-	essional developn cilitator? (Do not c	-	-	•
P			<u>-</u>	g./
Total PD time, a	is leader or particip	pant, since June 20	)10:	
O to 10 hours	O 11 to 20 hours	21 to 30 hours	O 31 to 40 hours	More than 40 hours

21st Century Teaching and Learning Survey [WVDE-CIS-28]
1. In the last 3 years (since 2008), have you participated in intensive professional development in Project-Based Learning (PBL)?
Yes, a week long summer Teacher Leadership Institute (TLI)
Yes, a different workshop
2. THIS SEMESTER, did you use PBL in your teaching of core academic subjects math, science, social studies or English?
Yes, I used PBL in core academic subjects this semester
$\bigcirc$ No, I used PBL in other subject areas
No, I did not use PBL this semester

<b>For each of the subject areas below, please indicate up to 4 classes in which you used PBL instruction this semester.</b>

#### **1. MATHEMATICS**

	Class	Period
Math Class 1		
Math Class 2		
Math Class 3		
Math Class 4		
2. ENGLISH LANGUAGE ARTS		
	Class	Period
English Class 1		
English Class 2		
English Class 3		
English Class 4		
3. SCIENCE		
	Class	Period
Science Class 1		
Science Class 2		
Science Class 3		
Science Class 4		
4. SOCIAL STUDIES		
	Class	Period
Social Studies Class 1		
Social Studies Class 2		
Social Studies Class 3		
Social Studies Class 4		

5. This survey asks you to pick a "TARGET CLASS". This is the class in which you felt your teaching using PBL was the most effective. (If your PBL use was equally effective in all your classes, pick any of the classes that you think learned the most).

From the classes and periods you listed above, select a TARGET CLASS, in which you used PBL.

Please refer to this TARGET CLASS when answering the rest of this survey.

	ow, please indicate up to 4 classes yo	ou taught this semester.
. MATHEMATICS		
	Class	Period
Math Class 1		
Math Class 2		
Math Class 3		
Math Class 4		
. ENGLISH LANGUAGE AR	TS	
	Class	Period
English Class 1		
English Class 2		
English Class 3		
English Class 4		
S. SCIENCE		
	Class	Period
Science Class 1		
Science Class 2		
Science Class 3		
Science Class 4		
. SOCIAL STUDIES		
	Class	Period
Social Studies Class 1		
Social Studies Class 2		
Social Studies Class 3		
Social Studies Class 4		

21st Century Teachir	ig and Learning Surve	y [WVDE-CIS-28]	
-	S this semester, HOW MAN nents, questions, projects o nts complete?		
Number of extended (we projects or investigation	eek or longer) assignments, Is:	questions,	
	O 3 O 4 O 5	O 6 or more	
-	EKS were students involve projects, investigations?	d in conducting these ex	tended (week
none 1-2 weeks	3-4 weeks 5-6 weeks	7-8 weeks 9-10 weeks	s O more than 10 weeks
	/ERALL CLASS TIME for t r longer) assignments, ques		
For the entire semester:			
0-10% of class time 0 11-	25% of class time O 26–50% of class time	O 51-75% of class C time	) 76–100% of class
4. Did your target class l hour at a time?	have block scheduling, exte	ended periods lasting mo	ere than an
Yes, always	O Yes, sometimes	O No	

21st Century To	eachin <mark>g</mark> and Le	arning Survey	/ [WVDE-CI	S-28]	
1. What is the bea one.)	st description of the	e majority of stud	lents in your ta	rget class	s? (Choose
Students whose acad	demic performance is at the ex	pected le∨el for their age			
Students whose acad	demic performance is behind m	ost students their age			
O Students whose acad	lemic performance is ahead of	most students their age			
2. This question	asks for your asses	sment of studer	t learning of <b>A</b>	CADEMIC	CONTENT in
your target class	-				
Please ESTIMAT	E how many stude	-			No oslar oli
a. Ha∨e learned what they	will need to know to do well	Very few	Some	Most	Nearly all
on standardized tests?		0	0	0	0
b. Can apply and transfer tasks and situations?	what they ha∨e learned to new	0	0	0	0
b. Feel that what they lear	ned was personally relevant?	0	0	0	0
c. Are moti∨ated to learn n studied?	nore about the subjects they	0	0	0	0
	4 - I I		-17		
	t class, how many g OUTSIDE OF CLA				-
studying?	<b>y</b>		·····		,,
Less than 1 hour per week	O 1-2 hours	O 3-5 hours	O 6-9 hours	0	10 or more hours
4. In your TARGE	T CLASS this seme	ester, how much	time have you	spent ha	ving students
-	tandardized tests a	•	-	-	-
	O Less than 4 hours	4 to 12 hours	O 13 to 20 hour	s ()	More than 20 hours

The rest of this survey is going to ask about your teaching practices that might support students' learning of the following 21st century skills:

- \* Critical Thinking
- \* Collaboration
- \* Communication
- \* Creativity & Innovation
- \* Self-Direction
- \* Making Global Connections
- \* Making Local Connections
- \* Using Technology as a Tool

For each of the above you will be asked about your general teaching of these skills, and about a few specific practices you may have used.

There are no correct or incorrect answers and all responses will be kept confidential.

In general, CRITICAL THINKING SKILLS refer to students being able to analyze complex problems, investigate questions for which there are no clear-cut answers, evaluate different points of view or sources of information, and draw appropriate conclusions based on evidence and reasoning.

## 1. Here are some examples of practices that may help students learn CRITICAL THINKING **SKILLS**.

## In your teaching of your TARGET CLASS, how often have you asked students to do the following?

	Almost ne∨er	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Compare information from different sources before completing a task or assignment?	0	0	0	0	0
b. Draw their own conclusions based on analysis of numbers, facts, or relevant information?	0	0	0	0	0
c. Summarize or create their own interpretation of what they have read or been taught?	0	0	0	0	0
d. Analyze competing arguments, perspectives or solutions to a problem?	0	0	0	0	0
e. Develop a persuasive argument based on supporting evidence or reasoning?	0	0	0	0	0
f. Try to solve complex problems or answer questions that have no single correct solution or answer?	0	0	0	0	0

	Not really	To a minor extent	To a moderate extent	To a great extent	To a ∨ery great extent
a. I have tried to develop students' critical thinking skills	0	0	0	0	0
b. Most students have learned critical thinking skills while in my class	0	0	0	0	0
c. I have been able to effectively assess students' critical thinking skills	0	0	0	0	0

In general, COLLABORATION SKILLS refer to students being able to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal and to assume shared responsibility for completing a task.

1. Here are some examples of practices that may help students learn COLLABORATION SKILLS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following?

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Work in pairs or small groups to complete a task together?	0	0	0	0	0
b. Work with other students to set goals and create a plan for their team?	0	0	0	0	0
c. Create joint products using contributions from each student?	0	0	0	0	0
d. Present their group work to the class, teacher or others?	0	0	0	0	0
e. Work as a team to incorporate feedback on group tasks or products?	0	0	0	0	0
f. Give feedback to peers or assess other students' work?	0	0	0	0	0

	Not really	To a minor extent	To a moderate extent	To a great extent	To a ∨ery great extent
a. I have tried to develop students' collaboration skills	0	0	0	0	0
b. Most students have learned collaboration skills while in my class	0	0	0	0	0
<ul> <li>c. I have been able to effectively assess students' collaboration skills</li> </ul>	0	0	0	0	0

In general, COMMUNICATION SKILLS refer to students being able to organize their thoughts, data and findings and share these effectively through a variety of media, as well as orally and in writing.

1. Here are some examples of practices that may help students learn COMMUNICATION **SKILLS**.

In your teaching of your **TARGET CLASS**, how often have you asked students to do the following?

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs)?	0	0	0	0	0
b. Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)	0	0	0	0	0
c. Prepare and deliver an oral presentation to the teacher or others?	0	0	0	0	0
d. Answer questions in front of an audience?	0	0	0	0	0
e. Decide how they will present their work or demonstrate their learning?	0	0	0	0	0

#### 2. To what extent do you agree with these statements about your TARGET CLASS? To a moderate To a great extent <sup>™</sup>To a very great To a minor Not really extent extent extent Ο Ο Ο Ο Ο a. I have tried to develop students' communication skills Ó Ο Ο Ο Ο b. Most students have learned communication skills while in my class $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ c. I have been able to effectively assess students' communication skills

In general, CREATIVITY AND INNOVATION SKILLS refer to students being able to generate and refine solutions to complex problems or tasks based on synthesis, analysis and then combining or presenting what they have learned in new and original ways.

## 1. Here are some examples of practices that may help students learn CREATIVITY AND INNOVATION SKILLS.

## In your teaching of your **TARGET CLASS**, how often have you asked students to do the following?

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Use idea creation techniques such as brainstorming or concept mapping?	0	0	0	0	0
b. Generate their own ideas about how to confront a problem or question?	0	0	0	0	0
c. Test out different ideas and work to improve them?	0	0	0	0	0
d. Invent a solution to a complex, open-ended question or problem?	0	0	0	0	0
e. Create an original product or performance to express their ideas?	0	0	0	0	0

	Not really	To a minor extent	To a moderate extent	To a great extent	To a ∨ery great extent
a. I have tried to develop students' creativity and innovation skills	0	0	0	0	0
b. Most students have learned creativity and innovation skills while in my class	0	0	0	0	0
<ul> <li>c. I have been able to effectively assess students' creativity and innovation skills</li> </ul>	0	0	0	0	0

In general, SELF-DIRECTION SKILLS refer to students being able to take responsibility for their learning by identifying topics to pursue and processes for their own learning, and being able to review their own work and respond to feedback.

## 1. Here are some examples of practices that may help students learn SELF-DIRECTION SKILLS.

# In your teaching of your TARGET CLASS, how often have you asked students to do the following?

	Almost ne∨er	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Take initiative when confronted with a difficult problem or question?	0	0	0	0	0
b. Choose their own topics of learning or questions to pursue?	0	0	0	0	0
c. Plan the steps they will take to accomplish a complex task?	0	0	0	0	0
d. Choose for themselves what examples to study or resources to use?	0	0	0	0	0
e. Monitor their own progress towards completion of a complex task and modify their work accordingly?	0	0	0	0	0
f. Use specific criteria to assess the quality of their work before it is completed?	0	0	0	0	0
g. Use peer, teacher or expert feedback to revise their work?	0	0	0	0	0

	Not really	To a minor extent	To a moderate extent	To a great extent	To a ∨ery great extent
a. I have tried to develop students' self-direction skills	0	0	0	0	0
b. Most students have learned self-direction skills while in my class	0	0	0	0	0
c. I have been able to effectively assess students' self- direction skills	0	0	0	0	0

In general, making GLOBAL CONNECTIONS refers to students being able to understand global, geo-political issues including awareness of geography, culture, language, history, and literature from other countries.

## 1. Here are some examples of practices that may help students learn to make GLOBAL CONNECTIONS.

## In your teaching of your TARGET CLASS, how often have you asked students to do the following?

	Almost ne∨er	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Study information about other countries or cultures?	0	0	0	0	0
b. Use information or ideas that come from people in other countries or cultures?	0	0	0	0	0
c. Discuss issues related to global interdependency (for example, global en∨ironment trends, global market economy)?	0	0	0	0	0
d. Understand the life experiences of people in cultures besides their own?	0	0	0	0	0
e. Study the geography of distant countries?	0	0	0	0	0
f. Reflect on how their own experiences and local issues are connected to global issues?	0	0	0	0	0

	Not really	To a minor extent	To a moderate extent	To a great extent	To a ∨ery great extent
a. I have tried to develop students' skills in making global connections	0	0	0	0	0
<ul> <li>Most of my students have learned to make global connections while in my class</li> </ul>	0	0	0	0	0
c. I have been able to effectively assess students' skills in making global connections	0	0	0	0	0

### 21st Century Teaching and Learning Survey [WVDE-CIS-28]

In general, making LOCAL CONNECTIONS refers to students being able to apply what they have learned to local contexts and community issues.

#### 1. Here are some examples of practices that may help students learn to make LOCAL **CONNECTIONS.**

#### In your teaching of your TARGET CLASS, how often have you asked students to do the following?

	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Investigate topics or issues that are relevant to their family or community?	0	0	0	0	0
b. Apply what they are learning to local situations, issues or problems?	0	0	0	0	0
c. Talk to one or more members of the community about a class project or activity?	0	0	0	0	0
d. Analyze how different stakeholder groups or community members ∨iew an issue?	0	0	0	0	0
e. Respond to a question or task in a way that weighs the concerns of different community members or groups?	0	0	0	0	0
2. To what extent do you agree with	these stat	ements ab	out your TA	RGET CLAS	SS?
	Not really	To a minor extent	To a moderate extent	To a great extent	To a ∨ery great extent
a. I have tried to develop students' skills in making local connections	0	0	0	0	0
b. Most students have learned to make local connections while in my class	0	0	0	0	0
c. I have been able to effectively assess students' skills in	0	0	0	0	0

making local connections

In general, USING TECHNOLOGY AS A TOOL FOR LEARNING refers to students being able to manage their learning and produce products using appropriate information and communication technologies.

# 1. Here are some examples of practices that may help students learn to USE TECHNOLOGY as TOOL FOR LEARNING.

In your teaching of your TARGET CLASS, how often have you asked students to do the following?

	Almost ne∨er	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Use technology or the Internet for self-instruction (e.g., Kahn Academy or other videos, tutorials, self- instructional websites, etc.)?	0	0	0	0	0
b. Select appropriate technology tools or resources for completing a task?	0	0	0	0	0
c. Evaluate the credibility and relevance of online resources?	0	0	0	0	0
e. Use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.)?	0	0	0	0	0
f. Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.)?	0	0	0	0	0
g. Use technology to support team work or collaboration (e.g., shared work spaces, email exchanges, giving and receiving feedback, etc.)?	0	0	0	0	0
h. Use technology to interact directly with experts or members of local/global communities?	0	0	0	0	0
i. Use technology to keep track of their work on extended tasks or assignments?	0	0	0	0	0
2. To what extent do you agree with	these stat	ements abo	out your TA	RGET CLAS	S?
	Not really	To a minor extent	To a moderate _ extent	To a great extent	To a ∨ery great extent
a. I have tried to develop students' skills in using technology as a tool for learning	0	0	0	0	0
b. Most students have learned to use technology as a tool for learning while in my class	0	0	0	0	0
c. I have been able to effectively assess students' skills in using technology for learning	0	0	0	0	0

21st Century Teaching and Learning Survey [WVDE-CIS-28]
1. In recognition of the importance of this study, and as a small token of appreciation, the research team will randomly select one out of every three teachers to receive a \$15 gift certificate.
Do we have permission to contact you if you win an Amazon.com gift certificate?
○ Yes, send me the gift if I win
O No, someone else can have it
2. If you are willing to participate in a follow-up phone call to discuss your survey responses, please let us know.
Yes, you may call me to discuss my responses
No, I do not want to be contacted about my responses
3. If you wish to explain any of your responses, or comment on the questions that were asked, please use this space freely.
If you have questions about this survey, please contact the WVDE Office of Research at 304.558.2546. We look forward to your feedback.
THANK YOU for COMPLETING OUR SURVEY!
This page will close when you click Done.