



Maine Teachers Use of Technology

Technology and Open Educational Resources 2010 Survey Results

Published by Syntiro

The Open Educational Resources (OER) grants in Career Education and Development, Health Education & Physical Education, Mathematics, and World Languages are administered by the Maine Support Network and are funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act).



Open Educational Resources Professional Development Survey Report

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Maine Support Network

June 6, 2010

The Maine Support Network received multiple grants from the Maine Department of Education to identify and facilitate the use of Open Educational Resources in four subject areas: Mathematics, World Languages, Career Education and Development, and Health Education & Physical Education. Additionally, the Network received a professional development grant to support the infusion of the arts into regular education subject areas.

Maine has demonstrated its commitment to ensuring that Maine students and teachers have access to and use technology to inform teaching and learning through its Maine Learning Technology Initiative and supporting legislation. “The Maine Learning Technology Initiative made Maine the first state to seize the potential of technology to transform teaching and learning in classrooms statewide; first with a plan to equip all students and teachers in grades 7 to 12 with personal learning technology statewide; first to equip every 7th and 8th grade student and 7th through 12th grade teacher statewide with personal access to learning technology; first to empower every 7th through 12th grade teacher in every school statewide with professional development and support to fully tap the potential of computers and the Internet; and first to provide the option of home Internet access to every 7th and 8th grade student in every school statewide” (retrieved June 15, 2010 from <http://www.state.me.us/mlti/about/index.shtml>). Currently over 100,000 teachers and students are provided laptops to support achievement of the Maine Learning Results.

In order to better understand Maine teachers’ understanding, perceptions, and use of technology, and ultimately Open Educational Resources, a survey was developed and deployed to Maine teachers. The survey was deployed to all members of the Maine Support Network, as well as through the regional Partnership of Partnerships.

Over one hundred Maine teachers responded to the survey representing eight of the nine superintendent regions of Maine. Additionally, teachers representing all grade levels responded, and teachers representing subject areas including math, science, English, social studies, music, business, technology, special education, early childhood programs, art, gifted and talented programs, ESL, language arts, general education, health, physical education, and visual arts responded to the survey. School nurses, guidance, and administrators are also represented in the survey responses highlighted below.

This survey will be used by the OER Professional Development Team, and Maine Support Network staff, to highlight and celebrate the use of technology in Maine classrooms; identify, develop and deliver professional development opportunities to meet the needs of educators identified in this survey; and to inform the Maine Department of Education and other grant recipients of the findings of

this survey. Additionally, focus groups and interviews will be held with Maine teachers to more specifically target needs, and more clearly understand the barriers to infusing technology into classroom practices and to accessing and utilizing the growing number of OER to support teaching and learning.

Summary of Findings

FINDINGS:

1. The majority of teachers (96%, n = 91) reported that they have ready access to technology to support instruction (n = 95). See Figure 1.
2. The majority of teachers (91%, n = 87) reported that wireless access is always available to their school. Another 8.7 % sometimes have wireless access (n = 95). See Figure 2.
3. The majority of teachers (93%, n = 88) reported that their students have ready access to computers (n = 95). See Figure 3.
4. The majority of teachers (63%, n = 60) reported that students use technology in their school daily. Another 27% reported that technology use occurs at least once a week (n = 96). See Figure 4.
5. The majority of teachers (44%, n = 42) reported that they use Internet-based resources to enhance or inform instruction at least once a week. 30% use Internet-based resources daily (n = 95). See Figure 5.
6. Teachers reported a varied assortment of types of technology that they frequently use in their classroom. The majority are using interactive computer programs. Interestingly, one teacher reported not using technology at all (n = 77). See Figure 6.
7. Laptops were reported as the most frequently used resource. (89%, n = 77). SMART Boards were the second most used resource, used by 29% of the teachers (n = 87). See Figure 7.
8. The majority of teachers reported that their top reason for using Internet-based resources is to supplement their existing lessons or coursework. Another important reason is to engage their students more fully in a topic area. Few thought that a good reason for using Internet-based resources was to connect with teachers or learners who have similar interests (n = 91). See Figure 8.
9. Teachers reported using a large variety of resources or teacher sites that they access frequently. Reading A-Z, Ed Helper, and PortaPortal were cited by several teachers (n = 61). See Figure 9.
10. Seventy-two percent of teacher responses indicated some knowledge of Open Educational Resources. The majority of teachers (37.9%) reported they were somewhat familiar with the concept. Over 25% of teachers reported no knowledge of Open Educational Resources (n = 95). See Figure 9.
11. The majority of teachers are using Google to locate their OER (n = 36). See Figure 10.
12. Of the 45 teachers who answered this question, the top reasons for how they typically use the OER they find were that they generally just viewed them online or added parts of them to their

own educational materials. Few shared them with others on a domain site (n = 45). See Figure 11.

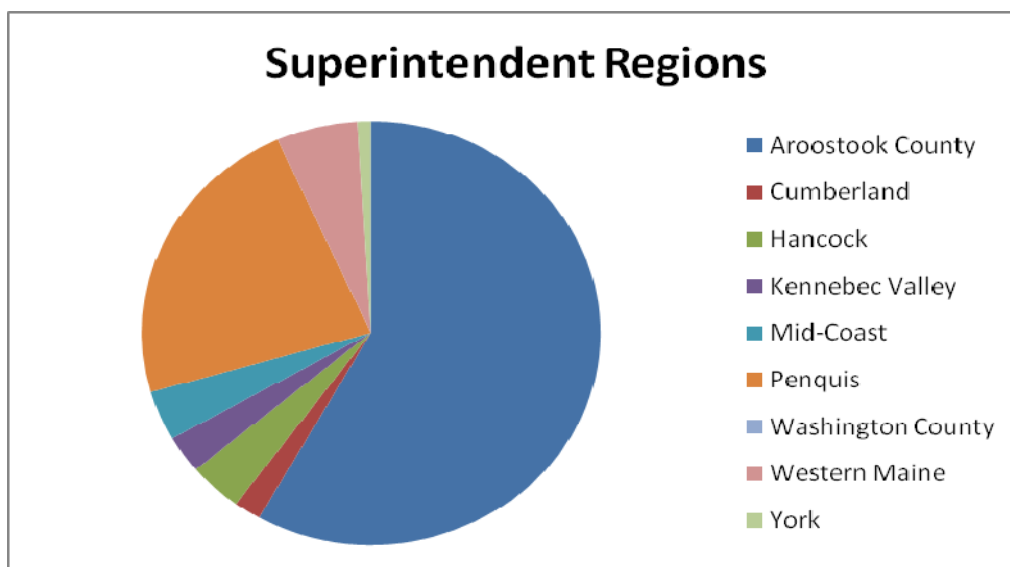
13. Teachers reported that time, both to research and to experiment with their resource, is the biggest challenge they face in OER use (n = 46). See Figure 12.
14. The majority of the teachers surveyed learned about effectively using OER from trial and error, and from colleagues (n = 26). See Figure 13.
15. Common themes in the responses about professional development in the area of technology are the use of a white board and SMART Board. Time is an issue mentioned frequently. Some teachers responded that they want information specific to their content areas (n = 34).
16. In analyzing the professional development requests received it is apparent that the teachers who responded to the survey would like hands-on workshops that provide information on using the Internet to find specific OER, examples of OER, and time to experiment and network with colleagues (n = 20).
17. Teachers' questions were about the reliability, validity, and availability of OER for use. OER staff is responding to the questions (n = 8).

Survey Findings

Demographics: Frequency and Percent of Teachers Responding From Nine Superintendent Regions

FINDING:

Of the 105 teachers who responded, the majority represented the Aroostook County Superintendent’s Region, followed by the Penquis Superintendent’s Region.



Superintendent Region Representation	Frequency	Percent
Aroostook County	61	58%
Cumberland	2	2%
Hancock	4	4%
Kennebec Valley	3	4%
Mid-Coast	4	4%
Penquis	24	23%
Washington County	0	0%
Western Maine	6	6%
York	1	1%
Total	105	100%
Missing	6	
Total	111	

1. Do you have ready access to technology to support instruction?

FINDING:

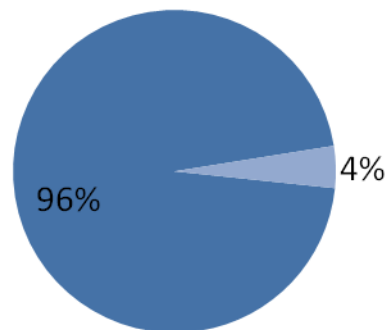
The majority of teachers (96%, n = 91) reported that they have ready access to technology to support instruction.

Figure 1

Ready Access to Technology

(n = 95)

■ Yes ■ No



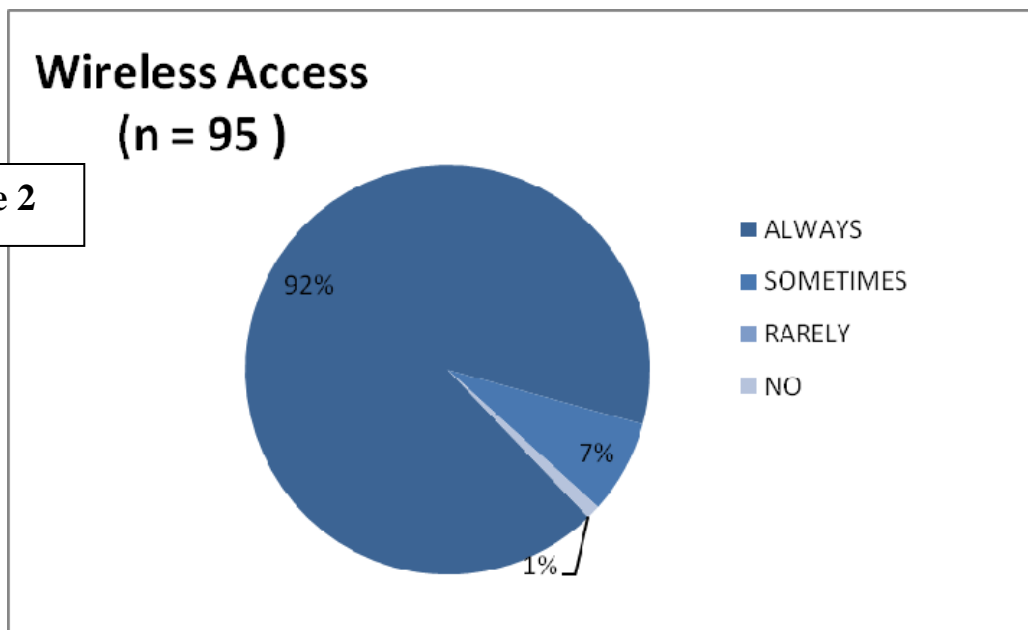
Answer Options	Frequency	Percent
YES	91	95.8%
NO	4	4.2%
Total	95	100%
Missing	16	
Total	111	

2. Do you have wireless access at your school?

FINDING:

The majority of teachers (91%, n = 87) reported that wireless access is always available to their school. Another 8.7 % sometimes have wireless access.

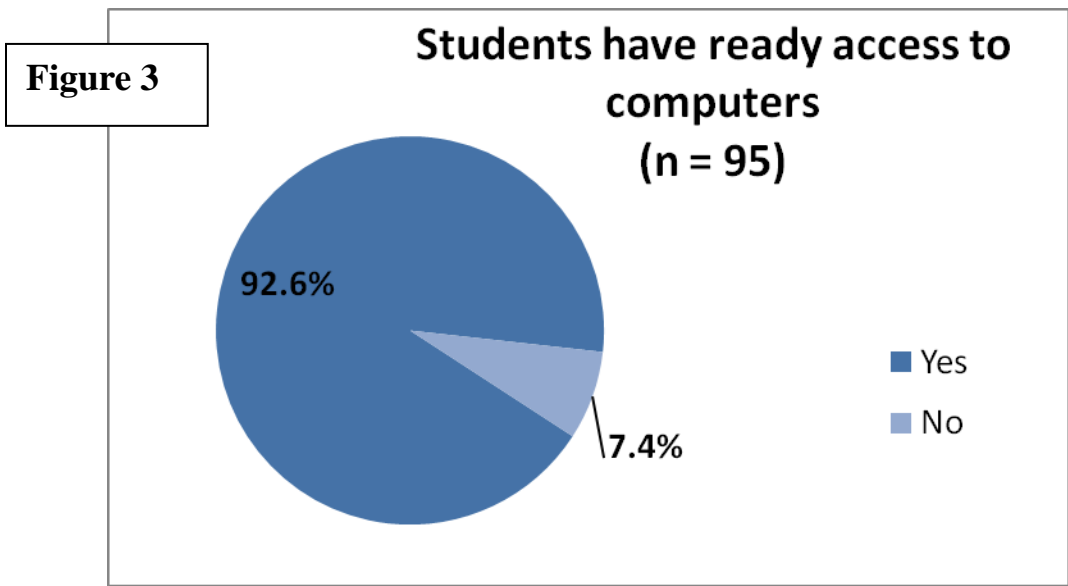
Figure 2



Answer Options	Frequency	Percent
ALWAYS AVAILABLE	87	91.6%
SOMETIMES	7	7.4%
RARELY	0	0.0%
NO	1	1.1%
Total	95	100%
Missing	16	
Total	111	

3. Do your students have ready access to computers?

FINDING:
 The majority of teachers (93%, n = 88) reported that their students have ready access to computers.

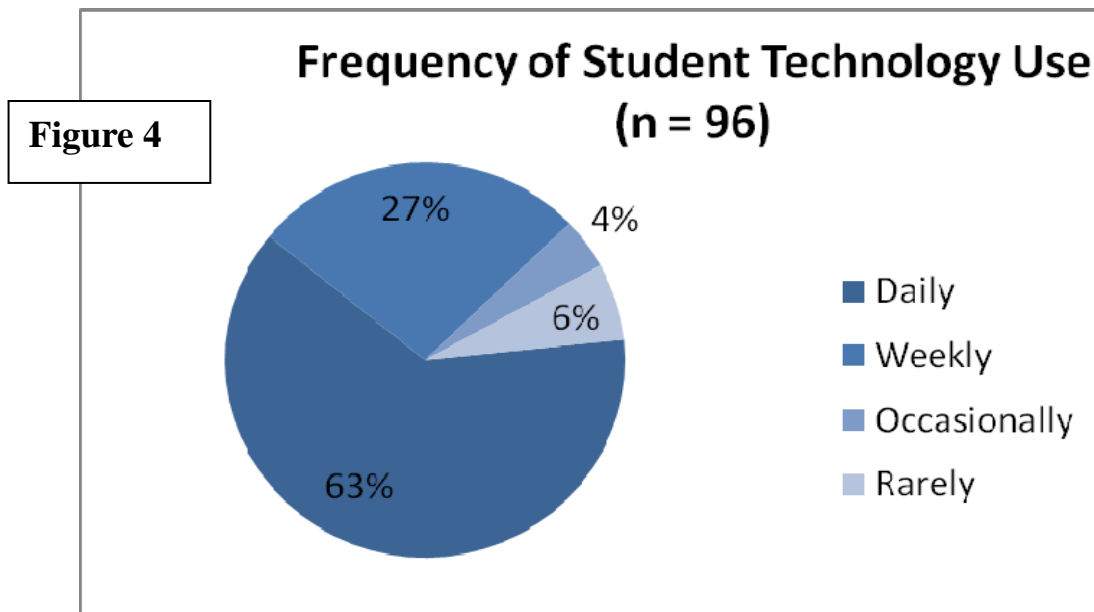


Answer Options	Frequency	Percent
YES	88	92.6%
NO	7	7.4%
Total	95	100%
Missing	16	
Total	111	

4. How often do your students use technology in your school?

FINDING:

The majority of teachers (63%, N = 60) reported that students use technology in their school daily. Another 27% reported that technology use occurs at least once a week.



Answer Options	Frequency	Percent
DAILY	60	62.5%
WEEKLY	26	27.1%
OCCASIONALLY	4	4.2%
RARELY	6	6.3%
Total	96	100%
Missing	15	
Total	111	

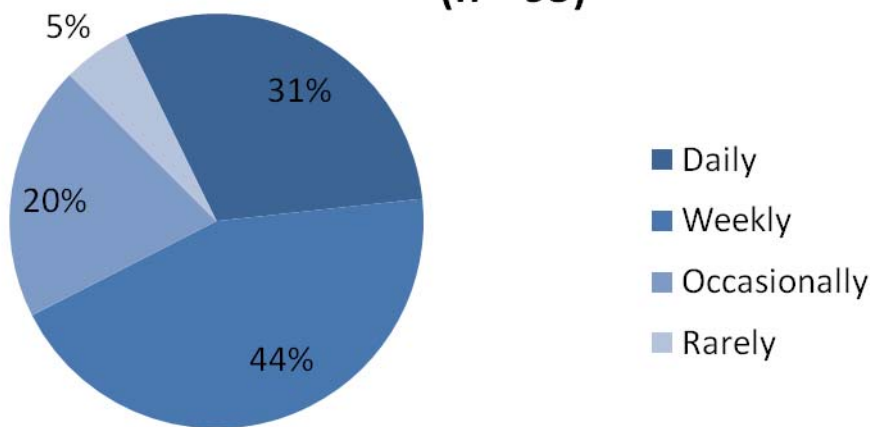
5. How often do you use Internet-based resources to enhance or inform your instruction?

FINDING:

The majority of teachers (44%, N = 42) reported that they use Internet-based resources to enhance or inform instruction at least once a week. 30% use Internet-based resources daily.

Figure 5

Use of Internet Resources to Enhance Instruction (n = 95)



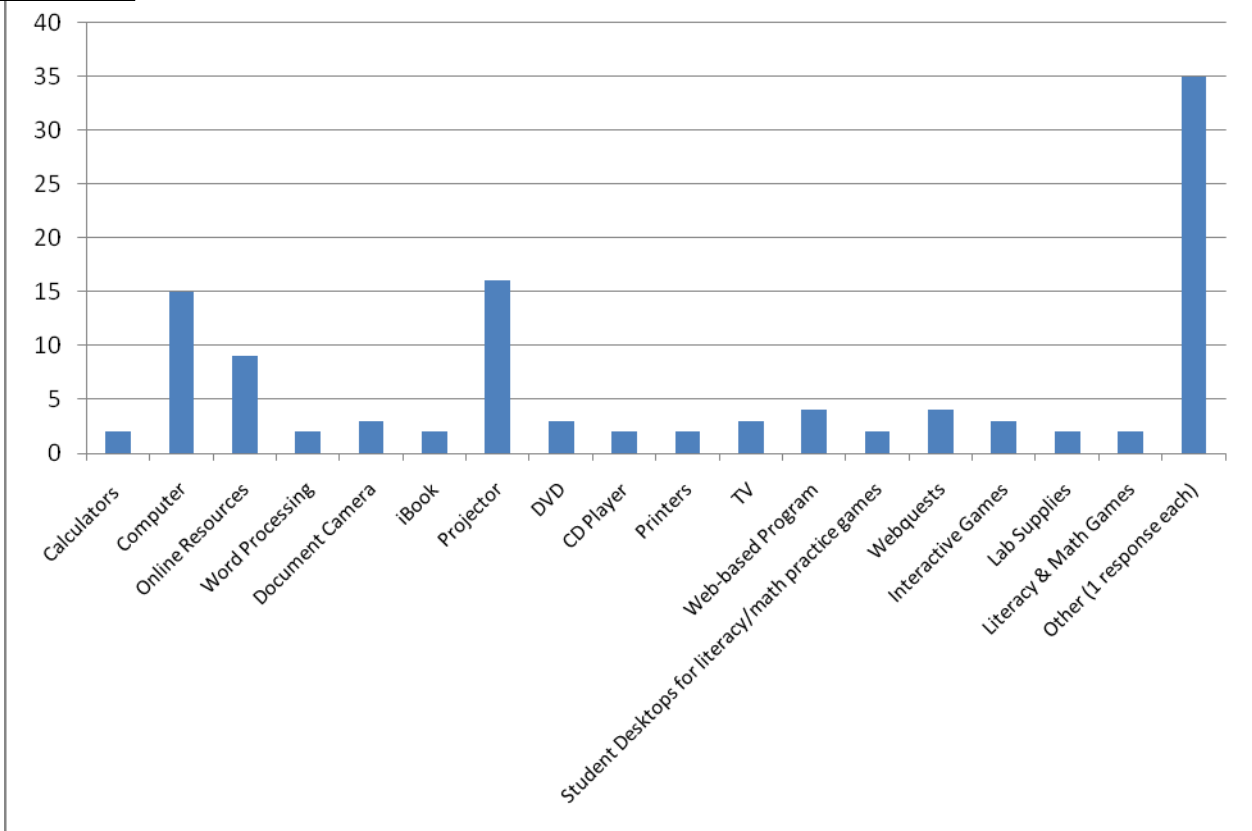
Answer Options	Frequency	Percent
DAILY	29	30.5%
WEEKLY	42	44.2%
OCCASIONALLY	19	20.0%
RARELY	5	5.3%
Total	95	100%
Missing	16	
Total	111	

6. What types of technology do you use most frequently in the classroom?

FINDING:
Teachers reported a varied assortment of types of technology that they frequently use in their classroom. The majority are using interactive computer programs. Interestingly, one teacher reported not using technology at all. (n = 77)

Figure 6

Types of Technology Used in the Classroom

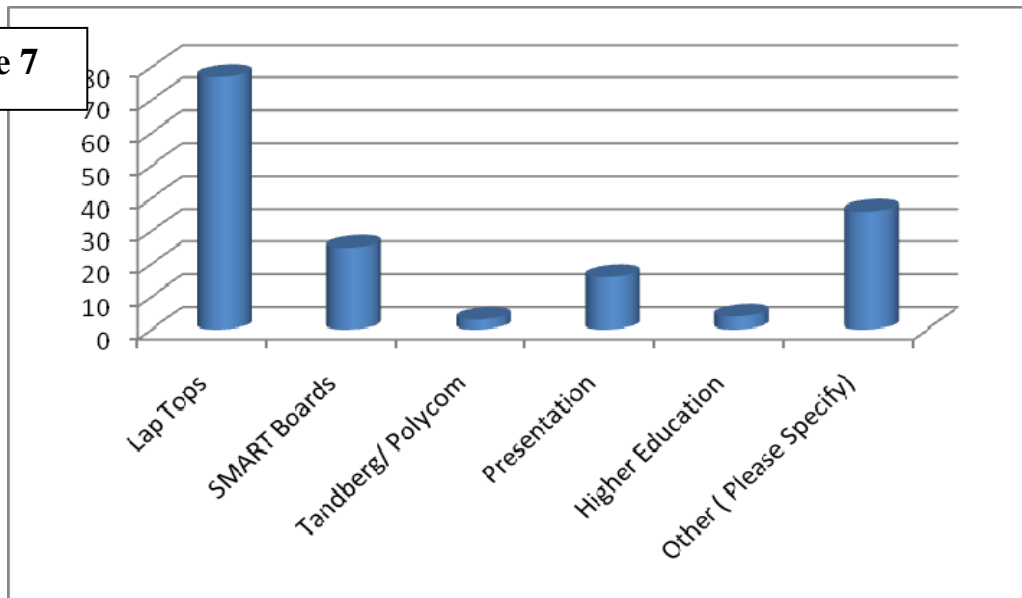


7. What types of resources do you and your students use most frequently?

FINDING:

Laptops were reported as the most frequently used resource. (89% n=77). SMART Boards were the second most used resource, used by 29% of the teachers.

Figure 7



Answer Options	Frequency	Percent
LAPTOPS	77	88.5%
SMART BOARDS	25	28.7%
TANDBERG/POLYCOM	3	3.4%
PRESENTATION SOFTWARE	16	18.4%
HIGHER EDUCATION RESOURCES (COURSE WORK)	4	4.6%
OTHER	14	16.1%
Total	87	100%
Missing	24	
Total	111	

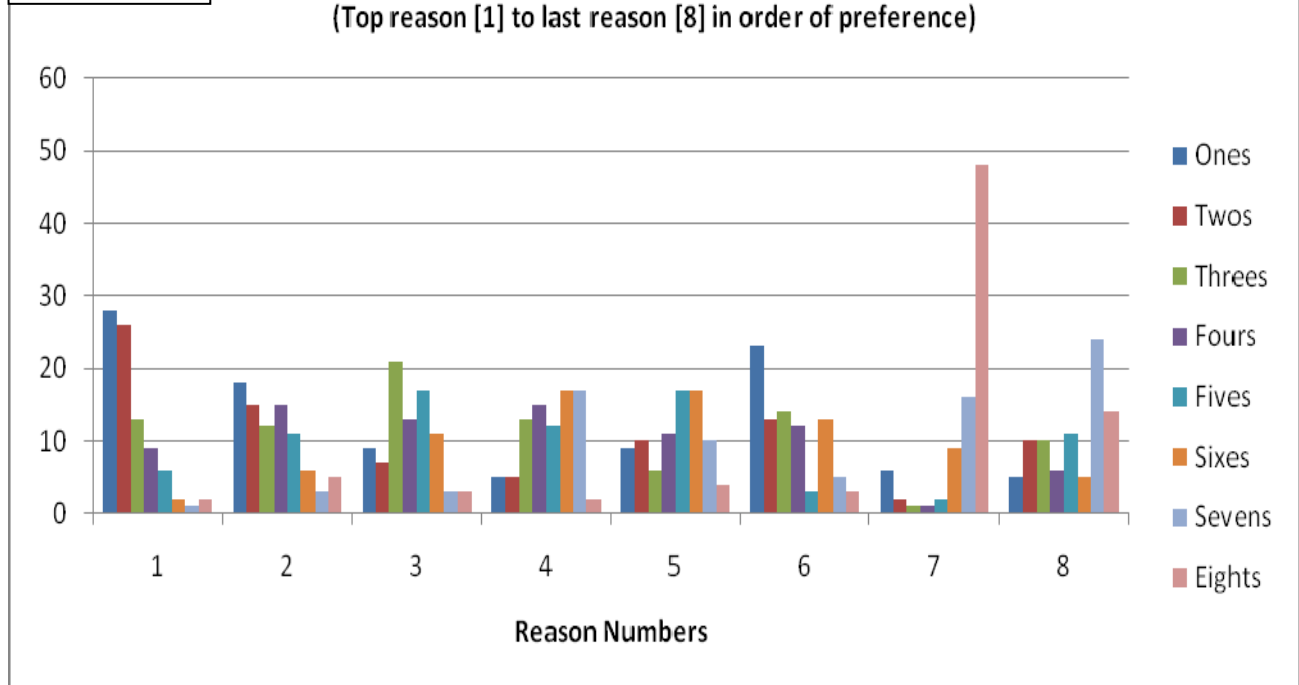
8. What are the reasons you use Internet-based resources?
(Top reason [1] to last reason [8] in order of preference)

FINDING:

The majority of teachers reported that their top reason for using Internet-based resources is to supplement their existing lessons or coursework. Another important reason is to engage their students more fully in a topic area. Few thought that a good reason for using Internet-based resources was to connect with teachers or learners who have similar interests (n = 91).

Figure 8

What are the reasons you use Internet-based resources?
(Top reason [1] to last reason [8] in order of preference)



What are the reasons you use Internet-based resources? (Top reason [1] to last reason [8] in order of preference)

Top reason for using Internet-based resources is to supplement existing lessons or coursework (n = 28).

Second reason is to engage students more fully in a topic area (n = 23).

Third reason is to get ideas from new lessons (n = 18).

Fourth reason is to improve teaching methods/enhance professional development (n = 9) or to learn about a new topic (n = 9).

Fifth reason is to connect with teachers or learners who have similar interests (n = 6).

Sixth reason is to stay current in a subject/topic area (n = 5) or to model strategies in using the Internet as a resource for student learning (n = 5).

TOP THREE REASONS IDENTIFIED BY EDUCATORS	Reason # 1	Reason # 2	Reason # 3
Reason 1: To supplement my existing lessons or Coursework.	30.7% (n = 28)	28.5% (n = 26)	14.3% (n = 13)
Reason 2: To get ideas from new lessons.	19.7% (n = 18)	16.4% (n = 15)	13.1% (n = 12)
Reason 3: To improve my teaching methods or enhance my professional development.	9.8% (n = 9)	7.8% (n = 7)	23.0% (n = 21)
Reason 4: To stay current in a subject or topic area.	5.4% (n = 5)	5.4% (n = 5)	14.3% (n = 13)
Reason 5: To learn about a new topic.	9.8% (n = 9)	10.9% (n = 10)	6.5% (n = 6)
Reason 6: To engage my students more fully in a topic area.	25.2 (n = 23)	14.3% (n = 13)	15.4% (n = 14)
Reason 7: To connect with teachers or learners who have similar interests.	6.5% (n = 6)	2.2% (n = 2)	1.0% (n = 1)
Reason 8: To model strategies in using the Internet as a resource for learning for my students.	5.4% (n = 5)	10.9% (n = 10)	10.9% (n = 10)

9. What are the resources or teacher sites you access most frequently?

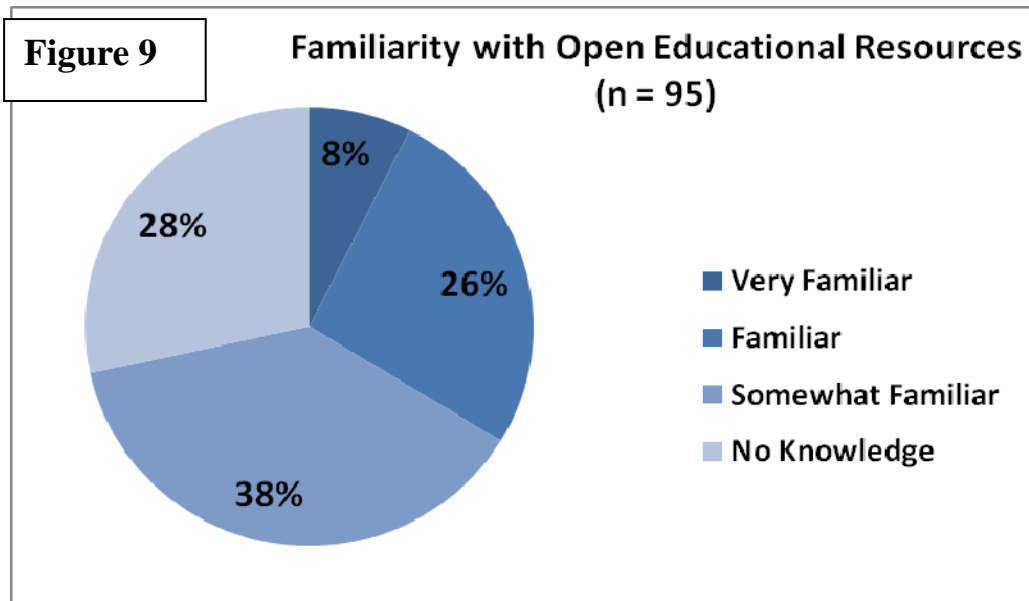
FINDING:

Teachers reported using a large variety of resources or teacher sites that they access frequently. Reading A-Z, Ed Helper, and PortaPortal were cited by several teachers (n = 62).

Example Resources Identified	Frequency (Number of responses)
Reading A - Z	12
Ed Helper	9
Portal Portal	8
Enchanted Learning	7
Scholastic	6
Google	5
Itunesu.com	5
Lexia Phonics	5
Discover Education	4
Starfall.com	4
Platoweb.com	3
ABC Teach	3
Math Café, Marvel, NWEA, PBS, Read Write Think, Reading Street, Spellingcity.com, Failure Free Reading, Enable 360, EDM Sites, Dictionary.com, CDC.gov, Brain Pop, Art Museums websites	2

10. How familiar are you with the concept of Open Educational Resources?

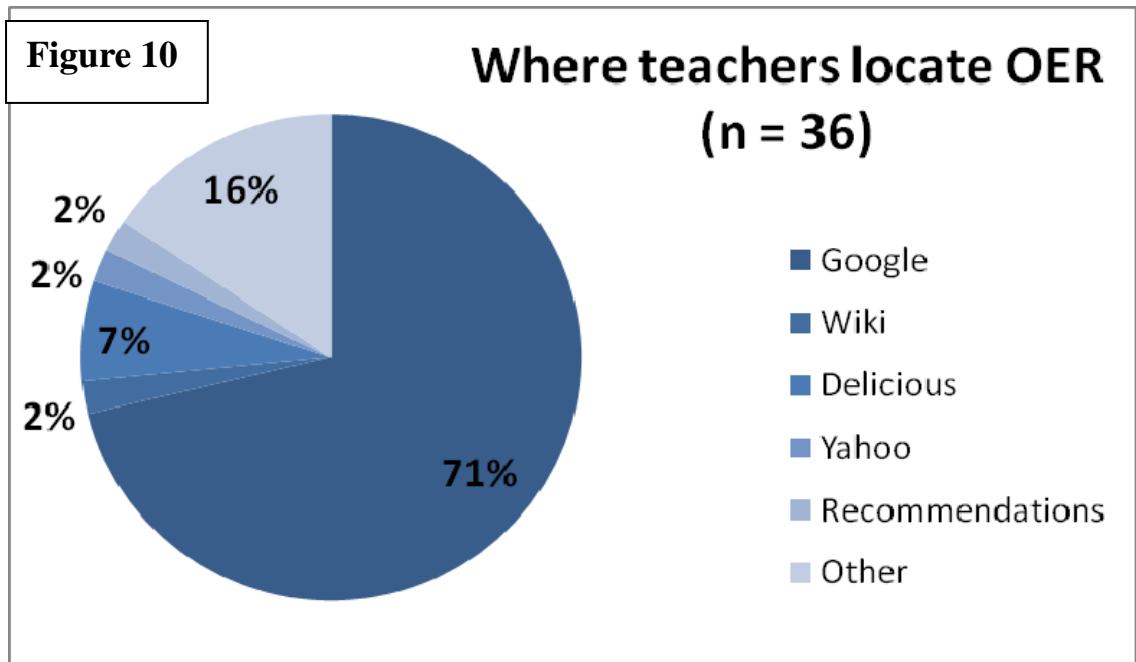
FINDING:
 Seventy-two percent of teacher responses indicated some knowledge of Open Educational Resources. The majority of teachers (37.9%) reported they were somewhat familiar with the concept. Over 25% of teachers reported no knowledge of Open Educational Resources.



Answer Options	Frequency	Percent
VERY FAMILIAR	7	7.4%
FAMILIAR	25	26.3%
SOMEWHAT FAMILIAR	36	37.9%
NO KNOWLEDGE	27	28.4%
Total	96	100%
Missing	15	
Total	111	

11. Where do you locate your Open Educational Resources (e.g., Google searches, OER Commons, Delicious)?

FINDING:
 The majority of teachers are using Google to locate their OER.



Answer Options	Frequency	Percent
GOOGLE	32	88.8%
WIKI	1	2.7%
DELICIOUS	3	8.3%
YAHOO	1	2.7%
COLLEAGUE RECOMMENDATIONS	1	2.7%
OTHER (TECH INTEGRATION, READING A-Z, SAFARI, CREATIVE COMMONS, LIVE BINDER, MLTI, BING)	7	19.4%
Total	36	100%
Missing	77	
Total	111	

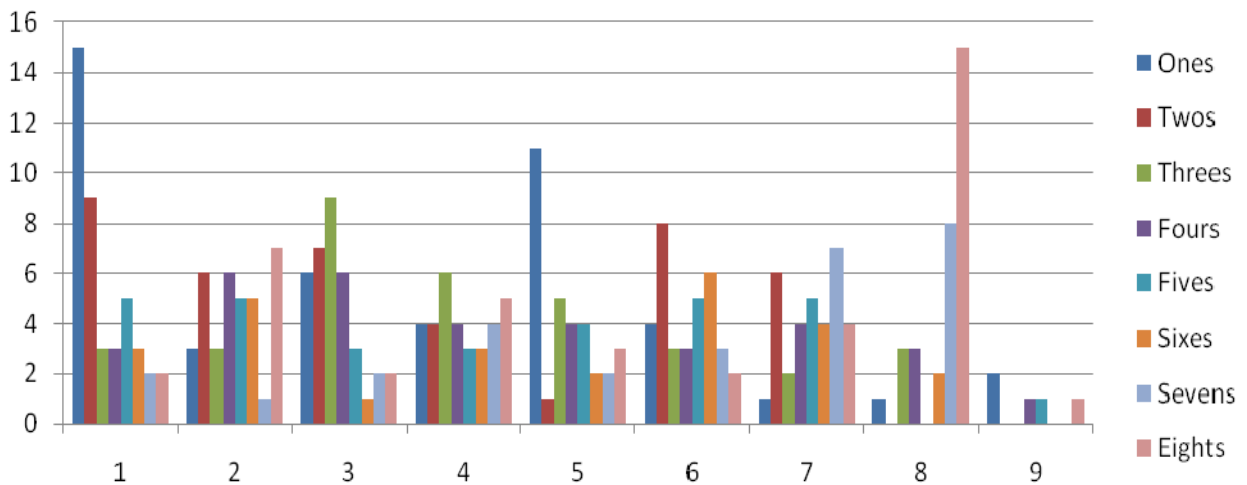
12. How do you typically use the OER you find? Number by frequency of use. 1 = most frequent, 8 = least frequent.

FINDING:

Of the 45 teachers who answered this question, the top reasons for how they typically use the OER they find were that they generally just viewed them online or added parts of them to their own educational materials. Few shared them with others on a domain site (n = 45).

Figure 11

How do you typically use the OER you find?
 Number by frequency of use.
 1 = most frequent, 8 = least frequent.



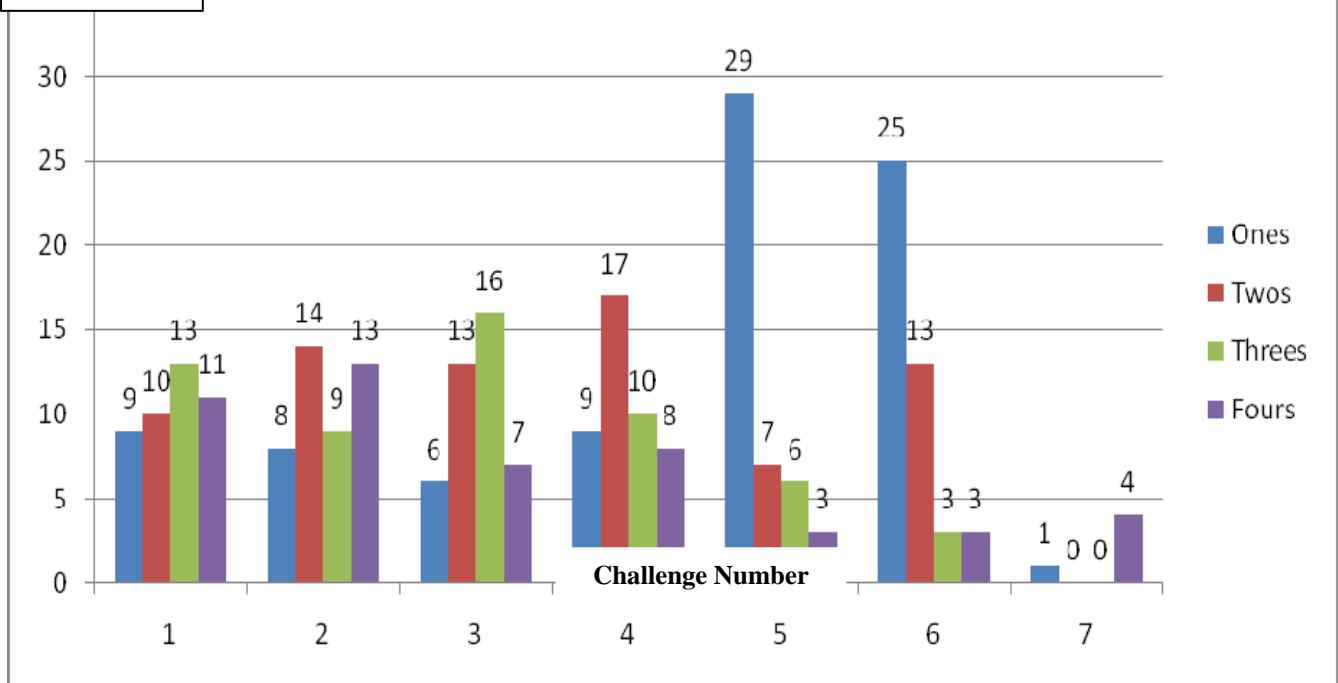
Teachers who selected response as 1st, 2nd, or 3rd way of using OER. (n = 45)			
ANSWER OPTIONS	FREQUENCY		
1. Generally just view them online.	33.3% (n= 15)	20% (n = 9)	6.6% (n= 3)
2. Use them “as is” by, e.g., embedding them in a presentation or showing them to my students.	6.6% (n= 3)	13.3% (n = 6)	6.6% (n = 3)
3. Download them to my computer or handheld device.	13.3% (n = 6)	15.5% (n = 7)	20% (n = 9)
4. Save them to “My Folders” on a domain site.	8.8% (n = 4)	8.8% (n= 4)	13.3% (n = 6)
5. Remix them (or add parts of them to my own or other’s educational materials).	24.4% (n = 11)	2.2% (n = 1)	11.1% (n = 5)
6. Edit them on my own computer after downloading.	8.8% (n = 4)	8.8% (n = 8)	6.6% (n = 3)
7. Share them with others via email.	2.2% (n = 1)	13.3% (n = 6)	4.4% (n = 2)
8. Share them with others via “My Folders” or “My Groups” on a domain site.	2.2% (n = 1)	0% (n = 0)	6.6% (n = 3)
9. None of the above.	4.4% (n = 2)	0% (n = 0)	0% (n = 0)

13. What are the challenges you most often face in OER use?
Rate challenges from high (1) to low (4).

FINDING:

Teachers reported that time, both to research and to experiment with their resource, is the biggest challenge they face in OER use (n = 46).

Figure 12



CHALLENGES IDENTIFIED BY EDUCATORS HIGH (1) TO LOW (4) (n = 46)	# 1	# 2	# 3	# 4
1. Overcoming technology hurdles in finding, viewing, downloading, sharing or using resources.	19.6% (n = 9)	21.7% (n = 10)	28.3% (n = 13)	23.9% (n = 11)
2. Knowing whether I have permission to use, change or modify resources (e.g., copyright and use permission).	17.4% (n = 8)	30.4% (n = 14)	19.6% (n = 9)	28.3% (n = 13)
3. Understanding the organization and layout of the site, so that I can easily navigate through it.	13.0% (n = 6)	28.2% (n = 13)	34.8% (n = 16)	15.2% (n = 7)
4. Knowing how to use the resources in the classroom.	19.6% (n = 9)	15.2% (n = 17)	21.7% (n = 10)	17.4% (n = 8)
5. Time to research.	63.0% (n = 29)	15.2% (n = 7)	13.0% (n = 6)	6.5% (n = 3)
6. Time to experiment with resource.	54.3% (n = 25)	28.2% (n = 13)	6.5% (n = 3)	6.5% (n = 3)
7. None of the above.	2.1% (n = 1)	0% (n = 0)	0% (n = 0)	8.7% (n = 4)

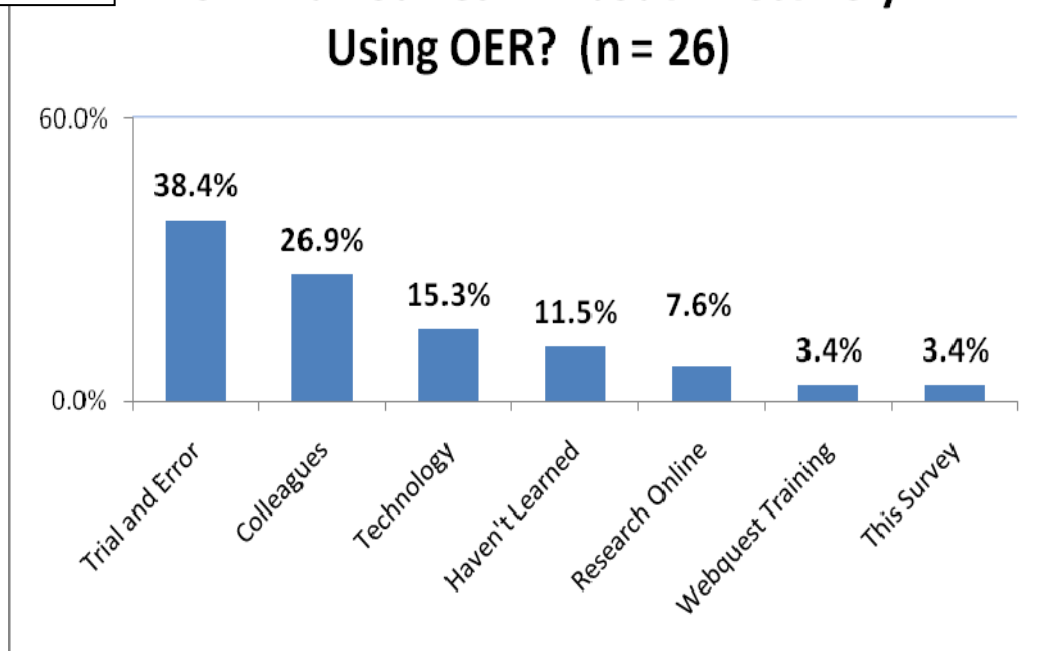
14. How did you learn about effectively using OER?

FINDING:

The majority of the teachers surveyed learned about effectively using OER from trial and error, and from colleagues.

Figure 13

How Did You Learn About Effectively Using OER? (n = 26)



ANSWER CATEGORIES	Frequency	Percent
<i>*Some teachers provided more than one reason.</i>		
TRIAL AND ERROR	10	38.4%
COLLEAGUES	7	26.9%
TECHNOLOGY WORKSHOPS	4	15.3%
HAVEN'T LEARNED	3	11.5%
RESEARCH ONLINE	2	7.6%
WEBQUEST TRAINING	1	3.4%
THIS SURVEY	1	3.4%
Total	26	100%
Missing	87	
Total	111	

15. What types of professional development do you feel would best support you in understanding how to infuse technology into your content area?

FINDING:

Common themes in the responses about professional development in the area of technology are the use of a white board and SMART Board. Time is an issue mentioned frequently. Some teachers responded that they want information specific to their content areas (n = 34).

More resources and sites

- Combination of face-to-face learning and the online networking to follow up
- Workshops which allowed time to research sites with guidance from people who have used the sites
- Overcoming technology hurdles in finding, viewing, downloading the resources
- New and current resources online

NECAP Specific

- Create lessons
- Content-specific tools
- More ways to incorporate the information effectively
- Classroom management
- Specific examples to use in my subject areas
- Focus session on math OER sites
- Types that dealt specifically with my subject areas

Workshops

- Hands-on workshops
- Use of a whiteboard
- White board training
- Utilizing the Smartboard to implement materials found through web searches
- Tandberg Training
- Bring SmartBoards into my school

- In-service training that is applicable

SMART Board training

- Smart board technology
- Anything to support student learning via laptops
- Content specific training
- Short bursts of information followed by lots of time to practice with helper!

Time

- Time to explore
- Time to do it
- Time in with other teachers
- Time to experiment with a knowledgeable person available

16. What types of professional development do you feel would best support you in understanding how to identify and use OER in your instruction?

FINDING:

In analyzing the professional development requests received, it is apparent that the teachers who responded to the survey would like hands-on workshops that provide information on using the Internet to find specific OER, examples of OER, and time to experiment and network with colleagues (n = 20).

17. What questions do you have related to the use of OER?

FINDING:

Teachers' questions were about the reliability, validity, and availability of OER for use. OER staff is responding to the questions.
(n = 8)

Questions:
(n = 8)

1. Copyright.
2. A succinct guide to copyright guidelines would be helpful.
3. What are popular clearing houses for OERs?
4. Are all the OER's accurate (information)?
5. What are some OER's that I can use in science at the level of my students?
6. Are there things I can't use? What?
7. Which ones are reliable and valid?
8. Are they dependable regarding information they give out being true?