Wayland Public Schools FY13 – Technology Update

School Committee Presentation - May 6, 2013

FY13 Technology - ACE Report

- Elementary Goals
  - Interactive Whiteboards "engaged active participants…"
  - iPads to Differentiated Instruction = "personalized learning"
- Middle School
  - Science & English 1:1 Pilot
  - Communication – Homework Calendars
- High School
  - 1:1 – 5 C's & Student Centered Learning

1:1 Goals

1:1 will provide student-centered learning and will expand students' opportunities to develop 21st Century Skills - the 5 C's

Communication, Collaboration, Creativity, Critical Thinking, Global Citizenship

- Indicator: 5 Cs - Students use technology to produce authentic work that reflects the one or more of the 5 C's and use technology for a deeper understanding of the content/curriculum.
- Indicator: RTI & Student Centered Learning - Increase in lessons/activities with different entry points and/or supports for students by using technology features.
- Indicator: Parent community sees merit in the 1:1 initiative.
- Indicator: Appropriate use of laptops.

The Students

National & Local Assessments

FROM CHALKBOARDS TO TABLETS:
The Digital Conversion of the K-12 Classroom

Introduction

"The application of software, hardware and devices should be as customary as a chalkboard, pencil and paper were years ago. To prepare students for the challenges ahead they need to be using the resources that will prepare them for college and/or careers and they need to use their problem solving skills, presentation skills, and communication abilities to develop as "solutionists" in a global world." (School Principal, Wisconsin)

"We need tools that will engage learners. If they are authentically engaged, they will learn." (School Principal, Texas)

2012 Project Speak Up – Website Link

Wayland High School Surveys – Website Link

Project Tomorrow

www.tomorrow.org/speakup

Speak Up

DO YOU KNOW?

Ten Things Everyone Should Know about K-12 Students' Views on Digital Learning

#1. USE THE INTERNET TO HELP WITH HOMEWORK AT HOME?

Over 50% of students in grades 6-12 say that they do that at least weekly; for 29% of high schoolers, it is a daily event with 68% saying their primary Internet access is through a 3G/4G device.

#2. LEARNING ANYTIME, ANYPLACE, ANY PACE?

f t   t h h   tt   f
t t   rt   th   th

#1 benefit as being able to learn at their own pace.

#3. WHAT DO KIDS THINK ABOUT FLIPPED CLASSROOMS?

6 out of 10 students say it would be a good way for them to learn.

#4. PIXEL OR PRINT - WHAT IS YOUR READING STYLE?

1/3 of students in grade 6-8 say their preference is to read a digital book for schoolwork; put that hard copy book away – 44% of students want to read on a digital reader.

#5. LEARNING VIA YOUTUBE?

Yes, 29% of students have used an online video to help them with their homework.

#6. TEACHER - I HAVE A QUESTION!

30% of students say that being able to text their teacher during class (and getting a personalized response) would help them be more successful in science.

#7. WHO IS TODAY'S GAMER?

75% of students in Kindergarten through second grade are using computers and mobile devices to play educational games on a regular basis.

#8. TWEET-TWEET?

34% of high school students are Twitter users now – a three-fold increase since 2011 when f t   t acknowledged tweeting as part of their social media profile.

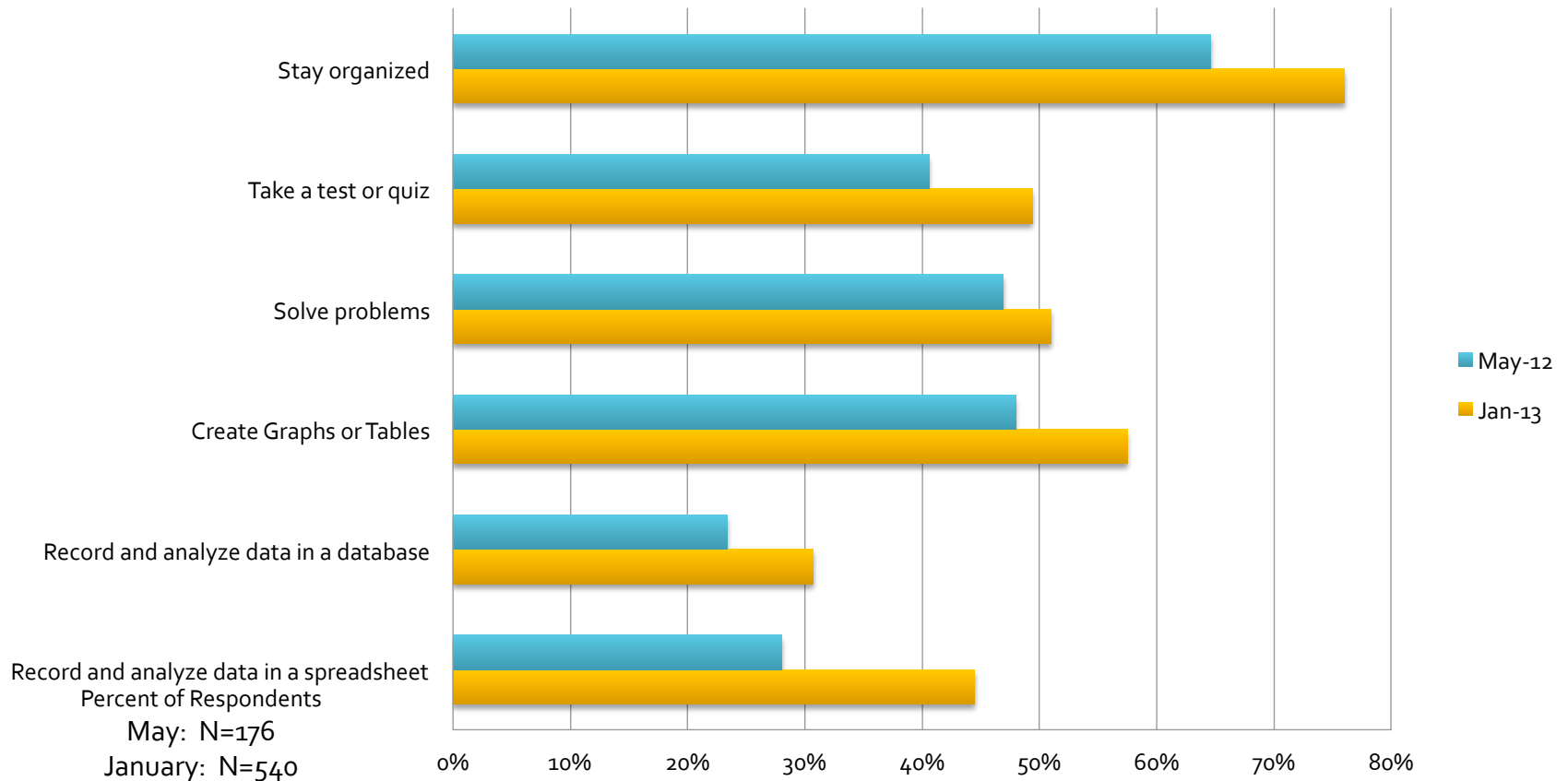### #9. WHERE DO KIDS DO SCHOOL GROUP PROJECTS IN 2013?

They do them on Facebook – 38% of students say that they regularly use Facebook to collaborate with classmates on school projects.

#10. STUDENTS ARE MOBILISTS!

Students' personal access to mobile devices has reached several significant tipping points: 80% of students in grades 9-12, 65% of students in grades 6-8 and 45% of students in grades 3-5 are smartphone users now; middle school student tablet access doubled from 2011 to 2012 with 52% of those students now tablet –enabled.
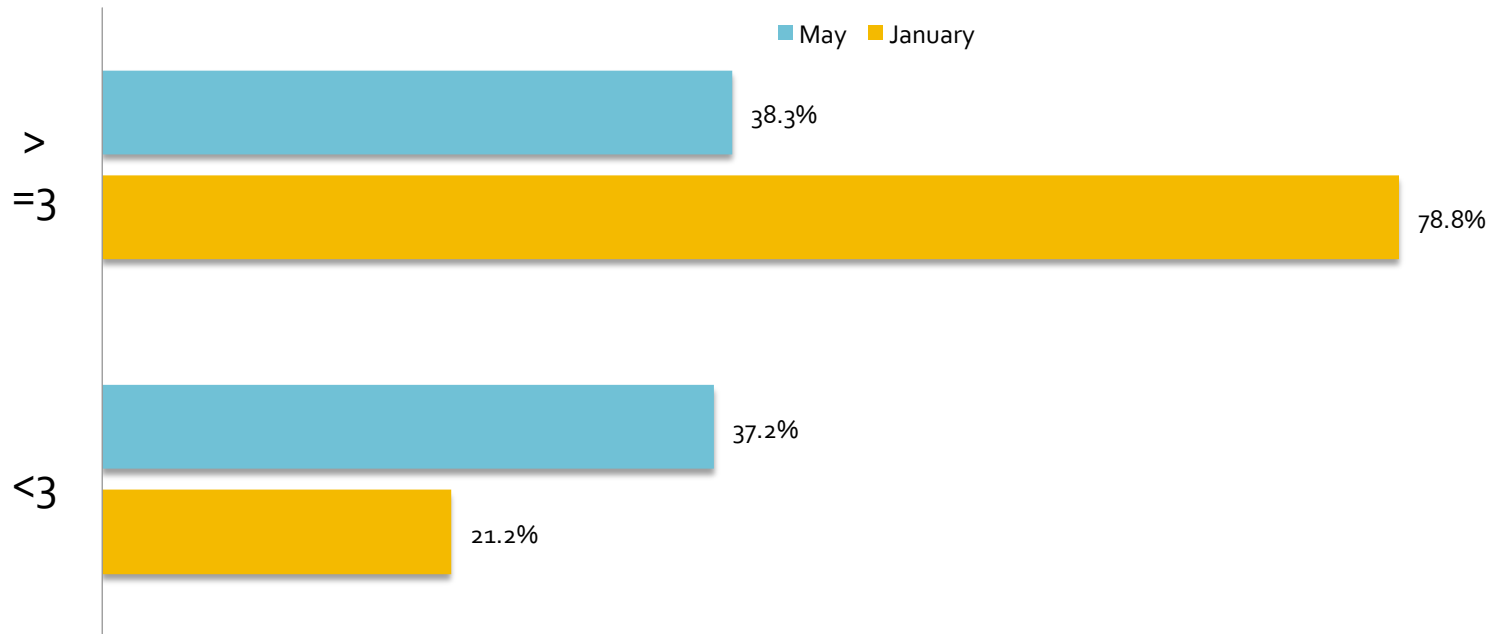
Student Computer Use

Student Q1: I Use A Computer To….

Legend: May-12, Jan-13

Categories (top to bottom):
- Stay organized
- Take a test or quiz
- Solve problems
- Create Graphs or Tables
- Record and analyze data in a database
- Record and analyze data in a spreadsheet

Percent of Respondents
May: N=176
January: N=540

X-axis: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%

Online Coursework

Student Q3: How many of your teachers post classroom materials online for review outside of class time?
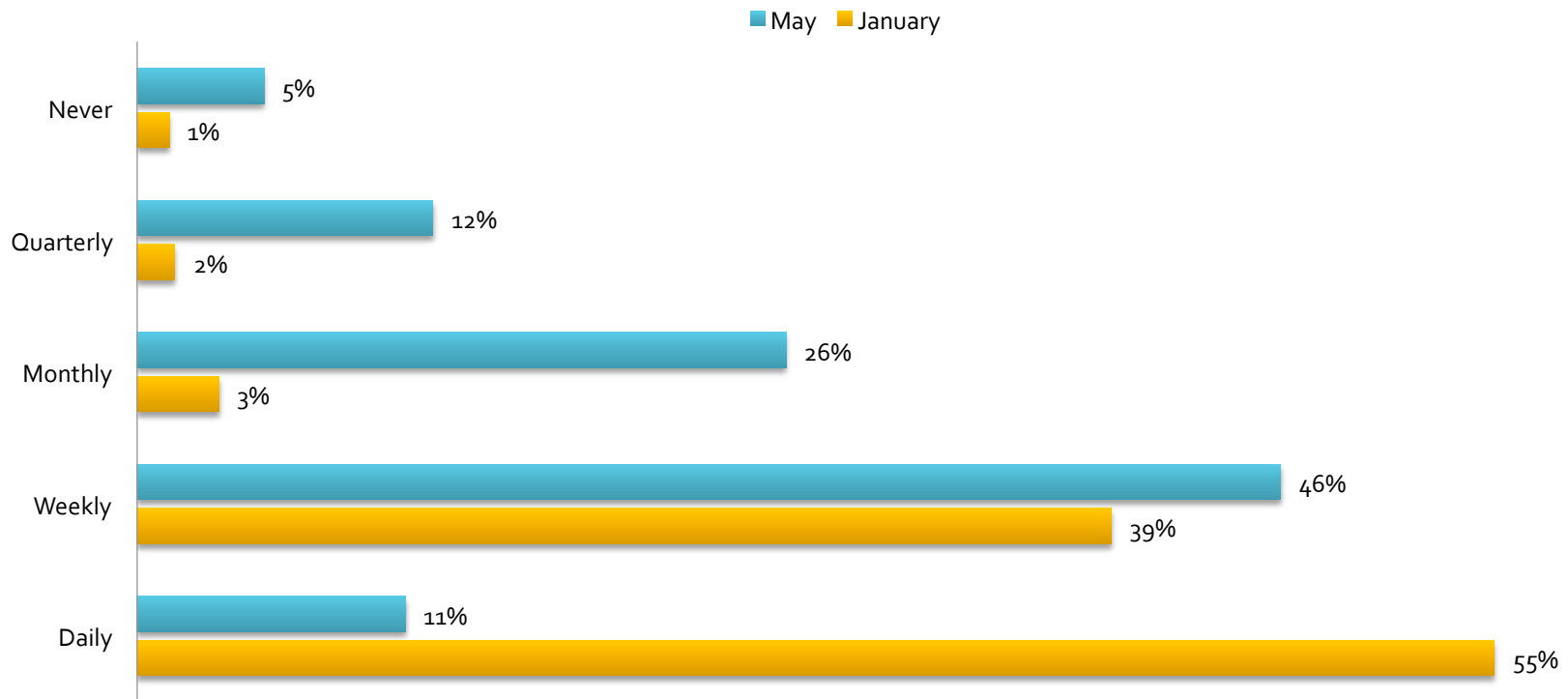**May 2012 - January 2013**

Percent of Respondents
May: N=176
January: N=540

Computer Use in the Classroom

Student Q4: How often do you use a computer in the classroom to help you learn about a topic or concept?.

- May
- January

	May	January
Never	5%	1%
Quarterly	12%	2%
Monthly	26%	3%
Weekly	46%	39%
Daily	11%	55%

Global Learning – 5C's

- EBM Student Project/Product
- Language Classes
  - Ecuador & South West France
- National Hacking Contest – Carnegie Mellon University – picoCTF
- National Scholastic Press Convention - Link
- Presidential Debates – Focus Groups
- AP Government – Independent Study – Link

1:1 Classroom Video   *   Parent's Night Video
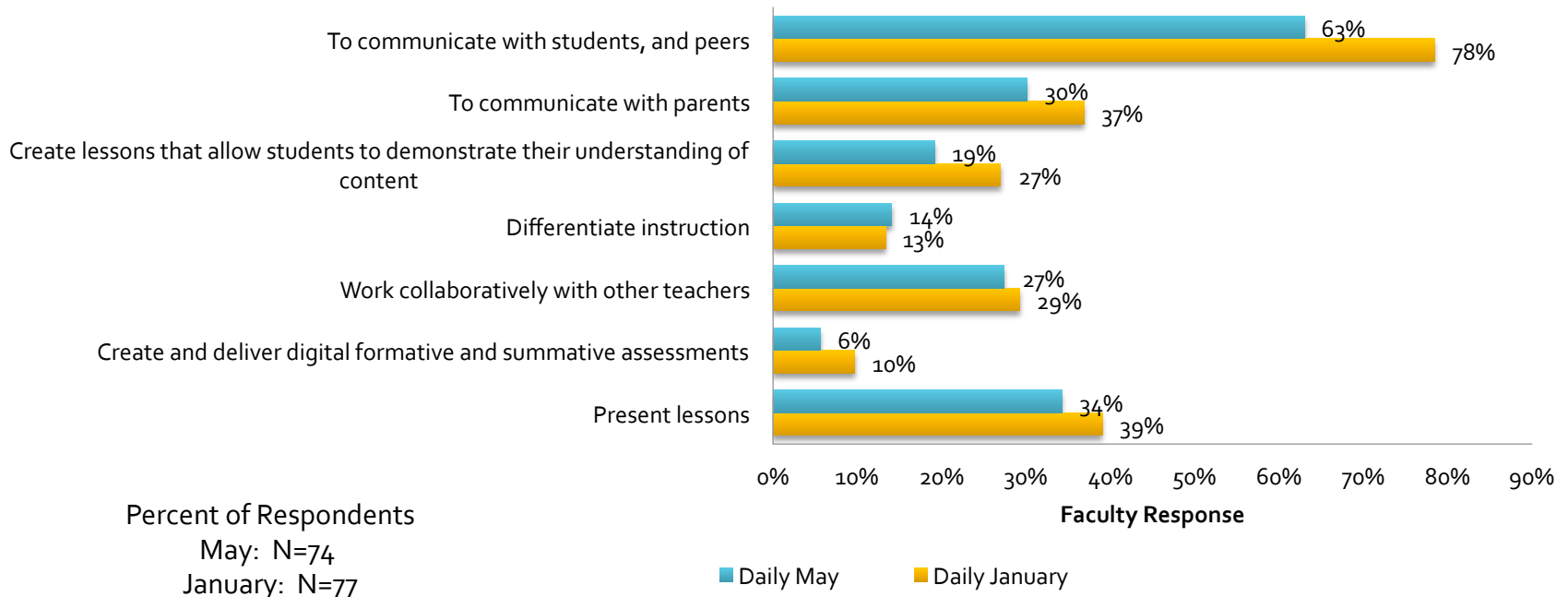
The Teachers

Engaging Student-Centered Projects!

"*Retirement Project (ICE) *Research investment choices (stock, bonds, mutual funds) using online tools (Google Finance, Yahoo Bond screener, WSJ Mutual Fund screener) *Create graphs using Excel to show investment allocation.*"

"*Access articles assigned through It's Learning. Student's with language based learning disabilities can exercise independence by having the article read to them from their computer. Use of Evernote to aid with time management skills.*"

"*Write an essay comparing two Shakespearean Sonnets (critical thinking, communication) - Create a movie trailer for a book we've read (creativity, critical thinking, communication).*"
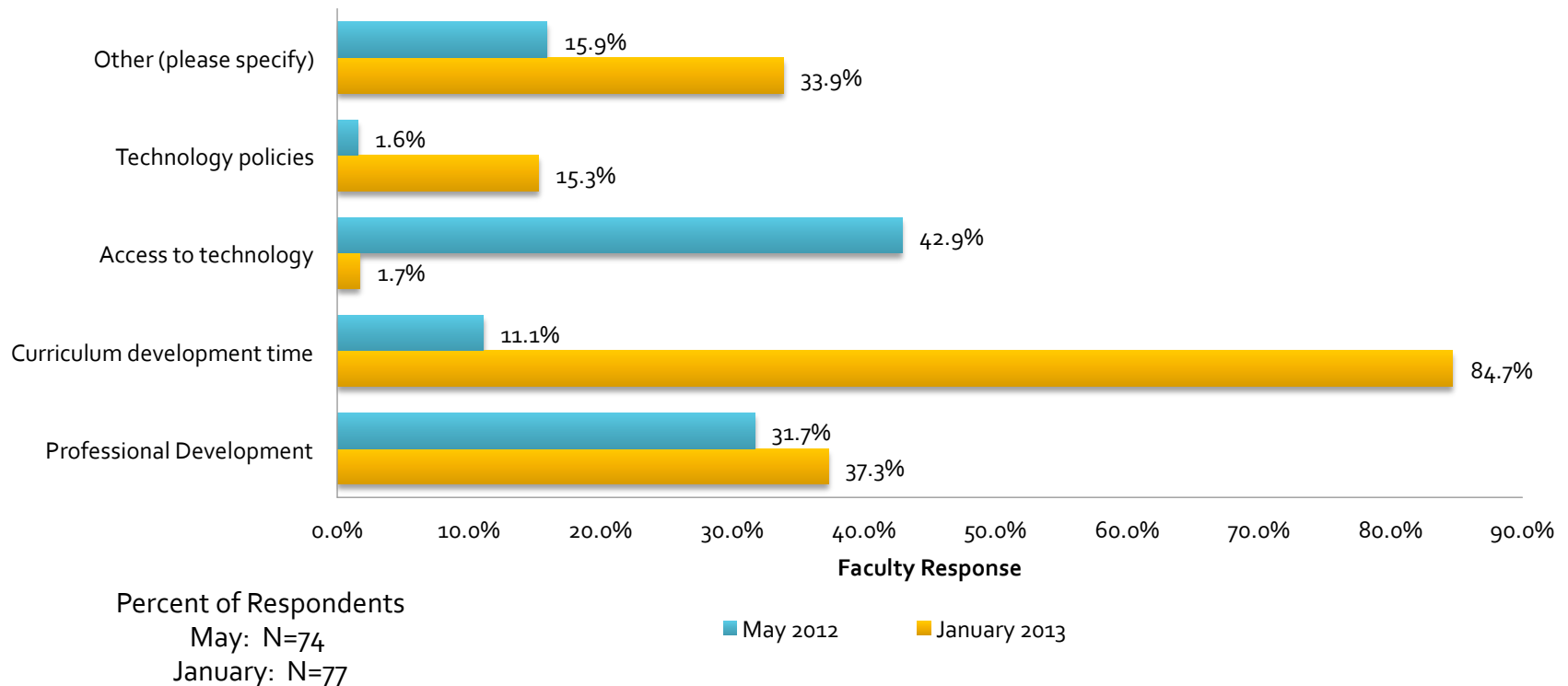
Teacher Computer Use

Teacher Q2:
During the past year I have used my computer to?
May 2012 - January 2013

Category	Daily May	Daily January
To communicate with students, and peers	63%	78%
To communicate with parents	30%	37%
Create lessons that allow students to demonstrate their understanding of content	19%	27%
Differentiate instruction	14%	13%
Work collaboratively with other teachers	27%	29%
Create and deliver digital formative and summative assessments	6%	10%
Present lessons	34%	39%

Faculty Response

Percent of Respondents
May: N=74
January: N=77

■ Daily May   ■ Daily January

Challenges to Develop Lessons

Teacher Q3:
Challenges You Face to Develop Lessons
May 2012 - January 2013

Percent of Respondents
May: N=74
January: N=77

The Parents

Understanding 1:1

Technology is pervasive in our society. I feel that my child could not manage in high school without a computer.
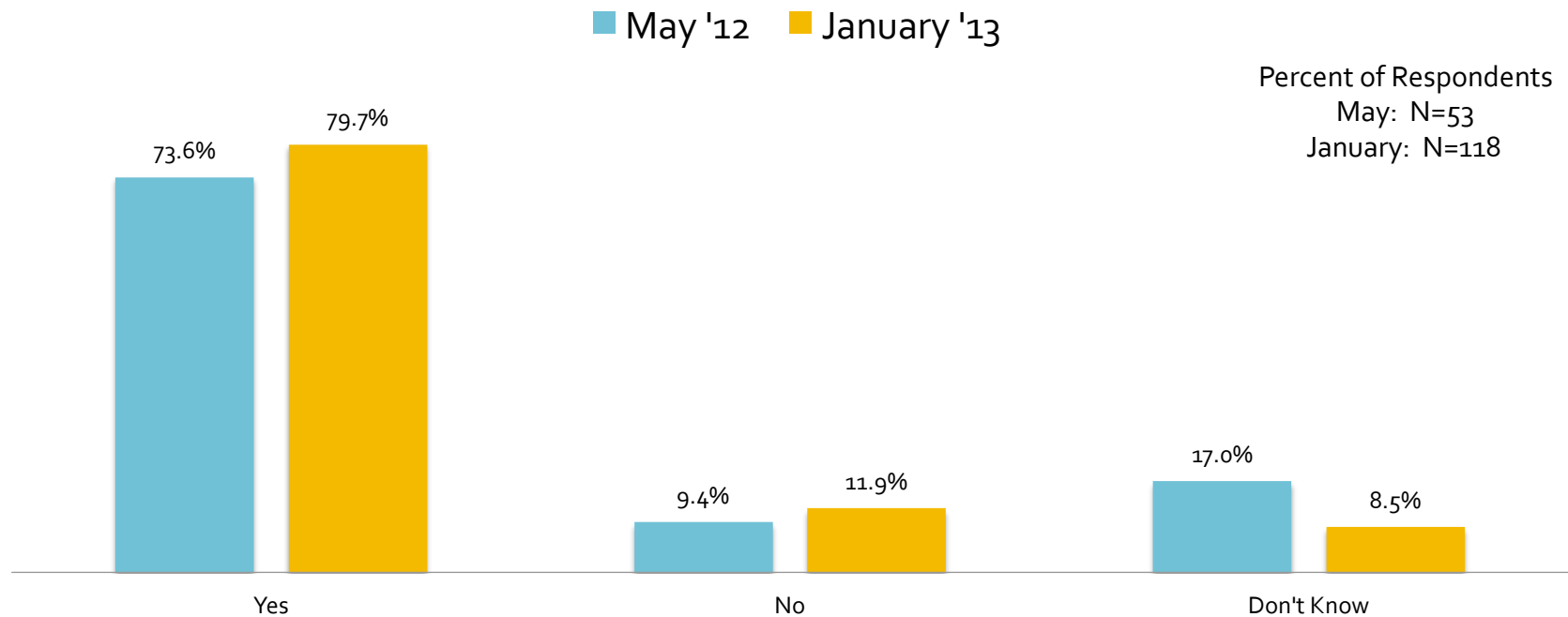
I think this initiative has worked out very well. My son uses his laptop quite a lot. There have been many fewer trips to drop off forgotten homework/projects and for that I am grateful!

Given the increased role of technology in homework, the classroom, and the world, it is extremely helpful for the student to have his/her own computer. Having students share a family computer is not realistic these days. Thank you.

The Apple Computer is the one best thing that Wayland HS has offered. My daughter uses it all the time. I hope to see more creativity use in music composition, graphic designs, video editing and etc. put in use.

1:1 Goal

**Parent Q2:
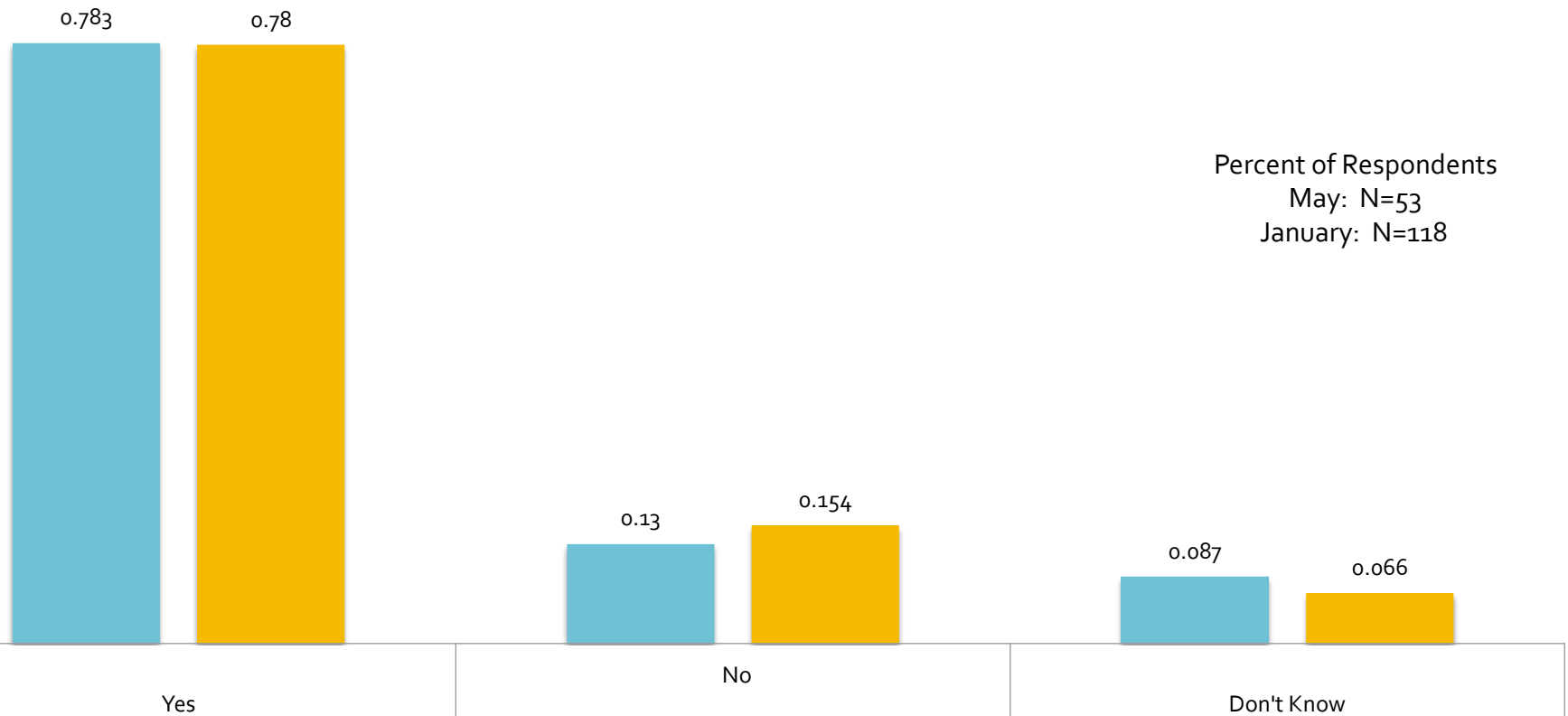Do you understand Wayland's goal for implementing a 1:1
learning Initiative?**

■ May '12   ■ January '13

Percent of Respondents
May: N=53
January: N=118

73.6% 79.7%
9.4% 11.9%
17.0% 8.5%

Yes   No   Don't Know

1:1 Computer Use

Parent Q9:
Is it beneficial for your child to have their own computer?

■ May '12 ■ January '13

Percent of Respondents
May: N=53
January: N=118

0.783   0.78

0.13   0.154

0.087   0.066

Yes

No

Don't Know

Future Goals

- Lifelong Learners – Facilitate our learners with the ability to learn anything … anytime … anywhere
- Personalized Learning
  - Blended, Flipped, Online