Technology Plan

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Education 588

State University of New York College at Oneonta

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Executive Summary

The Half Hollow Hills Central School District’s Technology Team administered a needs assessment survey during the 2014-2015 school year to determine which direction the team should move forward with to maintain the district’s high quality of education. Thanks to the responses from the teaching staff in the district (Appendix B, results from Technology Plan Survey) the technology plan came to the conclusion that more than half of the participants were not satisfied with the technologies they had in some or all of their classrooms. Any person who felt compelled to make a comment on the issue said they wish their rooms all had a smart board to work with. Additionally, respondents answered that they would be open to take more PDP’s to make sure they mastered the technologies they did have access to in their classrooms. The teachers clearly want to instill the school vision of creating life long learners but they are having a difficult time doing so without the necessary tools. By using such interactive learning methods as a tool in the classroom educators have the ability to teach students how to learn, especially with all the given technology at their fingertips in today’s society. It is clear to the technology team that the teachers must be provided with the necessary tools to prepare students for high education or a career field. By applying to grants and managing the available budget for technology it is the goal of the technology team to make sure by the end of the 2015-2016 school year that every classroom comes fully equipped with technology including smart boards so teachers can teach to the best of their ability. This interactive white board is an important feature to keep students engage in the learning process and by utilizing all of
Technology Plan

it’s features, teachers can easily connect their lessons to real world applications and encourage students that they should continue to be eager about learning.

Organization Profile

The Half Hollow Hills Central School District is located in a residential area of 40,000 people in the central part of Long Island, approximately 40 miles from New York City. The community is education-orientated reaching almost 8,500 students throughout the five elementary schools, two middle schools and two high schools in this district. The two high schools, High School East and High School West, are both fully accredited by the New York State Department of Education and the Middle States Association of Colleges and Schools. US News and World Report have also ranked them in the Gold Division Best High Schools 2013.

The Half Hollow Hills Central School District takes pride in facilitating life-long learners. Not only are the students in attendance prepared to continue their higher education at specific universities but they are prepared to continue learning past that. Examples of this include many high school math electives and fourth year math courses being offered in the high schools, resulting in more than 90% of students continuing their math education throughout their entire high school career, and the Mandarin Chinese program continuing the group all the way up to the first group of seniors beginning in the Fall of 2014. Even more so Half Hollow Hills was recognized by the NAMM Foundation for being one of the “Best Communities for Music Education in 2013” in America and having 23 students selected by the New York State School Music Association to represent the district in the 76th annual All-State NYSSMA Winter Conference.
In the quest of Half Hollow Hills to become a nationally recognized school district they have fulfilled many different characteristics that would represent the school positively as a distinguished district. Some of these characteristics include staff that knows students well and cares about them as individuals, intellectually challenging and engaging curriculums with instructional practices differentiated to meet the needs of all learners, learning content adapted to make connections with real world applications, student voices encouraged and heard, and being a close knit community providing everyone, whether they have children in the district or not, the opportunity to share their input.

**Defining Goals and Technology Vision**

“The technology Mission of the Half Hollow Hills School district is to prepare students for the challenges of the future in a rapidly changing society.” Students and teachers should both embrace technology as a tool to strengthen the teaching and learning, taking place in the classroom and also to effectively manage all district data. The main goal is to maximize student achievement, which should foster lifelong learners and actually teach students how to learn. Students should be taking responsibility for their own learning with what can be a more interactive role.

The uses of Smart boards have become increasingly popular in more recent days. Lots of schools districts have made room in their budget for a Smart board in every room or close to it. Using an interactive lesson can show students the effect it would have in the real world and also we have noticed the use of computer-based technology has a positive impact on achievement, self-esteem, motivation and enthusiasm for learning. The use of Smart board technology allows educators to come together to share ideas for lessons and
make them more relevant to students in this day in age. As a district, providing every
classroom with a Smart board could really encourage teachers to adapt to the new
technology vision being promoted and it would give students a new enthusiasm to be
engaged in the interactive lessons.

**Current Technology Resources**

Currently in Half Hollow Hills there are two computer labs in the high schools
that teachers can register to use in the library during particular days and class periods.
There are also computers throughout the libraries where students can sign in to use during
free periods if they need to research something or simply print their necessary
schoolwork. In every classroom teachers have a computer and an attached printer. Some
classrooms have Smart boards, others have different brands of interactive white boards,
some have a projector that displays the image from the computer onto a white board or a
pull down sheet and all classrooms have a lady bug document camera that allows teachers
to project their assignments onto the board and complete them with students or showcase
the completed students work for the class to see. While it is nice that every classroom
has a computer, classrooms can be shared by up to 5 teachers and with that many people
coming in and out there is no prep time that can be done in one’s classroom. Luckily
there are computers in the teachers’ lounge, but not enough for every teacher who is not
teaching or on duty during that specific period. Some teachers will borrow a laptop from
the laptop carts in the school or some will connect to the schools Wi-Fi and bring their
own personal laptops in for the day. Additionally, since most teachers are teaching in
multiple classrooms a day it can get frustrating if they do not have the appropriate tools in
each classroom to provide the students with the best possible education.
Identify Priority Needs Through Survey

As mentioned in the above section, there are teachers who do not have the necessary equipment in all of the classrooms they teach in daily. While HHH has amazing educators, technology could help support the teachers into having more success from their students. Throughout the survey, (Appendix b, Technology Survey Results) more than half of the participants said they did not have the appropriate technology resources to teach to the best of their ability and when given they chance to comment on why they answered no, every respondent said it was due to not having a smart board in all of their classes if any. When every person not satisfied is saying the same thing, it is crucial that we listen to our teaching staff. By fulfilling the needs of the teaching staff, they will go on to fulfill they needs of their students.

Solutions

By looking through the budget, there can be adjustments made so that every classroom can have their own Smart board. Currently, the technology team has been incorporating smart boards as frequently as possible but changes must be made so that every educator in the building can have the same tools and technology to improve their success for the students. When every educator who was not satisfied says it was due to the same reason then there is no excuse to not take action to fix it. While some schools including High School West does a lottery every year where teachers can put their names in in hopes of winning a smart board for their classroom, it’s time we get more teachers what they need. Additionally, with more smart boards coming in, we will let the teachers teach other on off periods or through PDP’s so they can use the Smart board to its’ full potential.
Considerations

The biggest consideration for the updated technology plan comes from the teachers. They have spoken up by responding to the survey (Appendix A, Technology Survey) to tell the district what they need in order to continue being the amazing educators that they are. Since majority of teachers use their Smart boards, the remaining teachers should also be given the same ability by having them into their course work. It is inconvenient for teachers to create two different types of lessons due to the available equipment in each classroom they teach in. Instead teachers should have the opportunity to focus more on meaningful lessons with real world application instead of wasting time to modify lessons based on the hardware in their classrooms.

Technological and Human Resources

Smart boards come fully equipped with smart notebook that provides teachers with a full explanation as to how to use smart notebook when creating lessons. Even more so, it provides teachers with access to what is called smart exchange. Smart exchange allows teachers to search by grade level, unit, or subject to find interactive lessons that can be used in their classrooms for different amounts of time. Additionally, there have already been Professional Development opportunities for teachers to learn how to use Smart boards in their classroom and keeping students engaged in the lessons. During the 2015-2016 school year the technology staff plans on continuing these PDP’s and adding more to make the transition smooth for any new Smart board recipients and the technology staff still provides all staff members with the ability to download smart notebook for free on their personal devices. By having smart notebook on a personal device they can become comfortable with the product and make their lessons from home
then use the lessons in each of their classrooms. With practice one could also save their notes from the lesson and post them on their eboard websites so students who missed the lesson could easily make of their notes from home or on their own.

**Timeline**

Throughout the 2014-2015 school year the technology team will begin the grant writing process. The intention would be to recruit members from each department as well so that the team will have more options as to which grants they can apply. By applying to grants that encourage the use of technology or encourage the use of smart education products it is our goals to bring in more money to the budget to afford supplying the school district with smart boards in every classroom. Hopefully with success in the grant applications we can start bringing in smart boards by the end of this school year and throughout the summer break. During the summer break as more smart boards are being set up in classrooms, teachers should come in for Professional Development course or at least come in and familiarize themselves with the new technology they are being given access to. The process of incorporating these smart boards should be completed but the end of the 2015-2016 school year with at least some model of smart board. Even if we cannot put the most up to date versions of smart boards into classrooms for now, the team intends to get everyone an older model of a smart board and after everyone has a smart board we will work to update the technology in every classroom.

**Budgeting**

(Assuming the same increase is feasible yearly as to previous years with an increase of $154,000 each school year)

2011-2012 – Total $2,650,000
2012-2013 – Total $2,804,000

<table>
<thead>
<tr>
<th>Description</th>
<th>Computer Assisted Instr.</th>
<th>MIS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardware</strong> <em>(Includes acquisition of new equipment and replacement of 5-year old equipment)</em></td>
<td>$800,000</td>
<td>$140,000</td>
<td>$940,000</td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>$196,000</td>
<td></td>
<td>$196,000</td>
</tr>
<tr>
<td><strong>Professional Development</strong> <em>(technology related)</em></td>
<td>$300,000</td>
<td></td>
<td>$300,000</td>
</tr>
</tbody>
</table>
| **Other** *(Includes:*  
  - Supplies and materials  
  - Online service subscriptions  
  - BOCES tech related services (Cosers 501, 536, 543, 506) includes: three-year lease purchase of computers and projectors, eBoard subscription, data mining, and Model School participation  
  - Data Network expenses:*  
    - Internet connectivity  
    - WAN and network contractual expenses  
    - Additional wiring of classrooms) | $230,000 | $30,000 | $460,000 |
|                                                                             | $44,000                  |       | $44,000  |
|                                                                             | $355,000                 | $120,000 | $475,000 |
|                                                                             | $137,000                 | $252,000 | $389,000 |

2013-2014 – Total $2,958,000

2014-2015 – Total $3,112,000

2015-2016 – Total $3,266,000 *(Plus additional grant money which we hope for)*

By referring back to the plan that was used for 2011-2012 the total spent on the technology was $2,650,000. With an increase of $154,000 each school year we should be up to $3,266,000 for the 2015-2016 school year. If we still paid the expenses we did from 2011-2012 that means we would have $616,000 left over. If the district could get at least $25,000 in a grants, that would put the total up to $641,000. With smart board prices varying from $1,300 to $5,000, the district could at the very least get 128 more smart boards. That would be enough to cover all of the remaining classrooms in the two high schools and potentially some of the middle schools. Considering we could get some of the older models and hopefully get bulk pricing from smart technologies we would be
able to afford enough to cover the district if we could raise enough money in grants. That is the current goal of the technology team and if not completed my 2016 then definitely by 2017.
Appendix A

Technology Plan Survey: Sent to co-workers with a link to the survey attached using survey monkey. The survey was 10 questions and every participant remained anonymous.

1. What department do you work in?
   - Administrative
   - Special Education
   - Mathematics
   - English
   - World Languages
   - Social Studies
   - Science
   - Family and Consumer Sciences
   - Guidance
   - Technology
   - Arts/Music
   - Business
   - Research & Development
   - Business Intelligence
   - Physical Education
   - Other (please specify)

2. Approximately how long have you been teaching?
   - 1-3 years
   - 4-5 years
   - 6-10 years
   - 11-20 years
   - 20+ years
3. On a scale of 0-5 how comfortable do you feel incorporating technology into your classroom? (with 0 being not comfortable at all and 5 being an expert at incorporating technology).

- 0
- 1
- 2
- 3
- 4
- 5
- Not applicable.

4. Please indicate which of the following educational technologies (software) you currently use in your classroom. Mark all that apply.

- Email
- Educational Websites
- Microsoft Word
- Microsoft Powerpoint
- Microsoft Excel
- Microsoft Access
- Social Networking
- Google Docs
- Google Earth or Google Maps
- Google Translator
- Blogging
- Audio/Video Podcasts
- Video Chatting (Skype or Facetime)
- Wikis
- Kuta Software
- Other (please specify)
5. Please indicate which of the following educational technologies (hardware) you are currently using in your classroom. Mark all that apply.

- [ ] Computer workstation (computer lab)
- [ ] Overhead projector
- [ ] VCR/DVD Player
- [ ] Interactive Whiteboard (Smartboard or other)
- [ ] Laptops
- [ ] Document Cameras
- [ ] Digital Cameras/Videocameras
- [ ] GPS Unit
- [ ] PDA’s, Cellphones (Smartphones), iPods, iPads, Tablets, or other hand-held units
- [ ] Student Response Systems (CPS units, Clickers)
- [ ] Other (please specify)

6. In how many classrooms do you teach in during a typical school day?
- [ ] 1
- [ ] 2
- [ ] 3
- [ ] 4
- [ ] 5
- [ ] 5+

7. Does each of your classrooms have the appropriate technology resources to teach to the best of your ability? If not please elaborate.

- [ ] Yes
- [ ] No

Specify what would technologies should be incorporated into your classroom if possible.
8. Do you feel like you are using all of the technology in your classroom to the full potential? (If not would you be interested in taking certain PDP’s to gain a better understanding?)

- I am using my technologies to the full potential.
- I believe I am using my technologies to the full potential but I would be interested in learning more by attending a PDP.
- I am not sure that I am using my technologies to the full potential but I am not interested in attending a PDP on the topic.
- I am not using my technologies to the full potential and I would attend a PDP on the topic.
- I am not using my technologies to the full potential and I am not interested in attending a PDP on the topic.

9. With the growing influx of smart devices (smartphones, tablets, iPods, etc.) owned by students today, how willing are you to explore the possibility of using these smart devices as tools to your classroom procedures?

- I am very interested.
- I am somewhat interested.
- I am not interested.

What are some ways you would incorporate smart devices or why would you not want to?

10. How important do you think it is to stay up to date with educational technology?

- Very important, students learn better with newer technology since it is the age they are coming from.
- Important, it makes life easier for both the teacher and the students.
- Somewhat important, the teacher still needs to be able to pass on their information the technology is just there for convenience.
- Not very important, teachers can teach regardless of what technology they have available in their classroom.
- Unimportant, I would be fine without any educational technology advancements. (I also, still have a flip phone and write letters.)
## Appendix B

### What department do you work in?

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>0.00%</td>
</tr>
<tr>
<td>Special Education</td>
<td>19.65%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>52.38%</td>
</tr>
<tr>
<td>English</td>
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</tr>
<tr>
<td>World Languages</td>
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<tr>
<td>Social Studies</td>
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<tr>
<td>Science</td>
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<tr>
<td>Family and Consumer Sciences</td>
<td>0.00%</td>
</tr>
<tr>
<td>Guidance</td>
<td>4.76%</td>
</tr>
<tr>
<td>Technology</td>
<td>0.00%</td>
</tr>
<tr>
<td>Arts/Music</td>
<td>0.00%</td>
</tr>
<tr>
<td>Business</td>
<td>0.00%</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>0.00%</td>
</tr>
<tr>
<td>Business Intelligence</td>
<td>0.00%</td>
</tr>
<tr>
<td>Physical Education</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Total Respondents: 21

Comments (0)
Q2

Approximately how long have you been teaching?

Answered: 21  Skipped: 0

- 1-3 years: 21%
- 4-5 years: 10%
- 6-10 years: 40%
- 11-20 years: 29%
- 20+ years: 10%

Q3

On a scale of 0-5 how comfortable do you feel incorporating technology into your classroom? (with 0 being not comfortable at all and 5 being an expert at incorporating technology).

Answered: 21  Skipped: 0

- 0: 5%
- 1: 10%
- 2: 10%
- 3: 30%
- 4: 40%
- 5: 15%
- Not applicable: 10%
Please indicate which of the following educational technologies (software) you currently use in your classroom. Mark all that apply.

Answered: 21  Skipped: 0
Comments for Q4

<table>
<thead>
<tr>
<th>Category</th>
<th>Date/Time</th>
<th>View respondent's answers</th>
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<tbody>
<tr>
<td>E-board</td>
<td>3/4/2015 2:11 PM</td>
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</tr>
<tr>
<td>Smart board</td>
<td>3/4/2015 12:27 PM</td>
<td></td>
</tr>
<tr>
<td>Smart Notebook</td>
<td>3/4/2015 6:38 AM</td>
<td></td>
</tr>
<tr>
<td>Smart Notebook</td>
<td>3/3/2015 9:05 PM</td>
<td></td>
</tr>
<tr>
<td>YouTube</td>
<td>3/3/2015 9:05 PM</td>
<td></td>
</tr>
<tr>
<td>remind.com, socrative app</td>
<td>3/3/2015 9:05 PM</td>
<td></td>
</tr>
</tbody>
</table>

Total Respondents: 21
Please indicate which of the following educational technologies (hardware) you are currently using in your classroom. Mark all that apply.

Answered: 21  Skipped: 0

- Computer workstation: 60%
- Overhead projector: 70%
- VCR/DVD Player: 40%
- Interactive Whiteboard: 50%
- Laptops: 30%
- Document Cameras: 50%
- Digital Cameras/Vide...: 0%
- GPS UNIT: 0%
- PDA's, Cellphones...: 60%
- Student Response...: 0%
- Other (please specify): 0%

Other (please specify)
- smart board
  3/6/2015 9:13 AM  View respondent's answers
- Projector for computer screen
  3/3/2015 9:07 PM  View respondent's answers
In how many classrooms do you teach in during a typical school day?

Answered: 21  Skipped: 0

Does each of your classrooms have the appropriate technology resources to teach to the best of your ability? If not please elaborate.

Answered: 21  Skipped: 0

Continuation for Q7 (Next Page)
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<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
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</tr>
<tr>
<td>No</td>
<td>52.38%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Comments (11)

It would be nice if all rooms had a smart board
3/6/2015 9:13 AM View respondent's answers

I do not have access to a smartboard. Also, the laptop carts are time consuming to use. You have to assign one to each students and then wait for them to log-in and see if they are working. This can take 10 minutes, which doesn't leave you with a lot of time left in class.
3/4/2015 2:11 PM View respondent's answers

Only two classrooms that I teach in have Smart boards. Also, not all students and teachers can access the wifi, which makes it difficult to use them during the day.
3/4/2015 1:42 PM View respondent's answers

smart boards/lpads
3/4/2015 7:56 AM View respondent's answers

Smart Board
3/4/2015 6:38 AM View respondent's answers

Two of my classrooms do not have Smartboards
3/4/2015 5:41 AM View respondent's answers

One room has a smartboard the other does not
3/4/2015 5:26 AM View respondent's answers

I wish it had a smartboard.
3/3/2015 9:46 PM View respondent's answers

No smart board
3/3/2015 9:09 PM View respondent's answers

I have no access to smartboards.
3/3/2015 8:05 PM View respondent's answers

Wish all of my classrooms had a Smartboard.
3/3/2015 6:04 PM View respondent's answers
Q8

Do you feel like you are using all of the technology in your classroom to the full potential? (If not would you be interested in taking certain PDP’s to gain a better understanding?)

Answered: 20  Skipped: 1

I am using my technologies...
I believe I am using my...
I am not sure that I am using...
I am not using my technology...

Q9

With the growing influx of smart devices (smartphones, tablets, iPods etc.) owned by students today, how willing are you to explore the possibility of using these smart devices as tools to your classroom procedures?

Answered: 21  Skipped: 0

I am very interested.
I am somewhat interested.
I am not interested.
Technology Plan

Comments: If interested do you have any ideas how to incorporate this type of technology? If not interested why not?

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am very interested.</td>
<td>52.38%</td>
</tr>
<tr>
<td>I am somewhat interested.</td>
<td>42.86%</td>
</tr>
<tr>
<td>I am not interested.</td>
<td>4.76%</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
</tr>
</tbody>
</table>

Comments (6)

- for vocabulary / multiple choice review
  3/4/2015 2:11 PM  View respondent's answers

- There are many apps and programs that could be used if the wifi in the school was updated.
  3/4/2015 1:42 PM  View respondent's answers

- However I can to best help students learn and stay motivated.
  3/4/2015 1:12 PM  View respondent's answers

- Surveys, web searching
  3/3/2015 9:09 PM  View respondent's answers

- I would not want to for distraction purposes.
  3/3/2015 9:05 PM  View respondent's answers

- Research, answering questions, group chats, student and parent communication, social media, online assessments, Google docs based assignments, etc etc etc.
  3/3/2015 9:05 PM  View respondent's answers
Final Thoughts:

Comments (2)

Responses (2)  Text Analysis  My Categories

Showing 2 responses

I feel the current wifi in our school will crash if students and teachers had access to it.
3/3/2015 6:00 PM  View respondent's answers

Tablets for everyone!
3/3/2015 9:05 PM  View respondent's answers