Tomball ISD Instructional Technology



Integrating Technology for Meaningful Learning







Tomball Independent School District
Pride and Honor
Participation
Preparation
Tomball, Texas

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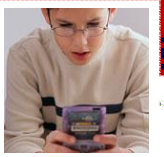


Topics

- Project Evaluations Methods
- Core Classroom Technology Standards
- Current Pilot Projects
- BYOD Survey Results
- Other Technology Resources
- Professional Development

Evaluating Classroom Technologies



Criteria used to evaluate the effectiveness of technology in the classroom:

- Student engagement
- Student performance
- Student motivation
- Teacher morale and/or retention
- Improved classroom efficiency
- Time to adoption
- Cost-benefit analysis

Core Classroom Technology Standards



SMART Board Interactive Whiteboards

An interactive classroom tool that allows computer images to be displayed onto a board using a digital projector. Teachers and students can manipulate the elements on the screen, write notes in digital ink, integrate media content, and save classroom work to share later. SMART Boards come with SMART Notebook collaborative learning software.

- **Total SMART Boards: 546**
  - Year 1: Teacher Application Process
  - Year 2: Teacher Application Process
  - Year 3: All core content classrooms
- Classroom wall-mounted SMART Boards
- Mandatory Teacher Training
- Evaluation Process
  - Classroom Walk-throughs
  - Submitted lessons
  - Pre & Post Teacher Surveys
  - Student Surveys

Core Classroom Technology Standards



SMART Airliner Wireless Slates

Connects wirelessly to a computer giving teachers and students freedom to interact with digital content from anywhere in the classroom and seamlessly integrates with the SMART Board, and SMART Notebook collaborative learning software. Enables teachers and students to interact with digital content while moving around the classroom

Total Airliners: 690

- Year One:
  - Math and Science Grades 3, 5, and 7-12
  - Mandatory Teacher Training
    - 6 hours: Required to receive an Airliner
- Years Two – Four:
  - All Classrooms (Core and Non-core)
  - Mandatory Teacher Training
  - Prerequisite to apply for SMART Board
- Year Five
  - All Classrooms (Core and Non-core)
  - Training for Non-core only
- Evaluated in conjunction with SMART Boards

Core Classroom Technology Standards



SMART Boards and Airliners

Evaluation Findings:

- Teachers agreed that the SMART Board improved their methods of teaching.
- Indicated that their students seem motivated to learn and seemed more engaged in the learning activities when the SMART Board was used.
- Teachers found that the use of the SMART Board helped teach complex ideas.
- 88% of students surveyed/interviewed indicated they, and their classmates are more focused on the lesson when their teacher uses the SMART Board.
- Increases teacher morale and/or retention.
- Airliner provides opportunities for collaboration.
- Teachers like the flexibility of the Airliner.

Core Classroom Technology Standards



SMART Response Interactive Systems

Combines handheld wireless remotes (or clickers), a receiver, and SMART Response software. Teachers can gauge student understanding immediately and adjust their teaching accordingly.

- 2010 Pilot Project
  - ELA and Math
  - Grades 5 and 8
  - Mandatory Teacher Training – 6 hours
  - Evaluation process
    - Teacher Surveys
    - Interviews
- 2012 Core Classroom Standard
  - 1 SMART Response system to every 4 core classrooms
  - Grades 2-12
- Integrated with Eduphoria Aware online assessment solution
  - SMART Response Connector for Eduphoria Aware
  - TCES is piloting

Core Classroom Technology Standards



SMART Response Interactive Systems

In the classroom…

- Formative and Summative assessments
  - Provides immediate feedback to teachers and students.
  - Teachers know where and when to adjust their instruction.
  - Can help teacher and students to Identify deficiencies.
  - In anonymous mode students are more apt to participate in the learning.
  - Provides near-immediate feedback to teachers and students on summative assessments.
  - Teachers can address individual learning needs.
  - Helps simplify classroom work-flow.
  - Positively impacts student achievement.

Core Classroom Technology Standards



Document Cameras

Real-time image capture devices for displaying an object to a large audience. This allows a teacher, lecturer or presenter to write on a sheet of paper or to display a two or three-dimensional object while the audience watches.

- 401 distributed to all core classrooms
- 24 Advanced models distributed to High School Science classrooms
- Classroom uses: Demonstrations, viewing book pages/passages, student writing, labs


Webcams (Short for web cameras)

A digital camera that is connected to a computer. It can send live pictures and video to another location through the Internet. Most common use is to video chat using Skype.

- 480 distributed to all classrooms and libraries
- Classroom uses: Skype, still photos, videos

Current Pilot Projects



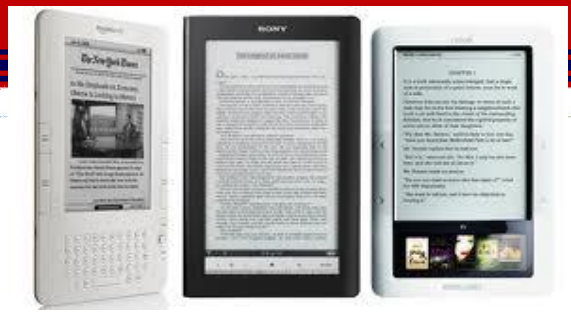
iPod Touch Carts: 6th Grade Math and Science

Current assignments:

- 4 carts with 37 devices on each at NIS and TIS (two Math and two Science)
- 2 carts with 30 devices on each at CFES (one Math and one Science)
- 1 cart with 36 devices at TCES
- Science probes/sensors provided for use with iPod Touch Science carts

- Phase I: Summer 2011
  - Teachers provided iPod Touches
  - Mandatory Teacher Training: 15 hours
- Phase II: January 2012
  - Student iPod Touch Carts provided
  - Parent Permission required
- Free Apps installed based on teacher recommendations
- Project Evaluations- teacher/student surveys, teacher/student interviews, and focus groups

Current Pilot Projects

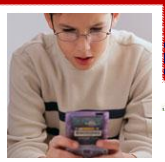


NOOK Color eReaders

- Internal Application process
  - Campus libraries submitted applications
  - Four were selected
    - DPES-Focus on supporting struggling readers and library lessons
    - TES-Focus on struggling readers including students in ESL, Special Ed., and Bilingual programs
    - TIS- Focus on supporting students that have reading levels significantly below level
    - WWJH- Check out of popular fiction and non-fiction titles, and class reading assignments. And available to ESL, Read 180, and AP-ELA classes
  - Each library received 15 NOOK Color eReaders
  - Check out eBooks from Public Library
  - Evaluation methods included in applications

Current Pilot Projects





High School iPad 2 Carts

- One Charging/Syncing Cart with 15 iPad 2 devices on each at THS and TMHS Libraries
- Phase I: Spring 2011
  - Librarians provided iPads
  - Mandatory Training: 15 hours
- Free Apps installed based on librarian recommendations
- Project Evaluations- teacher/student surveys and focus groups

Special Education- 14 iPads & 5 iPod Touches

- Visually impaired students
  - Accessible books
  - Class assignments
- Speech Pathologists
  - Text-to-speech App
  - Voice recording

Current Pilot Projects

Bring Your Own Device (BYOD)

- Volunteer Teachers from TJHS and WWJHS
- Start September 2012
- Parent Permission required
- Evaluation methods
  - Parent/Teacher/Student Surveys
    - Six Week Reports
      - Laptops, iPads, Phones, Kindle eReaders
      - Research and taking notes
      - Vocabulary Flashcards
      - Calculators and timers
    - Semester Surveys

Mobile Learning Survey: Parents of 7th Grade Students

1. Which Junior High campus does your child/children currently attend?

Tomball Junior High School	62	46%
Willow Wood Junior High School	74	54%
Total	136	100%

2. Does your child have his/her own cell phone?

Yes	122	90%
No	8	6%
No – but he/she can use a parent's anytime	6	4%
Total	136	100%

3. Can he/she send and receive text messages on his/her cell phone?

Yes, with unlimited texting	112	84%
Yes, with limited texting	12	9%
No	9	7%
I am not sure if our service plan includes text messaging	1	1%
Total	134	100%

Mobile Learning Survey: Parents of 7th Grade Students (Cont.)

4. Can he/she send and receive pictures on his/her cell phone?

Yes, this is part of our unlimited MMS texting plan	103	78%
Yes, but we must pay extra to send or view the picture	10	8%
No	16	12%
I am not sure if our service plan includes MMS texting	3	2%
Total	132	100%

5. Can he/she send and receive video on his/her cell phone?

Yes, it is part of our unlimited MMS texting plan.	62	47%
Yes, but we have to pay extra to send or view it.	9	7%
No	35	27%
I am not sure if our service plan includes MMS video texting	26	20%
Total	132	100%

Mobile Learning Survey: Parents of 7th Grade Students (Cont.)

6. If you answered "Yes" to question 5, what is the maximum amount of time allowed for video recording?

Less than 1 minute		15	22%
1-3 minutes		26	39%
4-5 minutes		9	13%
More than 5 minutes		17	25%
	Total	67	100%

7. Does your child have access to mobile Internet service on his/her cell phone?

Yes, we have an unlimited data plan		39	29%
Yes, but with a limited data plan		26	19%
No		67	50%
I am not sure if our service plan includes Internet access		2	1%
	Total	134	100%

Mobile Learning Survey: Parents of 7th Grade Students (Cont.)

8. Does your child have any other devices that CAN access the Internet?

Yes	109	83%
No	22	17%
Total	131	100%

9. If you answered yes to question #8, please select the device(s) that your child has from the options below. You may select more than one answer.

Tablet (such as iPad, Xoom, Galaxy Tab)	29	27%
eReader (such as Kindle, Nook, Sony)	31	29%
PDA (such as iPod Touch, Blackberry, or other)	47	44%
Netbook or Laptop (PC, Mac, or other)	60	56%
All of the above	8	7%

Mobile Learning Survey: Parents of 7th Grade Students (Cont.)

10. Would you allow your child to bring his/her own devices to school if he/she could use them in classrooms for learning activities?

Yes	92	70%
No	15	11%
Possibly, it depends on the learning activity	24	18%
Total	131	100%

22 Responses

I would need more info before answering this question. This cost money and I can see it getting way out of control if every teacher is utilizing this method.

As long as the Kindle stays in my child's hands at all times (not shared, etc). Not too sure I'd want her to take it to school every day, though.

This needs to be teacher directed and monitored.

I don't belive kids need to bring these devices to help with their education.

It is a shared laptop. A carrying bag would be purchased if necessary.

Yes, but honestly, my concern would be theft. These devices cost a lot of money and I would not want it stolen or lost.

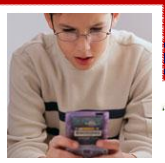
i prefer her to be technically independant on devices she is familiar with. where she can open a file and 'pick up where she left off' - learn to add notes to existing notes (soft copy). and they would have copies of notes right at their finger tips (being taught proper filing techniques).

Also depends on the security and the chances of another child walking off with it (stolen).

Biggest concern would be the device getting lost or stolen, expensive to replace, but would love to see a device replace the 20lbs. of books....

Professional Development





- Variety of learning models
  - Face-to-Face sessions
    - Summer
      - Trained 582 teachers in 2011
      - Trained 524 teachers in 2012
    - Campus visits
    - Before/After school
    - IT Time- two evenings a month
  - Online/web-based
  - Webinars
  - Blended
- Provide various learning level sessions
  - Beginner
  - Level I
  - Level II

Additional Classroom Resources



- **Google Apps Education Edition**
  - A broad IT solution that schools can use to bring communication and collaboration tools to the entire academic community for free.
  - Students, teachers and staff can share ideas more quickly and get things done more effectively when they have access to the same powerful communication, collaboration, and sharing tools.
  - Provides email, sharable online calendars, documents, spreadsheets, and presentation tools, dedicated website creation, etc.
- **Discovery Streaming**
  - Discovery Education offers a broad range of classroom resources that complement and
    extend learning beyond the bell. Over 155,000 videos available.
  - Consists of programs and contests, interactive games, puzzles, lesson plans, and videos for all subject areas and grade levels.
  - Free resources available for parents and students from home.
- **Read 180**
  - Reading intervention program that includes a comprehensive system of curriculum, instruction, assessment, and professional development.
  - Designed to support reading achievement for struggling readers in grades 4□12+.
  - For any student reading two or more years below grade-level.
- **Texas Math and Science Diagnostic System (TMSDS)**
  - TEA initiative for Grades 3 - 12 online resources available from home and school.
  - Diagnostic testing for Teachers, specific TEKS practice, and summative assessment test questions.

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Discovery EDUCATION
unitedstreaming

READ180

TMSDS
Texas Mathematics and Science Diagnostic System

Additional Classroom Resources



- **SMART Exchange**
  - A vast library of standards-correlated SMART Notebook lessons created by both teachers and curriculum resource developers.
  - Also included are SMART Response question sets and a variety of multimedia resources.

- **iStation**
  - Integrates direct, and systematic instruction with strategic reading skills to improve phonemic awareness, alphabetic knowledge, vocabulary, and reading comprehension.
  - The program is available through the Texas SUCCESS program to students in grades 3-8.
  - Provided at no charge for one year (2012-2013)

- **Think Through Math**
  - An adaptive online learning program that deepens students understanding of critical math concepts and problem-solving skills.
  - The program is available through the Texas SUCCESS program to students in grades 3-8.
  - Provided at no charge for one year (2012-2013)

- **Project SHARE**
  - TEA initiative for providing teachers with professional development in an interactive and engaging learning environment.
  - Utilizes a collection of Web 2.0 tools and applications for teachers across the state.

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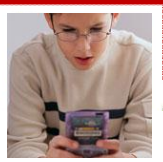

Questions?