The History of St. Joseph Classroom Technology

With each passing year, the traditional classroom is in the process of implementing a new and exciting way to teach students. The new technology of today is opening a world of possibilities when it comes to learning. We are using technology more than ever to promote differentiated learning and creative lesson plans.

Where we have been…Where we are now….Where we are going!

Part One: 1997 - 2004

Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources.

Educational technology allows schools to increase learning by integrating various tools and devices in the classroom. Educational tools have a long history and include chalkboards, film strip projectors, CD's, audio stations, televisions, and calculators. The integration of electronic devices began in earnest in the mid 1990's. In 1997, schools were asked to create a technology plan that sequenced three categories:

**Category A** required one (yes, one) computer for every ten students with a written "computer curriculum". The computers could be in a lab, library, or classroom. Schools could also opt for a written rationale of why they did not need a computer lab.

**Category B.** After fulfilling the requirements of Category A, Category B could be developed. It required a teacher workstation which included a multimedia computer, a presenter, and a television of at least 27 inches. The ratio of computers to students in the classroom increased to 1:5 and 1:1 in the computer lab. (No more taking turns on a keyboard.)

**Category C.** With A and B complete, the goals of Category C emerged. This category included internet access, multimedia peripherals, e.g. scanners, digital cameras, color printers, and one calculator per student. A LAN infrastructure and plan for its use along with networkable software completed the category.

In 1997, St. Joseph School created a technology plan with three goals and multiple objectives:

— to use technology to access, acquire, synthesize, and evaluate available information;
— to continually upgrade school facilities to provide staff and students ready access;
— to give our faculty opportunities to engage in the professional development they need to integrate technology in a meaningful way.

Included with those goals were objectives that related to ethical, social, and cultural issues. (Today's social media issues.). Further objectives identified technology as a productivity tool, a communication tool, research tool, and problem-solving and decision making tool.

Those broad goals still meet today's needs but the depth of the goals has changed dramatically in the last seventeen years. The tech plan we wrote served us well in 1997. Relatively, technology was moving slowly into schools and we celebrated our accomplishments. With the advent of our 2000 plan and our 2004 plan, we recognized that the development of educational technology was moving at a speed that was previously not experienced!
Educational Technology at St. Joseph School
Part Two:  2004 – 2014

The SJS technology committee reviewed and revised the technology plan every three years. In 2004, the revised plan integrated appropriate technology skills into the Courses of Study. Students were challenged to collect, organize, analyze, and create information for reports, presentations, and problem solving. The student/computer ratio was improved by increasing hardware with the purchase of individual desktops. A study of wireless technology and its adaptation to the school environment was undertaken. Professional development for faculty and staff was promoted and participation in local and state-wide conferences encouraged. With the revision of the plan in 2007, the following Educational Goals and Strategies emerged for students and for teachers:

Goal 1: Students are proficient in the use of technology.

**Strategy #1:** Prior to the completion of grade two, students will use input devices (e.g., mouse, keyboard, remote control) and output devices (e.g., monitor, printer) to successfully operate computers, VCR’s, audiotapes, and other technologies.

**Strategy #2:** Prior to the completion of grade five, students will apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.

**Strategy #3:** Prior to the completion of grade eight, students will demonstrate an understanding of concepts and underlying hardware, software, and connectivity, and of practical applications to learning and problem solving.

Goal 2: Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

**Strategy #1:** Prior to the completion of grade two, students will work cooperatively and collaboratively with peers, family members, and others, when using technology in the classroom.

**Strategy #2:** Prior to the completion of grade 8, students will demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society.

Goal 3: Students use technology tools to enhance learning, increase productivity, and promote creativity.

**Strategy #1:** Prior to the completion of grade 2, students will use a variety of media and technology resources for directed and independent learning activities.

**Strategy #2:** Prior to the completion of grade 5, students will apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum.

**Strategy #3:** Prior to the completion of grade 8, students will use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.
Goal 4: Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

**Strategy #1:** Prior to the completion of grade 2, students will create developmentally appropriate multimedia products with support from teachers, family members, or student partners.

**Strategy #2:** Prior to the completion of grade 8, students will design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom.

Goal 5: Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

**Strategy #1:** Prior to the completion of grade 2, students will use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, and drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories.

**Strategy #2:** Prior to the completion of grade 5, students will select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems.

Goal 6: Students employ technology in the development of strategies for solving problems in the real world.

**Strategy #1:** Prior to the completion of grade 5, students will demonstrate an understanding of concepts underlying hardware, software, and connectivity and of practical applications to learning and problem solving.

**Strategy #2:** Prior to the completion of grade 8, students will research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems.

**Professional Development Strategies**

Goal 1: Teachers demonstrate a sound understanding of technology operations and concepts.

**Strategy #1:** Professional development opportunities will be offered that provide continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

Goal 2: Teachers plan and design effective learning environments and experiences supported by technology.

**Strategy #1:** Professional development opportunities will be offered that provide continual growth to design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.

Strategy #2: Professional development opportunities will be offered that provide continual growth to identify and locate technology resources and evaluate them for accuracy and suitability.
Goal 3: Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning.

**Strategy #1:** Professional development opportunities will be offered that provide continual growth to use technology to support learner-centered strategies that address the diverse needs of students.

**Strategy #2:** Professional development opportunities will be offered that provide continual growth to apply technology to develop students’ higher order skills and creativity.

Goal 4: Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies.

**Strategy #1:** Professional development opportunities will be offered that provide continual growth to use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.

Goal 5: Teachers use technology to enhance their productivity and professional practice.

**Strategy #1:** Professional development opportunities will be offered that provide continual growth to continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.

**Strategy #2:** Professional development opportunities will be offered that provide continual growth to use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

Goal 6: Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice.

**Strategy #1:** Professional development opportunities will be offered that provide continual growth to model and teach legal and ethical practice related to technology use.

**Strategy #2:** Professional development opportunities will be offered that provide continual growth to promote safe and healthy use of technology resources.

St. Joseph School had a T1 line connecting the school’s computers to the Internet through an A-site, NWOCA (Northwest Ohio Computer Association). Smart Boards and ceiling mounted SVGA projectors were planned in order to enable teachers to increase interactive student learning and encourage collaboration among students. This technology was installed in every classroom and support area.

With the 2010 revision, educational goals and strategies were strengthened. Strategies included the ability of students to use content specific tools, software, and simulations, (e.g. environmental probes, graphing calculators, global positioning systems, Web tools) to support learning and research. Students developed Power Point presentations, digital movies, DVD’s using technology resources that demonstrated and communicated curriculum concepts to audiences inside and outside the classroom. Professional Development strategies focused clearly on growth in emerging technology resources. Teachers were challenged to apply technology to develop students’ higher order thinking skills and creativity, to communicate and collaborate with peers, parents, and the greater community in order to nurture student learning.

With the 2014-2015 school year, St. Joseph School will further develop and strengthen its technology resources through its 1:1 Initiative.
Many questions have been asked about how 1:1 Technology will be used effectively in a middle school classroom. The greatest advantage of having these computing devices for each student is that lessons are not dependent on availability and functionality of the current 60 laptops serving a middle school population of over 200 students. The use of Google Apps for Education allows documents to be instantly saved, without students initiating the action. Every document created on Google Drive is accessible on any device. Flash drives are no longer necessary in the classroom and the frustration of forgotten or lost flash drives is gone.

Here are a few examples of what 1:1 Technology might look like in a middle school classroom:

- Using Google Drive, collaborative work can be accomplished, but on individual devices. More than one student may work on the same document at the same time. It will identify who is contributing and the contribution. This can take place during the class period, as well as at home. There will be better accountability in a group project.
- Students will be able to peer-edit using comments on Google Docs.
- Students will use note-taking applications such as Evernote or Google Docs during class lectures. The notes will be instantly saved and brought up wherever Google Drive is accessed.
- Assignments and worksheets will be available for students to download to their Google Drive and complete without the fear of forgetting the assignment, losing it between home and school, or having printer issues.
- All class work will be completed with programs that will be compatible wherever students work. There will no longer be the problem of using different processing programs at home and school and the worry of compatibility.
- “Teachable moments” from questions driven through discussions in the classroom can be explored immediately. The Internet is readily available for researching the question.
- TI 83 Graphing Calculators will not be needed, as each student will be able to access a graphing and scientific calculator through the use of the device.
- Using Google Drive supports becoming a paperless classroom and reduces the amount of waste generated through paper copies.

These are just a few of the limitless possibilities of how 1:1 Technology will enhance teaching. Critical thinking and more/better accountability will be required of the students.

Below is a link that has further information on the use of the Chromebook.

http://www.livebinders.com/play/play?id=862426

Any questions can be emailed to technology@stjoesylvania.org