TECH TALK FOR PRINCIPALS

ScopeIT Education – Term 2, 2020

Edition #15

The benefits of digital literacy skills for online learning

With a swift move to homeschooling as a result of COVID-19, teachers, parents and students have had their digital literacy and their patience tested. This edition of Tech Talk for Principals (TTFP) explores the role that digital literacy skills play inside and outside the classroom. We have compiled some snapshots of previous TTFP editions, to help you identify your school's strengths and weaknesses to help develop the best digital technologies strategy moving forward.

2020 has already proved to be an extremely challenging year with the closure of schools, offices and businesses as a result of COVID-19. Educators, students and parents have faced many difficulties as they have been forced to adapt and navigate an online learning environment. The challenges are numerous, ranging from user issues in navigating unfamiliar hardware and software, teachers not having technological skills and training necessary to teach online and inequality experienced where students do not have access to computers and reliable internet at home. Education expert Leila Morsy, from Flinders University, Australia, recently suggested families with concentrated disadvantage were likely to suffer more and warned of a "chasm in future prospects" as a result of online learning.

As students start to return to face-to-face classes at school, Founder and CEO of ScopeIT Education, Frank Lucisano highlights that online learning has reinforced the pressing need for digital literacy training in schools. "At ScopeIT we have always believed every child should learn the essential skills to become creators of technology, not simply consumers," he said.

> ***"We realised early on that schools are often under-resourced and that the demands to upgrade become such a costly exercise for schools to constantly refresh. That's why our programs provide a full solution that is cost effective and curriculum aligned".***

Not only is it an important part of the curriculum in most countries but online learning has highlighted the importance of digital technologies in developing broader life skills such as problem solving, computational thinking, working memory and collaboration.

Digital literacy is defined as using technologies to find, use and disseminate information.*

*Deakin University 2020

Edition 5 recap:

Digital Technology Concepts for Schools

Schools frequently tell us that digital technologies is an important new area of learning, but there are barriers that prevent a successful program implementation.

We offer four steps to help schools with their digital technologies educational program:

1. Build a learning framework
2. Ensure you are adequately equipped
3. Have course pathways
4. Reach every single child

Edition 2 recap:

Providing School Principals with an understanding of Digital Technologies

We need a more holistic approach to equipping our students to tackle the Digital Technologies curriculum. It's critical that we prepare them with the necessary skills for 21st century learning and their future employment.

Four questions when choosing the best digital learning program for your school:

1. Does the ICT course deliver subject matter in a meaningful, engaging way that ensures students can put their learnings into a real world context?
2. Does the course complement other subjects or does it just teach computer science in isolation?
3. Is the ICT subject being taught at a core skills level and not software-specific program learning that is quickly outdated?
4. Is hardware being used that actually translates to better education and workplace use?

At ScopeIT Education we believe that an integrated, complementary ICT learning experience is crucial to the education of this generation. With the combination of strategic planning, skilled design and current best practice implementation, schools can provide an ICT pathway to ensure student success.

Edition 14 recap:

Computational Thinking skills - does your school measure up?

A deep-dive into what Computational Thinking is, how to measure growth of these skills in your students and a case study with Oatley Public School, Australia.

The four components of Computational Thinking are as follows:

1. **Decomposition**
   Breaking a problem into smaller parts
2. **Pattern generalisation**
   Finding similarities between things
3. **Abstraction**
   Pulling out specific differences to make one solution work for multiple problems
4. **Algorithmic thinking**
   Getting to a solution through the clear definition of the steps needed.

ScopeIT Education has developed a specialised quiz and evaluation rubric to measure Computational Thinking skills for primary and early high school.

The case study provided some interesting results, particularly in relation to improvements in female students, and highlights how the implementation of a robust digital technologies program significantly increased students' problem-solving, working memory and Computational Thinking skills.

Edition 10 recap:

Unpacking the Digital Technologies lingo

Your terminology guide

The digital literacy curriculum can be wide, varied and fraught with complexity. This terminology guide will help you understand the latest digital education terminology. For some, this will be revision, but for most there will be some technical words and aspects that are important to understand.

The guide includes: *abstraction, algorithm, app, binary, branching, components, data, data representation, digital citizenship, digital footprint, digital networks, digital solution, digital system, digital technologies, hardware, information systems, input, iteration, network, output, peripheral devices, software, user interface and visual programming.*

As schools move their focus back to providing education in a face-to-face environment across all subjects and meeting curriculum outcomes, reach out to ScopeIT Education to see how we can support your teachers and students with this.

Download previous editions of Tech Talk for Principals at:

www.scopeiteducation.edu.au/free-resources