STUDENT ACHIEVEMENT AND TECHNOLOGY
LITERATURE REVIEW RESEARCH GUIDE
***DOES TECHNOLOGY EFFECT STUDENT ACHIEVEMENT?***

Excerpts – “In the past 10 years, there has been shortage of research studies on specific technologies and their impact on student knowledge and skills. Take, for example, one-to-one laptop initiatives-programs which cost districts millions of dollars but appear to have inconsistent effects on student achievement.”
“Interestingly, in the Texas study of middle school students, student scores in writing actually went down in the laptop group (Shapley et al, 2009).”
“Meta-analyses that examined the effects of various technologies and applications on K-12 math and reading achievement found the most successful model was computer-assisted instruction integrated with other, more traditional activities (Cheung & Slavin, 2011).
“Goodwin notes that one-to-one laptop programs, for example, “rather than being a cure-all or a silver bullet…may amplify what’s already occurring (in a school)– for better or worse” (2011). It makes sense that, regardless of the technology, effective teachers generally use it effectively, and ineffective teachers generally use it less effectively.”
“The simple truth is that technology is here to stay. Schools are invested in it, kids are growing up it, companies continue to develop it. Jobs demand it, and the global economy depends on it.”
“Karen Cator, former director of the office of educational technology in the US Department of Education and not now president of the CEO of a nonprofit called Digital Promise, told The New York Times, In places where we’ve had a large implementation of technology and scores are flat. Test scores are the same, but look at all the other things the students are doing.”
“In 2015, perhaps the question is not whether technology use is helping or hurting student achievement, but, rather, if not using technology is hurting students’ chances for success”
Cheung, A., & Slavin, R.E. (2012). The effectiveness of educational technology applications for enhancing reading achievement in K-12 classrooms. A meta-analysis. Baltimore, MD: John Hopkins University, Center of Research and Reform in Education.
Shapley, K., Sheehan, D., Sturges, K., Caranikas-Walker, F., Huntsberger, B., & Maloney, C. (2009). Evaluation of the Texas Technology Immersion Pilot; Final Outcomes for a four-year study (2004-05 to 2007-08). Austin: Texas Center for Educational Research.
Hein, Heather. (2015). Technolgy’s Effect on Student Learning: Does the Research Matter? Changing Schools. Fall 2015. Vol. 74. McREL International.

Excerpts – “A couple of years ago, Amanda Ripley (2013), a writer for Time interviewed 200 American students studying abroad in countries that are out-performing the United States on international comparison tests. One striking difference these students noted was that, high-performing nations, there was very little technology. Almost none.”
“Puzzled by this, Ripley interviewed Andreas Schleichern, who surveys school systems for the Organization of Economic Cooperative Development (OECD) in Switzerland. “In most of the highest-performing systems” he observed, “technology is remarkably absent from classrooms. I have no explanations why that is the case, but it does seem that those systems place their efforts primarily on pedagogical practice rather than digital gadgets” (Ripley, p. 215).
“The evidence based to date for technology use in classrooms in pretty thin. In a monthly column I write for ASCD’s Educational Leadership magazine. I’ve reported the one-to-one laptop programs are not a silver bullet and, rather, produce mixed results (Goodwin, 2011), and that the distractions of digital media can impede reading comprehension.
Goodwin, B. (2011). One-to-One Laptop Programs are No Silver Bullet, Educational Leadership, 68(5), 78-79.
Goodwin, Bryan. (2015) Why Use Technology? No, Really … Why? Changing Schools. Fall 2015. Vol. 74. McREL International.