

The Digital Divide and Closing the Achievement Gap for Low Socio Economic Students

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Abstract

The digital divide is a well known term in the educational world and has two distinct levels. The research discussed within this brief discusses the level 1 divide of access and the level 2 divide of the ways that technology is being used to access higher order thinking skills. The level 1 divide is being addressed by many school districts across the nation; however the digital divide is not being closed for low-socioeconomic students. The research about the level 2 digital divide presents that often low level skills are being taught to students from poverty instead of using technology to engage in higher order thinking task such as creating and analysis. Implications for all school districts and specific to MOEC (Metropolitan Omaha Educational Consortium) are discussed calling for the need of ubiquitous access for students from poverty and focused professional development for teachers.

with the technology itself, and do not have the skills to use technology to enhance the learning experience.

This brief will examine what access to technology is in the home and school settings, the impact of purposeful professional development for teachers around technology, and most importantly, the implications to MOEC to close the digital divide for students from poverty.

Summary of Findings

The digital divide is a term frequently used, and it has two levels of meaning that will be clarified for this brief. Chen (2015) defines the first-level divide to access to the hardware; such as computers, tablets, and other devices. He describes the second-level divide as how technology is used to enhance learning, and the differences found in affluent schools compared to high poverty schools.

Access to Technology – Level 1 Digital Divide

The first-level digital divide focuses on students physically accessing technology in both the home and school settings. This is the easiest level to address at the federal, state, or local level by ensuring funding is spent to provide more devices in schools. This is a step in the right direction to close the divide between affluent and low socio-economic students; however it alone will not level the playing field. Providing devices in the early childhood setting familiarizes students with technology, and reinforces the use of technology to enhance learning. Judge (2006) found in a study that schools with high poverty that have more access to technology than low poverty schools still had lower achievement rates. Barrett (2014) found that the schools receiving the lowest rating of Academically Unacceptable had the highest student to computer ratios and had the

highest poverty rates for the schools in this study. Even when the ratio of students to computers was lower the benefit of access to technology at home resulted in higher achievement of students.

The implications for access starts in the home environment, and students that have devices at home have an advantage before ever setting foot into the school. Students

helping students navigate through technology resources that require higher order thinking (Crawford, 2005). Purposeful integration of technology to enhance the learning experience is required in low poverty schools to close the digital divide and have the

Technology must be a tool for all learners to engage in higher order thinking such as analyzing multiple works, synthesizing, and creating digital content. The boundaries can be expanded for what it means to present on a to2xpande

This brief has some direct implications ranging from the hiring of new staff members, training of current staff members, having a vision for technology, and ensuring access for our students to technology.

Through strategic planning, school districts need to develop a vision for what technology access and instruction to enhance learning looks like in their district. With a

the learning experience when exposed to this type of situation. While steps are being taken by the MOEC Technology Task Force to study the city wide internet initiative in the Council Bluffs Community School District, similar action to provide internet access to students from poverty must come quickly across the metropolitan area to close the digital divide.

A focus on providing access to devices and digital resources has greatly improved in MOEC districts over the past years; however there are still limited resources for access throughout the school day. When the number of devices are limited, it can be difficult for teachers to have students apply technology skills to enhance their learning. The teacher can only instruct students in a small group using technology to access additional resources to enhance their learning experience. Teachers may present information to all students using technology; however traditional forms of work are being completed when devices are limited in a classroom.

Professional Development.

Once the first level digital divide of access has been addressed the MOEC districts need to create a clear plan of action for focused professional development for teachers to use technology to enhance the learning experience. When new devices and infrastructures are in place teachers are left to create their own lessons and figure out how to use this technology in their classroom. As the research showed, often times the teachers are not comfortable with the devices or aware of the vast number of resources available to enhance the learning experience.

Chen (2015) referenced that when teachers are unprepared to incorporate technology, the

the learning experiences for students. This is an important difference to note, and as the research showed, often students from poverty are being taught low level skills. When professional development is provided teachers can be prepared to teach the basic skills that are needed while having students engage in rigorous work that requires higher order

extends beyond providing a device to students at home, and internet access needs to be provided to students. To build upon the learning in the classroom, students need to have access to the resource provided by the world-wide web. If a school can not ensure that students from poverty have access, then the digital divide will continue to widen.

Once the level 1 digital divide has been addressed, school districts must provide resources and professional development focused on the quality of instruction. The research calls for focused professional development to promote technology to engage in higher order thinking. There was little research that discussed what quality professional development for teachers would include to reinforce higher order thinking using technology when working in high poverty schools. A school leader needs to understand the abilities and knowledge of the teaching staff, and provide professional development tailored to these needs. As with any initiative clear learning outcomes, time to provide the learning to the staff, and on-going feedback during implementation is required.

Closing the digital divide is not easy to do in schools that serve students from poverty; however it is necessary to benefit students. Purposeful resources allocated to access and professional development are the avenues to

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