

Cell Phone Policy in a Public High School

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The purpose of this study is to examine teachers' experiences and perceptions of their cell phone policies created and implemented in their own high school classrooms. This study represents one high school in a southeast state of the U.S. after two years of teacher autonomy in creating and enforcing his/her own cell phone policy. Four themes emerged from teacher surveys (N=71) and teacher interviews including student challenges and learning, instructional workload, institutional culture and support, and alignment of technology with policy. Strategies and recommendations highlight the need for teachers' voices in policy decisions impacting teachers and students.

Keywords: secondary education, technology, policy, mixed methods

BACKGROUND/CONTEXT OF THE STUDY

We live and learn in the Information Age (Preston et al., 2015). Supports for technology use in classrooms have grown exponentially in recent years. The National Education Technology Plan (2010), ConnectEd (2013), and The Every Student Succeeds Act (2015), all encourage community partnerships to supply technology and innovation in technology-enhanced solutions. A framework of skills needed to integrate technology into teaching and learning as digital citizens are called digital learning competencies (Coughlin, 1999). Some states such as North Carolina have implemented technology standards as a part of the teacher performance evaluation instrument used to assess teachers and administrators (NCDPI, 2016). The International Society for Technology in Education (ISTE) standards *exist for any teacher integrating technology in classroom settings*. With all of these expectations for technology use, many schools are creating "Bring your own device" policies to increase the opportunities for students to integrate technology into classroom experiences by allowing students to bring personal devices such as cell phones, tablets, and laptops into the classroom. However, increased use of technology also increases the workload of teachers and administrators in monitoring the use of the devices and in communicating with parents who now have constant access to grades, attendance and schedules and want specific answers from teachers about what these fields mean for their individual student (Preston et al., 2015).

In particular, use of cell phones for instruction is controversial (Charles, 2012). Schools have historically sought to limit cell phone use in order to maintain security, protect privacy, prevent cyber bullying, reduce classroom disruptions, cheating and academic dishonesty (Thackara, 2013). As schools transition into now encouraging students to bring their cell phones into the classroom as a part of the

education process, policies must shift to ensure the phones are used appropriately and not used inappropriately. Some schools allow teachers to create their own policies unique for their classroom needs.

Research is lacking on what teachers think about “bring your own device” policies especially cell phone policies and how they are impacting learning and teaching in high school classrooms. This mixed method case study examined student performance and teacher perceptions surrounding cell phone policies created and implemented in their own high school classrooms. This study represents one high school in a southeast state of the U.S. after the first two years of teacher autonomy in creating and enforcing his/her own cell phone policy. This study was guided by the following research questions: 1) How are teacher autonomous cell phone policies influencing teaching and learning in high school classrooms? and 2) What success and challenges do teachers experience when students chose to use technology in unintended ways?

LITERATURE REVIEW

The first National Education Technology Plan (NETP) was written in 2010 with a vision of how technology could positively impact teaching and learning (Office of Educational Technology, 2016). Updates in 2016 include new goals that support personalized professional learning (Farrace, 2016). Technology-enhanced learning can include discussion threads, web-based research, virtual labs, pop quizzes, and online case studies (Laskin & Avena, 2015; Preston et al., 2015). Preston et al. (2015) argues that teachers *must* use technology-enhanced pedagogies in order to provide students the tools of digital literacy required to work in the ever-growing digital world. In a similar vein, North Carolina passed House Bill 23 in 2013 structuring digital learning competencies that would aid teachers and administrators in improving their practice and drive student learning within their schools and classrooms (NCDPI, 2016). As schools strive to infuse technology effectively, the development of e-learning, e-teaching and e-pedagogy has emerged (Preston et al., 2015).

The conceptual framework for this study is TPACK, Technological Pedagogical and Content Knowledge (Mishra & Koehler, 2006; Sheffield, 2015). Teachers using the framework are able to recognize their strengths and weaknesses in the individual components –technological knowledge, pedagogical knowledge and content knowledge and then are able to more effectively plan lessons around the interactions, connections, and affordances (Sheffield, 2015). Mishra and Koehler (2006) developed the TPACK model as a way to effectively integrate technology into classrooms. Simply having technology does not equal digital learning (Mishra & Koehler, 2006). In fact, some studies suggest that technology in public schools might not be in the best interest of all students. Undesired consequences such as distraction (Carter et al, 2017; Lee et al, 2017), bullying (Landau, 2013; Riley, 2017), plagiarism (Birch, 2011), eroding traditional literacy and social skills (Moawad & Ebrahim, 2016; Preston et al., 2015) have been seen with unchecked technology. In a study at West Point US Military Academy, Carter et al (2017) found that being in a class where computers or tablets are used can negatively impact student achievement. Similar studies on other college campus with lap tops and cell phones showed that students who multitask with technology do not learn, retain and perform as well as their non-multitasking counterparts (Hembrooke & Gay, 2003; Lee et al, 2017; Sana et al, 2013). All of these studies have been done on college campuses. As interest in teen distraction is on the rise (Amica Today, 2017; Thackara, 2013), it would be beneficial to study high school classes and the impact of cell phone use in learning environments. This study elicits student performance and teacher perspectives on autonomous cell phone policies created for their classrooms as well as successes and challenges experienced when students chose to use technology in unintended ways.

METHODS

Research Design

A descriptive mixed method 2-year case study (Creswell, 2013) was conducted to provide information on how high school classrooms in one high school in a southeast state of the U.S. are interfacing with cell phone use. One of 10 high schools in the district, the rural school boasts 1502 students and 102 teachers. Participants of the study were 71 teachers. Data was collected from teachers in a survey consisting of 17 questions for each class taught including class descriptive, yes/no, Likert, and open-ended questions. In addition, in-depth interviews were conducted with two teachers.

Data Collection

Each year, teachers at the high school were asked to complete the online anonymous survey. Paper copies were also provided, turned into a locked box in the teacher mailroom (Creswell, 2013). The survey took approximately 15 minutes to complete. In order to clarify answers, volunteers to be interviewed were solicited through email. The interviews took place at an agreed upon location during the summer and each lasted approximately 30 minutes.

Data Analysis

Quantitative and student performance data were analyzed with STATA software. Qualitative questions were analyzed through inductive coding (Creswell, 2013). Codes were developed, clustered into categories and themes emerged. Codes were identified and then collapsed into distinct categories. Data from the two interviews added to the three existing categories and one new category emerged. To establish trustworthiness of the study, peer debriefing, triangulation across different data sources, investigator triangulation, and member checking were employed (Creswell, 2013).

FINDINGS

Teacher Perceptions of Influence of “Bring Your Own Policies” on Teaching and Learning

A majority (66%) of teachers in the study described cell phones as a problem for their classes. Large, academic-level classes that were meeting later in the day were described as having more distraction difficulty in bimodal comparisons. Students in classes where the teacher stated cell phones were a problem scored 2 points lower on final exams and averaged 2 points lower on final grades than classes where the teacher indicated cell phones were not a problem.

Data analysis revealed four themes describing cell phone use in teachers' classrooms.

Student Challenges and Learning

Participants stated students lack ability /skills / maturity to differentiate between different cell phone policies. They felt the cell phones evoked distractions, competition, and loss of instructional time. Not every student has a cell phone, which promotes an “opt-into learning” culture. One Honors level teacher stated, “the majority had no problem, but 3-4 had trouble policing themselves and their final grades reflected that.” Another stated “students try to sneak them all the time and it causes them not to listen during instruction. Students ask many times to repeat directions because they didn't hear.”

Instructional Workload

Teachers described having more work to do /remember/ more mental energy being required to manage both the policy and the instruction. They felt that reminding students to put cell phones away wear teachers down and the burden to enforce the policy becomes the teachers and not the students. “Enforcement of cell phone policy takes away from my mental energy and valuable instruction time, so I often ignore cell phone use, not because I don't care but because it is a constant exhausting battle.”

Institutional Culture and Support

Teachers commented on administrators' response to the larger school culture of cell phones in the hall and they reflected on their class sizes, class make up (honors and academic, male and female, special populations) as they impacted the teacher-created policies. Larger classes have more cell phone problems. TAs (teacher assistants) walk the halls during class time on their cell phones. "As a rule, academic kids are more easily distracted, and cell phones just make it that much more difficult." Several teachers commented on how their policies were supported. "The behavior specialist just tells them what I've already told them - put the phone away. I've already told them that." Teachers said it was important that their policies be enforced by the administration.

Alignment of Technology With Policy

Technology may create new behavior modification patterns with perceived rewards for not participating in class or not dressing out in gym, student priorities, and enforcement. Teachers described the immediate gratification of cell phone response, so the consequences of using cell phones need to be immediate. In addition, students do not always see the negative impact of not following the teacher's classroom rules. "The biggest problem is that we have to pass the kids, so the cell phone issue is our problem, not theirs." When the students are not allowed to experience natural consequences, they do not perceive there is a problem with being on their phone.

Teacher Experiences Related to Unintended Technology Use

Teachers liked having autonomy in creating cell phone policies. They described strategies for keeping students on task that fell into two categories: teacher-centered (teacher proximity, constant reinforcement of expectations, more entertaining lessons and prohibiting cell phone use) and teaching-centered (appropriateness, choices and society expectations).

A frequent issue for teachers in this study centered on the structure of policy implementation, what they were allowed to do when students did not follow their policy. Some teachers stated that it took more energy for them to constantly "remind" students of their policy (put the phone away). When teachers had done everything in their arsenal, some described brown bags and parent notifications, the next level was administrative referral, developing the institutional culture and support theme. Any teacher who mentioned this level referred to it as a weakness. "Once we refer it to an administrator, they (students) should know that it will be worse than what we have already done. Then they will be more likely to work with us." Administrative consequences included "speaking with the student, time out, and nothing." Teachers stressed the significance of aligning technology with policy by making the consequence for not following the classroom policy immediate, enforced, and a deterrent to inappropriate use.

Two recommendations were made by teachers for unintended technology use. Most teachers wanted immediate action, simply that the phone be taken away from the student so that the phone will no longer be a problem. The second recommendation was to have a school wide standard of respect for the adult in the room.

CONCLUSION AND IMPLICATIONS FOR POLICY AND PRACTICE

This study found four themes associated with teachers' perceptions of autonomous cell phone policies. Consistent with the literature review, this study found that teachers perceived student challenges and learning barriers when cell phones were in use (Preston et al., 2015; Riley, 2017). Students were distracted and had difficulty regulating their own cell phone use (Carter et al., 2017). Students also were motivated by the use of technology and higher-level students tended to handle the responsibility better than academic and students with disabilities (Charles, 2012). Consistent with the literature, this study found increases in the instructional workload of teachers due to "Bring your own device policies" (Preston et al., 2015).

Unlike Preston et al., (2015), this study did not find an increased workload regarding communication with parents. However, teachers in this study did describe an increase in energy needed to monitor cell

phone use. As one teacher stated it, “I find myself patrolling for off-task behaviors rather than actually assisting and meeting with groups of students as a resource.” Similar to the findings of Thackara (2013) and Charles (2012), teachers in this study described challenges with the institutional culture and support. This study described an emerging theme of policy and technology alignment. Additionally, this study found that inconsistent enforcement of policy detracts from appropriate technology use (Preston et al., 2015).

Teachers are instructional leaders in their classroom. The rules they make for classroom governance support learning and teaching. The stated satisfaction with having an autonomous policy connects to theoretical assumption that teachers’ perspective should be foundational in instituting any technology policy. In following the TPACK framework, technology knowledge is infused with content and pedagogy (Mishra & Koehler, 2006). None of the teachers in the study stated they did not want to use technology, but cited barriers to using cell phones when students could not follow rules for acceptable use. Creating their own classroom cell phone policy works to create policies that benefit the teacher and students. However, given that two thirds of participants thought student cell phones were a problem, teacher voices need to be heard in policy implementation at the next level.

As this is a descriptive study of one school’s implementation, expanding the study to other high schools or future years is needed. Further research is needed to describe what immediate and inhibitive actions would be effective in a school wide policy that would best impact learning.

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