A Modified 1:1 Initiative with Bring Your Own Laptops

Hillary Johnson

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Dr. Gagnon

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**Vision Statement**

The vision of Lassiter High School to reach excellence and climb higher is the foundation to our goal to exceed expectations in everything we do. Through this desire for excellence, technology has become an integral part of the curriculum in all classes as we open the eyes and minds of our students to the world beyond the confining brick walls of high school. Technology allows our students to broaden their horizons, prepare for college and beyond to a dream career. We believe technology is the key component to student-centered learning and every teacher utilizes the personal devices of students to enhance classroom instruction, but the capabilities of cell phones still do not quite match the potential of every student having a laptop in class. It is our belief that once every student has a laptop in their possession in the classroom, the learning environment will become the most beneficial to our students and further help create the authentic learning environment that every student desires.

**Rationale**

During the past five years, the Bring Your Own Device (BYOD) initiative has gradually gained popularity among teachers and students. With the constant improved capabilities of cell phones, many students choose to use their cell phones as their personal devices. Yet, the school still struggles with the connectivity and capability of the BYOD network and many students have cell phone use restrictions and some do not even have cell phones at all. While cell phones are great for quick research, formative assessment games, or accessing teacher blogs, they do not have the capabilities of a laptop. The school has limited laptop carts available for teacher use and many of the ones that are available are in poor working condition. For this reason, a one to one environment with student purchased laptops will be implemented at Lassiter high school with laptops having access to the broadband wireless network rather than the BYOD network typically used for cell phones and other hand-held devices.

As one study found, the use of laptops in the classroom increases collaboration and allows students to explore the world of problem-based learning (Grant, Ross, Wang, Potter, & Wilson, 2004). Our school’s very mission is supported by problem-based learning and the authentic nature of these types of lessons more than adequately prepare students for the future. Laptops will allow students to collaborate together and create great, meaningful products, things that cannot be achieved with a mere cell phone.

A one to one laptop environment can have both advantages and disadvantages and administrators need to carefully consider the instructional practices of their staff to ensure effective technology use with the addition of laptops (Clausen, Britten, & Ring, 2008). Because Lassiter provides a staff environment of support and initiative to always learn more, implementing a one to one laptop program would be overwhelmingly supported by the instructional practices of our staff. In fact after surveying several staff members, there is a unanimous demand for every student to have a laptop. As one teacher puts it, “personal devices are viewed as tools instead of distractions.” Another staff member stated, “The students are going to bring their devices and it is our job to utilize them to enhance classroom instruction.” If teachers are already accepting of personal devices like cell phones, laptops will be even more embraced by teachers and students alike.

For this implementation to be successful, teachers will have to be trained and supported prior to and during implementation. As many studies indicate, almost all one to one initiatives depend largely on teachers for success (Bebell & O’Dwyer, 2010). The research by Bebell and O’Dwyer (2010) also notes that teacher practices, student achievement, and most importantly student engagement increases with the implementation of a one to one laptop environment. Through a one to one laptop environment at Lassiter, our students will truly be reaching for excellence as they engage in their classes and experience the authentic learning environment every student should have the opportunity for in the classroom.

**Diversity Considerations**

The majority of students in our high school have access to the internet at home and many have some type of computer at home available to use, yet there are many students who rely on a cell phone as their only means of internet access outside of school and still a few more with no cell phone or computer to use at all. Because of this gap in equal access, Lassiter has a responsibility to these students to ensure that they are also able to have personal laptops. According to research, technology should serve as a means to decrease the digital divide, not increase it (Valiente, 2010). For this reason, as part of the one to one implementation, students unable to provide or purchase their own laptops will be given laptops through a lease-to-own program. In this way, parents that cannot afford the outright cost of a laptop can make small payments throughout the school career of the student.

With every student having laptops, teachers need to ensure students are using these laptops to their full potential and not just having students doing drill and practice work either. Because students from low socioeconomic backgrounds tend to have more experience with lower-level thinking skills when it comes to technology due to a lack of technology skill, teachers need to ensure that all students, regardless of knowledge or skill level with technology, are being exposed to higher-level thinking skills (Boser, 2013). Some professional development will likely be needed to help and encourage teachers throughout the implementation.

Additional research also suggests that women are far less likely than men to pursue degrees in technology and engineering (AAUW Educational Foundation, 2003). As a school with a developing STEM program, we have a responsibility to encourage the young women entering high school to enroll in STEM classes. Even teachers who are not teaching STEM classes can encourage these young women to learn about different science and technology careers available through hands-on learning and technology integration in the classroom. With every student having access to laptops, the girls of the school will have more experience and practice with technology and will be exposed to the higher-level thinking and processing skills necessary to be successful in a technology or engineering degree. In addition, with the more frequent exposure to laptop use, the girls of the school will also gain confidence in technology use and may even enjoy the use enough to look into technology career options.

A final group to consider for diversity is the varying degrees of staff knowledge and implementation abilities of laptop technologies. Because our staff tends to be very supportive of one another, we need to carry on this support system throughout the process of implementing a one to one environment. As Bebell and O’Dwyer stated (2010), the strength of the implementation is the most important component. In addition, they also concluded that professional development should focus on new instructional skills as well as teacher beliefs about instruction in general (Bebell & O’Dwyer, 2010). We will need to ensure that all professional development relating to this initiative is meaningful and closes the gap between the varying degrees of teacher comfort with technology and implementation of technology in the classroom.

**Stakeholder Roles**

Once this vision is in practice, all students in every class will have a personal laptop they use both at school and at home to work on assignments and other class requirements.

*Technology Coach*

The primary goal of the technology coach will be to promote a positive environment for teachers to feel supported as they implement the laptop initiative and to help with troubleshooting. The technology coach will also work with teachers to help them incorporate higher-order thinking and promote the use of technology for more than just drill and practice within the classroom.

*Administrators*

Administrators will provide teacher and parent support prior to and during the implementation of the one to one laptop environment. The goals of administration will also be to ensure that proper technology etiquette is enforced and support teachers in any disciplinary actions that may be needed.

*Teachers*

Teachers will provide a rigorous and challenging classroom environment that encourages collaboration, problem-based learning, and higher-order thinking skills through the use of laptops. Teachers should work to close the digital divide by helping students with low technology skills increase confidence and abilities while using technology and also exposed all students to the potential opportunities in a technology or engineering field as a career.

*Parents*

Parents will purchase, maintain, and replace laptops as necessary to ensure their children have working laptops to use during and after school. Parents that cannot afford the full purchase price of a laptop will make payments through a lease-to-own program as well as maintain insurance on the laptop until the fully paid for by the parent. Parents will also support teachers in their classroom use of laptops and encourage students to complete assignments in a timely manner.

*Students*

Students will bring laptops to every class every day and engage in meaningful and authentic learning experiences through the use of the laptop. Students will not use the laptops for inappropriate actions and will be responsible in the care and maintenance of the laptop. Students will be responsible for completing online assignments and activities both in and out of school as needed to complete the necessary requirements for each course.

**Appendix**

The questions listed below were given to staff members at Lassiter High School in the form of an anonymous survey.

1. How frequently do you use technology in the classroom?
   1. Multiple times a day
   2. Daily
   3. 2-3 times a week
   4. Once a week
   5. Rarely
2. In your experience with our school’s BYOD environment, what improvements do you think could be made?
3. What is your vision for the future of technology implementation and use in our school?
4. How does our school address the needs of diverse populations of students and equitable technology access?
5. Based on your answer to the above question, what improvements should be made to better address equitable access for all students?
6. In your opinion, what tools and/or technologies are still needed at our school to maximize access for students and more engaged learning?
7. Rank how proficient you are in technology use and learning new technology to use in your classroom.

Not proficient 1 2 3 4 5 Extremely proficient

1. If you ranked yourself a 3 or lower in the above question, what skills or knowledge do you need to be more proficient?
2. Do current professional learning opportunities match the skills & knowledge required to be proficient in technology use? Why or why not?
3. How aware are you of the student technology standards?

I didn’t know about them 1 2 3 I refer to them regularly

1. If you did not answer "3" in the above question, please visit this website before answering this question: ([https://www.iste.org/docs/pdfs/20-14\_ISTE\_Standards-S\_PDF.pdf](https://www.google.com/url?q=https://www.iste.org/docs/pdfs/20-14_ISTE_Standards-S_PDF.pdf&sa=D&ust=1467400315802000&usg=AFQjCNHcyr9ALwCYkCSeKFIcVNbM_MB7CQ)) How can we do a better job of integrating student technology standards in our daily instruction?

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