Trends with Blended Learning and Station Rotation: Impacting Student Growth

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Introduction:

Educators often look to trends and data to analyze at what rate changes are occurring in the classroom and why. This review will focus on shifts in technology that allow educators to pursue the use of blended learning and station rotations in their classroom to help close the achievement gap. The purpose of this review is to help fellow educators see the purpose and mentality behind making the classroom instruction a more student centered focus, and establish technology options educators can use to incorporate blended learning if 1:1 laptop availability is not offered at their campus.

Technology Trends In the Classroom:

The 2010-2016 Horizon Report shows the progression of thinking behind blended learning opportunities in the classroom and trends that are occurring in teaching philosophy and application with technology. The Horizon Report (2010) found that educators and administrators are aware that technology will allow for innovative learning and student centered instruction, but teachers were not being given enough training to facilitate large changes in their approach to teaching (Johnson, Smith, Levine, & Haywood). Although the report mentions that the cloud and other features will allow for storage space and individualized learning in the future, it recognizes that the process of incorporating blended learning is slow (Johnson, Smith, Levine, & Haywood, 2010). At this point in technological instruction growth another issue preventing blended learning, the Horizon Report (2010) addresses is that educators are having trouble assessing training on digital literacy and what this should look like in the classroom through professional development (Johnson et. al). In the Horizon Report (2014) a huge shift in dialogue occurs as it

expresses that the role of a teacher is no longer the center of the classroom instruction, but instead more of a facilitator or tutor when needed (Johnson, Becker, Estrada, & Freeman). Similar to the Horizon Report, Dahlstrom, Walker, Duziban, and Morgan (2014) found similar student interest in student center learning based on a survey of undergraduate students. The students surveyed related that they preferred student centered instruction with technology, but at this point only were using social media or personal technology for enjoyment outside of school (Dahlstrom, et. al, 2014). Based on the research the data indicated more work is needed to be done on cell phone technology and software applications to be made to allow for students and teachers to incorporate social media or online assessment pieces into the classroom to further support student centered instruction (Dahlstrom, et. al, 2014). In the following year, the report found that while students enjoyed using cell phones and technology, they did not feel that their cell phones provided them opportunities for valuable learning (Dahlstrom, Brooks, Grajek, & Reeves, 2015). This report did not indicate what options teachers have in using cell phones as the primary source of technology (Dahlstrom, et. al., 2015). The students feelings about cell phones use in the classroom continued to evolve in 2016 when the report showed that students would like to be able to use their cellphones to see data reflecting their growth in the classroom (2015). Akkoyunlu and Soylu (2008) expanded upon the usage of blended technology in the classroom to promote the positive impact on differentiation for English Language Learners. Not only can lessons have imbedded features for students, but technology opens the way for more interactive learning opportunities that involve kinesthetic learning as well as visual and auditory learning (Akkoyunlu & Soylu, 2008). Blended learning in the classroom has been a main topic in the education world from 2010-2016, but growth still needs to occur in using technology as an

assessment tool and facilitator of individual student centered learning.

Trend Influence and Impact

Blended learning in the classroom has become more of a feasible option with the growth of applications, internet speeds, and the rise in cell-phone use. Meeker (2016) shows that teenagers have become a powerful force in dictating change in software and social media use. Perez (2015) notes that secondary education and colleges have become aware that the rise in cell phone use and technology has changed the way in which students want to learn and institutions are beginning to invest large amounts of money in updating their budget by "55% in 2014" (Perez, 2015). This trend of increasing money for professional development and technology in the classroom will only continue to grow and expand as schools increase opportunities for blended learning (Perez, 2015). Students having more access to personal devices allows teachers more opportunities to incorporate various learning options in a classroom. Meeker (2015) reports show that students are more attached to their cellphones and many of them have them by their sides at all times, which allow schools systems with BYOD in place to flourish, even if the school can not afford 1:1 laptop ratios. Akkoyunlu and Soylu (2008) further point out that incorporating blended learning will not be a benefit to students exclusively, but enhance the ability of teachers to prioritize the time spent on learning. Rather than losing time to attendance, handing back paperwork, or grouping students to work together collaboratively, but not being able to see each other's work, teachers can incorporate technology to promote immediate feedback, and groupings based on student ability with support built in (Akkoyunlu, & Soylu, 2008). Christensen, Clayton, Horn, and Staker (2013) describe that blended learning does not need to be an invasive overwhelming classroom instructional shift and that many educators are choosing to

implement a “hybrid” system involving station rotation, blended learning, and online learning to best fit the classroom instruction. Blended learning and station rotations are growing dramatically in schools because of the ability to adjust the classroom pace, instructions, and grouping throughout the period and unit (Christensen, Clayton, Horn, & Staker, 2013). Staker (2011) reveals that blended learning can naturally take on multiple forms of integration within the classroom and be selected based on the technology available. The amount of students who own cell phones has risen since 2010 and with this trend and growth many school districts have developed BYOD device plans to allow instructors to incorporate blended instruction. Although blended learning and station rotations may have had a slow start in taking root, teachers have noticed the benefits and flexibility these approaches can have in facilitating learning opportunities for students of various abilities grouped into one classroom. Future studies on how to incorporate differentiation with the use of various BYOD in station rotations could be beneficial.

Student Shift from Traditional Learning

From one generation to the next there are customary switches in curriculum best suited to fit the needs of society. Dzubian, Moskal, and Hartman (2005) review the changes in generational learning and the impact of historical events on previous generations to today’s generation of students. Dzubian, Moskal, and Hartman’s descriptions of the generations confirms that students in high school today have a keen sense of technology usage and are used to completing many tasks at once, but this ability to multi-task does not support their ability to critically think and focus completely on one assignment (2005). Rather than allowing students too much freedom to

become lost in the learning process blended learning can provide focus and structure while still allowing students to take control of their learning through collaboration, research, and independent reading and writing (Dzubian, Moskal, & Hartman, 2005). Garrison and Kanuka (2004) postulate that critical thinking, which is what students need to be able to do at a higher level post secondary education, can occur at a higher frequency with blended learning. Students who use blended learning have more opportunities for, "reflection, interpersonal and teamwork skill development, motivation, and collaborative learning environments— resulting in deep and meaningful understandings and communities of inquiry" (Garrison & Kanuka, 2004). On the other hand, Heinze and Proctor (2004) warn that students who are reluctant learners can fall into a gap of not completing work or participating. Heinze and Proctor found in their research that students need to feel supported within the facilitation of the blended learning and that teachers need to continue to communicate with their students through the process (2004). Koohang, Britz, and Seymour (2006) discussed within a panel the issues with blended learning, but realized that with current trends in the workplace and society students need to learn how to work with technology effectively to have a place in the current working world and many of them come with some abilities. Students through the generations have shifted from learning through lecture to learning actively. Teachers need to be aware that even if students are working through their learning the teacher still needs to be in place to help students through individual learning struggles and guide students who are off task back to the learning at hand.

Blended Learning and the Impact on High Risk Students

Mohammed (2015) analyzed trends in the classroom that lead to greater success or growth in individual students. Mohammed's (2015) research indicated that students had the largest growth

with instruction that was catered to their specific needs, used technology as a foundational place for students to access learning, and provided support and assessment explanations as needed. Caron (2016) noted that most at risk students need engaging instruction geared towards their specific interests or many would end up leaving school before graduation. Caron (2016) also found through many studies that students were more willing to go to school and learn if they felt successful and were having a diverse exposure to learning opportunities that included hands on and problem solving based on issues that were relevant to them. At risk students often have a barrier to technology and access to technology and the tools needed to support it (Darling-Hammond, Zielezinski, & Goldman, 2014). Their research discovered that in 2012 only 64 percent of Hispanic teens owned a computer in contrast to 84 percent of White students (Darling-Hammond, Zielezinski, & Goldman, 2014). Not only did this impact their ability to seek jobs after school, it created a large achievement gap between races based on availability to access technology and the internet that these students had available for their use (Darling-Hammond, Zielezinski, & Goldman, 2014). The "National Assessment of Educational Progress" points out that in schools that do not have access to technology students are often forced to practice the same skills over and over on paper because the school has no other way to help the students who are performing below grade level (Warschauer, & Matuchniak, 2010). In contrast to this, other reports discovered that students who had the opportunity to learn using technology were able to practice specific skills in new ways, collaborate, and participate in discussion. These opportunities were reflected in their learning and all this lead to greater student success (Darling-Hammond, Zielezinski, & Goldman, 2014).

Schools that are working with students of a lower socio economic standing have many gaps in learning and issues outside of school preventing student success. Technology incorporation can allow students to receive the 1:1 learning, collaboration options, and immediate assessment components that they prefer. Kronholz (2011) shares that students who are at risk often miss class for various reasons, get behind in their school work, and before they know it are grade levels behind in their work and can not get caught up so they drop out. One school in Virginia is only using blended learning to teach at risk students pulled from various schools. The students at this school reported that they preferred blended learning to lecture based because in their previous schools they did not listen to the teacher, and with blended learning they did not feel like they were slowing their peers down, and were able to work at their own pace leading to greater success (Kronhlz, 2011). The results of data comparing the traditional school learning to blended learning showed that students who were learning with blended learning ranked higher than their peers on similar standardized testing (Kronhlz, 2011).

Even though Kronhlz (2011) establishes that students whose lessons are facilitated with blended learning perform higher, he also states that not enough research is being done to compare traditional learning scores vs. blended learning scores, but at the campus where blended learning is happening, “more than one third of students who started in fall 2009 graduated in 2010.” Although research on comparing traditional teacher based lecture to blended learning with standardized testing is not vast, the studies that have been completed show a trend indicating students who learn with blended learning are more engaged and have lower dropout rates. In the future, hopefully more studies will be completed to compare the success of at risk students with

blended learning vs. teacher centered instruction.

Blended Learning and the Impact on Remediation/Intervention

In the Blended Learning Report (2014) teachers were surveyed about the use of blended learning in the classroom (Murphey, Snow, Mislevy, Gallagher, Krumm, & Wei). Teachers pointed out that blended learning through approved software programs could provide students with opportunities to read and write at grade level and be assessed at the skill level they were at (Murphey, et. al., 2014). Patrick, Kennedy, and Powell (2013) express that students need differentiation within the classroom so that their individual needs are met. Although many teachers were pleased with the ability to have many students work on skill specific activities to help improve their students abilities they were concerned about the assessment components and felt like the systems did not have accurate assessment components and created their own rather than relying on the system's built in features (Murphey, et., al., 2014). In a positive note, teachers who were surveyed also said that using blended learning in the classroom with station rotation gave them the opportunity to intervene with student at risk because some students would be working on collaborative assignments, others would be working independently, which gave teachers time to work with students one-on-one who needed individual growth and support (Murphey, et. al, 2014). Oliver and Stallings (2014) in “Preparing Teachers for Emerging Blended Learning Environments,” remind teachers that there are many forms of blended learning and these can be applied based on student needs and classroom goals for the day. Teachers are often reluctant to try blended learning because the shift from teacher centered to student centered can feel intimidating (Oliver & Stallings, 2014). Professional development opportunities for teachers, can make them feel more comfortable and make the teacher transition from teacher led

to student centered smooth with support and explanations provided (Oliver & Stallings, 2014). Watson (2008) provides a case study from Randolph Central School District in which students were reading and writing well below grade level at all different deficits. Many of the teachers were not collecting data to analyze the student's specific strength and weaknesses and teaching everyone the same lessons in the same way (Watson, 2008). The Superintendent and instructional leaders knew that something needed to change to improve students abilities, so they started to analyze student data and assign students specific online tutorials, station rotations, and intervention lessons as well as mandate communication between teachers (Watson, 2008). The results of this process were stronger communication and planning between teachers, raised student scores, higher reading lexile scores, and the school went up in rankings for the school district (Watson, 2008). Although teachers have some concerns about implementing blended learning through station rotations, many teachers who are supported with professional development and collaboration between peers are willing to shift to student centered instruction. The technology assessments of some programs leave some teachers unwilling to rely on them which means they are creating their own assessment, but using online tools to help with instruction.

Successful Implementation of Blended Learning

Implementation of blended learning and station rotations within a school require a successful implementation plan. Watson (2008) describes the process one school went through to implement blended learning and station rotations as the reason that the plan took off and was successful. He describes the integral parts of the initiative working were leaders who were clear and efficient and honest throughout the process, talking throughout was integral for everyone being on the

same page and fully understanding how to transition, data needed to be assessed constantly to see what was working or not working, proffesional development needed to be offered to the teachers implementing the change (Watson, 2008). Teachers who have implemented blended learning have described the process as a positive change, but want to forewarn teachers that it is a time consuming project at first and make take more time to reach success than expected (Werth, & Keller, 2014). In contrast, Chambers (2014) in "L.A. cancels iPads in-the-school program: a failure of vision, not technology" discusses an initiative to bring iPADS into an L.A. school that failed. This initiative was not successful because the school district did not follow Apples recommendations and Apple, at this time, required the school district to use a "wired configuration procedure for thousands of devices" (Chambers, 2014). Even though the school district in L.A. did not have the foundation for this implementation in pace to lead to success, Haddad in ICTs for education stresses that ICTs used with the right timing, teaching the right skills, in a location that works for the the professional learning can push participants to learn effectively (Chambers, 2014). New technology and societal norms are pushing teacher to seek professional development that will help them improve their awareness and skills with teaching students effectively using technology as an aid (Chambers, 2014). In order for teachers to integrate ICTs successfully, professional learning of skills, classroom implementation, and finances must be assessed to figure out which form of ICTs are best suited to being introduced to the classroom (Chambers, 2014). School districts have different financial burdens and most initiative plans take a certain amount of time to grow and develop. Educators implementing technology for blended learning need to make sure that they have scaffolded in time, skill support, and professional development opportunities that allow for collaboration to take place.

Conclusion:

Studies in the recent few years have similarly shown that students today, regardless of socio-economic standing, want to be the center of their own learning. Meeker's (2014) research shows that the number of cell phone users have grown at a slow rate and stayed stable, but the ways in which people use their phones have changed. Blended learning, no matter what device it is offered through, is a method that allows high achieving or at risk risk students to find success. Blended learning helps at risk students with learning deficits to learn new skills sets without forcing them to grow tired with repetition and practice in the same form. Station rotations with blended learning allows students to collaborate, grow, and gives them the intrinsic drive to learn skills they will need to have in the future. One of the greatest barriers with implementing blended learning is having an infrastructure that supports the technology, having enough time to train teachers, and supporting students through the transition. It is important for educators to look at the trends with technology and make choices that motivate their students to learn skills that will help them with their future, but also listen to their voices when they express what learning style works best for them.

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