ISTE NETS-A Standards Paper #4

Standard #4: Systemic Improvement

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The ISTE NETS-A Standard 4 primarily deals with the responsibility of educational administrators to make changes in the use of information and technology that will improve their school. The “21 Things 4 the 21st Century Administrator” notes that change is needed on an ongoing basis due to the constant evolution of technology. Administrators and teachers alike must be aware of the changes and willing to embrace change. In order to make continuous improvements, administration and teachers must be constantly gathering data and analyzing it in order to steer their instruction in the right direction. Administration and teachers should be aware of their technology infrastructure and its strengths and weaknesses when planning technology lessons.

Alexe Miles and I sent surveys using SurveyMonkey.com to our curriculum team which is made up of our principal, two assistant principals, and a curriculum coach in order to determine the level of leadership and management to improve Andrews Elementary School through the use of information and technology. Andrews Elementary School is a large, rural Title I elementary school in Georgetown County. Many of the students that attend this school do not have consistent access to technology outside of the school setting. The limited access that they do have is not regularly used for educational purposes but for entertainment only.

Our first question on this survey was asking what is happening in our school to provide digital-age leadership. Responses included that we currently have purchased enough Google Chromebooks for our school to be 1:1 with technology. We encourage technology use in the classroom to enhance instruction and learning utilizing various types of technology including Promethean boards and interactive projectors, not only in the core curriculum but in the Special Education, Art, Music, and PE classes. Our media specialist works with individual teachers on incorporating technology into the classroom lessons. The District technology coach visits the school monthly and teachers work with him on planning and incorporating technology into the classroom. In addition, teachers are being sent to Project Lead the Way training in pairs to help them implement STEM lessons within their classrooms using the three iPad carts that have been purchased for STEM use.

We next asked what modeling of digital-age leadership is seen at Andrews Elementary. Responses included that our teachers use and model expectations of what responsible use of technology should look like. Our media specialist holds lessons on responsible technology use as well. Teachers are seeking out new ideas and strategies to engage students using technology. Data is being collected and analyzed at the classroom level, curriculum planning level, and administrative level. Communication with parents, faculty, and students is conducted via class web pages, email, and digital newsletters.

Our next focus was on what is happening in our school to continuously improve the organization through the effective use of information and technology resources. Our media specialist and District technology coach are planning, modeling, and co-teaching with teachers to implement technology into instruction. Teachers share ideas and strategies during PLT meetings.

In looking at our level of digital leadership, we needed to look at the types of data being collected and analyzed with technology. Student data is available through Enrich which holds all of the students’ data in one program including attendance, standardized testing results, grades, and parent contacts. Students complete the NWEA’s Measures of Academic Progress (MAP) three times per year on the computers. MAP results are used to indicate how a student is growing academically. Teachers are beginning to use digital portfolios to document their students’ writing progress. Students with IEPs have progress monitoring data is also collected and reported digitally.

When examining what types of school-based collaboration is occurring to collect and analyze data and to interpret results, it was noted that our school administration team works with our District to look at what is being used and how it is being used. Also, teachers meet weekly in PLTs (professional learning teams) to review student progress, look at data collected from common assessments, and writing assessments. The Student Intervention Team also meets to analyze results from MAP testing to identify students that may need interventions to be put into place prior to being referred by classroom teachers. A member of administration and/or the curriculum coach is in attendance of PLT and SIT meetings. Kathryn Boudett gives a systematic approach to analyzing and interpreting data in her article “The Data Wise Improvement Process.” This resource may be beneficial for teachers and administrators to consider using during PLTs to further improve their data driven instruction (2006).

School-based collaboration that is occurring to improve staff performance and student learning was also examined. The administrative team meets weekly to look at ways they can support teachers in the classroom. Teachers meet weekly during PLT meetings to discuss student performance and to plan together in order to improve student outcomes.

When looking at the school’s recruitment and retention of highly competent personnel who use technology creatively and proficiently, it should be noted that during interviews for personnel, their experience with various types of technology are discussed. Our district offers many opportunities for technology improvement at low or no cost including partnerships with Coastal Carolina University and the College of Charleston for reduced tuition in various programs. The media specialist and technology troubleshooter offer instruction in various software as well as the district technology coaches.

We also asked in terms of technology, if strategic partnerships to support systemic improvement are established. We are continuing to research and look for partnerships and resources that will help us incorporate technology into our classrooms so our students will be college and career ready. Grants such as the School Improvement Grant have been pursued (and attained) in order to purchase HP Chromebooks in order to bring our school to 1:1 and to begin training and use of Google Classroom. Project Lead the Way training is also bringing STEM instruction using iPads.

When examining our technology infrastructure and its strengths and weaknesses, it was noted that our district is looking at ways to improve our technology infrastructure. Our wireless infrastructure was improved with the addition of wireless routers installed in all classrooms yet the bandwidth still needs to be increased, particularly with our utilization of 1:1 Chromebooks beginning this fall. Our ability to show video from within our media center into the classrooms, needs updating as the signal is weak in the newest building addition despite using upgraded DVD/Blu-ray players. Each classroom is offered two desktop computers and there are ten laptop carts available for use. Beginning in August 2017, each general education classroom and three special education classrooms will have Chromebook carts assigned to their classroom. The laptop carts will be available for use by the Music, Art, PE, and Gifted and Talented teachers as well as in any classroom teacher that requests them. There are three iPad carts available for STEM instruction and eight teachers have received tablets for student use through DonorsChoose.org. Each regular education classroom in grades 1-5 is equipped with a Promethean board with document camera as well as two of the four special education classes. The other two special education classes, Prekindergarten, Kindergarten, and the Art, Music, and PE classes are equipped with interactive projectors. The media specialist has digital cameras and camcorders available for checkout. As a school we use the expertise of our technology trouble-shooter and media specialist to help us improve technology use within our building.

As we looked more closely at the digital leadership at Andrews Elementary, it is evident that our administration is aware of our current strengths and weaknesses and is working to help make improvements. They recognize the effectiveness of using technology to gather and maintain data and encourage the teachers to utilize various programs as well as to actively search for other programs that would be beneficial to our school. They encourage collaboration and are involved in collaborative meetings with teachers in order to help plan and develop lessons and to encourage the use of technology daily.

References

21 Things 4 the 21st Century Administrator. (n.d.). Retrieved July 2, 2017, from <http://www.21things4administrators.net/capstone-4-systemic-improvement.html>

Boudett, K. P., City, E. A., & Murnane, R. J. (2006, Jan. & Feb.). The Data Wise Improvement Process. Retrieved July 2, 2017, from <http://hepg.org/hel-home/issues/22_1/helarticle/the-data-wise%E2%80%9D-improvement-process_297>

ISTE Standards for Administrators. (2017). Retrieved July 01, 2017, from <https://www.iste.org/standards/standards/standards-for-administrators>