Technology Improvement Plan

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Technology Plan Introduction

The following technology improvement plan has been created for Rock Hill High School (RHHS) in Rock Hill, South Carolina. Much of this plan is contingent upon district plans and resources, so some of the following plans also refer to changes to be made to the Rock Hill School District as a whole. Through my research, four overarching issues were identified as sources of concern with the present technology plan: oversaturation and teacher fatigue, internet access issues for students, a lack of focus on student learning, and issues with adequate stakeholder representation in decision making. The following solutions provided in this technology improvement plan are all based upon the International Society of Technology in Education (ISTE) standards for education leaders including equity and citizenship advocate, visionary planner, empowering leader, systems designer, and connected learner (ISTE, 2020). I believe in the current climate, as technology continues to grow and become incorporated into all areas of life, it is important for education leaders to be reflective and make well-informed, deliberate decisions when planning rather than just riding the waves of innovation and hoping for the best. With detailed and articulated plans, followed by ample room given for reflection, input, and modifications, technology can be used as just one foundational support to improve schools.

Overarching Issue One: Oversaturation

The issue of "oversaturation" refers to the high volume of technology software and tools teachers at RHHS are exposed to and encouraged to use on a constant basis. Because there is a high turnover of such programs, teachers become frustrated with trying to incorporate them only to have them quickly fall out of favor. This is compounded by the current surface-level trainings given which are very generalized in nature - as technology specialist Joanne Clark put it, they favor "breadth over depth" for exposure (Clark, personal communication, 2020). By not

addressing this issue, RHHS can expect less teacher motivation to incorporate new technologies and more frustration with time spent in mandatory trainings that they think has no value. This could lead to teacher retention issues for the school.

My solution for this issue is to first double the size of the district educational specialist in the area of technology's staff. Currently, there are five and I propose an increase to *at least* ten. At RHHS, the specialist is only on campus once a week. At least once a month, one of these days is reserved for her providing professional development. This means she only has protected time available to support teachers with new technologies three times a month. To support 130+ teachers of different content levels, this does not allow time for the specialist to: a) provide more specialized content-specific trainings or b) hear and reflect on what technologies teachers prefer and which are frustrating. By increasing the number at the district, specialists would reduce from a 1:5 specialist to school ratio down to a 1:2. Specialists could be on campus two days a week, rotated with a nearby school, and then on Fridays could either be at a school or at the district office for meeting and trainings. According to the Administrative Salary Schedule (2020) salaries range from $63,331 - $94,441 for specialist positions based on experience. By promoting from within teacher ranks, costs could be initially kept down and training for the employees with less experience could be provided by the existing staff. I decided to assume an average salary of $70,000 for 5 additional employees, so a total of $350,000 (plus benefits). This seems a wise investment if it can improve teachers' frustrations and retention rates. Another second aspect of the solution is to make sure teachers are specifically heard concerning new technologies and their technology needs. This could be accomplished with an anonymous survey once a quarter (four times a school year) for the specialists to understand what issues and frustrations may be occurring behind the scenes. In a proactive move, specialists should also

ask, at least once a semester, what sort of resources particular departments are interested in or want more training on. If the specialist is now on campus more, then they can then provide information to departments on content specific resources, helping ease the frustrations of too-general overviews. A timeline of one year to hire all additional personnel, train, and begin implementing more training and surveys seems reasonable.

Overarching Issue Two: Access

A continuing issue for RHHS is lack of home internet access for students. The Coronoavirus school closures amplified the inequitable fact that at RHHS approximately fifteen percent of students have no internet access at their homes. This is a common state-wide issue, and the solutions presented are two-fold. First, an immediate solution would be for RHHS to survey which areas students live in that lack internet access. Buses equipped with wifi hubs can be arranged to park in these areas Monday-Thursdays from 6pm – 9pm. This would allow the buses to complete their drop off routes and then have steady hours students can access the internet for their work. While unable to reach every single student, the hope is enough "hot spots" could be identified and set up to reach a majority of these students. Cost-wise, one option is business partner Kajeet that costs approximately $20 per bus per month (Schiferl, 2020). At an estimate of seven buses, this would cost around $1,400 for the ten-month school year. Then, bus driver payments must be allocated. If using the high end of the hourly wage chart ($20/hr) and estimating four hours total (three parked plus one for travel time) four days a week, this would amount to $89,600 in wages for the entire school year. Thus overall, RHHS would be spending at most around $91,000 to increase internet access to students. The district could look into providing this service as a whole, which might be able to cut costs through more strategic placement of buses and negotiating a better contract from the business partners providing the

hubs. A timeline of at most six months should be sufficient to identify high need areas, schedule bus drivers, and contract with the internet company for service.

Another part of the solution would be to contact our local politicians and work on a plan with the local internet company (Comporium) to create a deal for expanding broadband access. The infrastructure is not available throughout all of Rock Hill, and only Comporium can make the choice to expand. This may require tax breaks or other legal incentives. Additionally, the district can work with Comporium to create and possibly subsidize a "school access plan" for internet service. This could offer a plan for families that is reduced cost and has limited hours available or limited speed. As stated, this solution would be pursued at the district level, above RHHS, but would yield the desired results for the school's access issues.

Overarching Issue Three: Student Learning Outcomes

All educators want their students to learn, and the educators at RHHS are no exception. However, at present there is a defined lack of *details* concerning how technology should be used to support student learning, how technologies are evaluated for their efficacy, or how technology can be used to support students' social emotional learning (SEL). As a solution, all technology specialists should curate SEL resources for different levels (elementary, middle, and high) to share with teachers. This would not just be a list of resources but an on-going training utilizing specifically chosen tools. To choose the tools, a committee of technology specialists, teachers, and interested parents would first collect and then evaluate resources, and finally select just a few to implement. This will help teachers from being overwhelmed and ensure district unity and vertical alignment. I propose RHHS create a committee composed of the technology specialist, one administrator, one guidance counselor, one special education teacher, three to four other teachers of various content areas, and then three to four parents who express an interest. At the

school level, the committee can source and research a few SEL programs. Then, RHHS can meet with the other high schools and discuss their findings, ultimately landing on a program to be shared district wide. At the district wide meeting, some students should also be added to the panel for their input. The timeline for this should be no longer than 6 months from the creation of the school committee to the district adoption.

In addition, it is *imperative* that RHHS, and other district schools, create a written plan for how technology is meant to assist in student learning. This should contain details such as program/tool names, anticipated outcomes, and then a comparison to the actual outcomes. If a program or tool is identified for a specific content area, then thorough and specific trainings regarding its use within that content area need be provided. The times for these trainings need to be scheduled and included in the written plan. If the amount of technology specialists increases as suggested earlier this plan, then thorough trainings, implementations, and case-studies can be conducted more easily. Frequent feedback should be sought from classroom educators on the technology programs so time and money are not wasted on technology resources that are not working to improve student learning. As part of the plan, teachers at RHHS should be surveyed every semester and their feelings after a semester long implementation of the product can be compared to the stated goals from the beginning of the semester. These results should be shared with all teachers at RHHS for transparency. All of these measures require little to no cost and can be implemented immediately.

Overarching Issue Four: Stakeholder Communication

The final issue identified was with stakeholder communication and transparency. There are no formal or published methods for, nor examples of, technology planning with teacher, student, and parent stakeholders. Many initiatives seem to follow a “top-down” pattern where

they are developed at the district office and then foisted upon the teachers and students – this can lead to people feeling undervalued and moving out of the district. As a solution, RHHS should create a technology committee with teacher, parent, and student representation, along with the district instructional specialist assigned to the school. I recommend these meeting to occur quarterly or biannually, and for them to be live-streamed and/or filmed and posted to the school webpage for viewing. By making the meetings and plans more visible to the public, even the stakeholders not on the committee can watch and then offer input. These meetings should focus specifically on technology needs and uses at RHHS, and they can also be a vehicle for analyzing information from the teacher surveys mentioned earlier in the plan. The focus should be on actionable steps and modifications to the current plan and future goal setting. Again, this solution would require little to no cost to immediately implement.

Conclusion

The solutions presented in this plan were created to reduce or eliminate previously identified long-term repercussions from not addressing the overarching issues. Regarding the first issue of oversaturation, the long-term repercussion would in part be higher teacher turnover rates due to frustration; by implementing the aforementioned solution, the school (and district) would gain a reputation as being progressive and retain and attract more teachers. The lack of internet access issue leads to long-term repercussions of educational inequalities, where the students who have the least end up with the fewest future opportunities; by tackling this issue and implementing the solutions above, at least one source of hardship is removed in the path of these students' successes. This can lead to higher graduation rates and college acceptance rates. The long-term repercussions of not focusing on student learning would lead to a waste of resources (time and money) by the district, along with the negative personal issues for individual

students lacking social emotional learning. By implementing the solutions in this report, students' mental health would improve along with teacher buy-in for future technology initiatives. Targeted goals and plans with stated details, and assessed with teacher surveys, will encourage teachers that student learning and outcomes are at the forefront of technology plans. Finally, the lack of stakeholder communications meant stakeholders may decide to move out of an area where their voices are not heard. By implementing the solution, again the school and district will increase their reputation and attract new teachers and home-buyers to the community.

Due to Rock Hill High's already robust infrastructure in terms of devices and in-school networking, the plan forward must now focus on the more conceptual issues addressed through the ISTE standards. The perspective must shift from a mindset of "acquiring" to one of "exemplifying". By focusing on student learning and access, teacher satisfaction, and stakeholder input and communication, RHHS can easily elevate its position to one at the forefront of technology implementation within the South Carolina public school system.

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