Program Evaluation

Bring Your Own Technology (BYOT) Pilot
Survey Results

Research Office
Loudoun County Public Schools

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Background Information

One to the World (OttW) is a division-wide instructional initiative that addresses what a Loudoun County Public Schools (LCPS) graduate should know and be able to do. The four key elements of OttW are:

- **Significant Content and Important Competencies**: Tying directly to the LCPS curriculum, OttW work develops students into knowledgeable critical thinkers, communicators, collaborators, creators, and contributors.

- **Authentic Challenging Problems in the World**: Student work is framed by an authentic, challenging problem featuring real-world context, tasks, tools and/or impact.

- **Public Product for the World**: Students share their work with audiences beyond the classroom in the form of products, performances, services, and/or exhibitions.

- **Connected with the World**: Students improve the quality and impact of their work through connections to: (a) valuable tools and information; (b) others with whom they collaborate; and (c) audiences beyond the teacher. Students use technology to make these connections as appropriate.

The OttW initiative also presents LCPS staff with a clear vision for how to leverage their technology devices to support teaching and learning throughout the school system.

Program Delivery in Loudoun County Public Schools

To support OttW system-wide, the LCPS Bring Your Own Technology (BYOT) Pilot was established to encourage students to bring appropriate personal devices into the classroom to connect their learning experiences with the world (e.g., with valuable tools and information, with others with whom they collaborate, and with audiences beyond the teacher). By utilizing their personal technology devices in school, the students can learn new ways of collaboration and interaction with their teachers and each other to research information, solve complex problems, create original products, and publish their work. The pilot is sponsored by the Department of Instruction and administered by the Office of Technology and Library Resources.

In March/April 2015, students and staff from the following 19 BYOT Phase 1 schools began receiving monthly professional development and ongoing follow-up support from school- and district-based educational technology staff developers on appropriate uses of student personal devices and sample instructional practices (e.g., via online training modules in Office 365):

**Phase 1 BYOT Schools**

- **High Schools**: Broad Run HS, Freedom HS, Heritage HS, Rock Ridge HS and Tuscarora HS
- **Middle Schools**: Belmont Ridge MS, Eagle Ridge MS, Farmwell Station MS, J. Michael Lunsford MS, Mercer MS, Seneca Ridge MS, Smart’s Mill MS and Stone Hill MS
- **Elementary Schools**: Cedar Lane ES, Creighton’s Corner ES, Guilford ES, Meadowland ES, Rosa Lee Carter ES and Round Hill ES

In addition, the BYOT pilot schools implemented the nationally-recognized Digital Citizenship Curriculum, available through Common Sense Media, with the goal of attaining school-wide Digital Citizenship Certification by the end of the school year. All content and supporting documentation from the training sessions were placed on the LCPS VISION professional learning website for 24/7 access by teachers and principals.
Evaluation Focus

The purpose of this study was to review the implementation of the BYOT Phase 1 schools based on the program’s evaluation design. Rewritten as evaluation questions, the following expectations defined an effective first-year implementation of the pilot in the 2014-15 school year:

Likert-scale Questions
1. Were the school’s/district’s policies and procedures for allowing student personal devices clear?
2. Were the consequences for breaking the school’s/district’s rules for student devices fair?
3. Were the BYOT resources (e.g., webinars, VISION course, Twitter chats) practical and useful?
4. Did the teachers and principals receive sufficient support in integrating the student devices into their instruction/policies and procedures?
5. Should students be allowed to bring their own devices into the classroom/school in general?
6. Did the students bring acceptable devices to the classroom/school?
7. Were the student devices charged and ready for use?
8. Were the students able to connect their devices to the network?
9. Did the teachers assist the students with their devices (e.g., charging, utilizing, troubleshooting)?
10. Did the teachers connect the use of their devices to specific learning outcomes?
11. Did the students follow the classroom/school rules and procedures for their devices?
12. Were the students able to access the digital applications and content available for their devices?
13. Were the students actively engaged in the use of the digital resources during instruction?
14. Did the teachers change the amount of time spent integrating technology into their practices?

Open-ended Questions
15. What adjustments did teachers make to their planning, delivery and/or assessment practices this year?
16. What challenges (if any) did the teachers and principals face in allowing student personal devices in their classrooms/school?
17. What are the participants’ goals for continuing to use student devices in the future?
18. What are their needs for technology resources and professional development moving forward?

Methodology

To facilitate the data collection, staff from the Research Office followed a collaborative approach in which staff from the Office of Technology and Library Resources participated directly in the planning and implementation of the evaluation design. Using the evaluation design for reference, the Research Office staff constructed the questions for both the teacher and principal surveys (see Appendices A and B). The surveys were then uploaded to SurveyMonkey.com and launched in June 2015 via an e-mailed link to all Phase 1 principals. In early July 2015 the Likert-scale responses (e.g., 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree) were analyzed with SPSS statistical analysis software, and the open-ended responses were reviewed for illustrative quotes which best represented the views of the majority of respondents.

Participants

A total of 326 teachers and specialists completed the online teacher survey, comprising 235 (72%) general education teachers, 41 (13%) special education teachers, nine (3%) ELL teachers and 41 (12%) other teachers (e.g., Reading Specialists, Technology Resource Teachers, Librarians). About 52% (N=170) of the teachers worked in a middle school, 43% (N=141) in a high school, and 5% (N=15) in an elementary school. A total of 14 principals completed the online principal survey, representing six (43%) middle schools, four (28%) high schools and 4 (28%) elementary schools.
Results

The results for the Likert-scale questions were disaggregated by teacher (see Figures 1, 3 and 5) and principal type (see Figures 2 and 4). With respect to school leadership, the statements generating the most agreement among the teachers were the clarity of the school’s policies and procedures for allowing student personal devices and their overall belief in allowing students to bring their own devices into the classroom in general (see Figure 1). The lowest-rated indicators were the utility of the BYOT resources (e.g., webinars, VISION course, Twitter chats) and level of support received in integrating the student devices into their instruction. It is noteworthy, however, that a relatively high number of teachers responded with “No Opinion” for the BYOT resources question (N=50), reflecting their potential unfamiliarity with these resources (see Appendix C).

For the principals, the majority of the indicators received 100% agreement on average with respect to district leadership of the BYOT Pilot, with the exception of the level of support provided to elementary and high school principals (75%), and the utility of the BYOT resources for the middle school principals (83%, see Figure 2).

Among the eight indicators of effective school and classroom procedures, the ability of students to connect their devices to the network occurred most frequently according to all teacher types (see Figure 3). A quarter of all general education teachers very often or always assisted students with their personal devices compared to 32% of the SPED/ELL teachers and 27% of other teachers. In comparison to the general education teachers, the SPED/ELL teachers more frequently (a) engaged their students in the use of digital resources during instruction (66% to 57%), (b) enabled their students to follow the classroom rules and procedures for their devices (58% to 51%), and (c) connected the use of the personal devices to specific learning outcomes (68% to 63%).

The most frequently occurring school and classroom procedures across all BYOT principal types were: (a) the ability of students to connect their devices to the network and (b) the perceived readiness of the personal devices for classroom use (see Figure 4). The elementary and high school principals reported higher frequencies of students adhering to their rules for the devices (100%) and accessing available digital applications and content (100%) than did the middle school principals (83% and 67%, respectively). Student engagement in the use of digital resources, as well as the appropriateness of the devices used during instruction, was mixed across principal types with the elementary school principals reporting the highest frequency (100%), followed by the high school principals and middle school principals.

As for the level of technology integration, all teacher types reportedly spent more time integrating technology into the planning of their instruction than into the delivery or assessment of their instruction (see Figure 5). This result is not unexpected given the mid-year start date of the initiative. The percentage of teachers spending less time integrating technology into their practices was low, ranging from 2% to 7% (see Appendix C).
Figure 1: Teacher Survey Results for Question 4 (% Agree or Strongly Agree)

Figure 2: Principal Survey Results for Question 4 (% Agree or Strongly Agree)
Figure 3: Teacher Survey Results for Question 5 (% Very Often or Always)

- The students brought acceptable devices to the classroom.
- The student devices were charged and ready for use.
- The students were able to connect their devices to the network.
- I assisted the students with their devices (e.g., charging, utilizing, troubleshooting).
- I connected the use of their devices to specific learning outcomes.
- The students followed the classroom rules and procedures for their devices.
- The students were able to access the digital applications and content available for their devices.
- The students were actively engaged in the use of the digital resources during instruction.
Figure 4: Principal Survey Results for Question 5 (% Very Often or Always)

- The students brought acceptable devices to school.
- The student devices were charged and ready for use in the classrooms.
- The students were able to connect their devices to the network.
- The teachers assisted the students with their devices (e.g., charging, utilizing, troubleshooting).
- The teachers connected the use of the student devices to specific learning outcomes.
- The students followed the school’s rules and procedures for their devices.
- The students were able to access the digital applications and content available for their devices.
- The students were actively engaged in the use of digital resources in the classrooms.
Illustrative Quotes

The data from the four open-ended questions were categorized as follows: (a) changes to instructional practices; (b) challenges of BYOT implementation; (c) goals for the future; and (d) professional development needs. The following quotes from the participating BYOT teachers and principals best represented the views of the respondents as a whole.

Changes to Instructional Practices

“I made my assessments, activities, and projects more authentic. My delivery methods were completely different with the implementation of Blended Learning. It took a lot more planning with the TRT. [She] and I worked very closely in creating and planning lessons that were more student centered and student owned.” – General Education Teacher (Middle School)

“I needed to adjust what I provided to the students and how it was provided. Due to the nature of our demographics, not all students had devices so a paper copy or alternate assignment always needed to be available. I was able to do more interactive work, though, because I had access to the internet with the students.” – General Education Teacher (Middle School)

Challenges of BYOT Implementation - Teachers

“Students’ devices were not charged. Not enough outlets to charge and then they could not use them. Not all students brought devices and I did not have access to devices at times. Keeping students on task. They are constantly texting or gaming when they should be working. I will walk around to check but they are able to switch back and forth so easily. It can become very distractive. Internet down and not working. Laptops not available for students who do not have them. Never knowing who will have a device and who won’t and how many that will be.” – General Education Teacher (High School)
“The great majority of kids I spoke to say they refuse to bring in a tablet or laptop because (a) it’s a hassle and (b) the device might be damaged or stolen. You’ll no more get these kids to bring in laptops or tablets than to do their homework. Most of the serious work I’d like kids to do electronically requires a laptop or tablet. Phones are fine for gimmicky activities like Kahoot!, but kids aren't going to be creating serious textual or multimedia projects on a cellphone.” – General Education Teacher (High School)

**Challenges of BYOT Implementation - Principals**

“Challenges included refining our procedures for students requiring devices and connectivity. Our central focus was on instructional initiatives and supporting inventive practices.” – High School Principal

“Parents. Despite a year of preparation, messages, face to face talks, etc., parents still are taking a ‘wait and see’ approach to the initiative. Kids bring their phones, or nothing, and regardless of whatever perspective we've been offered through IS, a phone is not always the best device for the classroom.” – Middle School Principal

**Goals for the Future - Teachers**

“My goal next year is to find a tool (or a few tools) that work on all devices and use it for formative assessment each class. Students will get into the routine of having devices in each class and will know how to appropriately use the device. As the year progresses, I would try to use devices more for exploratory/discovery learning tasks, so we will get away from intensive direct instruction each day.” – General Education Teacher (Middle School)

“I would like to be able to do just about everything on devices if they each had one consistently. I would like to have them read in a warm up and blog back to me and the class on their views. I would like to have interactive notebooks, more projects and as many assignments as I can on them. I would like them to have a portfolio for the year.” – General Education Teacher (High School)

**Goals for the Future - Principals**

“For next year, BYOT will be a part of every class and every lesson. Our PD will focus on increasing the toolkit for all staff. We will consistently monitor progress and this will be part of our evaluation procedures and walkthrough formats.” – High School Principal

“More teachers using it on a daily basis for a least one activity in the class. We are instituting a uniform online calendar, reminder system, and teacher website platform that we hope will drive student and parent use, which will in turn, drive daily use of the devices, which will in turn, encourage students to use them in every class and parents to ensure that their student has a device.” – Middle School Principal

**Professional Development Needs – Teachers**

“Ideally, each student would have their own laptop or Padlet or have access to one that they could use for assessments and Google classroom. This would make us able to truly integrate technology into all facets of teaching and learning.” – General Education Teacher (Middle School)

“It would be very helpful if, at the county level, there were resources per content [area] that teachers could access. It feels like we are constantly reinventing the wheel when there are so many talented educators trying to do the same thing throughout the county. If we could share information that could only be to the benefit of the students.” – Special Education Teacher (Middle School)
**Professional Development Needs – Principals**

“I think between the refresh and fundraising we have done this year to provide supplemental devices, we're in pretty good shape. I think going forward more of our needs will be in the form of software/app licensing and content-specific apps that teachers can learn easily and use with their students. I also think the PBL training will, when widely disbursed among our teachers, clearly link what we're doing with technology to what we're doing with PBL [project-based learning] and OTTW [One to the World].” – Middle School Principal

“To provide additional PD opportunities to model the effective implementation of BYOT in the classroom. To provide greater access to equipment for those students that do not have any devices at their disposal.” – Middle School Principal

**Conclusions**

Quantitative evidence from the survey data yielded insights into the BYOT Pilot’s strengths and areas of growth for the 2015-16 school year. More specifically, analyses of the data highlighted (a) strong teacher and principal support for BYOT (>80%), (b) clear understanding among teachers of their school policies and procedures for personal devices, and (c) sufficient connectivity of personal devices to the LCPS network. Mixed results between teachers and principals were found mainly in the perceived utility of the BYOT resources, however, the teachers’ relatively low agreement on this indicator may be more of a reflection of their unfamiliarity with these resources. Recommended areas of growth include (a) increasing support for teachers and principals in integrating student devices into the delivery of instruction (e.g., in elementary and high schools), (b) improving awareness of the BYOT resources available to teachers and (c) increasing student engagement in the use of digital resources in the middle and high schools. A number of illustrative quotes from the BYOT teachers and principals provide additional context to decision makers for planning purposes.
Appendix A: Teacher Survey

Greetings. This survey is designed to help us gain a better understanding of the implementation of the Bring Your Own Technology (BYOT) initiative in your school. Your responses will be used to guide ongoing supports for principals and teachers in using technology to support high quality instruction for all LCPS students. All responses are confidential. Thank you for your time!

1. Please select your school:
   ___ Belmont Ridge MS
   ___ Broad Run HS
   ___ Cedar Lane ES
   ___ Creighton's Corner ES
   ___ Eagle Ridge MS
   ___ Farmwell Station MS
   ___ Freedom HS
   ___ Guilford ES
   ___ Heritage HS
   ___ J. Michael Lunsford MS
   ___ Meadowland ES
   ___ Mercer MS
   ___ Rock Ridge HS
   ___ Rosa Lee Carter ES
   ___ Round Hill ES
   ___ Seneca Ridge MS
   ___ Smart's Mill MS
   ___ Stone Hill MS
   ___ Tuscarora HS

2. Which best describes your teaching position?
   ___ General Education Teacher
   ___ Special Education Teacher
   ___ ELL Teacher
   ___ Other (TRT, Librarian, etc.) Please specify:

3. What grade level(s) do you teach?
   ___ K
   ___ 1
   ___ 2
   ___ 3
   ___ 4
   ___ 5
   ___ 6
   ___ 7
   ___ 8
   ___ 9
   ___ 10
   ___ 11
   ___ 12

4. School Leadership: Please indicate your opinion about each of the statements below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. My school's policies and procedures for allowing student personal devices were clear to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. The consequences for breaking the school's rules for student devices are fair.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. The BYOT resources (e.g., webinars, VISION course, Twitter chats) were practical and useful for my needs.</td>
<td></td>
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<tr>
<td>d. I received sufficient support in integrating the student devices into my instruction.</td>
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</tr>
</tbody>
</table>
e. Students should be allowed to bring their own devices into the classroom.

5. Classroom Procedures: Please indicate the extent to which each of the following occurred in your classroom.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Very Often</th>
<th>Always</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The students brought acceptable devices to the classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. The student devices were charged and ready for use.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>c. The students were able to connect their devices to the network.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>d. I assisted the students with their devices (e.g., charging, utilizing, troubleshooting).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. I connected the use of their devices to specific learning outcomes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. The students followed the classroom rules and procedures for their devices.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. The students were able to access the digital applications and content available for their devices.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. The students were actively engaged in the use of the digital resources during instruction.</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Technology Integration: Please indicate the change (if any) in the amount of time you spent integrating technology into your practices this year.

<table>
<thead>
<tr>
<th></th>
<th>Less Time</th>
<th>About the Same Time</th>
<th>More Time</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Your planning of instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Your delivery of instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Your assessment of instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. If you made any changes to your planning, delivery and/or assessment practices this year, what were those adjustments?

8. What challenges (if any) did you face in allowing student personal devices in your classroom?

9. What are your goals for continuing to use student devices in your classroom in the future?

10. What are your needs for technology resources and professional development moving forward?
Appendix B: Principal Survey

Greetings. This survey is designed to help us gain a better understanding of the implementation of the Bring Your Own Technology (BYOT) initiative in your school. Your responses will be used to guide ongoing supports for principals and teachers in using technology to support high quality instruction for all LCPS students. All responses are confidential. Thank you for your time!

1. Please select your school:
   ___ Belmont Ridge MS
   ___ Broad Run HS
   ___ Cedar Lane ES
   ___ Creighton's Corner ES
   ___ Eagle Ridge MS
   ___ Farmwell Station MS
   ___ Freedom HS
   ___ Guilford ES
   ___ Heritage HS
   ___ J. Michael Lunsford MS
   ___ Meadowland ES
   ___ Mercer MS
   ___ Rock Ridge HS
   ___ Rosa Lee Carter ES
   ___ Round Hill ES
   ___ Seneca Ridge MS
   ___ Smart's Mill MS
   ___ Stone Hill MS
   ___ Tuscarora HS

2. District Leadership: Please indicate your opinion about each of the statements below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. My district’s policies and procedures for allowing student personal devices were clear to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. The consequences for breaking the district’s rules for student devices are fair.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. The BYOT resources (e.g., webinars, VISION course, Twitter chats) were practical and useful for my needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. I received sufficient support in integrating student devices into my school’s policies and procedures.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Students should be allowed to bring their own devices into the classroom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. School and Classroom Procedures: Based on your observations, please indicate the extent to which each of the following occurred in your school.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Very Often</th>
<th>Always</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The students brought acceptable devices to school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. The student devices were charged and ready for use in the classrooms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. The students were able to connect their devices to the network.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. The teachers assisted the students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The teachers connected the use of their devices to specific learning outcomes.

The students followed the school’s rules and procedures for their devices.

The students were able to access the digital applications and content available for their devices.

The students were actively engaged in the use of digital resources in the classrooms.

4. What challenges (if any) did you face in implementing BYOT?

5. What are your goals for continuing BYOT in the future?

6. What are your needs for technology resources and professional development moving forward?
Appendix C: Survey Results for Likert-Scale Questions

Teacher Results

4. School Leadership: Please indicate your opinion about each of the statements below.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>No Opinion</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. My school's policies and procedures for allowing student personal devices were clear to me.</td>
<td>6</td>
<td>31</td>
<td>141</td>
<td>144</td>
<td>4</td>
<td>326</td>
</tr>
<tr>
<td>b. The consequences for breaking the school's rules for student devices are fair.</td>
<td>18</td>
<td>39</td>
<td>140</td>
<td>87</td>
<td>42</td>
<td>326</td>
</tr>
<tr>
<td>c. The BYOT resources (e.g., webinars, VISION course, Twitter chats) were practical and useful for my needs.</td>
<td>12</td>
<td>57</td>
<td>149</td>
<td>58</td>
<td>50</td>
<td>326</td>
</tr>
<tr>
<td>d. I received sufficient support in integrating the student devices into my instruction.</td>
<td>18</td>
<td>63</td>
<td>147</td>
<td>75</td>
<td>23</td>
<td>326</td>
</tr>
<tr>
<td>e. Students should be allowed to bring their own devices into the classroom.</td>
<td>16</td>
<td>26</td>
<td>141</td>
<td>131</td>
<td>12</td>
<td>326</td>
</tr>
</tbody>
</table>

5. Classroom Procedures: Please indicate the extent to which each of the following occurred in your classroom.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Very Often</th>
<th>Always</th>
<th>No Opinion</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The students brought acceptable devices to the classroom.</td>
<td>1</td>
<td>21</td>
<td>89</td>
<td>149</td>
<td>58</td>
<td>8</td>
<td>326</td>
</tr>
<tr>
<td>b. The student devices were charged and ready for use.</td>
<td>1</td>
<td>14</td>
<td>104</td>
<td>154</td>
<td>37</td>
<td>16</td>
<td>326</td>
</tr>
<tr>
<td>c. The students were able to connect their devices to the network.</td>
<td>3</td>
<td>3</td>
<td>62</td>
<td>155</td>
<td>90</td>
<td>13</td>
<td>326</td>
</tr>
<tr>
<td>d. I assisted the students with their devices (e.g., charging, utilizing, troubleshooting).</td>
<td>49</td>
<td>69</td>
<td>111</td>
<td>52</td>
<td>33</td>
<td>12</td>
<td>326</td>
</tr>
<tr>
<td>e. I connected the use of their devices to specific learning outcomes.</td>
<td>12</td>
<td>19</td>
<td>67</td>
<td>114</td>
<td>90</td>
<td>24</td>
<td>326</td>
</tr>
<tr>
<td>f. The students followed the classroom rules and procedures for their devices.</td>
<td>2</td>
<td>41</td>
<td>101</td>
<td>136</td>
<td>36</td>
<td>10</td>
<td>326</td>
</tr>
<tr>
<td>g. The students were able to access the digital applications and content available for their devices.</td>
<td>1</td>
<td>6</td>
<td>101</td>
<td>141</td>
<td>54</td>
<td>23</td>
<td>326</td>
</tr>
<tr>
<td>h. The students were actively engaged in the use of the digital resources during instruction.</td>
<td>3</td>
<td>12</td>
<td>104</td>
<td>129</td>
<td>61</td>
<td>17</td>
<td>326</td>
</tr>
</tbody>
</table>
6. Technology Integration: Please indicate the change (if any) in the amount of time you spent integrating technology into your practices this year.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Less Time</th>
<th>About the Same Time</th>
<th>More Time</th>
<th>No Opinion</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Your planning of instruction</td>
<td>9</td>
<td>123</td>
<td>168</td>
<td>26</td>
<td>326</td>
</tr>
<tr>
<td>b. Your delivery of instruction</td>
<td>8</td>
<td>173</td>
<td>118</td>
<td>27</td>
<td>326</td>
</tr>
<tr>
<td>c. Your assessment of instruction</td>
<td>22</td>
<td>180</td>
<td>91</td>
<td>33</td>
<td>326</td>
</tr>
</tbody>
</table>

Principal Results

4. District Leadership: Please indicate your opinion about each of the statements below.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>No Opinion</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. My district’s policies and procedures for allowing student personal devices were clear to me.</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>9</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>b. The consequences for breaking the district’s rules for student devices are fair.</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>9</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>c. The BYOT resources (e.g., webinars, VISION course, Twitter chats) were practical and useful for my needs.</td>
<td>1</td>
<td>0</td>
<td>13</td>
<td>8</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>d. I received sufficient support in integrating student devices into my school’s policies and procedures.</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>7</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>e. Students should be allowed to bring their own devices into the classroom.</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>17</td>
<td>0</td>
<td>24</td>
</tr>
</tbody>
</table>

5. School and Classroom Procedures: Based on your observations, please indicate the extent to which each of the following occurred in your school.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Very Often</th>
<th>Always</th>
<th>No Opinion</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The students brought acceptable devices to school.</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>12</td>
<td>4</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>b. The student devices were charged and ready for use in the classrooms.</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>15</td>
<td>5</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>c. The students were able to connect their devices to the network.</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>11</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>d. The teachers assisted the students with their devices (e.g., charging, utilizing, troubleshooting).</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>24</td>
</tr>
</tbody>
</table>
e. The teachers connected the use of their devices to specific learning outcomes.

f. The students followed the school's rules and procedures for their devices.

g. The students were able to access the digital applications and content available for their devices.

h. The students were actively engaged in the use of digital resources in the classrooms.