



Schoology

Implementation Evaluation

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Introduction

Background

Schoology is a Learning Management System (LMS) adopted by Virginia Beach City Public Schools (VBCPS) in December 2016 to deliver educational content to students online. The main desire for obtaining an LMS was to provide a streamlined, user-friendly application for interacting with, accessing educational content, and providing assessments as well as to facilitate the transition to personalized learning.¹ An LMS reduces the touchpoints for teachers, students, and parents when interacting with the division's digital content and serves as a single destination point for curriculum from the Department of Teaching and Learning. Schoology also offers the ability to assess students' learning using classroom or divisionwide assessments. The plan was for Schoology to replace the previous assessment platform. Additionally, although not an initial reason for obtaining Schoology, the system offers a way to provide online professional learning to staff. The School Board approved the Schoology initiative for an evaluation on September 11, 2018. The 2018-2019 school year was the first year when all schools began to implement various components of Schoology based on each school's staff readiness and needs.

Purpose

This implementation evaluation provides the School Board, Superintendent, and central office Schoology implementation team with information about Schoology's first year of divisionwide implementation. Because this initiative is new and operates with local resources, evaluation of the initiative is required for a minimum of two years by Policy 6-26. This implementation evaluation focused on the operational components of the initiative, staff and student use of Schoology, progress toward meeting established goals and objectives, stakeholder perceptions, and the cost of Schoology to the school division.

Program Goals and Objectives

Goals and objectives for Schoology that are assessed as part of this evaluation were developed in collaboration with the central office Schoology implementation team and based on a review of documentation related to the implementation of Schoology. The goals focused on the following areas: 1) providing a single location for instructional content, resources, and assessments, 2) supporting communication and collaboration, 3) ease of use, 4) staff professional learning, and 5) transformational learning. The specific goals and objectives are outlined in the section of the report where progress toward meeting the goals and objectives is discussed.

Evaluation Design and Methodology

Evaluation Design and Data Collection

The evaluation utilized a mixed-methods design to collect quantitative and qualitative information about the initiative's operation.

Multiple instruments and data sources were used. Quantitative data were gathered through closed-ended survey and questionnaire items, as well as Schoology usage data from the online platform. Qualitative data were collected through document reviews, interviews, and open-ended survey questions. The Office of Research and Evaluation program evaluators employed the following data collection methods:

- Administered surveys to teachers, instructional technology specialists (ITSs), school administrators, and students in grades 3 through 12.

- Administered implementation questionnaires to Schoology school leadership teams.
- Communicated with the central office Schoology implementation team regarding components of the initiative.
- Conducted interviews with members of the central office Schoology implementation team from each department involved with implementation regarding individual department’s roles in implementation.
- Gathered school student and instructional staff usage data from the Schoology platform.
- Collected cost information for Schoology from the Office of Business Services as well as the Department of Technology, the Department of Teaching and Learning, and the Office of Planning, Innovation, and Accountability.

In addition, school principals were able to determine the extent of Schoology use during the 2018-2019 school year; therefore, analyses were conducted to examine school variation in Schoology implementation level. Groups with similar levels of implementation were created through cluster analyses using an implementation questionnaire and Schoology usage data. These groupings allowed for comparisons of perception data by level of implementation.

Surveys

The Office of Research and Evaluation invited teachers, administrators, ITSs, and students to complete surveys regarding their perceptions of the Schoology implementation. Surveys for the program evaluation were administered during a two-week period in the spring.² Survey response rates are summarized in Table 1. For this evaluation, the evaluators used the following survey instruments:

- **Teacher Survey** - Teachers received email invitations on April 29, 2019 to complete the survey. Reminders were sent on May 6, 2019 to teachers who had not completed the survey. Of the 4,661 teachers invited to take the survey, 1,765 (38%) responded to the survey. See Table 1 for approximated response rates by level.
- **Administrators and ITS Survey** – Administrators and ITSs received email invitations on April 29, 2019 to complete the survey. Reminders were sent on May 6, 2019 to administrators and ITSs who had not completed the survey. Of the 248 administrators and 92 ITSs invited to take the survey, 107 administrators (43%) and 62 ITSs (67%) responded to the survey. See Table 1 for approximated response rates by level.
- **Student Survey** – Principals were provided with unique survey links and passwords for students in grades 3 through 12 to complete the survey. Principals were asked to provide the link with the password to the teachers who would administer the survey in their classrooms beginning on April 29, 2019. Students who indicated they had no experience with Schoology were not provided any additional survey questions. To allow schools ample time to administer the survey, the survey window for students was extended to the last day of the school year. The overall student response rate was 57 percent (see Table 1 for approximated response rates by level). Six elementary schools did not administer the student survey.

Table 1: Number of Survey Respondents by Group

Group	Elementary		Middle		High		All Levels	
	# of Respondents	Response Rate	# of Respondents	Response Rate	# of Respondents	Response Rate	# of Respondents	Response Rate
Students	9,564	61.6%	11,831	75.3%	8,705	41.0%	30,100	57.4%
Teachers	728	33.9%	481	44.8%	556	38.7%	1,765	37.9%

Group	Elementary		Middle		High		All Levels	
	# of Respondents	Response Rate	# of Respondents	Response Rate	# of Respondents	Response Rate	# of Respondents	Response Rate
Admin	51	45.5%	23	42.6%	33	40.2%	107	43.0%
ITS	38	70.4%	16	80.0%	8	44.4%	62	67.4%

To allow for more precise implementation level analyses, teachers were asked to provide their school name. Due to the small number of ITSs and administrators per school, no comparisons of perception data were made by implementation level for these groups. Survey agreement percentages reported in the evaluation are based on those who answered the survey item (i.e., missing responses were excluded from the percentages). For objectives related to the use of Schoology features, unless otherwise noted, regular use was defined as frequent or occasional use. Responses to open-ended questions were analyzed for common themes.

Questionnaires

The Department of Teaching and Learning facilitated the completion of the implementation questionnaires for Schoology school leadership teams. During support meetings, members of schools' implementation leadership teams were asked to collaborate and complete one questionnaire for their school. Items on the questionnaire included approximating the percentage of teachers who used Schoology for various types of activities, such as using discussion boards or administering an assessment, as well as the overall percentage of teachers using Schoology and teachers' comfort level with Schoology. Team members were encouraged to collaborate with one another and their administration to complete all items on the questionnaire. All schools provided responses to the questionnaire.

Interviews

Interviews were conducted with key members of the central office Schoology implementation team who were involved with the implementation of Schoology as well as staff who were involved with using Schoology for professional learning purposes. Questions focused on the role of each department in implementing various aspects of Schoology as well as the use of Schoology for professional learning. In addition, central office staff were invited to anonymously respond to closed- and open-ended survey items regarding their perceptions of the ease and accuracy of transitioning data to and from Schoology and their satisfaction with the implementation of Schoology.

Evaluation Questions

Evaluation questions for this report were created by the evaluators with feedback from the central office Schoology implementation team. The evaluation questions established for the implementation evaluation follow:

1. **What were the operational components of the Schoology initiative?**
 - a. What were the main operational components of launching the Schoology initiative?
 - b. What were the main operational components of the LMS?
 - c. How did schools vary in their level of implementation of the Schoology initiative during 2018-2019?
2. **To what extent did students and staff report using Schoology and how did this vary throughout the division?**
3. **What progress has been made toward meeting the goals and objectives of the initiative?**
4. **How was the Schoology implementation perceived by stakeholders (i.e., students, teachers, ITSs, administrators, and central office staff)?**
5. **What were the costs of the Schoology initiative since implementation?**

Evaluation Results and Discussion

Operational Components

The first evaluation question focused on the launch of the Schoology initiative as well as the main operational components of the LMS. The launch of Schoology included the Request for Proposal (RFP) process, the Schoology implementation team, the Digital Learning Anchor Schools (DLAS) field test, divisionwide implementation, and professional learning and support meetings. The operational components of the Schoology initiative included information about the LMS such as curriculum management, course delivery, assessment and reporting, communication and collaboration, data management and integration, third-party resources, and parent access. Additionally, the evaluation question addressed how schools varied in their level of implementation of the Schoology initiative during 2018-2019.

Operational Components of Launching Schoology Initiative

RFP Process

The decision to pursue an LMS was determined in January 2015 due to the desire for a single location for teachers, students, and parents to access educational content and for teachers to assess student learning. An initial Request for Information (RFI) was developed and issued in February 2015 to obtain information about the functionality and capabilities LMSs had and to determine which LMS features would be needed for VBCPS. A committee of staff members from the Department of Teaching and Learning, Department of Technology, Department of School Leadership, and Office of Planning, Innovation, and Accountability reviewed the responses to the RFI provided by several vendors detailing features of their LMSs. Following this review and discussion about the necessary LMS features for VBCPS, a Request for Proposals (RFP) was developed and issued in January 2016. The committee reviewed the vendor responses to the RFP and select vendors provided presentations to a broader committee, which included additional central office staff, principals, and teachers. The contract was negotiated and awarded to Schoology in December 2016.

Schoology Implementation Team

The division's central office Schoology implementation team includes approximately 25 staff members from several departments and offices, including the Department of Teaching and Learning, Department of Technology, Department of School Leadership, and Office of Planning, Innovation, and Accountability. Since February 2017, the team has held weekly meetings to discuss any issues with implementation throughout the division. In addition, the central office Schoology implementation team has met weekly with a project manager from Schoology. These weekly phone calls typically involved discussion of current issues related to implementation that needed to be discussed with Schoology.

Schoology Field Test

Prior to divisionwide implementation in 2018-2019, 14 schools that were previously identified as Digital Learning Anchor Schools were invited to participate in a field test of Schoology during the 2017-2018 school year (8 elementary schools, 2 middle schools, 4 high schools). These field test schools were asked to utilize Schoology for curriculum management and deliver coursework to their students through Schoology. Each school established a Schoology school leadership team, which included the principal or assistant principal, ITS(s), library media specialist(s), and two or more teachers. The central office Schoology implementation team met with the Schoology school leadership teams four times throughout the 2017-2018 school year to provide professional learning and guidance on implementation.

The Office of Research and Evaluation conducted three staff surveys and two student surveys at the field test schools during the 2017-2018 school year for the purposes of monitoring the field test. Individual schools' teacher and student perception data were provided to the central office Schoology implementation team and school principals for their reflection. These data provided guidance for the continued implementation of Schoology at their schools.

Divisionwide Implementation

During the 2018-2019 school year, all other school principals were asked to begin using Schoology at their schools; however, school principals determined the extent to which their teachers and students would use the system. Therefore, it was anticipated that although all schools would begin using Schoology in 2018-2019 to some extent, the level of implementation would vary by school. For this reason, further analyses were conducted to examine the variation of implementation across the division. The division plan for Schoology implementation was that all schools would be fully utilizing the system during the 2019-2020 school year.

Professional Learning and Support Meetings

Professional learning for Schoology was initially provided by Schoology representatives for central office staff in March 2017. Schoology representatives then provided professional learning in July and August 2017 to a few staff members at each of the field test schools who were selected as "Schoology champions," which meant they would serve as Schoology leaders for their schools. The professional learning plan followed a train-the-trainer model with Schoology champions providing training to their school staff during in-service week in 2018 prior to the field test. Other training opportunities during the field test school year involved a Schoology introductory course offered online through Schoology and regular professional learning/support meetings with the central office Schoology implementation team that were led by instructional technology coordinators in the Department of Teaching and Learning.

During 2018-2019, a similar professional learning model was used for all schools. The Schoology champions were trained by Schoology representatives from April 2018 through August 2018. The Schoology champions then provided training to their school staff during the summer and/or in-service week prior to the 2018-2019 school year. In addition, the Schoology introductory course was provided through a Schoology course that was adapted by the instructional technology coordinators for staff at the new schools implementing Schoology. The Schoology school leadership teams from schools that participated in the field test continued to attend regular meetings with instructional technology coordinators in 2018-2019. The new schools implementing Schoology were also asked to establish Schoology school leadership teams, which also included the principal or assistant principal(s), ITS(s), library media specialist(s), and two or more teachers. These teams participated in separate meetings with the instructional technology coordinators to provide professional learning and guidance on implementation. Similar to the previous year, ORE staff provided the central office Schoology implementation team and principals with teacher and student perception data from a survey administered in fall 2018 to help inform school implementation.

An additional professional learning opportunity was made available to schools in October 2018 through a Schoology course created by the Office of Student Assessment regarding creating and administering classroom assessments as well as assessments in AMP, Schoology's assessment platform. The course continues to remain active for staff to access the course content. Staff from the Office of Student Assessment were also available at multiple support meetings throughout 2018-2019 for additional assistance in this area.

Additional professional learning opportunities for central office Schoology implementation team members and select school-based staff included attending Schoology NEXT conferences. Central office staff from the Department of Technology, Department of Teaching and Learning, and the Office of Planning, Innovation, and

Accountability attended the Schoology NEXT Conference in the summer of 2017. Central office staff from the Department of Teaching and Learning and Office of Planning, Innovation, and Accountability as well as 12 teachers attended the conference in the summer of 2019.

When asked about professional learning during 2018-2019 on the surveys, 97 percent of teachers, 98 percent of administrators, and all ITSs indicated they had received professional learning on Schoology. In addition, most staff indicated that they sought help or support for Schoology during 2018-2019 (93% of teachers and 98% of administrators and ITSs). The most frequently selected source for help or support by teachers and administrators was an ITS (see Table 2). For ITSs, the most selected source for help or support was an instructional technology coordinator.

Table 2: Percentages of Staff Who Indicated Seeking Help From Various Sources

School Level	Teacher	Administrator	ITS
Schoology champion	46.2%	59.8%	32.8%
Instructional technology specialist	74.2%	92.2%	42.6%
Instructional technology coordinator	10.6%	12.7%	86.9%
Department of Teaching and Learning curriculum coordinator	7.5%	12.7%	11.5%
Schoology self-help center*	10.8%	3.9%	68.9%
VBCPS Schoology champion group*	8.4%	16.7%	41.0%
VBCPS school-specific Schoology group*	7.5%	7.8%	4.9%
VBCPS service desk*	2.4%	2.0%	13.1%
Other help	8.2%	1.0%	18.0%

Note: *Online resource available within Schoology.

Operational Components of the Learning Management System

Curriculum Management

A major component of an LMS involves housing and managing educational curricula. Prior to obtaining Schoology, instructional content was housed in word files and shared with teachers on a VBCPS SharePoint site. When planning the implementation of Schoology, the Department of Teaching and Learning worked to redesign how curricula would be delivered to students as well as how this information would be shared with instructional staff.³ The Department of Teaching and Learning curriculum coordinators worked within grade levels at the elementary level and course areas at the secondary level to revise the structure of content delivery to be more interactive, such as through adding external links and discussion boards. Curriculum coordinators created resources for teachers that addressed content within the elementary grades and secondary courses. The resources included assignments, files, links to external websites, rubrics, discussion boards, and assessments.

The Department of Teaching and Learning curriculum coordinators discovered the best method of sharing educational content with school-based instructional staff was through grade-specific or course-specific groups that could be easily accessed and copied into a course.⁴ All groups were organized in a similar way to allow for easy access of resources for all teachers. Group access codes were posted on a VBCPS SharePoint site to allow teachers to add themselves to any curriculum resource group. Although the most recently updated curriculum content was provided through these Schoology groups, teachers may have accessed other curriculum resources through other google sites or resources from previous years through a SharePoint site.

When surveyed about the frequency of accessing and using these division-created curriculum resources in Schoology, 34 percent of teachers indicated they frequently accessed and used these resources and 34 percent of teachers indicated they occasionally accessed and used them, while 21 percent of teachers indicated they

rarely did so, and 11 percent indicated they had no experience with these resources. Overall, 60 percent of teachers agreed that moving the content from the curriculum resources to their courses was seamless.

In addition to the division-created curriculum resources created by curriculum coordinators, staff had the option of creating their own curriculum resources. This option allows teachers to load curriculum resources directly into a course, their personal resources folder, or to a group. Similar to division-created curriculum resources, teachers are able to move content between courses, groups, and their personal resources. Overall, 39 percent of teachers indicated they frequently accessed and used self-created curriculum resources and 28 percent indicated they occasionally accessed and used them, while 14 percent indicated they rarely did so, and 19 percent indicated no experience with this.

Course Delivery

An LMS allows teachers to deliver educational course content directly to students. Overall, 77 percent of teachers indicated they used Schoology with students to deliver course content. Further, 42 percent of all teachers who responded to the survey indicated they used Schoology daily to deliver course content and 25 percent indicated they used Schoology weekly to deliver course content. Schoology offers a variety of ways to deliver course content to students, such as through providing content within folders, files, links, or pages, or more interactively through discussion boards. Most teachers indicated they either frequently (69%) or occasionally (17%) added folders, files, or links within their courses.

Teachers can also monitor student learning through creating and grading assignments and providing students feedback. Most teachers indicated they either frequently (59%) or occasionally (19%) created assignments in Schoology during 2018-2019, while 9 percent indicated rarely doing so, and 13 percent indicated no experience. Lower percentages of teachers indicated they graded assignments in Schoology, with 31 percent of teachers indicating they frequently graded assignments and 21 percent indicating they occasionally had, while 17 percent having rarely graded assignments and 31 percent indicated they had no experience.

Another use for Schoology is delivering course content to staff members to provide online professional learning. Several departments and offices have taken advantage of this Schoology feature, such as the Department of Human Resources, the Office of Professional Growth and Innovation, the Office of Student Assessment, and the Office of Student Support Services.

Several administrators and ITSs also utilized Schoology to create courses for staff during 2018-2019. Of those who responded to the survey, depending on level, between 39 and 48 percent of administrators indicated they created a course for staff during the 2018-2019 school year (see Table 3). Higher percentages of ITSs indicated they provided courses to staff with between 63 and 94 percent of ITSs indicating they created courses. Overall, highest percentages were found at the middle school level for both administrators (48%) and ITSs (94%).

Table 3: Percentages of Administrators and ITSs Who Indicated Creating a Schoology Course for Staff

School Level	Administrator	ITS
Elementary	42.6%	66.7%
Middle	47.8%	93.8%
High	37.5%	62.5%

Assessment and Reporting

Schoology also offers teachers the ability to monitor student learning through assessments. Assessments that teachers create within their course for learning of course content are called classroom assessments. Questions for classroom assessments can be typed in during creation or they can be imported from a test bank or previous assessment. In addition, curriculum coordinators in the Department of Teaching and Learning created

assessments that can be imported by the teachers to be administered as classroom assessments. Classroom assessments offer technology-enhanced items (TEIs), such as questions that require students to highlight text or use a number line. Classroom assessments provide teachers with the percentage of correct items for each student as well as class averages but generally do not provide more detailed reporting by item or student. Reporting of classroom assessments is restricted to the individual course and section in which it was administered. Overall, 26 percent of teachers indicated they frequently created classroom assessments in Schoology and 23 percent indicated they did so occasionally, while 18 percent indicated they rarely created classroom assessments and 34 percent indicated they had no experience doing so.

Schoology's Assessment Management Platform (AMP) can also be used to create assessments. Assessments through AMP can be utilized by more than one teacher (e.g., schoolwide, divisionwide) and offer detailed assessment reporting by item and student. In addition, assessments administered through AMP allows for reporting across all sections that administered the assessment. AMP provides more detailed data than classroom assessments; however, during the field test in 2016-2017, there were concerns about the strength and power of the data provided through AMP in comparison to the other platforms. Due to these concerns, during 2018-2019, divisionwide assessments were administered in the previous platform, SchoolNet. In addition, teachers may have opted to continue using SchoolNet for any other assessment needs because of using SchoolNet for divisionwide assessments. Schools were told to plan to use Schoology for all assessments, including divisionwide assessments, through Schoology beginning in 2019-2020. These issues were reflected in teacher survey responses regarding usage during 2018-2019. Low percentages of teachers indicated they created assessments through AMP, with 12 percent of teachers indicating they either frequently or occasionally created these assessments. An additional 17 percent indicated they rarely created these assessments and 71 percent indicated they had no experience doing so. In the spring of 2019, the Department of Technology in collaboration with the Office of Student Assessment began building more detailed reporting capabilities for AMP that would provide similar data as the previous platform. This would allow for more detailed data at the item level and provide school level comparison. These more detailed reporting capabilities will be piloted in the 2019-2020 school year.

Each school has an individual AMP team that can manage their schoolwide AMP assessments. These AMP teams typically include administrators and Schoology champions. If a teacher wants to utilize AMP for an assessment within a course, he/she would need to be added to their school's AMP team. For divisionwide assessments, the creation and management are completed by central office staff. During the first half of 2017-2018 for the field test, the Office of Student Assessment loaded divisionwide assessments in AMP that were previously offered through the other assessment platform. During 2018-2019 and moving forward, the Department of Teaching and Learning worked to create and manage the divisionwide assessments offered through AMP.

In addition to the challenges with reporting capabilities, there have been other challenges with assessments related to locking down the website browser while students are taking an assessment and accessing the previously used item bank available in the other assessment platform. During 2018-2019, VBCPS contracted with Respondus to ensure that teachers could lock down website browsers when students take an assessment to ensure that students could not access any information during an assessment. However, there remained issues with tests loading correctly when using this application.

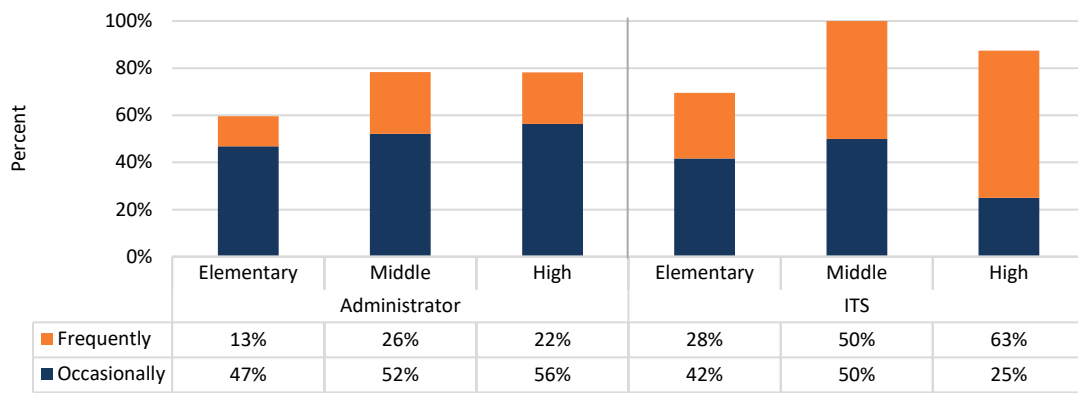
The inability to access the previously used item bank was another challenge for teachers. The previously used platform had the ability to search through a test bank provided by Certica, which offers suggested questions by learning objective within content areas. Beginning in 2019-2020, there was an agreement with Certica that permitted previously created tests with Certica items to be exported from SchoolNet into Schoology and that Certica would work with Schoology to incorporate the previously used item bank.

Communication and Collaboration

An additional benefit of an LMS includes the ability to connect and communicate with others. This includes connections and communications amongst students, teachers, and administrators within schools and between staff and a broader online community. Schoology offers the ability to communicate through direct messaging, posting within groups, discussion boards, and through posting on calendars.

As leaders at their schools, several administrators and ITSs have utilized groups to communicate with others in their schools. In response to a survey item, between 60 and 78 percent of administrators and 70 and 100 percent of ITSs, depending on school level, indicated they either frequently or occasionally used groups to distribute information to staff (see Figure 1).

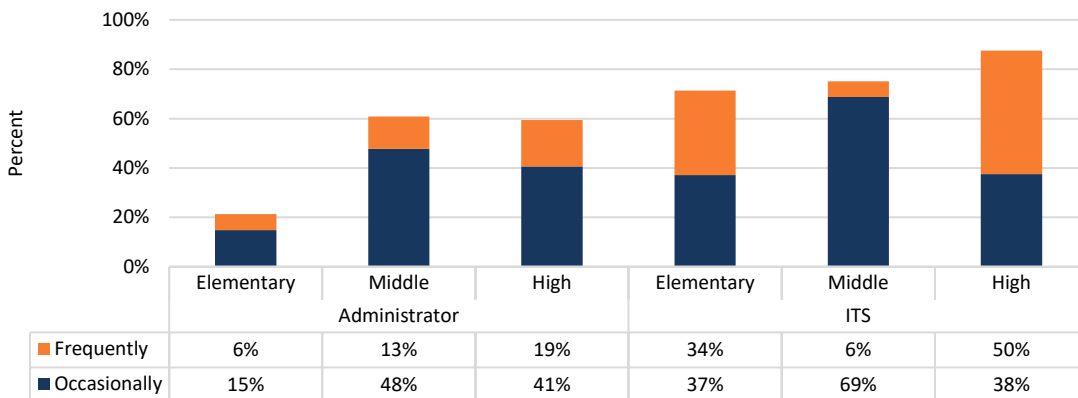
Figure 1: Frequency of Using Groups to Distribute Information to Staff



Note: The other response options were rarely and no experience with this activity.

Overall, lower percentages of administrators indicated they had leveraged groups to communicate with students, with between 21 and 61 percent of administrators indicating they had, whereas similar percentages of ITSs indicated they had utilized groups for this purpose (see Figure 2). Depending on level, between 71 and 88 percent of ITSs indicated they frequently or occasionally used groups to distribute information to students.

Figure 2: Frequency of Using Groups to Distribute Information to Students



Note: The other response options were rarely and no experience with this activity.

Another way to use Schoology to communicate is through the use of discussion boards. In particular, teachers can allow students to communicate with them and amongst the students through discussion boards. Overall, 11 percent of teachers indicated frequent use and 32 percent indicated occasional use, while 29 percent of teachers indicated rare use and 29 percent indicated they had no experience with discussion boards.

Overall, 54 percent of teachers agreed that Schoology facilitated their communication with other teachers, while 65 percent agreed that Schoology facilitated collaboration with other teachers. A higher percentage of teachers (81%) agreed that Schoology facilitated communication with students, but less than half (41%) of teachers agreed that Schoology facilitated communication with administrators.

Data Management and Integration

The contract with Schoology included providing assistance with migrating educational content from previously used systems into Schoology. Due to most previously used educational content not being housed in a similar system, there was not much content that needed to be migrated. To integrate other data into Schoology, it needed to follow a specific format. After discussions with Schoology representatives about these requirements, the Department of Technology developed automated processes that would pull data from the VBCPS data warehouse and be imported into Schoology. These processes ensured that class enrollment, user information, groups, group enrollment, standardized test results, and other student data are updated within Schoology on a nightly basis. These data are queried from the Student Information System (Synergy) into the VBCPS data warehouse, which integrates with Schoology. Schoology has also been synced with Office 365 One Drive and Google Drive through Learning Tools Interoperability (LTI) integration.

Although not in the initial plan for Schoology, after the LMS was acquired, VBCPS decided that all secondary assignment and assessment grades entered into Schoology should be directly imported into the Student Information System (Synergy), which is the official gradebook of record for VBCPS students. This decision required custom development effort by both Schoology and Synergy vendors. This integration between Schoology and Synergy was expected to be ready prior to the start of the 2019-2020 school year but the custom development has not been completed. Because of this, during the 2018-2019 school year, teachers had to input all grades by hand into Synergy. This is applicable only for grades at the secondary level because only quarter and final standards-based grades are provided in Synergy at the elementary level. When custom development work is completed, the plan for 2019-2020 is to pilot this ability to pass grades from Schoology to Synergy with a small number of teachers before divisionwide implementation.

Third-Party Resources

Schoology also has the capability of integrating with other outside applications that provide educational content. Several third-party applications are currently available through VBCPS and Schoology, such as Clever, Gale Resources, Khan Academy, and PlayPosit. These third-party applications can be accessed either from within the Schoology platform or through links that take students to the application separately. The third-party resources that are accessed within the Schoology platform must have LTI integration. To ensure this integration, the Department of Technology staff worked with the third-party vendors. All third-party vendors must have a separate agreement and may have a separate cost from Schoology. To have a seamless system, the goal of using third-party applications with Schoology is to be able to access them within the Schoology platform without the user needing to sign into or open a different application or browser, which requires this LTI integration. Although this is the goal of accessing all third-party resources, according to the departments of Technology and Teaching and Learning, there have been no major issues with utilizing third-party resources that do not integrate with Schoology due to the ability to link to the external content if there is not integration.⁵

Regarding teacher use of third-party division resources within Schoology, 12 percent of teachers indicated frequent use and 24 percent indicated occasional use, while 23 percent indicated rare use. The highest percentage of teachers (42%) indicated they have no experience with using third-party resources.

In addition to the third-party applications that offer educational content (e.g., Khan Academy), there are vendors who offer additional features not provided through Schoology, such as Respondus, which ensures that browsers are locked down when students are completing an assessment. Therefore, students are unable to search on other websites when taking an assessment. A contract with Respondus was signed for this locked-down browser feature in March 2018. At times, there were difficulties ensuring that the LTI integration worked with various applications because some applications would not work within the “sandbox/testing” feature in Schoology.

Parent Access

As of the end of the 2018-2019 school year, parent access was not available. Challenges for providing parent access have included linking students with parents and determining the appropriate information for parents to access. As of the summer of 2019, the Department of Technology made strides towards providing parent access, including ensuring that parents are linked with their student through Synergy. The plan for 2019-2020 is to pilot parent access at a small number of schools prior to the divisionwide implementation.

School Variation in Implementation of the Schoology Initiative in 2018-2019

During 2018-2019, school principals were able to determine the extent of Schoology usage within their school. Therefore, an initial focus of the evaluation was to examine school variation in implementation during the 2018-2019 school year. School implementation of Schoology was evaluated in two ways: Schoology school leadership teams’ perceptions of Schoology use within their schools and instructional staff and student usage data that were available through Schoology.

Implementation Questionnaire Responses

The Schoology school leadership teams at each school were invited to complete an implementation questionnaire to gauge level of implementation during 2018-2019. Questions included approximating on a scale of 1 to 4 (i.e., 0-25%, 26-50%, 51-75%, 76-100%) the percentages of teachers who participated in various activities within Schoology, such as accessing curriculum resources, creating assignments, and administering assessments. In addition, leadership teams were asked to approximate the percentage of teachers using Schoology with students in general and the overall teacher comfort level with Schoology for those who are using Schoology on a scale of 1 to 5 (i.e., very low, low, moderate, high, very high).

For later analyses, the reported percentages of teachers who participated in activities were collapsed into categories based on level of complexity, ranging from introductory skills to complex skills.⁶ Basic skills included accessing curriculum resources and using groups; level one skills included adding folders, files, or links and creating assignments; level two skills included creating classroom assessments and using third-party applications; and level three skills included creating AMP assessments and analyzing assessment results. The scaled scores provided for each skill level were totaled.

Schoology Usage Data

Individual school usage data were pulled directly from Schoology for the entire school year, beginning in July 2018 and ending on June 14, 2019. The usage data included totals of the following: instructional staff and student website visits, student assignment and quiz submissions, instructional staff and student comments, and instructional staff and student files uploaded. To allow for more precise comparisons of implementation

across schools regardless of school size, rates were calculated for each variable using either the total instructional staff or cumulative student enrollment for each individual school. Due to students being assigned within the Schoology system to their home school, student data could not be obtained for two high schools. Therefore, they were not included in the analyses that were based on level of implementation, though the data for these schools were included in the analyses that were based on school level only.

Implementation Groupings

Evaluators attempted to create groups of schools that had similar levels of implementation during the 2018-2019 school year using cluster analyses. Cluster analyses were conducted for each school level using the perception data from schools' implementation questionnaire (i.e., total scaled scores for each skill level and scaled scores of percentage of teachers using Schoology and teachers' comfort level) and staff and student usage data (i.e., visits, comments, and uploads for instructional staff and students, submissions for students).⁷ All variables contributed equally to the cluster analyses to obtain groupings. Two main groups were found for each school level. If schools did not statistically cluster with a main group, evaluators visually examined the data to determine the appropriate group. The first group that was found for each level was an "emergent" implementation group, which had overall lower approximated percentages of teachers using more complex skills as well as less involvement with the Schoology platform as measured by usage data (i.e., overall, lower total number of visits, submissions, etc.). The second group that was found for each level was a "comprehensive" group, which had overall higher approximated percentages of teachers using more complex skills as well as more widespread involvement with the Schoology platform as measured by usage data. See Table 4 for differences between groups at each level. There were several statistically significant differences between groups as noted in the table.

Table 4: Questionnaire and Usage Data by Implementation Group

School Level	Elementary		Middle		High	
	Emergent (N = 24)	Comprehensive (N = 32)	Emergent (N = 9)	Comprehensive (N = 6)	Emergent (N = 5)	Comprehensive (N = 8)
Basic level total rating (2-8)	6.08*	7.06*	6.56	7.00	5.20	5.50
Level 1 total rating (3-12)	6.33*	8.94*	7.67*	10.5*	7.00*	10.75*
Level 2 total rating (4-16)	5.46*	7.47*	8.67*	11.5*	8.40*	12.25*
Level 3 total rating (3-12)	3.75	4.19	3.22*	5.00*	3.40*	5.75*
Teacher use (1-4)	2.42*	3.69*	3.56	4.00	3.20*	4.00*
Teacher comfort (1-4)	2.54*	3.47*	3.00	3.50	2.80	3.38
Instructional staff visits	193.52*	233.45*	415.19	490.42	321.96*	526.60*
Instructional staff comments	4.04*	5.66*	16.54	23.91	21.19*	40.02*
Instructional staff files uploaded	8.80	11.21	48.62	63.39	53.74*	102.12*
Student visits	54.41*	128.00*	568.39*	860.71*	715.00	1010.24
Student comments	0.85	3.34	31.42	81.20	18.63*	42.00*
Student submissions	0.23	1.87	28.40	47.18	52.11*	119.75*
Student files uploaded	0.08	0.58	5.54	14.15	23.97	36.58

Note: *Statistically significant differences, $p < .05$.

Overall, when comparing perception and usage data by school level, lowest averages were found at the elementary school level, followed by the middle school level, and high school level. This suggests that implementation at the high school level was overall more widespread, followed by the middle school level, and the elementary school level. Due to these large variations in implementation by school level and implementation group, data related to the goals and objectives will be provided by school level and by the six implementation groups.

Staff and Student Reported Schoology Use

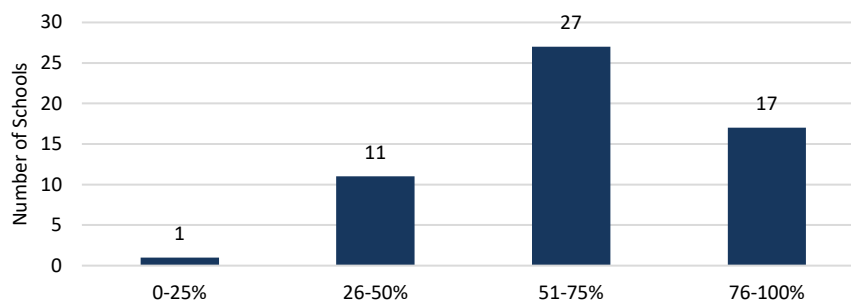
The second evaluation question addressed the extent to which staff and students reported using Schoology as well as the variation throughout the division. Perceptions focused on the extent to which teachers indicated they used Schoology to deliver course content to students and the extent to which students indicated they used Schoology at all during the year. Due to the implementation differences found by school level, data were reported separately for each school level.

Elementary School

Overall, approximately 65 percent of elementary school teachers indicated they used Schoology to deliver course content to students. Approximately 31 percent of all elementary school teachers who responded to the survey indicated they used Schoology daily with students and 22 percent indicated they did so weekly.

Across all 56 elementary schools throughout the division, the percentages of teachers who indicated they used Schoology with students for course delivery ranged from 25 percent of teachers to all teachers (100%). As shown in Figure 3, based on teachers' responses to the survey, the highest number of elementary schools (n = 27) had between 51 and 75 percent of the teachers indicate they used Schoology with students. In addition, there were 12 elementary schools where 50 percent of the teachers or fewer and 17 elementary schools where 76 percent of the teachers or more indicated they used Schoology with students to deliver course content. These results support the idea that schools at the elementary school level varied widely in their level of implementation.

Figure 3: Distribution of Elementary Schools by Percentage of Teachers Who Indicated They Used Schoology With Students



Additional analyses showed that teachers' use of Schoology with students varied by grade level taught. As shown in Table 5, between 47 and 64 percent of teachers in grades K through 2 indicated they did not use Schoology with students, while lower percentages of teachers at the higher elementary grades did not use Schoology with students. Further, higher percentages of teachers in grades 3 through 5 indicated they used Schoology with their students daily, although the percentages of teachers at each grade level were low (approximately one-fourth of teachers). A slightly higher percentage of grade 5 teachers indicated they used Schoology daily than grade 3 and 4 teachers, whereas higher percentages of grade 3 and 4 teachers indicated they used Schoology weekly than grade 5 teachers.

Table 5: Teacher Indicated Frequency of Use by Grade Level

School Level	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Daily use	5.5%	12.3%	14.5%	25.6%	26.0%	27.8%
Weekly use	15.6%	18.9%	21.9%	22.2%	22.0%	19.2%
Monthly use	11.1%	14.9%	11.8%	10.7%	10.2%	12.2%
Quarterly use	4.0%	5.3%	5.3%	3.0%	3.1%	3.3%
Unknown frequency of use	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
No use	63.8%	48.7%	46.5%	38.5%	38.6%	37.6%

Students in grades 3 through 5 were also asked whether they used Schoology at all during the year. Overall, nearly all students indicated they used Schoology during the school year (99%). Further, students most often indicated they used Schoology either two or more times a day (49%), one time a day (9%), or a few times a week (23%). These percentages were higher than the percentages of teachers who indicated they used Schoology to deliver content to students either daily or weekly.

Across all 50 elementary schools with students who responded to the survey, the percentages of students who indicated they used Schoology at all during the school year ranged from 90 percent of students to all students (100%). These results suggest that most students were exposed to Schoology at all elementary schools that had students respond to the survey. There was more variance in the frequency with which students reported using Schoology. The percentages of students who indicated they used Schoology two or more times per day ranged from 9 percent to 89 percent across the 50 elementary schools.

Examining data by grade level showed that higher percentages of students in grade 5 indicated they used Schoology daily (i.e., two or more times a day or one time a day) than students in grades 3 or 4, while higher percentages of students in grades 3 or 4 indicated they used Schoology either weekly or monthly (i.e., a few times a week, one time a week, or a few times a month) than students in grade 5 (see Table 6). These patterns were more pronounced than the patterns found with teachers by grade level.

Table 6: Student Indicated Frequency of Use by Grade Level

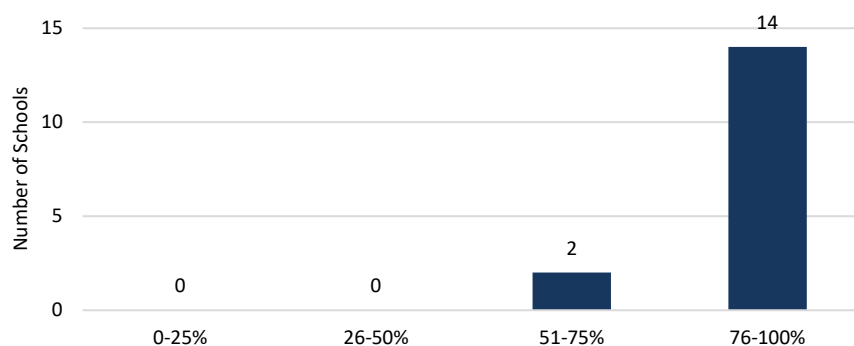
School Level	Grade 3	Grade 4	Grade 5
Two or more times a day	38.7%	46.7%	60.1%
One time a day	13.7%	8.8%	6.7%
A few times a week	26.1%	24.6%	19.0%
One time a week	2.9%	2.9%	1.7%
A few times a month	15.8%	14.8%	11.3%
Unknown frequency of use	1.1%	0.7%	0.5%
No use	1.7%	1.6%	0.8%

Middle School

Overall, approximately 87 percent of middle school teachers indicated they used Schoology to deliver course content to students. Approximately 53 percent of all middle school teachers who responded to the survey indicated they used Schoology daily with students and 25 percent indicated they used Schoology weekly.

Across all 16 middle schools throughout the division, the percentages of teachers who indicated they used Schoology with students for course delivery ranged from 71 percent of teachers to all teachers (100%). As shown in Figure 4, most middle schools (n = 14) had between 76 and 100 percent of the teachers indicate they used Schoology with students. The remaining two middle schools had between 51 and 75 percent of the teachers indicate they used Schoology with students to deliver course content. Unlike at the elementary level, there appeared to be less variation with middle schools having most of their teachers using Schoology with students.

Figure 4: Distribution of Middle Schools by Percentage of Teachers Who Indicated They Used Schoology With Students



Analyses showed that teachers’ use of Schoology with students varied by content area (focused specifically on core content areas). Overall, slightly higher percentages of math and science teachers (87%) indicated they used Schoology for course content than English (85%) and social studies teachers (83%). However, higher percentages of science and social studies teachers indicated they used Schoology daily than English and math teachers, while the lowest percentage of teachers who used Schoology with their students daily was math teachers (see Table 7).

Table 7: Middle School Teacher Reported Use of Schoology by Content Area

School Level	English	Math	Science	Social Studies
Daily use	54.7%	45.9%	62.0%	63.1%
Weekly use	23.1%	29.6%	18.5%	16.5%
Monthly use	6.0%	10.2%	5.6%	2.9%
Quarterly use	0.9%	1.0%	0.0%	0.0%
Unknown frequency of use	0.0%	0.0%	0.9%	0.0%
No use	15.4%	13.3%	13.0%	17.5%

Overall, 99 percent of middle school students indicated they used Schoology during 2018-2019, with the majority (80%) of students indicated they used Schoology two or more times a day and 5 percent indicated they used Schoology once per day.

Across all 16 middle schools, the percentages of students who indicated they used Schoology at all during the school year ranged from 90 percent of students to all students (100%). There was more variance in the frequency with which students reported using Schoology. The percentages of students who indicated they used Schoology two or more times per day ranged from 42 percent to 94 percent. Similar to the pattern with teachers, middle schools appeared to have most of their teachers using Schoology regularly with students.

In addition, similar patterns by content area were found for middle school students (see Table 8). Highest percentages of students indicated they used Schoology every class in social studies, while lowest percentages of students indicated they used Schoology every class in math. However, in comparison to the other content areas, slightly lower percentages of students indicated they used Schoology in social studies at all (90% indicated any frequency of use).

Table 8: Middle School Student Reported Use by Content Area

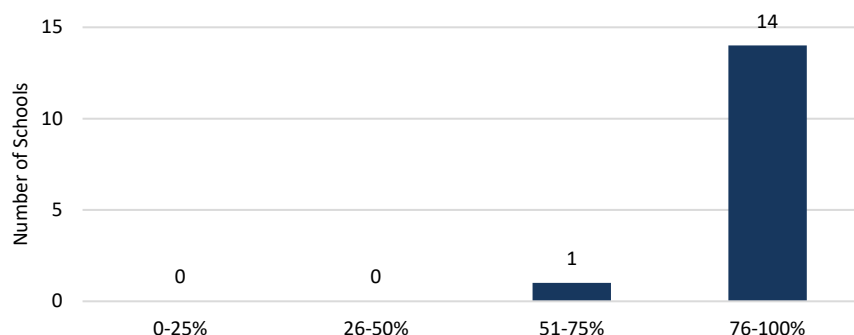
School Level	English	Math	Science	Social Studies
Every class	63.7%	43.6%	64.1%	66.0%
Weekly	22.3%	35.2%	21.6%	17.8%
Monthly	6.2%	14.6%	8.0%	6.2%
Not used	7.8%	6.6%	6.3%	10.0%

High School

Overall, approximately 84 percent of high school teachers indicated they used Schoology to deliver course content to students. Approximately 48 percent of all high school teachers who responded to the survey indicated they used Schoology daily with students and 29 percent indicated they used Schoology weekly.

Across all 15 high schools throughout the division, the percentages of teachers who indicated they used Schoology with students for course delivery ranged from 64 percent of teachers to all teachers (100%). As shown in Figure 5, most high schools (n = 14) had between 76 and 100 percent of the teachers indicate they used Schoology with students. The one remaining high school had 64 percent of the teachers indicate they used Schoology with students to deliver course content. Similar to the pattern found for middle schools, there appeared to be less variation with high schools having most of their teachers using Schoology with students.

Figure 5: Distribution of High Schools by Percentage of Teachers Who Indicated They Used Schoology With Students



Analyses showed that teachers' use of Schoology with students varied by content area. As shown in Table 9, at the high school level, slightly higher percentages of science (86%), social studies (85%), and English (84%) teachers indicated they used Schoology for course delivery than math teachers (80%). Highest percentages of teachers who indicated they used Schoology daily were social studies (61%) and English teachers (55%), while lowest percentages of teachers who indicated they used Schoology daily were math teachers (45%).

Table 9: High School Teacher Reported Use of Schoology by Content Area

School Level	English	Math	Science	Social Studies
Daily use	55.1%	44.7%	51.3%	61.0%
Weekly use	23.7%	22.4%	30.0%	23.2%
Monthly use	4.2%	9.4%	2.5%	0.0%
Quarterly use	0.0%	1.2%	0.0%	0.0%
Unknown frequency of use	0.8%	2.4%	2.5%	1.2%
No use	16.1%	20.0%	13.8%	14.6%

Overall, 99 percent of high school students indicated they used Schoology during 2018-2019, with the majority (69%) indicating they used Schoology two or more times a day and 10 percent indicating they used Schoology once per day.

Across the 15 high schools, there was little variation amongst schools regarding whether students used Schoology at all during 2018-2019. Percentages of students who reported using Schoology ranged from 98 percent of students to all students (100%). Similar to the other school levels, there was more variance in the frequency with which students used Schoology. The percentages of students who indicated they used Schoology two or more times per day ranged from 44 percent to 90 percent.

Analyses by content area showed that highest percentages of students indicated they used Schoology every class in English and social studies, while lowest percentages of students indicated using Schoology every class in math (see Table 10). In general, in comparison to the other content areas, the lowest percentages of students indicated they used Schoology in math.

Table 10: High School Student Reported Use by Content Area

School Level	English	Math	Science	Social Studies
Every class	54.3%	26.7%	41.4%	51.9%
Weekly	28.8%	24.3%	29.4%	24.7%
Monthly	6.8%	20.1%	13.9%	9.1%
Not used	10.1%	28.9%	15.5%	14.2%

Teacher Assistance

Students were also asked to indicate the extent to which teachers have assisted them with learning how to use Schoology. At least 91 percent of elementary students and 87 percent of middle school students indicated their teachers knew how to use Schoology to help them learn, showed them how to use Schoology, and showed them how to use Schoology to learn independently (see Table 11). Slightly lower agreement percentages were found at the high school level, especially in regards to their teacher showing them how to use Schoology (77%) and showing them how to use Schoology to learn independently (74%).

Table 11: Student Agreement Regarding Teacher Showing How to Use

School Level	Teachers knew how to use Schoology to help me learn	Teachers showed me how to use Schoology	Teachers showed me how to use Schoology to learn independently
Elementary	96.4%	95.5%	91.1%
Middle	92.2%	89.7%	86.7%
High	83.6%	76.9%	73.6%

Progress Toward Meeting Goals and Objectives

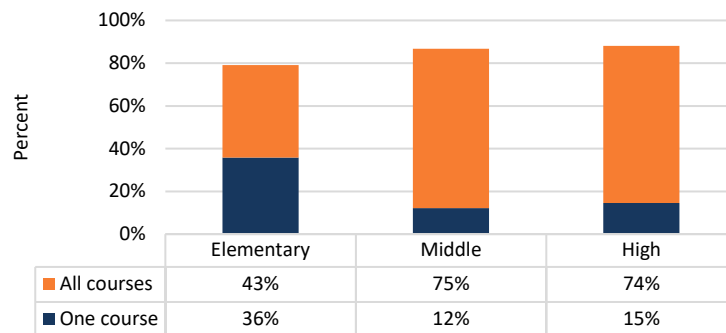
The third evaluation question focused on progress made toward meeting the initiative’s goals and objectives. Goals and objectives focused on the following areas: providing a single location for instructional content, resources, and assessments; supporting communication and collaboration; ease of use; staff professional learning; and transformational learning. Due to school differences in the extent of Schoology use and implementation level, data related to goals and objectives were provided by school level and implementation group.

Goal 1: Schoology will provide a single place for teachers to access and deliver instructional content, access and provide resources, create and administer assessments, and access and analyze assessment data for students.

Objective 1: Teachers will access and store content for their courses in Schoology as measured by teacher survey responses.

At least 79 percent of teachers at each school level indicated they accessed and stored content in Schoology for one or more of their courses (see Figure 6). Highest percentages of teachers who accessed and stored content in Schoology were found at the middle and high school levels. At the middle school level, 87 percent of teachers indicated they accessed and stored content for one or more of their courses, while 89 percent of high school teachers indicated they had. Further, approximately three-fourths of teachers at the secondary level indicated they accessed and stored content in Schoology for all courses, whereas 43 percent of elementary teachers indicated they had.

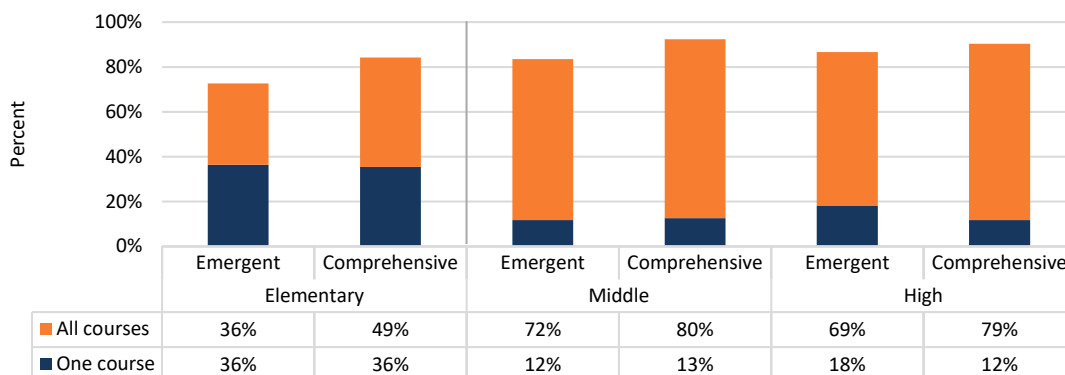
Figure 6: Percentages of Teachers Who Accessed and Stored Course Content in Schoology



Note: The other survey response option was no.

As expected, differences in the percentages of teachers who indicated they accessed and stored content in Schoology varied by implementation group. At each school level, higher percentages of teachers at schools in the comprehensive implementation groups indicated they accessed and stored content in Schoology for all their courses than teachers from schools in the emergent implementation groups (see Figure 7).

Figure 7: Percentage of Teachers Who Accessed and Stored Content in Schoology by Implementation Group



Note: The other survey response option was no.

Objective 2: Teachers will use Schoology regularly (i.e., at least weekly in grades K through 2 and at least daily in grades 3 through 12) with their students to deliver course content as measured by teacher survey responses.

Teachers were asked to indicate whether they used Schoology with their students to deliver course content and the frequency of use. For teachers in grades K through 2, regular use of Schoology was defined as at least weekly, whereas for teachers in grades 3 through 12, regular use of Schoology was defined as at least daily. Of

all elementary teachers in grades K through 2 who responded to the survey, 33 percent indicated they used Schoology at least weekly to deliver course content, while 52 percent indicated they did not use Schoology at all for course delivery (see Table 12). Of all elementary teachers in grades 3 through 5 who responded to the survey, 38 percent indicated they used Schoology daily to deliver course content, while 29 percent indicated they did not use Schoology all for course delivery. Higher percentages of teachers who indicated they used Schoology daily were found at the secondary level, with 53 percent of middle school teachers and 48 percent of high school teachers indicating they used Schoology with their students daily for course delivery.

Table 12: Teacher Indicated Use of Schoology to Deliver Course Content

School Level	K-2	3-5	Elementary	Middle	High
Daily use	13.0%	37.5%	31.0%	52.5%	47.7%
Weekly use	19.5%	23.3%	22.3%	24.5%	29.4%
Monthly use	11.2%	8.4%	8.8%	7.7%	5.4%
Quarterly use	4.7%	1.7%	2.6%	1.5%	1.3%
Unknown frequency of use*	0.0%	0.0%	0.0%	1.1%	0.6%
No use	51.6%	29.1%	35.4%	12.7%	15.6%

Note: *This included teachers who indicated they used Schoology for this purpose but did not respond to the survey item about frequency of use.

As expected, higher percentages of teachers at schools in the comprehensive implementation groups indicated they used Schoology to deliver course content than teachers at schools in the emergent implementation groups at each school level (see Table 13). Further, higher percentages of teachers at schools in the comprehensive implementation groups indicated they used Schoology to deliver course content daily than teachers at schools in the emergent implementation groups.

Table 13: Teacher Indicated Frequency of Using Schoology to Deliver Content by Implementation Group

School Level	Elementary		Middle		High	
	Emergent	Comprehensive	Emergent	Comprehensive	Emergent	Comprehensive
Daily use	17.8%	41.3%	47.5%	60.3%	41.4%	52.2%
Weekly use	21.0%	23.3%	23.6%	26.1%	29.7%	29.6%
Monthly use	11.0%	7.1%	9.8%	4.3%	7.8%	3.3%
Quarterly use	2.9%	2.3%	2.2%	0.5%	2.2%	0.7%
Unknown frequency of use*	0.0%	0.0%	1.1%	1.1%	0.0%	1.0%
No use	47.2%	26.1%	15.9%	7.6%	19.0%	13.3%

Note: *This included teachers who indicated they used Schoology for this purpose but did not respond to the survey item about frequency of use.

Objective 3: *Students will use Schoology regularly (at least daily in grades 3-12) to access course content as measured by student survey responses.*

At all school levels, most students who were surveyed indicated they used Schoology to some extent (see Table 14). The frequency of use varied by school level, with higher percentages of secondary students indicating they used Schoology daily (i.e., one or more times a day) than elementary students, and higher percentages of elementary students indicating they used Schoology either weekly (i.e., one or a few times a week) or monthly when compared to secondary students.

Table 14: Student Indicated Frequency of Use

School Level	Elementary (3-5)	Middle	High
Two or more times a day	49.4%	79.5%	69.4%
One time a day	9.4%	5.3%	10.0%
A few times a week	23.0%	8.1%	13.4%

School Level	Elementary (3-5)	Middle	High
One time a week	2.5%	0.6%	1.2%
A few times a month	13.8%	3.4%	2.7%
Unknown frequency of use*	0.7%	2.5%	2.5%
No use	1.3%	0.7%	0.8%

Note: Students in grades K through 2 were not surveyed. *This included students who indicated they used Schoology but did not respond to the survey item about frequency of use.

In addition, at all levels, higher percentages of students at schools in the comprehensive implementation groups indicated they used Schoology daily (i.e., one or more times a day) than students at schools in the emergent implementation groups (see Table 15). Higher percentages of students at school in the emergent implementation groups indicated they used Schoology either weekly (i.e., one or a few times a week) or monthly than students at schools in the comprehensive implementation groups.

Table 15: Student Indicated Frequency of Use by Implementation Group

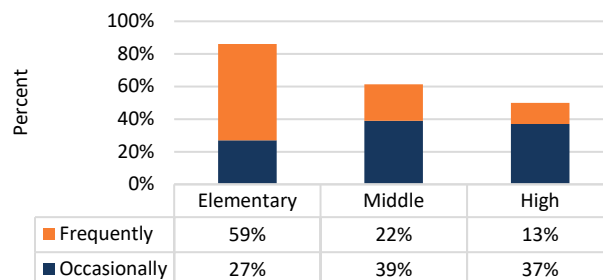
School Level	Elementary (3-5)		Middle		High	
	Emergent	Comprehensive	Emergent	Comprehensive	Emergent	Comprehensive
Two or more times a day	34.8%	55.6%	73.7%	86.3%	57.2%	79.8%
One time a day	11.2%	8.6%	6.4%	3.9%	13.0%	7.6%
A few times a week	28.3%	20.7%	10.5%	5.3%	20.0%	8.0%
One time a week	4.3%	1.7%	1.0%	0.2%	2.0%	0.4%
A few times a month	18.7%	11.7%	5.1%	1.4%	4.3%	1.2%
Unknown frequency of use*	0.8%	0.7%	2.4%	2.5%	2.5%	2.5%
No use	1.9%	1.1%	0.9%	0.4%	1.1%	0.6%

Note: Students in grades K through 2 were not surveyed. *This included students who indicated they used Schoology but did not respond to the survey item about frequency of use.

Objective 4: Teachers will use division-created curriculum resources and third-party resources and applications (e.g., Playposit, Gale resources) through Schoology as measured by teacher and ITS survey responses.

A higher percentage of elementary school teachers indicated they accessed and used division-created curriculum resources than teachers at the secondary level (see Figure 8). Overall, 86 percent of elementary school teachers indicated they accessed and used these resources and the majority (59%) of teachers indicated they did so frequently. At the secondary level, 61 percent of middle school teachers and 50 percent of high school teachers indicated they either frequently or occasionally accessed and used division-created curriculum resources.

Figure 8: Teacher Indicated Frequency of Access and Use of Division-Created Curriculum Resources

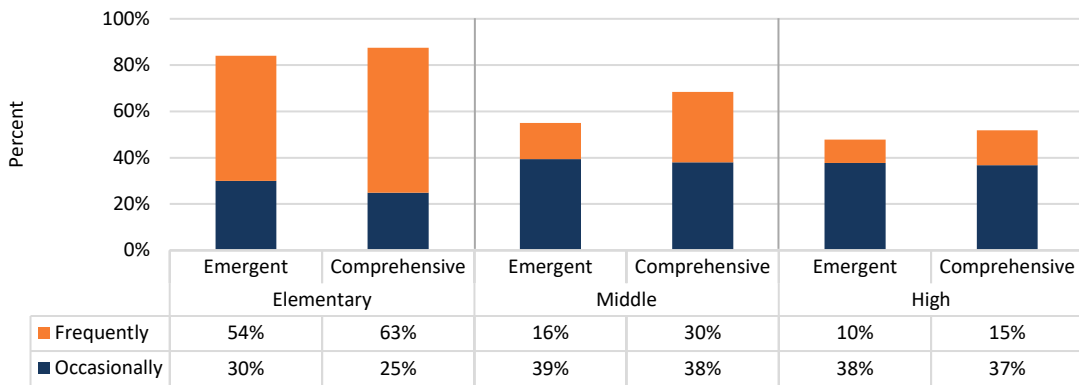


Note: The other survey response options were rarely and no experience with this activity.

Additional data analyses compared the percentages of secondary teachers who accessed and used division-created resources by content area. The highest percentages of secondary teachers who indicated they accessed and used division-created resources were teachers in the areas of math (66%), art (63%), and health and PE (62%). The lowest percentages of secondary teachers who indicated they accessed and used these resources were teachers in the areas of technology and career education (TCE) (41%), music (41%), and social studies (50%). Slightly more than half of the teachers in the remaining content areas reported they accessed and used division-created resources (52% of world language teachers, 55% of English teachers, 57% of science teachers).

At each school level, higher percentages of teachers at schools in the comprehensive implementation groups indicated they accessed and used division-created resources in comparison to teachers at schools in the emergent implementation groups (see Figure 9). However, school-level differences remained. Higher percentages of elementary school teachers at schools in *both implementation groups* indicated they accessed and used these resources than secondary teachers at schools in all groups. In addition, lower percentages of high school teachers at schools in *both implementation groups* indicated they accessed and used these resources than elementary and middle school teachers at schools in all groups.

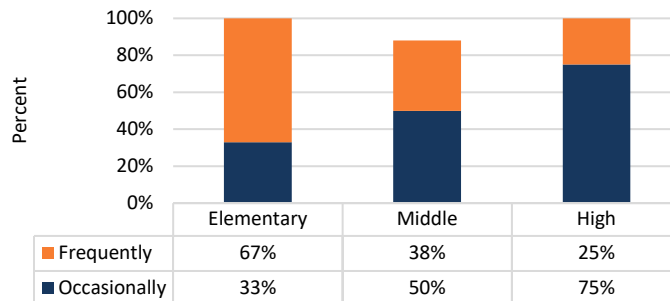
Figure 9: Teacher Indicated Frequency of Access and Use of Division-Created Curriculum Resources by Implementation Group



Note: The other survey response options were rarely and no experience with this activity.

In comparison to teachers' indicated usage of resources, higher percentages of ITSs indicated they accessed and used division-created resources. All elementary and high school ITSs indicated they used these resources, while 88 percent of middle school ITSs indicated they had (see Figure 10).

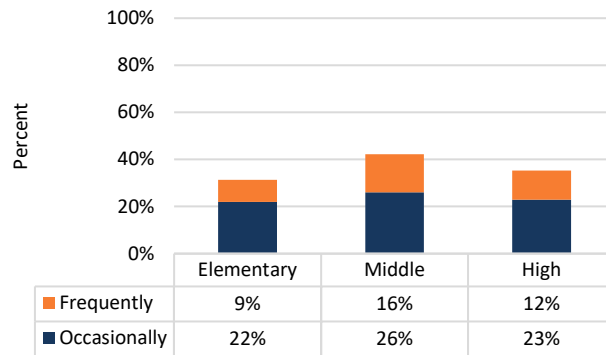
Figure 10: ITS Indicated Frequency of Access and Use of Division-Created Curriculum Resources



Note: The other survey response options were rarely and no experience with this activity.

Third-party division resources and applications, such as Playposit and Gale resources, could also be used in Schoology. In comparison to the use of division-created resources, there were overall lower percentages of teachers who indicated they used third-party resources. Less than half of teachers at all levels indicated they used third-party resources (see Figure 11). The highest percentage was found at the middle school level, with 42 percent of teachers indicating they used third-party resources.

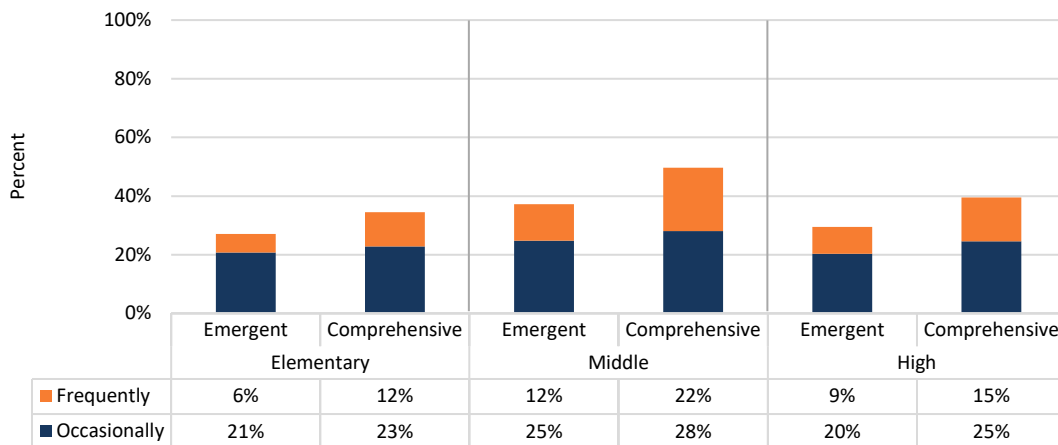
Figure 11: Teacher Indicated Frequency of Use of Third-Party Division Resources



Note: The other survey response options were rarely and no experience with this activity.

When examining teachers' third-party division resource use by implementation group, percentages were higher for teachers at schools in the comprehensive implementation groups than teachers at schools in the emergent implementation groups (see Figure 12). The highest percentage of teachers who indicated they used third-party resources was middle school teachers at schools in the comprehensive group, with approximately half of the teachers indicating they used third-party resources.

Figure 12: Teacher Indicated Frequency of Use of Third-Party Division Resources by Implementation Group

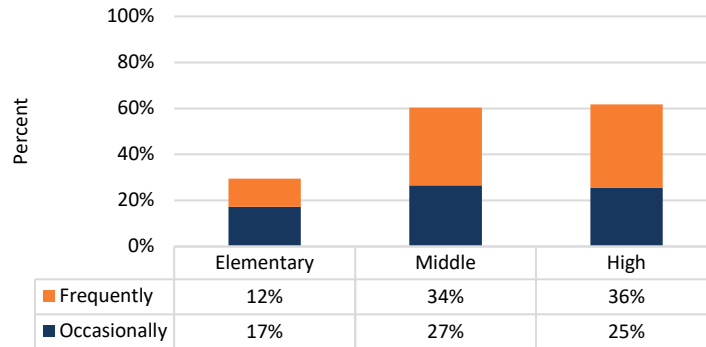


Note: The other survey response options were rarely and no experience with this activity.

Objective 5: Teachers will create classroom and/or common assessments in Schoology as measured by teacher survey responses and administer assessments in Schoology (i.e., classroom, common, and district) as measured by teacher and student survey responses.

Large school level differences were found regarding teachers indicating they created classroom assessments in Schoology. Approximately 61 percent of teachers at the middle and high school levels indicated they created classroom assessments in Schoology, while 29 percent of elementary teachers indicated they had (see Figure 13).

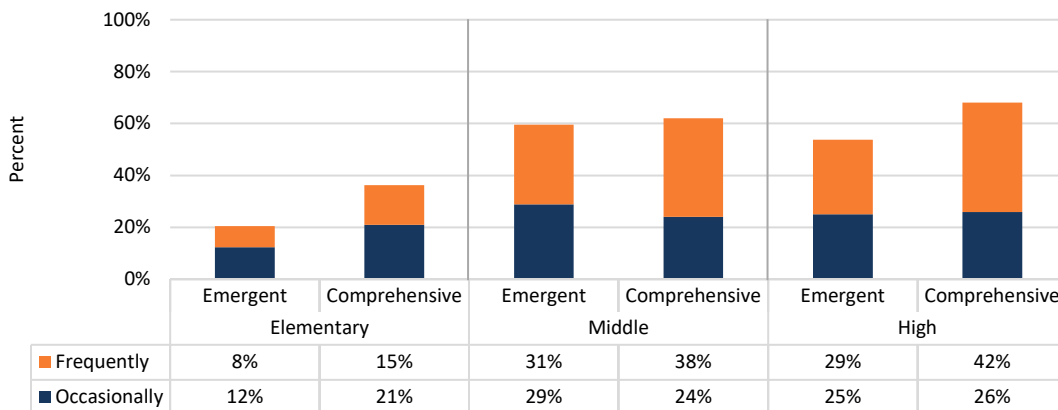
Figure 13: Teacher Indicated Frequency of Creating Classroom Assessments in Schoology



Note: The other survey response options were rarely and no experience with this activity.

Similar to previous findings, at each level, higher percentages of teachers at schools in the comprehensive implementation groups created classroom assessments than teachers at schools in the emergent implementation groups (see Figure 14). However, this difference was small at the middle school level. The overall highest percentage of teachers who indicated they created classroom assessments in Schoology was high school teachers at schools in the comprehensive group, with 68 percent of teachers indicating they had. In addition, although there was a difference between implementation groups at elementary school, the percentage remained low for teachers at schools in the comprehensive implementation group (36%).

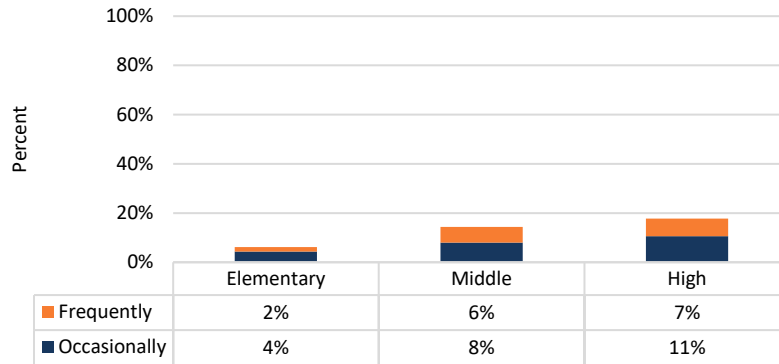
Figure 14: Teacher Indicated Frequency of Creating Classroom Assessments by Implementation Group



Note: The other survey response options were rarely and no experience with this activity.

Lower percentages of teachers at all levels indicated they created assessments using AMP than classroom assessments. At all levels, 18 percent of teachers or fewer indicated they used AMP to create assessments in Schoology, though higher percentages of secondary teachers indicated they had done so than elementary teachers (see Figure 15).

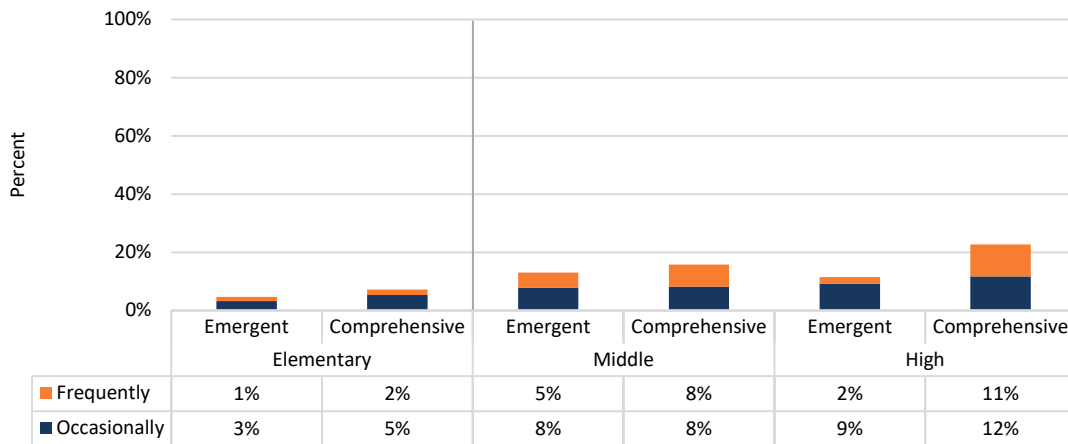
Figure 15: Teacher Indicated Frequency of Using AMP to Create Common Assessments in Schoology



Note: The other survey response options were rarely and no experience with this activity.

Although overall percentages of teachers who indicated they used AMP to create common assessments in Schoology were low, there was a pattern that slightly higher percentages of teachers at the comprehensive implementation groups indicated they created AMP assessments than teachers at schools in the emergent implementation groups at each school level (see Figure 16).

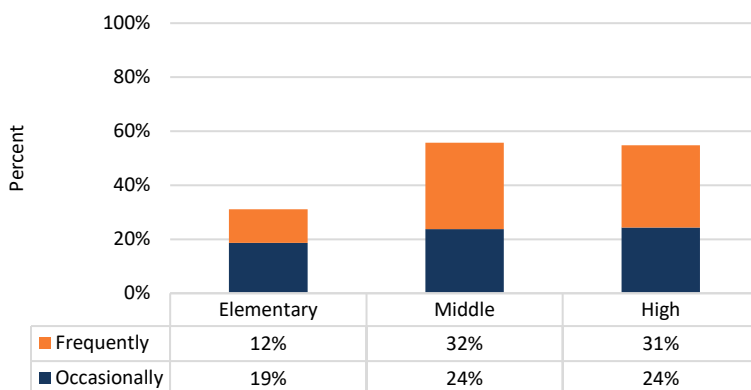
Figure 16: Teacher Reported Frequency of Creating Assessments in AMP by Implementation Group



Note: The other survey response options were rarely and no experience with this activity.

A similar pattern emerged with having administered assessments to students in Schoology. Higher percentages of secondary teachers indicated they administered assessments to students than elementary teachers (see Figure 17). Slightly more than half of secondary teachers indicated they had, while 31 percent of elementary teachers indicated they administered assessments.

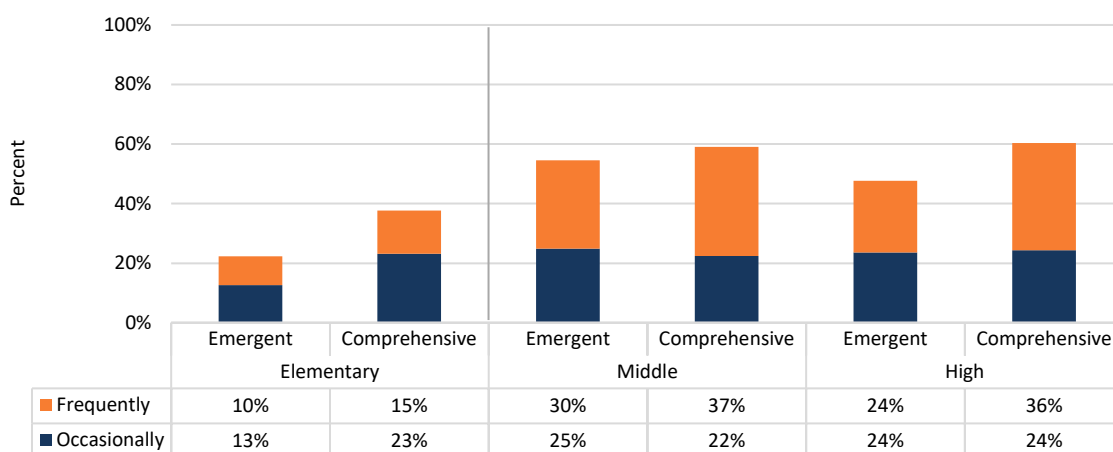
Figure 17: Teacher Indicated Frequency of Administering Assessments in Schoology



Note: The other survey response options were rarely and no experience with this activity.

At each level, higher percentages of teachers at schools in the comprehensive implementation groups indicated they administered assessments than teachers at schools in the emergent implementation groups (see Figure 18). In addition, consistent with the pattern found regarding teachers creating classroom assessments, the difference between implementation groups at the middle school level was smaller than at the other levels. The overall highest percentage of teachers who indicated they administered assessments in Schoology was again found for high school teachers at schools in the comprehensive group, with 60 percent of teachers indicating they had. Additionally, the percentage of elementary teachers reporting they had administered assessments in Schoology was low at schools in the comprehensive implementation group (38%).

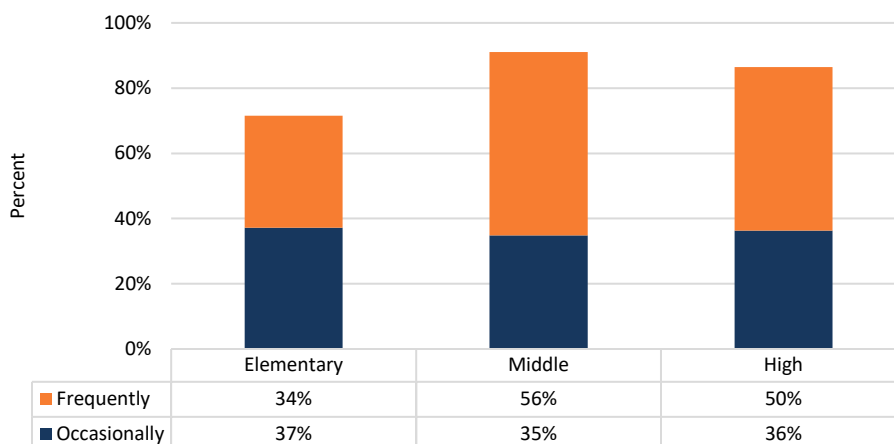
Figure 18: Teacher Indicated Frequency of Administering Assessments by Implementation Group



Note: The other survey response options were rarely and no experience with this activity.

When students were asked whether they had taken a quiz, test, or assessment in Schoology, 91 percent of middle school students and 86 percent of high school students indicated they had, while 71 percent of students in grades 3 through 5 students indicated they had taken a quiz, test, or assessment in Schoology (see Figure 19).

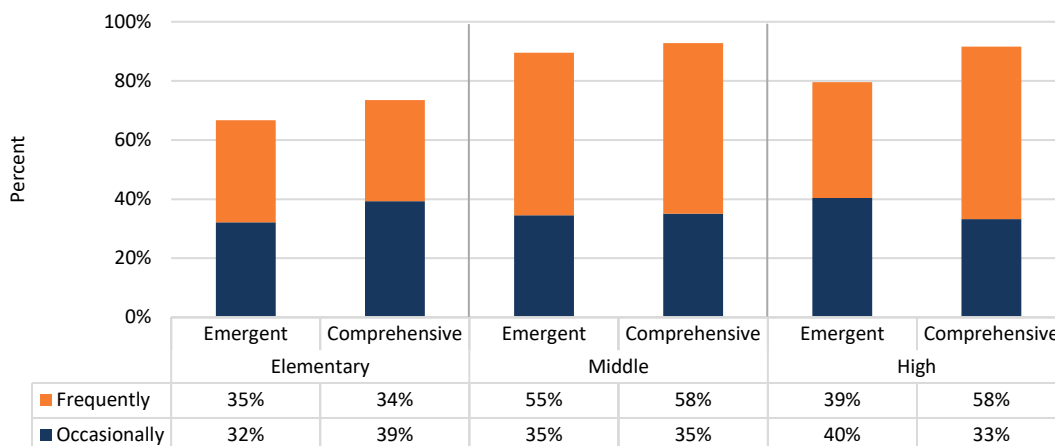
Figure 19: Student Reported Frequency of Taking a Quiz, Test, or Assessment



Note: The other survey response options were rarely and no experience with this activity.

Similar to findings with teachers, higher percentages of students at schools in the comprehensive implementation groups indicated they took a quiz or test than students at schools in the emergent implementation groups (see Figure 20). Again, a smaller difference was found at the middle school level and the largest overall percentage was found at the middle school level for schools in the comprehensive implementation group (93%).

Figure 20: Student Reported Frequency of Taking a Quiz, Test, or Assessment by Implementation Group

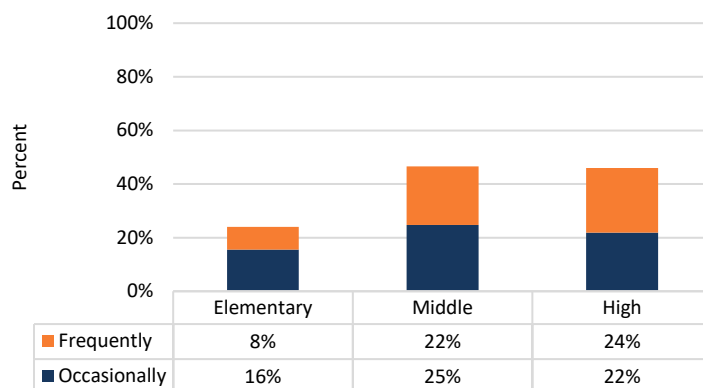


Note: The other survey response options were rarely and no experience with this activity.

Objective 6: Teachers will access and analyze assessment data in Schoology as measured by teacher survey responses.

At the secondary level, 47 percent of middle school teachers and 46 percent of high school teachers indicated they accessed and analyzed assessment results for a classroom assessment in Schoology (see Figure 21). A much lower percentage was again found at the elementary school level, with 24 percent of elementary teachers indicating they accessed and analyzed classroom assessment data in Schoology.

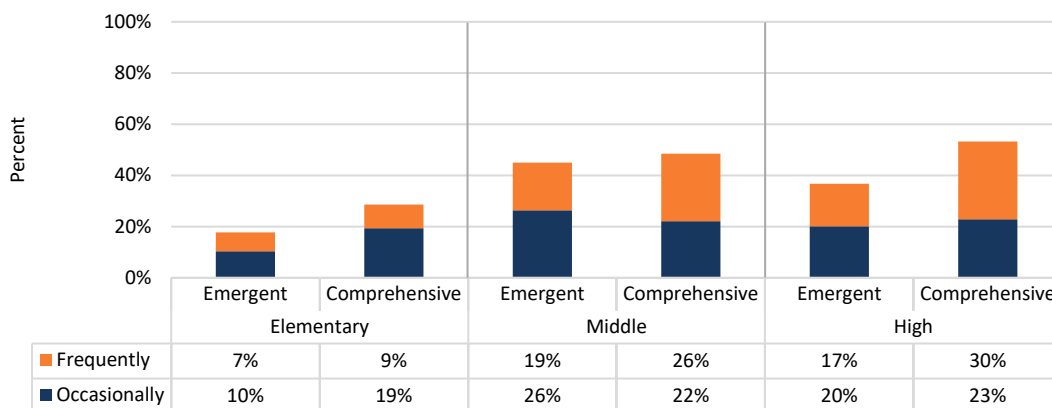
Figure 21: Teacher Indicated Frequency of Accessing and Analyzing Assessment Results With a Classroom Assessment



Note: The other survey response options were rarely and no experience with this activity.

Higher percentages of teachers at schools in the comprehensive implementation groups indicated they accessed and analyzed classroom assessment results than teachers at schools in the emergent implementation groups (see Figure 22). The difference between implementation groups was again smallest at the middle school level and the highest percentage of teachers was at high schools in the comprehensive implementation group (53%).

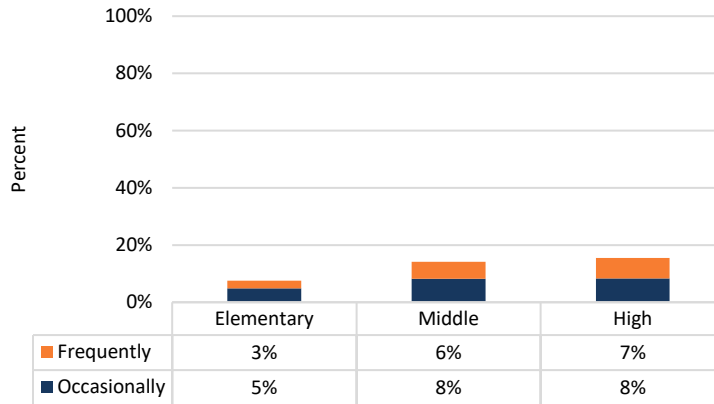
Figure 22: Teacher Indicated Frequency of Accessing and Analyzing Assessment Results With a Classroom Assessment by Implementation Group



Note: The other survey response options were rarely and no experience with this activity.

Regarding accessing and analyzing results with an AMP assessment, although higher percentages were found at the secondary level than elementary school level, 15 percent of teachers or fewer indicated they had (see Figure 23).

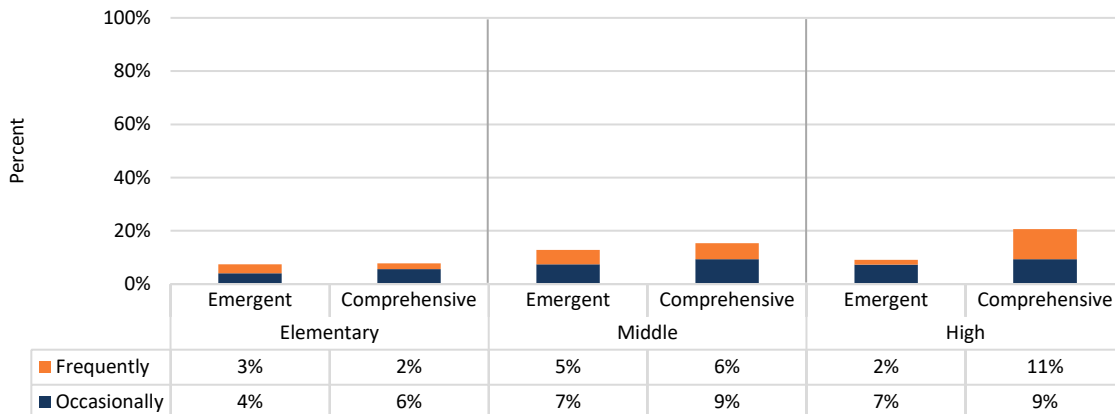
Figure 23: Teacher Indicated Frequency of Accessing and Analyzing Assessment Results With an AMP Assessment



Note: The other survey response options were rarely and no experience with this activity.

The patterns by implementation group remained. Higher percentages of teachers at schools in the comprehensive implementation groups indicated they accessed and analyzed the assessment results with an AMP assessment than teachers at schools in the emergent implementation groups at each school level (see Figure 24).

Figure 24: Teacher Indicated Frequency of Accessing and Analyzing Assessment Results With an AMP Assessment by Implementation Group



Note: The other survey response options were rarely and no experience with this activity.

Goal 2: Schoology will support communication and collaboration amongst teachers, administrators, students, and parents.

Objective 1: *Schoology will help facilitate the communication between teachers as well as administrators and teachers as measured by staff survey responses.*

There were overall low teacher agreement percentages regarding Schoology helping facilitate their communication with other teachers and with administration, although there were slightly more positive perceptions at schools in the comprehensive groups (see Table 16). In particular, depending on school level, between 57 and 65 percent of teachers at schools in the comprehensive implementation groups agreed that Schoology helped facilitate communication with other teachers, while between 46 and 48 percent of teachers at schools in the emergent implementation groups agreed. Similarly, depending on school level, between 41 and 54 percent of teachers at schools in the comprehensive implementation groups agreed that Schoology

helped facilitate communication with administration, while between 33 and 38 percent of teachers at schools in the emergent implementation groups agreed.

Table 16: Teacher Agreement Regarding Schoology Helping Facilitate Communication

School Level	Communication with other teachers			Communication with administration		
	Emergent	Comprehensive	All Schools	Emergent	Comprehensive	All Schools
Elementary	48.0%	57.3%	53.4%	33.7%	41.4%	38.0%
Middle	46.6%	59.9%	52.3%	33.2%	45.4%	38.3%
High	45.9%	64.5%	56.5%	37.5%	54.1%	46.7%

Note: These numbers exclude teachers who indicated the question was not applicable.

Higher agreement percentages were found for administrators and ITSs regarding Schoology facilitating their communication with teachers, with at least 72 percent agreement depending on level and role (see Table 17). Both administrator and ITS agreement percentages were highest at the high school level.

Table 17: Administrator and ITS Agreement Regarding Schoology Helping Facilitate Communication With Teachers

School Level	Administrator	ITS
Elementary	78.4%	72.2%
Middle	85.0%	93.8%
High	92.3%	100%

Note: These numbers exclude administrators and ITSs who indicated the question was not applicable.

Objective 2: *Schoology will help facilitate the communication between teachers and students as well as administrators and students as measured by staff and student survey responses.*

As shown in Table 18, higher agreement percentages were found for teachers regarding Schoology helping facilitate the communication between teachers and students in comparison to student agreement percentages. Agreement percentages were highest for teachers and students at high schools in the comprehensive implementation group (94% of teachers, 69% of students) and lowest for teachers at elementary schools in the emergent implementation group (61%) and for students at high schools in the emergent implementation group (45%).

Table 18: Teacher and Student Agreement Regarding Schoology Helping Facilitate Communication Between Them

School Level	Teacher			Student		
	Emergent	Comprehensive	All Schools	Emergent	Comprehensive	All Schools
Elementary	61.4%	78.8%	71.6%	50.8%	59.4%	56.8%
Middle	82.0%	91.8%	86.0%	57.7%	64.3%	60.8%
High	75.9%	93.5%	85.9%	44.9%	69.3%	58.7%

Note: These numbers exclude teachers who indicated the question was not applicable.

Consistent with the pattern for teachers, highest administrator agreement regarding communication between administrators and students was found at high school and lowest administrator agreement was found at elementary school (see Table 19). High agreement regarding Schoology facilitating their communication with students was found for ITSs at all levels.

Table 19: Administrator and ITS Agreement Regarding Schoology Helping Facilitate Communication Between Administrator and Student

School Level	Administrator	ITS
Elementary	60.0%	94.3%
Middle	80.0%	100%
High	92.0%	100%

Note: These numbers exclude administrators and teachers who indicated the question was not applicable.

Student agreement regarding Schoology having facilitated communication with administrators was very low, ranging from 22 to 40 percent depending on school level and implementation group (see Table 20). Slightly higher percentages were found for students at schools in the comprehensive implementation groups than students at schools in the emergent implementation groups.

Table 20: Student Agreement Regarding Schoology Helping Facilitate Communication Between Administrator and Student

School Level	Emergent	Comprehensive	All Schools
Elementary	34.0%	36.3%	35.6%
Middle	30.5%	39.5%	34.8%
High	22.2%	38.3%	31.3%

Objective 3: *Schoology will help facilitate the collaboration between teachers as measured by teacher survey responses.*

Perceptions regarding collaboration between teachers varied by implementation group. Between 68 and 78 percent of teachers at schools in the comprehensive implementation groups, depending on level, agreed that Schoology helped facilitate collaboration between teachers, whereas between 52 and 60 percent of teachers at schools in the emergent implementation groups agreed (see Table 21). The highest agreement percentage was found for middle school teachers at schools in the comprehensive implementation group (78%) and lowest agreement percentage was found for high school teachers at schools in the emergent implementation group (52%).

Table 21: Teacher Agreement Regarding Schoology Helping Facilitate Collaboration Between Teachers

School Level	Emergent	Comprehensive	All Schools
Elementary	59.9%	68.1%	64.6%
Middle	57.3%	77.8%	65.9%
High	52.2%	71.4%	63.1%

Note: These numbers exclude teachers who indicated the question was not applicable.

Two additional objectives related to communication and collaboration with parents will be assessed beginning in the 2019-2020 school year. These objectives will focus on parents' access of student academic information and work via Schoology and Schoology facilitating the communication between teachers and parents as well as administrators and parents.

Goal 3: Schoology will be user-friendly for all users.

Objective 1: *Content in Schoology will be easily accessible for Schoology users as measured by staff and student survey responses.*

At least 73 percent of teachers at each school level and implementation group agreed that content was easily accessible for them (see Table 22). In addition, at least 84 percent of teachers at each school level and implementation group agreed that content was easily accessible for their students, with the exception of elementary students at schools in the emergent implementation group (64% agreement).

Table 22: Teacher Agreement Regarding Content Being Easily Accessible

School Level	Content is easily accessible for me			Content is easily accessible for students		
	Emergent	Comprehensive	All Schools	Emergent	Comprehensive	All Schools
Elementary	72.7%	80.2%	77.0%	63.8%	84.3%	76.1%
Middle	76.3%	82.1%	78.9%	84.6%	90.7%	87.2%
High	75.0%	89.9%	83.3%	83.9%	94.5%	89.8%

Note: These numbers exclude teachers who indicated the question was not applicable.

Similarly, high agreement percentages were found for administrators and ITSs, with at least 88 percent agreeing that content was easily accessible for themselves, at least 76 percent agreeing that content was easily accessible for teachers, and at least 96 percent agreeing that content was easily accessible for students (see Table 23).

Table 23: Administrator and ITS Agreement Regarding Content Being Easily Accessible

School Level	Content is easily accessible for me		Content is easily accessible for teachers		Content is easily accessible for students	
	Administrator	ITS	Administrator	ITS	Administrator	ITS
Elementary	100%	91.9%	97.9%	75.7%	100%	100%
Middle	95.7%	100%	91.3%	100%	95.7%	100%
High	87.5%	87.5%	93.5%	100%	96.8%	100%

Note: These numbers exclude administrators and teachers who indicated the question was not applicable.

When students were asked about the ease of accessing content for themselves, at least 78 percent of students at each school level and implementation group agreed, with the exception of high school students at schools in the emergent implementation group (63% agreement) (see Table 24).

Table 24: Student Agreement Regarding Content Being Easily Accessible for Them

School Level	Emergent	Comprehensive	All Schools
Elementary	83.1%	88.6%	86.9%
Middle	79.1%	85.2%	82.0%
High	62.8%	78.2%	71.5%

Objective 2: *Moving content from curriculum resource groups to courses will be seamless for teachers as measured by teacher survey responses.*

At least 70 percent of secondary teachers at schools in the comprehensive groups agreed that moving content from curriculum resources to courses was seamless, while 60 percent of elementary teachers at schools in the comprehensive implementation group agreed (see Table 25). Additionally, between 45 and 56 percent of teachers at schools in the emergent groups, depending on level, agreed that moving content was seamless.

Table 25: Teacher Agreement Regarding Moving Content From Curriculum Resource Groups Being Seamless

School Level	Emergent	Comprehensive	All Schools
Elementary	44.7%	59.6%	53.5%
Middle	55.9%	70.4%	62.1%
High	55.5%	73.4%	65.4%

Note: These numbers exclude teachers who indicated the question was not applicable.

Objective 3: *Schoology will provide a platform for teachers to efficiently create assessments as measured by teacher responses and for students to easily navigate assessments as measured by student and teacher responses.*

Regarding the ease of creating assessments, 64 percent of middle school teachers and 69 percent of high school teachers at schools in the comprehensive groups agreed that Schoology provided a platform for teachers to efficiently create assessments, while 47 percent of elementary teachers at schools in the comprehensive implementation group and between 36 and 53 percent of teachers at all levels in the emergent implementation groups agreed (see Table 26). Higher agreement percentages were found regarding students' ability to easily navigate assessments. At least 70 percent of secondary teachers in all implementation groups agreed that Schoology provided a platform for students to easily navigate assessments, while 61 percent of elementary teachers at schools in the comprehensive implementation group and 50 percent of elementary teachers at schools in the emergent implementation group agreed.

Table 26: Teacher Agreement Regarding Efficiency of Creating and Ease of Navigating Assessments

School Level	Creating assessments in Schoology is efficient			Assessments in Schoology are easy for students to navigate		
	Emergent	Comprehensive	All Schools	Emergent	Comprehensive	All Schools
Elementary	36.0%	47.0%	42.7%	50.0%	60.5%	56.3%
Middle	52.9%	63.8%	57.5%	74.6%	82.0%	77.6%
High	50.3%	68.7%	60.5%	69.8%	83.8%	77.8%

Note: These numbers exclude teachers who indicated the question was not applicable.

As shown in Table 27, at least 81 percent of students at all levels and implementation groups agreed that tests or quizzes in Schoology were easy to navigate, with the exception of high school students at schools in the emergent implementation group (68% agreement).

Table 27: Student Agreement Regarding Ease of Navigating Assessments

School Level	Emergent	Comprehensive	All Schools
Elementary	81.6%	81.7%	81.7%
Middle	81.2%	85.1%	83.0%
High	67.7%	81.0%	75.6%

Note: These numbers exclude students who indicated they did not take an assessment or quiz.

Objective 4: *The process of transitioning data to/from Schoology and various other VBCPS platforms will be efficient and accurate (e.g., course enrollment, student information, grade passback [beginning in 2019-2020], third-party applications) as measured by central office implementation team interviews.*

Central office Schoology implementation team members were asked about the efficiency and accuracy of the data transitioning process. More than half of the members indicated that they did not know. Of those who indicated they knew about the data transitioning process, half agreed that the process of transitioning data to/from Schoology and various other VBCPS platforms was efficient, and 71 percent agreed that the process was accurate.

A similar pattern of results was found for administrators and ITSs with higher agreement percentages regarding the accuracy of transitioning data in comparison to agreement percentages regarding the efficiency (see Table 28).

Table 28: Administrator and ITS Agreement Regarding Efficiency and Accuracy of Transitioning Data

School Level	Transitioning data is efficient		Transitioning data is accurate	
	Administrator	ITS	Administrator	ITS
Elementary	82.1%	50.0%	89.7%	81.5%
Middle	75.0%	73.3%	78.9%	92.3%
High	73.1%	87.5%	88.5%	100%

Note: These numbers exclude administrators and ITSs who indicated the question was not applicable.

Goal 4: Professional learning opportunities and support will provide teachers, administrators, and ITSs with the necessary information to utilize Schoology.

Data for the professional learning objectives were not provided by implementation group because all schools should have received similar professional learning opportunities and support.

Objective 1: *Professional learning on Schoology will provide teachers, administrators, and ITSs with the necessary knowledge to use Schoology as measured by staff survey responses.*

At least 96 percent of administrators and ITSs at all levels agreed that the professional learning they received provided them with the necessary knowledge to use Schoology (see Table 29). Additionally, between 76 and

82 percent of teachers, depending on school level, agreed that professional learning provided them with the necessary knowledge.

Table 29: Staff Agreement Regarding Professional Learning Providing Necessary Knowledge

School Level	Teacher	Administrator	ITS
Elementary	75.6%	95.8%	97.3%
Middle	79.8%	95.7%	100%
High	82.3%	100%	100%

Note: These numbers exclude staff who indicated they had not received professional learning.

Objective 2: *Schoology support will be available when needed, helpful resources or strategies are provided, and issues are resolved in a timely manner as measured by staff survey responses.*

At least 85 percent of staff at all levels indicated that help was available when needed, that helpful resources or strategies were provided, and issues were resolved in a timely manner (see Table 30).

Table 30: Staff Agreement Regarding Receiving Schoology Support

School Level	Help available when needed			Helpful resources			Timely resolution		
	Teacher	Administrator	ITS	Teacher	Administrator	ITS	Teacher	Administrator	ITS
Elementary	90.2%	100%	100%	91.1%	100%	100%	90.4%	100%	97.2%
Middle	89.2%	100%	100%	88.0%	95.5%	100%	85.0%	94.7%	100%
High	91.5%	100%	100%	90.0%	100%	100%	88.0%	100%	100%

Note: These numbers exclude staff who indicated the question was not applicable.

Baseline Data for Transformational Learning Outcome Goal and Objectives

The current evaluation report focused on the implementation of Schoology across the division during 2018-2019. In addition, baseline data were collected and analyzed for the transformational learning outcome goal and objectives to provide preliminary results. The following baseline data included perception data regarding using Schoology as a tool for students, teachers, and building leaders to exhibit dispositions that exemplify transformational learning. Due to the large variations in implementation by school level and implementation group, baseline data related to the transformational learning objectives will only be provided for the implementation groups.

Goal 5: Schoology will be a tool that transforms curriculum delivery to support student-centered practices that foster student agency and provide students with the opportunity to create and apply new knowledge across contexts.

Objective 1: *Using Schoology will help students exhibit dispositions that exemplify transformational learning (e.g., self-assessment and reflection, using inquiry and collaboration, mastery in critical thinking and creativity, collaborating using digital tools, demonstrating academic mastery through digital work) as measured by student and teacher survey responses.*

Student agreement percentages regarding various student dispositions related to transformational learning were higher at schools in the comprehensive implementation groups than at schools in the emergent implementation groups (see Table 31). Highest agreement percentages were found at the elementary schools in the comprehensive implementation group, while lowest agreement percentages were found at the high schools in the emergent implementation group. At the secondary level, the items with the highest agreement percentages related to being a responsible and respectful student at the middle school level and working with my teacher to get information at the high school level, while the items with the highest agreement related to developing and using critical thinking skills at the elementary level.

Table 31: Student Agreement Regarding Schoology Helping Students Exhibit Dispositions Related to Transformational Learning

School Level	Elementary		Middle		High	
	Emergent	Comprehensive	Emergent	Comprehensive	Emergent	Comprehensive
Monitor learning	80.2%	83.1%	70.6%	77.3%	54.5%	70.3%
Show what I know	84.1%	85.8%	69.1%	76.0%	53.5%	64.4%
Make choices about learning	76.8%	78.2%	60.7%	68.3%	47.0%	61.2%
Work with teacher to get information	75.6%	78.6%	68.6%	73.7%	56.6%	70.7%
Work with others to think about topics from other perspectives	64.3%	68.7%	55.3%	64.9%	42.0%	55.0%
Responsible and respectful student	81.0%	85.4%	71.1%	77.4%	55.7%	69.3%
Critical thinking skills	88.6%	90.5%	68.8%	76.6%	49.9%	62.9%
Share thoughts	71.0%	74.0%	64.3%	71.7%	50.5%	67.5%
Communicate in imaginative ways	—	—	57.2%	65.8%	42.0%	57.1%
Do schoolwork in creative ways	75.2%	77.7%	60.3%	66.6%	45.0%	57.8%
Work with others help me learn	67.8%	70.5%	55.3%	64.2%	39.8%	54.4%
Work with others help them learn	65.9%	69.7%	53.7%	62.6%	38.0%	52.5%
Create work online	57.6%	65.0%	60.6%	68.6%	45.2%	58.6%

At all levels, higher percentages of teachers at schools in the comprehensive groups agreed that Schoology helped students exhibit various dispositions that exemplified transformational learning (see Table 32). Overall, highest agreement percentages were found for the middle school teachers at schools in the comprehensive group, while lowest agreement percentages were found for the elementary school teachers at the schools in the emergent implementation groups. At each school level, highest agreement percentages were found regarding regularly collaborating using digital tools to support their learning and the learning of others.

Table 32: Teacher Agreement Regarding Schoology Helping Students Exhibit Dispositions Related to Transformational Learning

School Level	Elementary		Middle		High	
	Emergent	Comprehensive	Emergent	Comprehensive	Emergent	Comprehensive
Self-assess and reflect to help personal learning	22.8%	41.0%	38.7%	57.1%	33.2%	49.4%
Use inquiry and collaboration to approach concepts from different perspectives	27.2%	43.7%	37.5%	57.1%	33.6%	48.7%

School Level	Elementary		Middle		High	
	Emergent	Comprehensive	Emergent	Comprehensive	Emergent	Comprehensive
Demonstrate mastery in critical thinking, communication, creativity, collaboration, and citizenship	30.3%	46.1%	40.3%	56.8%	33.6%	50.6%
Collaborate using digital tools to support learning	33.6%	49.4%	47.2%	67.3%	41.4%	57.0%
Demonstrate mastery through creation of digital work	28.7%	46.1%	41.1%	59.8%	42.2%	50.9%

Note: The other response options were neutral and disagreement.

Objective 2: *Using Schoology will enhance teachers’ ability to exhibit dispositions that exemplify transformational learning (e.g., planning personalized learning opportunities, planning digital learning experiences, taking a student-centered approach, leveraging digital tools to enhance student agency, incorporating collaboration inside and outside the classroom, using gradual release and differentiation) as measured by teacher, administrator, and ITS survey responses.*

Similar to previous findings, higher percentages of teachers at schools in the comprehensive groups agreed that Schoology helped teachers exhibit various dispositions that exemplified transformational learning than teachers at schools in the emergent groups (see Table 33). Overall, highest agreement percentages were again found for the teachers at middle schools in the comprehensive group, while lowest agreement percentages were found for the teachers at elementary schools in the emergent implementation group. At each school level, highest agreement percentages were found regarding planning for digital learning experiences that provide students with opportunities to build and demonstrate knowledge in a way that would be challenging or otherwise impossible without the use of technology and purposefully leveraging digital tools to facilitate personalized learning and enhance student agency. These two items also had the highest agreement for administrators and ITSs at each school level (see Table 34).

Table 33: Teacher Agreement Regarding Schoology Helping Teachers Exhibit Dispositions Related to Transformational Learning

School Level	Elementary		Middle		High	
	Emergent	Comprehensive	Emergent	Comprehensive	Emergent	Comprehensive
Plan personalized learning opportunities	33.9%	51.4%	39.5%	57.9%	36.8%	57.0%
Plan digital learning experiences	38.3%	56.8%	50.8%	67.1%	41.8%	62.1%
Take a personalized, student-centered approach	32.7%	48.3%	45.9%	63.4%	36.8%	54.7%
Leverage digital tools for personalized learning	41.6%	55.6%	49.0%	69.8%	48.8%	61.2%

School Level	Elementary		Middle		High	
	Emergent	Comprehensive	Emergent	Comprehensive	Emergent	Comprehensive
Incorporate collaboration and connection	30.4%	46.5%	40.5%	61.6%	37.3%	56.1%
Use gradual release and differentiation	34.4%	50.2%	46.3%	61.6%	34.6%	55.8%

Note: The other response options were neutral and disagreement.

Table 34: Administrator and ITS Agreement Regarding Schoology Helping Teachers Exhibit Dispositions Related to Transformational Learning

School Level	Elementary		Middle		High	
	Administrator	ITS	Administrator	ITS	Administrator	ITS
Plan personalized learning opportunities	74.5%	83.3%	65.2%	81.3%	78.1%	75.0%
Plan digital learning experiences	85.1%	83.3%	73.9%	87.5%	78.1%	100%
Take a personalized, student-centered approach	80.9%	66.7%	69.6%	87.5%	81.3%	87.5%
Leverage digital tools for personalized learning	85.1%	86.1%	69.6%	93.8%	83.9%	100%
Incorporate collaboration and connection	80.9%	63.9%	65.2%	87.5%	71.9%	75.0%
Use gradual release and differentiation	78.7%	72.2%	69.6%	75.0%	54.8%	87.5%

Note: The other response options were neutral and disagreement.

Objective 3: *Using Schoology will enhance administrators' and ITSs' abilities to exhibit leadership dispositions that exemplify transformational learning (e.g., promoting innovation, focusing on teamwork, supporting staff for innovative risk-taking) as measured by administrator and ITS survey responses.*

Overall, higher agreement percentages regarding Schoology enhancing administrators' and ITSs' abilities to exhibit leadership dispositions that exemplify transformational learning were found for ITSs than for administrators (see Table 35). In comparison to the other school levels, the highest agreement percentages were found at the high school level for administrators. For ITSs and elementary school administrators, the item with the highest agreement related to focusing on teamwork and collegiality to increase student achievement. For secondary administrators, the item with high agreement related to supporting innovation risk taking.

Table 35: Administrator and ITS Agreement Regarding Schoology Helping Administrators and ITSs Exhibit Dispositions Related to Transformational Learning

School Level	Elementary		Middle		High	
	Administrator	ITS	Administrator	ITS	Administrator	ITS
Embody and actively promote innovation	48.9%	54.3%	50.0%	68.8%	59.4%	57.1%
Focus on teamwork and collegiality to increase student achievement	54.3%	63.9%	56.5%	81.3%	62.5%	100%
Support innovative risk-taking	51.1%	63.9%	65.2%	62.5%	65.6%	62.5%

Note: The other response options were neutral and disagreement.

Stakeholder Perceptions

The fourth evaluation question focused on stakeholders’ perceptions. Survey results in this section of the report include teacher perceptions of their depth of use through the Navigational Markers as well as satisfaction.

Navigational Marker Level

The central office Schoology implementation team provided school staff with Schoology Navigational Markers that helped them gauge their depth of use (see Appendix A). Skills at the first level, Digital Presence, included technical skills, while skills at the second level, Developing a Digital Curriculum, and the third level, Blended Classroom, included transformational uses of Schoology with more difficult skills progressing from Level 1 to Level 3. Teachers were asked to select which level most clearly reflected their skill level in using Schoology. At all levels, there were higher percentages of teachers at the digital presence level for teachers at schools in the emergent implementation groups than schools in the comprehensive implementation groups (see Table 36).

The percentages of teachers who indicated they were at the third level, Blended Classroom, was larger for the schools in the comprehensive implementation groups than schools in the emergent implementation groups at the elementary and high school levels but did not largely differ at the middle school level.

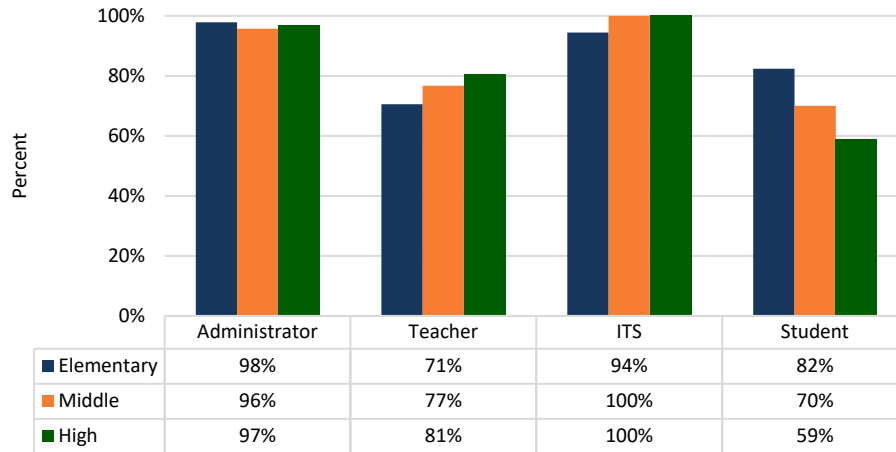
Table 36: Teacher Reported Navigational Marker Level by Implementation Group

School Level	Level 1 - Digital Presence		Level 2 – Developing a Digital Curriculum		Level 3 – Blended Classroom	
	Emergent	Comprehensive	Emergent	Comprehensive	Emergent	Comprehensive
Elementary	73.4%	58.1%	24.3%	35.3%	2.2%	6.7%
Middle	52.9%	42.7%	37.0%	46.2%	10.1%	11.1%
High	51.2%	42.9%	43.3%	43.6%	5.6%	13.5%

Satisfaction

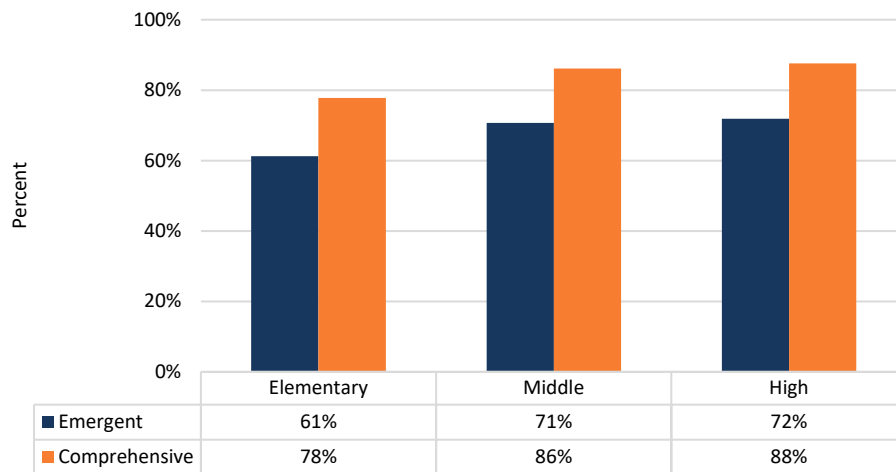
At least 94 percent of administrators and ITSs at each level indicated they were satisfied with the Schoology implementation (see Figure 25). Lower percentages were found for teachers and students; however, the variations in satisfaction by school level were different for teachers and students. For teachers, highest satisfaction was found at the high school level (81%) and lowest satisfaction was found at the elementary school level (71%). In contrast, highest satisfaction for students was found at the elementary school level (83%) and lowest satisfaction was found at the high school level (59%).

Figure 25: Percentages of Staff and Student Satisfaction With Schoology Implementation



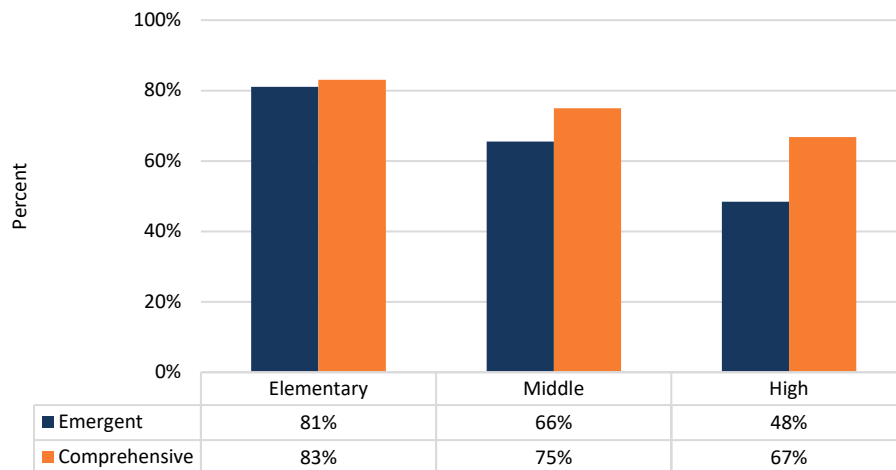
When examining teacher satisfaction by implementation group, higher satisfaction percentages were found for teachers at schools in the comprehensive implementation group compared to teachers at the schools in the emergent implementation group (see Figure 26). Depending on level, between 78 and 88 percent of teachers were satisfied at schools in the comprehensive implementation groups, while between 61 and 72 percent of teachers were satisfied at schools in the emergent implementation groups.

Figure 26: Teacher Satisfaction by Implementation Group



When examining student satisfaction by implementation group, higher satisfaction percentages were found for students at schools in the comprehensive implementation group compared to students at the schools in the emergent group (see Figure 27). The difference between the comprehensive and emergent implementation groups was largest at the high school level (67% vs. 48%) and smallest at the elementary school level (83% vs. 81%).

Figure 27: Student Satisfaction by Implementation Group



Schoology Implementation Strengths and Challenges

Open-ended survey items provided the opportunity for staff to comment about what worked well and the greatest challenges during implementation of Schoology and for students to comment about what they liked best and least about Schoology. Several themes emerged from responses about what worked well during Schoology implementation. A common theme from teachers, administrators, and ITSs related to aspects of support and training, such as ITSs and Schoology Champions having been helpful and knowledgeable, and that support was available when needed. In addition, teachers, administrators, and ITSs commented on the ability to access and share curriculum resources provided by the division. Administrators and ITSs also identified the willingness of teachers to have embraced the system as being a positive of the implementation, while teachers identified the ability to create and post assignments for students and collaborate and share resources with other teachers as having worked well. For students, many indicated what they liked best was that Schoology was easy to use and the organization of Schoology, including the use of folders and organization of their work. Elementary students also indicated that they liked the games within Schoology and that they liked that it was online and had fun aspects, while secondary students also indicated they liked the ability to communicate with teachers.

Several themes also emerged from responses about the greatest challenges during Schoology implementation. For teachers, the most common theme that emerged related to assessments and reporting. In particular, there were challenges related to the difficulty of and time it took to create assessments in Schoology as well as the ability to get data from these assessments. Many teachers also reported that they were continuing to learn the system and that a challenge was having the time to continue to learn. The challenge of time to learn also emerged as a theme from responses by administrators and ITSs. In addition, teachers, administrators, and ITSs identified the switch from Google classroom having been a challenge, and several teachers indicated that they thought Google classroom was a better system. Teachers also identified a challenge as needing more Schoology professional learning and support provided at their school. In addition, teachers indicated a challenge was the syncing of grades from Schoology into Synergy. Another common theme for administrators and ITSs was the need to expand teacher usage throughout the school. For students, many indicated that they disliked “everything” or “nothing” about Schoology. Similar to staff members, many students also commented that they preferred Google classroom to Schoology. Students also indicated that they found Schoology difficult to navigate, such as finding assignments and there being too many folders, that it was unorganized, that it was complicated or confusing, and that Schoology took a long time to load.

Schoology Implementation Cost

The final evaluation question focused on the cost to VBCPS for implementing Schoology. All costs related to Schoology from initial acquisition (December 2016) through the summer of 2019 are included. Costs related to the following areas: subscription, implementation, customized implementation, professional development and training provided by Schoology, division training, Schoology conferences, and other related expenses.

The contract with Schoology separated cost into two implementation phases. Phase 1 spanned the first two years (i.e., 6 months of 2016-2017 and 2017-2018 school year) and Phase 2 spanned year three (i.e., 2018-2019 school year). Costs related to the subscription and student license were based on student enrollment. Initially in the RFP, Schoology provided an estimate of \$6.35 per student. Based on the contract, the actual cost per student was \$6.14. For Phase 1, the total cost for the subscription was \$115,742 (Year 1: \$21,769.30; Year 2: \$93,972.70) and for implementation was \$31,500. As outlined in Schoology’s statement of work, the schedule for paying these subscription and implementation costs for Phase 1 was set as occurring at five milestones (20% due at each milestone). These milestones were established based on certain implementation events occurring. For example, Milestone 1 was after signing the contract, Milestone 2 was after various planning meetings, Milestone 3 was after configuring Single Sign-on and champion training, Milestone 4 was after populating Schoology live environment, and Milestone 5 was after ensuring the site was ready for students and instructional staff (see Table 37 for additional details).

Table 37: Schedule of Payment for Subscription and Implementation Costs for Phase 1

Events Precipitating Payments During Phase 1	
Milestone 1	Signed contract
Milestone 2	Schoology kickoff meeting Initial account configuration Domain customization meeting Technical planning meeting Training and professional development planning meeting Create test environment
Milestone 3	Test technical data population Configure Single Sign-on Begin content migration Initial deployment Schoology champion training
Milestone 4	Administrative and product management consulting Establish internal support plan Populate Schoology live environment Complete content migration
Milestone 5	Site ready for student and faculty access Access to support desk

There was one customized feature that VBCPS asked from Schoology, which was the student profile. The student profile allows teachers to view individual student information, such as their demographics, academic record (i.e., previous years’ final grades), enrollment history, and standardized test scores. The cost for the student profile customization was split in half. Half was paid up front (\$30,000) and half was paid upon completion when the feature was fully functional (\$30,000). Although it was expected that the full cost would be paid during Phase 1, the half paid upon completion was not paid until September 2018.

Professional development and training provided by Schoology was offered as onsite training and web-based training. During Phase 1, onsite training costs were \$26,250, while web-based training costs were \$14,400. A majority of these costs were paid for by the Technology Initiative Grant (all of the onsite training costs and

\$5,400 of the web-based training costs), while VBCPS paid for \$9,000 for the web-based training. The Technology Initiative Grant covered technology related professional learning opportunities for teachers. During Phase 2, onsite training costs were \$17,250. The Technology Initiative Grant covered \$5,250 of these costs, while VBCPS paid for \$12,000.

The division also provided training to staff members during both phases. Additional costs to the division for these trainings were related to substitute coverage that was offered to schools. This was \$44,383 for Phase 1 and \$35,763 for Phase 2.

Several staff members attended the Schoology Next conference during the summer of 2017 and summer of 2019. For the conference in 2017, Schoology paid for the cost of the conference for all VBCPS attendees. Costs for the travel and accommodations for this conference were \$6,054. For the conference in 2019, the conference fees totaled \$6,810. The Technology Initiative Grant covered \$4,889, while VBCPS paid for \$1,921 of this cost. Costs for the travel and accommodations totaled \$11,420. The Technology Initiative Grant covered \$8,963, while VBCPS paid for \$2,457 of this cost. An additional Schoology conference during Phase 2 was attended by the director of instructional technology and cost \$179 for travel and accommodations. The total travel and accommodations costs for Phase 2 were \$11,600, of this cost, \$2,637 was paid for by VBCPS.

Other related expenses included paying other vendors to ensure optimal functioning of and integration with Schoology. VBCPS signed a contract with Respondus to ensure that website browsers were locked down during testing. The costs related to this feature were \$1,997 during Phase 1 and \$8,295 during Phase 2. VBCPS also signed a contract with EduPoint for their work ensuring that grades within Schoology will be integrated with Synergy. The costs related to this were \$21,617 during Phase 1. The remaining cost for this feature has not been paid due to it not yet functioning.

Table 38: Costs for Schoology Implementation

Category	Items	Phase 1 Dec 2016 - Aug 2018	Phase 2 Aug 2018 - Aug 2019	Total Dec 2016 - Aug 2019
Subscription	Subscription fee/student license*	\$115,742.00	\$417,520.00	\$533,262.00
Implementation	Content migration	\$1,500.00	\$0.00	\$1,500.00
	District implementation and project management	\$30,000.00	\$0.00	\$30,000.00
Customized Implementation	Student profile customization**	\$60,000.00	\$0.00	\$60,000.00
Schoology Provided Professional Learning	Onsite training <i>funded by Grant</i>	\$26,250.00	\$5,250.00	\$31,500.00
	Onsite training <i>funded by VBCPS</i>	\$0.00	\$12,000.00	\$12,000.00
	Web-based training <i>funded by Grant</i>	\$5,400.00	\$0.00	\$5,400.00
	Web-based training <i>funded by VBCPS</i>	\$9,000.00	\$0.00	\$9,000.00
Division Professional Learning	Substitute coverage for professional learning	\$44,382.94	\$35,763.48	\$80,146.42
Schoology Conferences	Schoology Conference fees <i>funded by Grant</i>	\$0.00	\$4,888.80	\$4,888.80

Category	Items	Phase 1 Dec 2016 - Aug 2018	Phase 2 Aug 2018 - Aug 2019	Total Dec 2016 - Aug 2019
	Schoology Conference fees <i>funded by VBCPS</i>	\$0.00	\$1,921.20	\$1,921.20
	PL Travel and Accommodations <i>funded by Grant</i>	\$0.00	\$8,963.00	\$8,963.00
	PL Travel and Accommodations <i>funded by VBCPS</i>	\$6,053.60	\$2,636.75	\$8,690.35
Other Related Expenses	Testing lockdown browser	\$1,997.00	\$8,295.00	\$10,292.00
	Synergy grade passback***	\$21,617.00	\$0.00	\$21,617.00
Subtotals	<i>Funded by Grant</i>	\$31,650.00	\$19,101.80	\$50,751.80
	<i>Funded by VBCPS</i>	\$290,292.54	\$478,136.43	\$768,428.97
Grand Totals		\$321,942.54	\$497,238.23	\$819,180.77

Note: *Year 1 subscription costs were \$21,769.30 and Year 2 costs were \$93,972.70.

**Half of this cost was not paid until September 2018 after the feature became functional.

***The remaining cost has not been paid yet due to it not functioning.

Moving forward, the majority of the cost for Schoology will include the subscription fee/student license. In addition, the plan was that Schoology would replace the previous assessment platform, SchoolNet. The contract with SchoolNet was discontinued after the 2018-2019 school year, which was intended to offset some Schoology cost.

Summary

The purpose of obtaining Schoology was to provide a streamlined, user-friendly application for interacting with and accessing educational content and assessing student learning. The goal of Schoology was to help facilitate the transition to personalized learning. The launch of the Schoology initiative began with an initial Request for Information and Request for Proposals to obtain information about potential LMS features. Schoology was selected as the LMS for VBCPS in December 2016. A total of 14 schools participated in a Schoology field test during the 2017-2018 school year. Divisionwide implementation began during the 2018-2019 school year. Although schools varied in their level of implementation, all schools began using Schoology with the plan that all schools would be fully using Schoology during the 2019-2020 school year.

An LMS offers curriculum management and course delivery for students. Prior to the implementation, the Department of Teaching and Learning worked to redesign the curriculum to leverage the interactive features in Schoology. Curriculum coordinators provided instructional staff with curriculum resources at the grade level for elementary staff and course level for secondary staff. Teachers can deliver content through Schoology in a variety of ways, including files, folders, or pages; discussion boards; and third-party applications. Schoology also allows teachers to assess students on classroom material and provides an assessment platform for assessments that require more detailed reports or are provided divisionwide. An LMS also provides a way to communicate and collaborate amongst staff and students through messaging, groups, and discussion boards. The Department of Technology has ensured that data, such as class enrollment and user information, have integrated with the Schoology system; however, ensuring that grades are transferred to the Student

Information System remains a challenge. Overall, third-party applications are also able to be integrated with Schoology with the facilitation of the Department of Technology and third-party vendors. A goal of 2019-2020 is to provide parents access to Schoology.

Due to school principals determining the extent of Schoology usage in their schools; variation in level of Schoology implementation was examined through cluster analyses to group schools based on similar implementation levels. Two groups were found for each school level: emergent implementation groups and comprehensive implementation groups. The emergent implementation groups had lower percentages of teachers using more complex skills as well as less involvement with the Schoology platform, whereas the comprehensive implementation groups had higher percentages of teachers using more complex skills as well as more involvement with the Schoology platform as measured by usage statistics.

The extent to which staff and students reported using Schoology and the variation throughout the division was examined. Overall, approximately 65 percent of elementary school teachers indicated they used Schoology to deliver course content to students. Across all elementary schools, the percentages of teachers who indicated they used Schoology for course delivery ranged from 25 percent of teachers to all teachers. Additional analyses by grade level showed that lower percentages of teachers in grades K through 2 (36% to 54%) indicated they used Schoology for course delivery compared to teachers in grades 3 through 5 (61% to 62%). Most elementary students in grades 3 through 5 (99%) indicated they used Schoology during the school year. Approximately 87 percent of middle school teachers indicated they used Schoology to deliver course content to students. Across all middle schools, the percentages of teachers who indicated they used Schoology for this purpose ranged from 71 percent of teachers to all teachers (100%). Analyses by content area showed that slightly higher percentages of middle school math and science teachers (87%) indicated they used Schoology for course content than middle school English (85%) and social studies teachers (83%). Most middle school students (99%) indicated they used Schoology. Approximately 84 percent of high school teachers indicated they used Schoology to deliver course content to students. Percentages of teachers who indicated they used Schoology for this purpose ranged from 64 percent of teachers to all teachers (100%) across all high schools. Slightly higher percentages of high school science (86%), social studies (85%), and English (84%) teachers indicated they used Schoology for course delivery than high school math teachers (80%).

Goals and objectives focused on providing a single location for instructional content, resources, and assessments; supporting communication and collaboration; ease of use; staff professional learning; and transformational learning. Overall, at least 79 percent of teachers indicated they used Schoology to access and store content for one or more of their courses. Lower percentages of teachers indicated they used Schoology regularly with their students to deliver course content. In particular, 33 percent of teachers in grades K through 2 indicated weekly use and 38 percent of teachers in grades 3 through 5, 53 percent of middle school teachers and 48 percent of high school teachers indicated daily use. At all school levels, higher percentages of teachers at schools in the comprehensive implementation groups indicated more frequent use. In comparison to teachers, higher percentages of students reported they used Schoology daily (59% at elementary, 85% at middle, 79% at high). School-level differences were seen regarding the types of resources and features utilized by teachers. Higher percentages of elementary school teachers (86%) indicated they accessed and used division-created resources than middle school (61%) or high school teachers (61%). Relatively higher percentages of middle school teachers (42%) indicated they used third-party resources, followed by high school teachers (35%), and elementary school teachers (31%). Higher percentages of secondary teachers (61% at both levels) indicated they created classroom assessments than elementary teachers (29%). However, low percentages of teachers at all levels indicated they created assessments in AMP (between 6% and 18%).

Regarding the communication and collaboration goal, between 52 and 57 percent of teachers, depending on level, agreed that Schoology helped facilitate communication with other teachers. Higher percentages of administrators (between 78% and 92%) and ITSs (between 72% and 100%) agreed that Schoology helped

facilitate communication between administrators and teachers than percentages of teachers (between 38% and 47%). Teachers were more positive regarding the impact on communication with students, with between 72 and 86 percent agreeing that Schoology helped facilitate communication. However, student agreement was lower, with between 57 and 61 percent agreement. Although administrators and ITSs had at least 80 percent agreement, with the exception of elementary administrators, regarding Schoology facilitating communication with students, between 31 and 36 percent of students agreed that Schoology helped communicate with administrators. In regard to Schoology facilitating collaboration with teachers, between 63 and 66 percent of teachers agreed.

The next goal related to the ease of use of Schoology. Depending on level, between 77 and 83 percent of teachers, 88 and 100 percent of administrators and ITSs, and 72 and 87 percent of students indicated that content in Schoology was easy for them to access. Less positive perceptions were found regarding the ease of moving content, assessments, and transitioning data. Depending on level, between 54 and 65 percent of teachers agreed that moving content from curriculum groups was seamless. Regarding assessments, between 43 and 61 percent of teachers agreed that creating assessments in Schoology was efficient, while between 76 and 83 percent of students agreed that navigating assessments in Schoology was easy. At least 73 percent of administrators agreed that transitioning data to/from Schoology was efficient and accurate.

Highly positive perceptions were found related to the professional learning and support provided for Schoology. At least 96 percent of administrators and ITSs at each level and between 76 and 82 percent of teachers, depending on level, agreed that professional learning provided them with the necessary knowledge to use Schoology. In addition, at least 85 percent of all staff groups at all levels indicated the help was available when needed, helpful resources were provided, and issues were resolved in a timely manner.

Although the focus of the current evaluation was on implementation, baseline data for transformational learning outcomes were analyzed to provide preliminary results. Results were analyzed by implementation group due to varying levels of implementation. Student and teacher agreement percentages regarding Schoology enhancing various student dispositions related to transformational learning were higher at schools in the comprehensive implementation groups than at schools in the emergent implementation groups. Highest agreement percentages were found for students at elementary schools in the comprehensive implementation group, while highest agreement percentages were found for teachers at the middle schools in the comprehensive implementation group. This pattern was also found for teacher agreement percentages regarding Schoology enhancing teacher dispositions related to transformational learning, with highest agreement for middle schools in the comprehensive group. Overall, ITSs had higher agreement percentages regarding Schoology enhancing leadership dispositions related to transformational learning when compared to administrator agreement.

At least 94 percent of administrators and ITSs at each level indicated they were satisfied with the Schoology implementation. Lower percentages were found for teachers and students; however, the variations by school level were different for teachers and students. For teachers, highest satisfaction was found at the high school level (81%) and lowest satisfaction was found at the elementary school level (71%). In contrast, highest satisfaction for students was found at the elementary school level (82%) and lowest satisfaction was found at the high school level (59%).

The recommendations included providing schools with the necessary knowledge, support, and reporting capabilities to administer assessments through Schoology; ensuring schools access resources through Schoology, especially division-created resources at the secondary level; encouraging schools to utilize Schoology as a means for communication and collaboration; and continuing to work toward providing parents access to Schoology.

Recommendations and Rationale

Recommendation #1: Continue Schoology implementation with modifications noted in recommendations 2 through 5. *(Responsible Groups: Department of Teaching and Learning; Department of School Leadership; Department of Technology; Office of Planning, Innovation, and Accountability)*

Rationale: The first recommendation is to continue Schoology implementation with modifications noted in recommendations below. Based on School Board Policy 6-26, following a comprehensive evaluation, a recommendation must be made to continue the program without modifications, continue the program with modifications, expand the program, or discontinue the program. The recommendation to continue Schoology with modifications is to enhance efforts related to administering assessments in Schoology, accessing and using division-created resources in Schoology, utilizing Schoology as a means for communication and collaboration, and continuing to work towards providing parents access. The implementation of Schoology during the 2018-2019 school year appeared to be successful in many areas. In particular, high percentages of staff indicated the professional learning provided them with the necessary knowledge for Schoology and that support was available, helpful, and timely. In addition, although the level of Schoology implementation varied by school, findings suggested that the schools with more comprehensive implementation had more positive results related to transformational learning dispositions.

Recommendation #2: Continue to provide schools with the necessary knowledge, support, and reporting capabilities to administer assessments through Schoology in 2019-2020. *(Responsible Groups: Office of Planning, Innovation, and Accountability; Department of Technology; Department of Teaching and Learning)*

Rationale: The second recommendation is to provide schools with the necessary knowledge, support, and reporting capabilities to administer assessments through Schoology in 2019-2020. The least utilized feature of Schoology during 2018-2019 was related to assessments, including creating and administering assessments and analyzing assessment data. At all levels, 18 percent of teachers or fewer indicated they frequently or occasionally created assessments in AMP. When focusing exclusively on schools in the comprehensive groups, the percentages of teachers who indicated they created assessments in AMP was 23 percent or below. Lower percentages were found regarding teachers who accessed and analyzed assessments results with an AMP assessment (20% or below). According to the Office of Student Assessment, during 2018-2019, there were concerns about the reporting capabilities of Schoology. As a response, the Department of Technology in collaboration with the Office of Student Assessment has worked to build more detailed reporting capabilities for AMP. Higher percentages of secondary teachers indicated they either frequently or occasionally created classroom assessments (29% at elementary level, 61% at secondary level), although the percentage of teachers remained low, especially at the elementary school level. Elementary schools were more varied in their level of implementation. Moving forward, elementary schools may need additional knowledge and support with assessments. In addition, teachers appeared to have concerns about the creation of assessments as indicated by teacher agreement percentages regarding the efficiency of creating assessments. In particular, depending on school level, between 43 and 61 percent of teachers agreed that creating assessments in Schoology was efficient.

Recommendation #3: Ensure schools access resources through Schoology, especially the division-created curriculum resources at the secondary level. *(Responsible Groups: Department of Teaching and Learning, Department of School Leadership)*

Rationale: The third recommendation is to ensure schools access resources through Schoology, especially the division-created curriculum resources at the secondary level and third-party resources at all levels. The Department of Teaching and Learning has worked to redesign instructional content for instructional staff that is housed within grade-specific groups at the elementary level and course-specific groups at the secondary level. Overall, 61 percent of middle school teachers and 50 percent of high school teachers indicated they either frequently or occasionally accessed and used division-created resources, while 86 percent of elementary school teachers indicated they had. An examination of secondary teachers' access and use of resources by content area showed that teachers in the following content areas had the lowest percentages of teachers who indicated they accessed and used them (between 41% and 57%): TCE, music, social studies, world languages, English, and science. Higher percentages of teachers in the areas of math, art, and health and PE indicated they used these resources, although percentages were between 66 and 62 percent. When examining secondary teachers' access and use by implementation groups, the percentages of secondary teachers at the schools in the comprehensive implementation groups were still low, especially at the high school level with 52 percent of high school teachers at schools in the comprehensive implementation group indicating they accessed and used division-created resources. An additional concern that appeared was related to the ease of moving content from curriculum resources into courses. In particular, 54 percent of elementary school teachers agreed that moving content from curriculum resource groups was seamless. This is particularly important because higher percentages of elementary school teachers indicated they accessed and used division-created curriculum resources than teachers at the secondary level. Low agreement percentages regarding the ease of moving resources were also found at the secondary level with 62 and 65 percent agreement at the middle and high school levels.

Recommendation #4: Encourage schools to utilize Schoology as a means for communication and collaboration. *(Responsible Group: Department of Teaching and Learning)*

Rationale: The fourth recommendation is to encourage schools to utilize Schoology as a means for communication and collaboration. An LMS offers the ability to connect, communicate, and collaborate with other users through the system. Schoology allows users to connect through direct messaging, posting within groups, discussion boards, and posting on calendars. However, low agreement percentages were found regarding Schoology facilitating communication among teachers, students, and administrators as well as collaboration between teachers. Overall, 54 percent of teachers agreed that Schoology facilitated their communication with other teachers and 65 percent agreed that Schoology facilitated their collaboration with other teachers. In addition, although 81 percent of teachers agreed that Schoology facilitated communication with students, between 57 and 61 percent of students, depending on level, agreed that Schoology helped facilitate communication with their teachers. Lower agreement percentages were found for teachers and students regarding Schoology helping to facilitate communication with administrators. Overall, 41 percent of teachers agreed and between 31 and 36 percent of students agreed, depending on level, that Schoology helped facilitate their communication with administration. More positive perceptions were found for administrators and ITSs. In particular, at least 78 percent of administrators and 72 percent of ITSs, depending on level, agreed that Schoology facilitated communication with teachers and at least 80 percent of administrators and 94 percent of ITSs, with the exception of elementary administrators, agreed that Schoology helped communication with students. When asked specifically about having used groups to communicate with others, relatively high percentages of secondary administrators (78% at both levels) and ITSs (100% at middle school, 88% at high school) indicated they frequently or occasionally utilized groups to distribute information to staff. Lower percentages were found at the elementary school level, with 60 percent of elementary

administrators and 71 percent of ITSs indicated they either frequently or occasionally used groups to distribute information to staff.

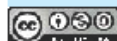
Recommendation #5: Continue to work towards providing parents access to Schoology in 2019-2020. *(Responsible Groups: Department of Teaching and Learning, Department of Technology, Department of School Leadership)*

Rationale: The fifth recommendation is to continue to work towards providing parents access to Schoology in 2019-2020 throughout the division. As of July 2019, although the Department of Technology had made steps towards providing parents access, it had not been implemented. The plan for the 2019-2020 school year is to begin with piloting parent access at a small number of schools and then implementing divisionwide later in the school year. Next year's evaluation will involve evaluating two objectives related to parents having access to information in Schoology. These objectives include that parents will access students' academic information and work via Schoology and that Schoology will help facilitate the communication between teachers and parents as well as administrators and parents. In addition, parent general perceptions of the Schoology implementation will be assessed, including parent satisfaction.

Appendix A: Schoology Navigational Markers

Schoology Navigational Markers

LEVEL 1 (toes in the water)	LEVEL 2 (waist-high)	LEVEL 3 (all in)
<p>I can access my personal resources and create personal resource collections.</p> <p>I can post updates and announcements to my course, including reminders, class summary, etc.</p> <p>I can create ungraded, graded and shared discussions with due dates.</p> <p>I can create folders, files, links and pages.</p> <p>I can organize learning materials within folders into logical and clear instructional sequences (such as by time, unit or subject).</p> <p>I can create an assignment and tag with aligned learning objective.</p> <p>I can provide feedback and score student assignments. (Document Viewer) (Google Assignment)</p> <p>I know the difference between Schoology Assessment, Test/Quiz, and AMP.</p> <p>I can create and administer an assessment in Schoology Assessment and/or a Test/Quiz.</p> <p>I can add or import a curriculum resource from a T&L curriculum group.</p> <p>I can recognize the difference between an event and an assignment in Schoology.</p> <p>I can maintain an updated calendar of events, assignments and assessments.</p> <p>I can administer an AMP assessment *</p> <p>*By fall 2019 (in 2018-2019 all division created assessments will be delivered through Schoolnet)</p>	<p>I can create a group with a team, including sharing resources.</p> <p>I can share a personal resource collection.</p> <p>I can use the gradebook and view mastery learning data.</p> <p>I can create a media album.</p> <p>I can create a rubric aligned to learning objectives and set it as the grading scale/rubric on an item requiring student submission.</p> <p>I can organize members into grading groups within a course.</p> <p>I can individually assign tests, quizzes, assignments, and discussions to individual students or to grading groups.</p> <p>I can embed features such as online videos (e.g. Youtube), Interactive Images (e.g. Thinglink), quiz oriented videos (e.g. PlayPosit), web published presentations (e.g. Google Slides), etc. directly into pages, test and quizzes and assignments in Schoology to promote ease of use and efficient access.</p> <p>I can integrate third party applications into my course content (DefinedSTEM, Discovery Education, Gale Databases, WELNET, CK-12, Playposit, etc).</p> <p>I can use the workload planning feature to help determine student workload in Schoology.</p>	<p>I can allow students to contribute to the course via the update feature, discussions and comments within assignments.</p> <p>I can set up student completion rules to allow self-paced learning.</p> <p>I can access course analytics to identify student use and trends.</p> <p>I can collaborate with colleagues to create and distribute a common assessment in AMP.</p> <p>I can create opportunities for students to share learning artifacts via the media album or portfolios.</p> <p>I can create a personalized student experience.</p>



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August 2018

Endnotes

¹ Source: September 25, 2017 Senior Staff presentation.

² Surveys were also provided to students, teachers, administrators, and ITSs in the fall to inform the central office implementation team and building administrators about individual school implementation. Only results from the spring surveys are reported to provide perceptions for the full year.

³ Source: Interviews with the Department of Teaching and Learning members.

⁴ Source: Interviews with the Department of Teaching and Learning members.

⁵ Source: Interviews with the Department of Teaching and Learning and Department of Technology members.

⁶ Skill complexity was discussed and confirmed with the instructional technology coordinators.

⁷ Old Donation School completed separate questionnaires for elementary and middle schools use of Schoology. However, usage data was combined for elementary and middle school level use. Due to the usage data being calculated as a rate per instructional staff, the usage data were used for both elementary and middle school levels. Renaissance Academy completed one questionnaire for middle and high school levels use of Schoology and usage data was combined for both levels. Renaissance Academy was considered a school only at the high school level; therefore, in analyses in the report that includes implementation grouping, Renaissance Academy is considered a high school and includes all data for Renaissance Academy. However, analyses by school level only separate students at Renaissance Academy by school level. Although Technical and Career Education Center and Advanced Technology Center completed a questionnaire, there were no student usage data; therefore, these schools were not included in the implementation level analyses. However, students and teachers at these schools were included in analyses by school level.

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