



Canvas

Year-One Implementation Evaluation

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October 2023



Planning, Innovation, and Accountability
Office of Research and Evaluation
Virginia Beach City Public Schools

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Introduction

Background

Canvas is a Learning Management System (LMS) adopted by the Virginia Department of Education (VDOE) in 2020-2021 to deliver educational content to students online. It provides an application for interacting with and accessing instructional content. In conjunction with Mastery Connect, Canvas also provides an application for assessing student learning in a variety of ways. VDOE offered the Canvas LMS for all Virginia school divisions free of cost for five years.¹

Virginia Beach City Public Schools (VBCPS) began a pilot of Canvas with seven schools during the 2021-2022 school year, and all schools were expected to use Canvas during the 2022-2023 school year with students in grades 3 through 12.² In addition, Mastery Connect was adopted in 2022-2023 as the platform to administer divisionwide assessments and is integrated within Canvas. In Mastery Connect, assessments are aligned with individual or multiple standards, which allows for monitoring students' mastery of standards.

Prior to Canvas, Schoology was used as the LMS divisionwide beginning in the 2018-2019 school year (14 schools field tested the LMS in 2017-2018). From 2019-2020 through 2021-2022, all schools were expected to fully utilize the system throughout the school year. In addition, during 2019-2020, four schools field tested parent access to Schoology in January and February prior to all parents receiving access instructions during the COVID-19 school building closure that began in March 2020.

Since Canvas was adopted by VBCPS, the implementation of the initiative has been managed by a central office Canvas implementation team. This team includes staff members from several central office departments and offices, including the departments of Teaching and Learning; Technology; School Leadership; and Office of Planning, Innovation, and Accountability. Beginning in 2020, the instructional technology coordinators joined weekly calls provided by the state and Canvas to support Canvas implementation.³

Background and Purpose of Program Evaluation

Because the Canvas initiative was a new initiative and operated with local resources for part of the implementation, evaluation of Canvas was required for at least two years by School Policy 6-26. On September 13, 2022, the School Board approved the Canvas initiative for an initial implementation evaluation to be conducted during the 2022-2023 school year which coincided with the first year all schools were to begin implementation of Canvas.

This evaluation during the first year of implementation across the school division provides the School Board, Superintendent, and central office Canvas implementation team with information about divisionwide implementation as well as a focus on the initiative's *implementation* goals and objectives. The evaluation also provides preliminary data on the initiative's *outcome* goals and objectives. This implementation evaluation focused on the instructional and assessment components of the LMS, data management and integration processes, professional learning opportunities, parent access and communication, initial progress toward the outcome goals and objectives, stakeholder perceptions, and the cost of Canvas to the school division.

Program Goals and Objectives

Goals and objectives for Canvas were developed in collaboration with the central office Canvas implementation team and based on a review of documentation and prior goals from the implementation of Schoology, the previous LMS. The goals focused on the following areas: (1) instructional material creation and

course delivery, (2) learning assessment and reporting, (3) data management and integration, (4) professional learning, (5) communication and collaboration, and (6) student agency and engagement. The specific goals and objectives, as well as data assessing progress toward meeting these goals and objectives, are outlined throughout the report when information about the goal area is discussed.

Evaluation Design and Methodology

Evaluation Design and Data Collection

The evaluation included mixed methodologies to address each of the evaluation questions, including the goals and objectives. Quantitative data were gathered through closed-ended survey questions and Canvas usage data from the online platform. Qualitative data were collected through discussions with the program managers, document reviews, and open-ended survey questions. The Office of Research and Evaluation evaluators used the following data collection methods:

- Communicated with the central office Canvas implementation team as well as the instructional technology coordinators and director of testing to gather implementation-related information.
- Administered Canvas surveys to classroom teachers, building administrators, instructional technology specialists (ITSs), students in grades 4 through 12, and parents of students in kindergarten through grade 12.
- Gathered student and teacher usage data from the Canvas platform.
- Gathered cost data from the departments of Teaching and Learning, Technology, and Budget and Finance as well as the Office of Planning, Innovation, and Accountability.

Surveys

As part of a larger survey effort of multiple initiatives, the Office of Research and Evaluation invited teachers, administrators, ITSs, students, and parents to complete survey items regarding their perceptions of Canvas. Staff and parents received an email invitation with a link to participate in the online survey in April 2023. Students accessed the survey through a link on their ClassLink dashboard in April 2023.

Of the teachers, administrators, and ITSs invited to complete the survey, 49 percent of teachers, 59 percent of administrators, and 61 percent of ITSs completed the survey. Of the students in grades 4 through 12, 73 percent completed the survey. Of the parents of students in kindergarten through grade 12 invited to take the survey, 8 percent completed the survey. See Table 1 for response rates by school level.

Table 1: Staff, Student, and Parent Survey Response Rates by Level

Group	Elem	Middle	High	Overall Rate	Overall Number of Respondents
Teachers	38%	59%	59%	49%	2,110
Administrators	57%	60%	62%	59%	159
Instructional Technology Specialists	52%	90%	55%	61%	56
Students (Grades 4-12)	88%	81%	60%	73%	32,718
Parents (Grades K-12)	9%	8%	7%	8%	7,152

For all stakeholders, 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). Teacher and student surveys included an initial question regarding whether they used Canvas. Nearly all secondary teachers (97% to 98%) who answered that survey item indicated they used Canvas during 2022-2023, whereas 65

percent of K-5 elementary school teachers indicated they did. Nearly all students from grades 4 through 12 (98% to 99%) indicated they used Canvas in their school. Teachers and students who indicated that they used Canvas were provided with additional items regarding their perceptions. Teachers who indicated they used Canvas but only taught students in grades K through 2 were only asked two additional questions about whether and how they used Canvas for course delivery with their students. Parent surveys also included initial questions regarding whether they were aware of being able to access Canvas and whether they accessed Canvas. Survey data for parents who indicated they only had children in grades K through 2 were analyzed separately.

Canvas Usage Data

Canvas student and teacher usage data were gathered from the Canvas platform for the 2022-2023 school year. Whether students had any activity within Canvas was obtained for all students who were enrolled in Canvas during the 2022-2023 school year. Activity within Canvas included at least one page view or participation in a course. To determine student usage by grade and school level, student activity data obtained from Canvas was combined with student grade level data from the Student Information System. The percentage of students who had any activity in Canvas was calculated. The number of courses in which teachers had student activity during the 2022-2023 school year was also obtained. To limit teacher usage to classroom teachers and determine teacher usage by grade and school level, teacher course activity data obtained from Canvas was combined with a Human Resources staff data file as of April 2023. The percentage of teachers who had at least one course with student activity in Canvas was calculated. Teachers were limited to positions that were determined to be classroom teachers (e.g., kindergarten teachers, art teachers) due to these teachers being primarily responsible for the content in their courses. Positions such as school counselors, specialists, and special education teachers were excluded. Student and teacher percentages were calculated separately for grades K through 2, 3 through 5, middle school, and high school.

Evaluation Questions

Evaluation questions for the evaluation process were created by the evaluators with feedback from the central office Canvas implementation team. The evaluation questions established for the implementation evaluation were as follows:

1. What were the main instructional and assessment components of Canvas and what progress was made toward meeting related goals and objectives?
 - a. Instructional material design and course delivery
 - b. Student learning assessment and reporting
2. What were the data management and integration processes of Canvas and what progress was made toward meeting the related goal and objectives?
3. What professional learning opportunities were provided for Canvas and Mastery Connect and what progress was made toward meeting the related goal and objectives?
4. What is the status of parent access and communication using Canvas?
5. What initial progress was made toward meeting the Canvas initiative's outcome goal(s)?
 - a. Communication and collaboration
 - b. Student agency and engagement
6. How satisfied were stakeholders (i.e., students, teachers, ITSs, administrators, parents) with the Canvas initiative, and what were identified areas of strengths and areas for improvement?
7. What were the costs and savings to the school division for the Canvas initiative during 2022-2023?

Evaluation Results and Discussion

Canvas Instructional and Assessment Components

The first evaluation question focused on the main instructional and assessment components of Canvas and the progress made toward meeting related goals and objectives. One of the main features of an LMS is enabling users to interact with and access educational content and assess student learning of the content.

Instructional Material Design and Course Delivery

An LMS provides the ability to house and manage educational curricula and course content. Educational curricula and course content can include assignments, discussion boards, embedded content, pages, and third-party integrated resources and applications. During the 2022-2023 school year, it was the expectation that teachers and students in grades 3 through 12 utilize Canvas for instructional material and course delivery.⁴ Canvas was included on the division's Strategic Action Agenda as a tool for providing flexible learning opportunities for students. However, according to the executive director of elementary teaching and learning, at the elementary school level, during the 2022-2023 school year, there were communications to grade 3 through 5 teachers that there should be a shift to providing more face-to-face instruction and using the computer less frequently in the classroom.⁵ This shift is aligned with the VBCPS Strategic Plan as of January 2023 that includes a strategy related to technology that states "Balance the effective and efficient use of technology to meet students' individual needs and allow them to demonstrate their learning."⁶

The instruction-related goal for Canvas is "**Canvas will allow teachers to design and deliver high-quality instructional materials for their students.**" Objectives for this goal focused on (1) division-created instructional content, (2) content design and storage, (3) content accessibility, (4) learning activities, and (5) third-party resources and applications.

Kindergarten Through Grade 2 Usage

According to the central office Canvas implementation team, teachers and students in kindergarten through grade 2 were not expected to use Canvas during the school year.⁷ At these grade levels, the teachers were provided another platform, Seesaw. Usage data from Canvas was aligned with this message. Data obtained from Canvas showed that 7 percent of students in grades K through 2 had any activity within Canvas and 29 percent of classroom teachers in grades K through 2 had at least one course with any activity in Canvas.

In addition, when teachers of students in grades K through 2 were surveyed about their use of Canvas, only 35 percent of K through 2 teachers who indicated that they used Canvas during 2022-2023 indicated that they did so for the purposes of instructional content or course delivery with their students. When K through 2 teachers were further provided an open-ended question about how they used Canvas for content delivery, teachers most often commented that they provided students with activities, resources, or links. Others noted that they have used it for assignments or individual student practice.

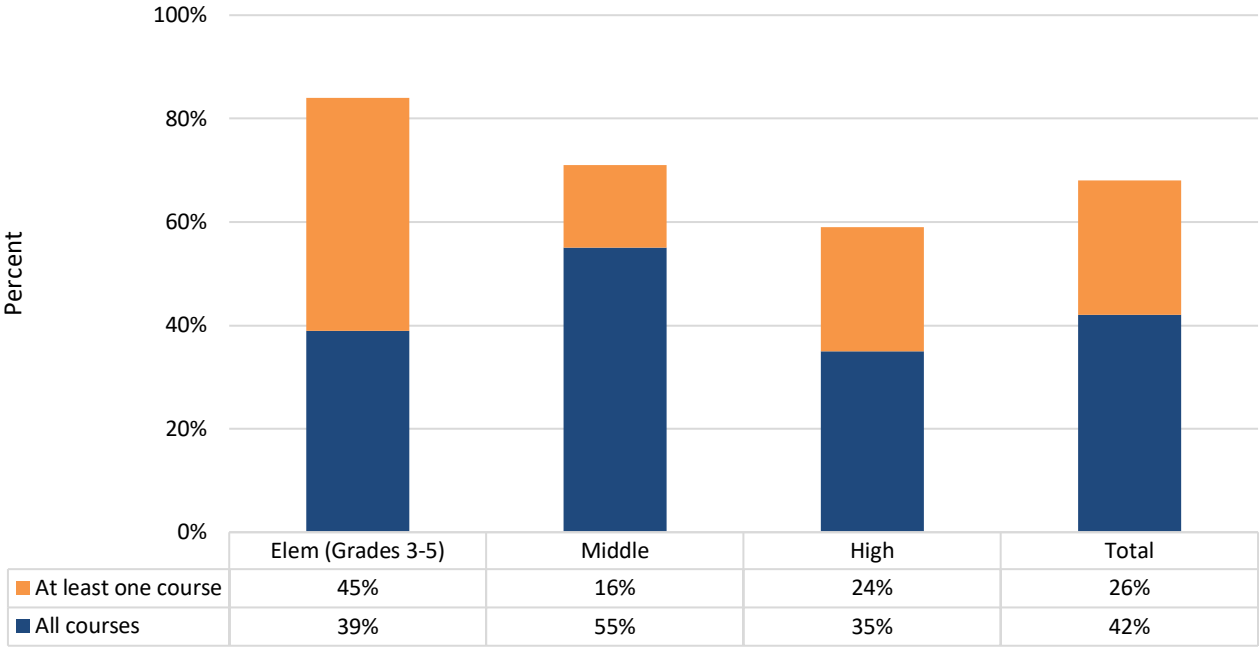
Division Resources

To support school-based instructional staff with high-quality curricula, the Department of Teaching and Learning curriculum coordinators have provided instructional resources through Google docs.⁸ These resources are structured by grade level at the elementary school level and by content area at the secondary level. A link to access the curriculum resources Google docs is accessible through the Canvas Help Menu. Administrators were notified about the curriculum being provided in the newly created Google docs in February 2022 and were encouraged to share the information with instructional staff to provide feedback to

the Department of Teaching and Learning.⁹ These division resources may also be shared through Professional Learning Community (PLC) courses within Canvas.¹⁰ These PLC courses are built at the school level to help staff design and their course content. It is expected that teachers access and utilize the instructional resources and content created at the division level. When accessing content through PLC courses, teachers can transfer information from these courses into their individual course(s). The division-created instructional content objective for the Canvas instruction goal is **“Teachers will utilize division-created instructional content from Google docs and/or PLC courses for individual courses in Canvas as measured by teacher survey responses.”**

Higher percentages of elementary school (85%) and middle school teachers (71%) indicated they used division-created instructional content for their Canvas course(s) than high school teachers (59%) (see Figure 1). This pattern of results is consistent with results found during the Schoology evaluation, although the Schoology evaluation examined teachers’ reported frequency of using division-created resources (i.e., frequently, occasionally). Teachers were also asked to indicate the extent to which they used division-created instructional content for their courses. Overall, a higher percentage of middle school teachers (55%) indicated they used division-created instructional content for **all** of their courses compared to grades 3 through 5 teachers (39%) and high school teachers (35%). Elementary school teachers were more likely to indicate that they used division-created instructional content for at least one course (45%) than all courses (39%).

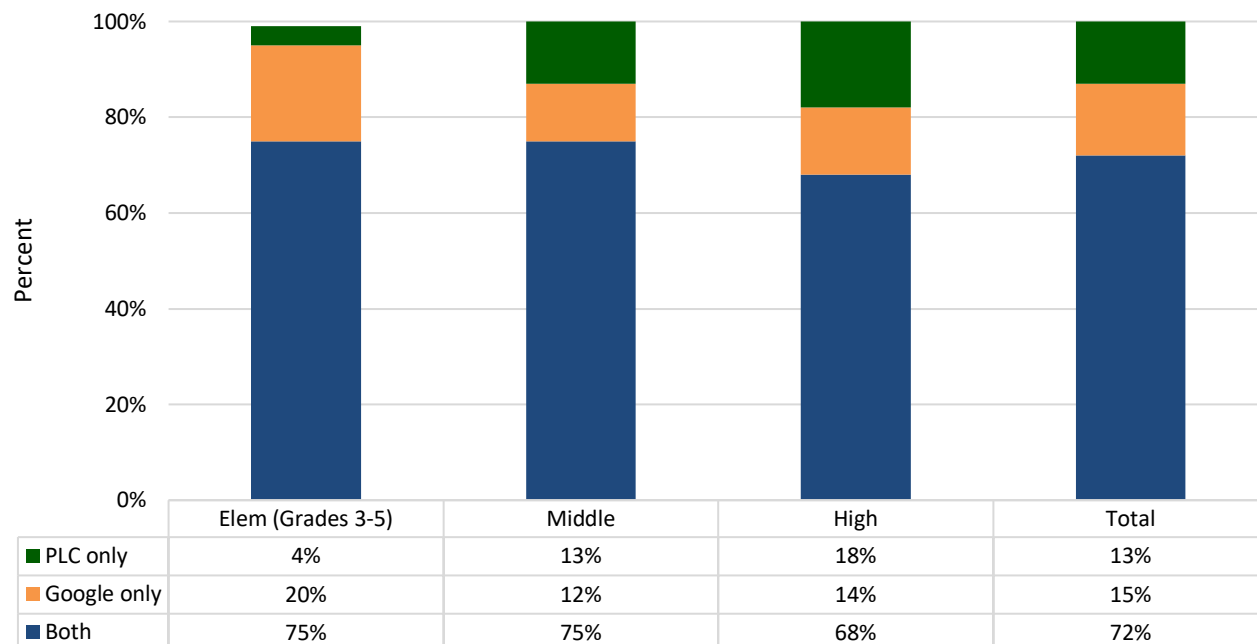
Figure 1: Percentage of Teachers Who Indicated Use of Division-Created Instructional Content



Note: Data are based on two survey items about utilizing division-created instructional content from PLC course(s) and from Google docs. See Appendix A for individual survey item data.

When examining how teachers accessed the instructional content, of those who utilized the instructional content, from 68 to 76 percent of teachers depending on school level indicated they used division-created instructional content for at least one course through **both** PLC courses and Google docs (see Figure 2). A higher percentage of grades 3 through 5 teachers (20%) indicated they used division-created instructional content for at least one course through Google docs **only** (20%) than middle school (12%) or high school teachers (14%). A higher percentage of middle school (13%) and high school teachers (18%) indicated they used division-created instructional content for at least one course through PLC courses **only** than grade 3 through 5 teachers (4%).

Figure 2: Percentage of Teachers Who Indicated Use of Division-Created Instruction Content by Location Accessed



When surveyed about the ease of accessing the division-created instructional content from either Google docs or PLC courses, from 60 to 66 percent of teachers depending on school level agreed that accessing division-created instructional content is user-friendly (see Table 2).

Table 2: Teacher Agreement Regarding Division-Created Instructional Content Access Is User-Friendly

Survey Item	Elem (Grades 3-5)	Middle	High	Total
Accessing division-created instructional content from Google docs and/or PLC courses is user-friendly.	66%	63%	60%	62%

When provided an open-ended survey item regarding instructional material design or course delivery, some teachers specifically commented on the division-created instructional content. In particular, teachers commented on experiencing difficulty searching for content within these resources or wanting to have these resources posted within Canvas. Teachers also commented on the quality of these resources noting that some have not been updated in several years or that there were no resources for the grade level they taught or their content area. Some teachers also noted that they were unaware of the resources.

Content Design, Storage, and Delivery

As noted, Canvas offers teachers the ability to design and store content in their courses. At the elementary school level, courses utilize a simplified template (i.e., C4E) for the younger learners.¹¹ This template ensures that students only view modules and resources. With this view, students only need to navigate two links for modules and resources at the top of their screen to find course content (see Appendix B). At the secondary levels, teachers can customize the links that students can navigate on the left-hand side of the screen when viewing a course, including modules, assignments, discussions, pages, and quizzes (see Appendix B).

Modules are an organizational tool used in Canvas that help teachers structure course content for students. Teachers can organize content by day, week, unit, topic, or outcome. Within a module, teachers can add various types of materials, including assignments, quizzes, files, pages, discussions, text headers, external URLs, or external tools.

The Department of Teaching and Learning instructional technology staff created documents for school staff that detail best practices for elementary and secondary courses, which include important course set up and setting information as well as details about setting up modules and assignments. In addition, the best practice documents include various types of learning activities and assessments to consider using. According to the instructional technology team, these documents were intended for teachers to review to be “Day 1 ready” at the beginning of the 2022-2023 school year.

Regarding shifting course information from Schoology to Canvas, according to the instructional technology staff, it was more time efficient for staff to reproduce their instructional materials in Canvas rather than copying and editing information directly from Schoology into Canvas. To ensure that staff had the time to reproduce and/or move materials from Schoology to Canvas, teachers still had access to their old courses and course materials in Schoology for the 2022-2023 school year, but this access ended at the end of the 2022-2023 school year.

The content and design objective for the instruction goal is **“Teachers will design and store content in their courses in Canvas as measured by teacher survey responses.”** Most secondary teachers designed and stored course content in their published Canvas courses, along with a relatively high percentage of elementary teachers. When teachers were surveyed about whether they designed and stored course content in published Canvas courses, most secondary teachers indicated they did for *all* their published courses (89% at MS, 86% at HS). As shown in Table 3, an additional 7 percent of middle school teachers and 9 percent of high school teachers indicated they designed and stored course content in *at least one* of their published courses, while 3 percent of middle school teachers and 5 percent of high school teachers indicated they did not for any published course. At the elementary school level, 48 percent of teachers indicated they designed and stored course content in all their published Canvas courses, while 35 percent indicated they did for at least one of their published courses and 17 percent indicated they did not for any course (see Table 3).

Table 3: Percentage of Teachers Who Indicated They Designed and Stored Course Content by Number of Courses

Do you design and store course content in your published Canvas courses?	Elem (Grades 3-5)	Middle	High	Total
Yes, for all my published courses.	48%	89%	86%	79%
Yes, for at least one of my published courses.	35%	7%	9%	14%
No.	17%	3%	5%	7%

Beyond designing and storing content, a key purpose of an LMS is to deliver the course content to students. According to Canvas usage data, 83 percent of students in grades 3 through 5 had any activity in a Canvas course during 2022-2023, while nearly all secondary students (98% of MS, 99% of HS) had any activity in a Canvas course. In addition, nearly all grade 3 through 5 classroom teachers (98%) and middle school and high school teachers had at least one course that had student activity (100%). The objective related to content accessibility for the instruction goal is **“Content in Canvas will be easily accessible for Canvas users as measured by student survey responses.”** At least 85 percent of teachers at all levels agreed that they can easily find things they need for their classes in Canvas (see Table 4).

Table 4: Student Agreement Regarding They Can Easily Find Things They Need for Their Classes in Canvas

Survey Item	Elem (Grades 4-5)	Middle	High	Total
I can easily find things I need for my classes in Canvas.	90%	88%	85%	88%

As noted, within modules, teachers can provide students with a variety of ways to interact with instructional content, such as through assignments, discussion boards, embedded content, and pages. The learning activities objective for the instruction goal is **“In Canvas, teachers will provide a variety of learning activities**

for students to interact with content (e.g., assignments, discussion boards, embedded content, pages) as measured by teacher and student survey responses.” From 85 to 86 percent of secondary teachers agreed that they provided a variety of learning activities for their students to interact with instructional content, while 64 percent of elementary school teachers agreed (see Table 5). Similarly, higher percentages of secondary ITSs (from 91% to 100%) agreed that teachers at their school provided a variety of learning activities for their students than elementary school ITSs (75%). Nearly all administrators at all levels (from 95% to 97%) agreed with a similar item.

Table 5: Staff Agreement Regarding Teachers Providing a Variety of Learning Activities

Survey Item	Elem	Middle	High	Total
Teachers – In Canvas, I provide a variety of learning activities for my students to interact with instructional content.	64%	86%	85%	81%
ITS – In Canvas, teachers at my school provide a variety of learning activities for their students to interact with instructional content.	75%	100%	91%	87%
Admin – In Canvas, teachers at my school provide a variety of learning activities for their students to interact with instructional content.	95%	97%	96%	95%

Note: Any admin or ITS respondents who indicated “Don’t Know” were excluded from analysis.

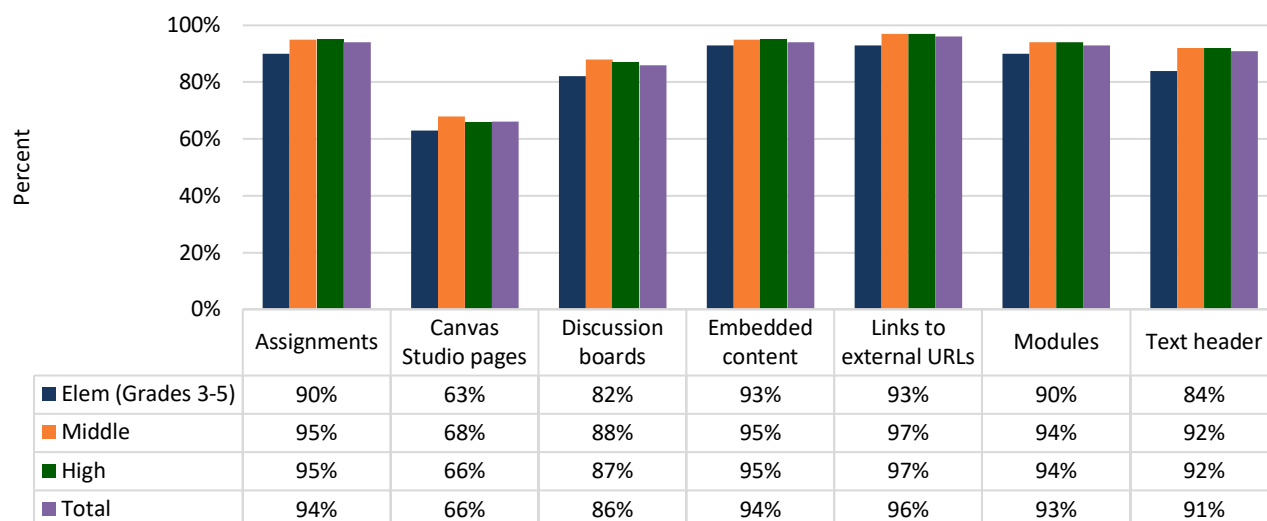
Teachers were also surveyed about the specific types of learning activities that their students used. At least 93 percent of teachers at all levels indicated their students used assignments and links to external URLs, and at least 87 percent of teachers at all levels indicated their students used modules and embedded content (e.g., video, audio, Google slides) (see Table 6). Higher percentages of secondary teachers (from 71% to 85%) indicated they used text headers and discussion boards than elementary school teachers (53% to 62%). Canvas studio, which is an interactive video management platform, was the least used learning activity at all levels with 31 to 34 percent of teachers reporting use.

Table 6: Percentage of Teachers Who Indicated They Used Various Learning Activities

Teachers – Used the following learning activities for students to interact with instructional content:	Elem (Grades 3-5)	Middle	High	Total
Assignments	93%	99%	98%	97%
Canvas studio pages	31%	34%	33%	33%
Discussion boards	53%	72%	71%	67%
Embedded content (e.g., video, audio, Google slides)	87%	93%	90%	90%
Links to external URLs	93%	98%	96%	96%
Modules	89%	98%	98%	96%
Text header	62%	85%	83%	79%

Teachers were further asked about the usefulness of the learning activities for students to interact with instructional content (see Figure 3). Overall, at least 82 percent of teachers at all levels indicated that assignments, links to external URLs, embedded content, modules, text headers, and discussion boards were very useful or somewhat useful for students to interact with instructional content. Lower percentages of teachers at all levels indicated that Canvas Studio pages were very useful or somewhat useful (from 63% to 68%).

Figure 3: Percentage of Teachers Who Indicated Learning Activities Were Very or Somewhat Useful for Students to Interact With Instructional Content



Note: The other response option was Not Useful.

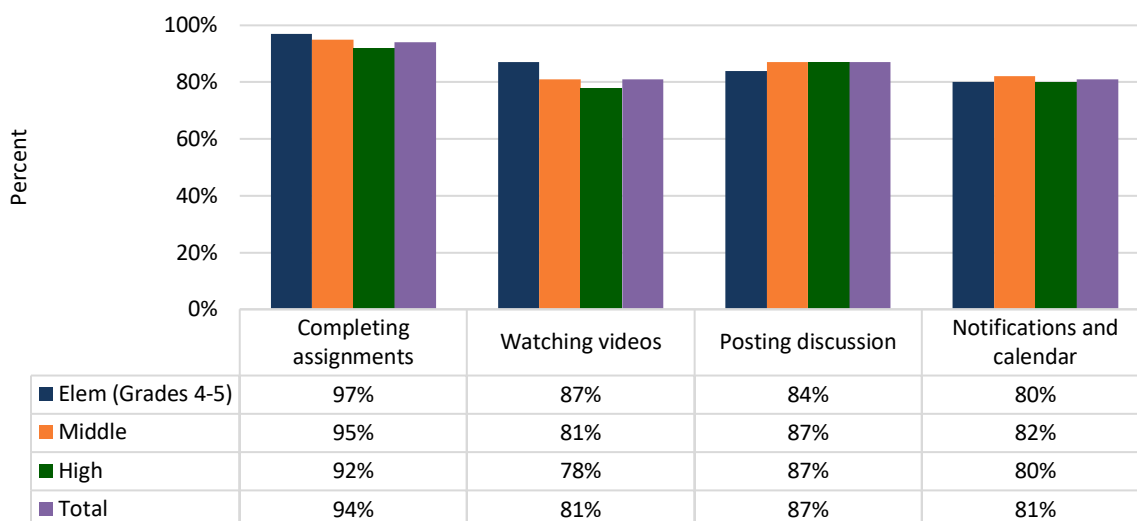
When students were surveyed about the various activities they used in Canvas, at least 88 percent of students at all levels indicated they completed assignments and watched videos (see Table 7). In addition, nearly all secondary students indicated they posted as part of a discussion and at least 85 percent indicated they used notifications and the calendar. Lower percentages of elementary school students indicated they posted as part of a discussion (76%) and used notifications and the calendar (69%).

Table 7: Percentage of Students Who Indicated They Used Various Learning Activities

Students – Used the following learning activities in Canvas:	Elem (Grades 4-5)	Middle	High	Total
Completed assignments	98%	99%	99%	99%
Watched videos	88%	92%	92%	91%
Posted as part of a discussion	76%	95%	96%	91%
Notifications and calendar	69%	85%	89%	85%

Students were also surveyed about the usefulness of the activities in helping them be successful in their learning. At least 92 percent of students at all levels indicated that completing assignments were very useful or somewhat useful in helping them be successful in their learning (see Figure 4). In addition, at least 78 percent of students at all levels indicated that posting as part of a discussion, watching videos, and notifications and calendars were very useful or somewhat useful in helping them be successful in their learning.

Figure 4: Percentage of Students Who Indicated Learning Activities in Canvas Were Very Useful or Somewhat Useful in Helping Them Be Successful in Their Learning



Note: The other response option was Not Useful.

Third-Party Resources

Canvas has the capability to integrate with other applications that provide educational content. Several third-party applications are currently available through VBCPS and Canvas, such as BrainPOP, CK-12, Discovery Education, Google, and IXL. Teachers can provide students with content or materials by inserting pages or instructions for an assignment through the external tool option under assignments. Teachers can also embed content from third-party applications, such as Google slides, within a page or assignment in Canvas. The third-party resource and applications objective for the instruction goal is **“Teachers will provide instructional content through third-party integrated resources and applications (e.g., BrainPOP, CK-12, Discovery Education, Google, IXL) in Canvas as measured by teacher survey responses.”**

When teachers were surveyed about the use of third-party resources, such as BrainPOP, CK-12, Discovery Education, Google, and IXL, 84 percent of middle school teachers indicated their students used them, whereas from 68 to 69 percent of elementary school and high school teachers indicated their students used them (see Table 8). Regarding the usefulness of these resources, from 87 to 91 percent of teachers at all levels indicated that third party resources were very useful or somewhat useful for students to interact with instructional content.

Table 8: Percentage of Teachers Who Indicated Use of Third-Party Resources and Usefulness

Survey Item	Elem (Grades 3-5)	Middle	High	Total
Indicated using third-party resources in Canvas for students to interact with instructional content.	69%	84%	68%	73%
Indicated using third-party resources in Canvas was very useful or somewhat useful for students to interact with instructional content.	88%	91%	87%	89%

Through an open-ended survey item, teachers were provided the opportunity to provide comments regarding instructional material design or course delivery. Approximately 29 percent of teachers who indicated they used Canvas responded to the item. Of those who responded to the item, several teachers commented about the platform not being user friendly in general, including that the platform requires too many clicks

(especially when creating assignments) and that it was time consuming or difficult to navigate. Several elementary school teachers commented specifically that the platform was not user-friendly or difficult to navigate for their students at the elementary school level. Several teachers indicated the need for more training on using the platform. Some teachers noted the need for having organizational folders within modules or their inability or difficulty with copying course content across their Canvas courses. Several teachers also noted they preferred the Schoology platform.

Student Learning Assessment and Reporting

Canvas offers the ability to monitor student learning through a variety of assessment methods, including discussion boards, Canvas Studio, assignments, and Canvas quizzes. Canvas does not offer a way to administer divisionwide assessments within the platform itself. As a result, Mastery Connect was purchased by VBCPS to be integrated within Canvas, which offers the ability to administer divisionwide assessments.

Discussion boards, which allow students to post responses to teacher-generated prompts or in response to other students' posts on a given topic, can be created as assignments for grading purposes within Canvas. Canvas Studio is an interactive video management platform that allows teachers and students to view, share, and directly comment on uploaded video or audio content. Within Canvas Studio, teachers can create quizzes, which allows teachers to prompt students with multiple choice, true/false, or multiple response questions while watching videos. Assignments in Canvas are activities that students complete for a grade and are evaluated by their teacher or peers. Teachers have various options when creating assignments, including the number of submission attempts, whether the assignment is a group assignment, and specified due dates. Through Canvas, teachers can use the SpeedGrader tool to grade and give detailed feedback on assignments that are submitted online. When teachers were surveyed about their use of SpeedGrader, higher percentages of secondary teachers (79% MS, 81% HS) indicated they used the Canvas SpeedGrader than elementary school teachers (68%). Further, of those who used SpeedGrader, higher percentages of secondary teachers (89% MS, 91% HS) indicated that Canvas SpeedGrader was either very useful or somewhat useful to assess student learning and/or provide feedback than elementary school teachers (79%). Within Canvas, teachers also have the option to create a rubric for discussions and assignments, which is visible to students.

Within Canvas, teachers can create and administer classroom assessments through quizzes. There are two types of quizzes that teachers can create in Canvas: Classic Quizzes and New Quizzes. New Quizzes offer more question types and the ability to view data related to students' quiz attempts and submissions. Within New Quizzes, Canvas allows for various types of questions, including categorization, essay, uploading files, matching, multiple choice, and true/false. When creating a quiz, teachers have the ability to determine the number of points for the quiz as well as whether the quiz counts toward the student's final grade. Teachers can establish a time limit and whether students can attempt multiple times. Teachers can also view students' attempts with the score and the time taken to complete the quiz. However, all data for quizzes within Canvas are not accessible to others besides the course teacher.

At the secondary level, student grades for assignments, discussions, and quizzes within Canvas can be imported automatically into the gradebook of record, Synergy. For grades to import from Canvas into Synergy, teachers must ensure that the assignment type matches within both systems and there must be a due date for the assignment or quiz in Canvas. Most importantly, the teacher must select that they would like for the grade to sync to Synergy (i.e., select the "sync to SIS" checkbox) when creating it.

Assessing Student Learning through Mastery Connect

As noted, although Canvas does not offer a way to administer divisionwide assessments with the platform itself, Mastery Connect is integrated within the Canvas platform to administer these assessments. The creation

and management of divisionwide assessments are completed by central office staff. At the secondary levels, all divisionwide assessments were administered through Mastery Connect during 2022-2023. According to the executive director of elementary teaching and learning, the expectations were different at the elementary school level due to utilizing more performance-based tasks and the shift to less computer time at the elementary school level.¹² At the elementary school level, the only mandatory assessments in Mastery Connect were in grade 5 science and social studies. Additional optional unit assessments were made available to teachers by the Department of Teaching and Learning for grades 2 through 5 science and social studies.

In addition, teachers can create classroom assessments within Mastery Connect. There are two item banks in which teachers can access questions to add to their assessments. The first item bank has been utilized by VBCPS for many years, the Certica Navigate Item Bank, and includes a robust repository of high-quality, standards-based items across the core content areas.¹³ The second item bank includes hundreds of items created by the Department of Teaching and Learning. Teachers may also create questions and add them to the VBCPS teacher item bank.

To administer Mastery Connect assessments and view assessment data by standard, a “Mastery Connect Tracker” must be created for each individual Canvas course. In VBCPS, teachers must create Mastery Trackers based on their course-appropriate Curriculum Map created and shared by the Department of Teaching and Learning curriculum coordinators. Curriculum maps are blueprints for courses that include which standards should be assessed throughout the course and provide the common assessments that will be administered during the school year. After teachers link the course-appropriate Curriculum Map, Mastery Trackers can be used to guide course instruction as teachers can view all standards that are the basis of the course. Within a course’s Mastery Tracker, teachers can add an assessment for an individual standard or multiple standards. In addition, when a teacher creates assessments, teachers must identify which standards align with the assessment and/or questions within assessments. All items from the item banks have already been aligned with standards, which will connect with the Mastery Tracker.

As assessments are taken, within the Tracker, teachers can view data regarding each students’ mastery of the standards. According to the director of testing, viewing the data summarized by mastery of the standards is a shift in philosophy from prior years where the data was summarized based on the average performance for individual assessments. Beyond this main homepage view, Mastery Connect has several different reports that can be viewed from within the Mastery Connect Tracker. These reports include reports overall by item and by standard for individual students, courses, and teachers.

All divisionwide assessments must be completed within Mastery Connect. Teachers have the ability to create and administer classroom assessments within Mastery Connect as well. According to the instructional technology team, it is recommended that teachers utilize Mastery Connect for classroom assessments rather than quizzes in Canvas due to the ability to tag standards to items and to see more data from the assessments in Mastery Connect. The instructional technology team noted that it was easier to build quizzes in Canvas than Mastery Connect assessments during the 2022-2023 school year; however, due to adjustments made by Mastery Connect, creating these assessments in Mastery Connect is expected to be more user friendly during the 2023-2024 school year.

Since 2018-2019, VBCPS has contracted with Respondus, which provides teachers the ability to lock down website browsers to ensure that students could not access any outside information during an assessment. This contract has remained in place with the switch to Canvas as the learning management system.

The learning assessment and reporting goal for Canvas is **“Canvas will allow teachers to assess student learning through a variety of methods (e.g., discussion boards, assignments, Canvas Studio, Canvas Quizzes, Mastery Connect assessments).”** Objectives for this goal focused on (1) assessment methods, (2) showing

knowledge, (3) formative feedback, (4) monitoring student progress in Canvas, and (5) monitoring student progress in Mastery Connect.

The assessment methods objective for the learning assessment and reporting goal is **“Teachers will utilize a variety of assessment methods to check for student learning, including discussions, assignments, quizzes, and Mastery Connect assessments as measured by teacher survey responses.”** As shown in Table 9, when surveyed about the use of a variety of assessment methods, higher percentages of secondary teachers (from 77% to 81%) agreed that they utilized a variety of assessment methods to check for student learning elementary school teachers (58%). Similarly, higher percentages of secondary administrators (94% to 100%) agreed than elementary school administrators (85%). Higher percentages of middle school ITSs (94%) agreed that teachers at their school utilized a variety of assessment methods to check for student learning than high school (73%) and elementary school ITSs (67%).

Table 9: Staff Agreement Regarding Teachers Utilizing a Variety of Assessment Methods

Survey Item	Elem	Middle	High	Total
Teachers – In Canvas, I utilize a variety of assessment methods to check for student learning.	58%	81%	77%	67%
ITS – In Canvas, teachers at my school utilize a variety of assessment methods to check for student learning.	67%	94%	73%	77%
Admin – In Canvas, teachers at my school utilize a variety of assessment methods to check for student learning.	85%	100%	94%	91%

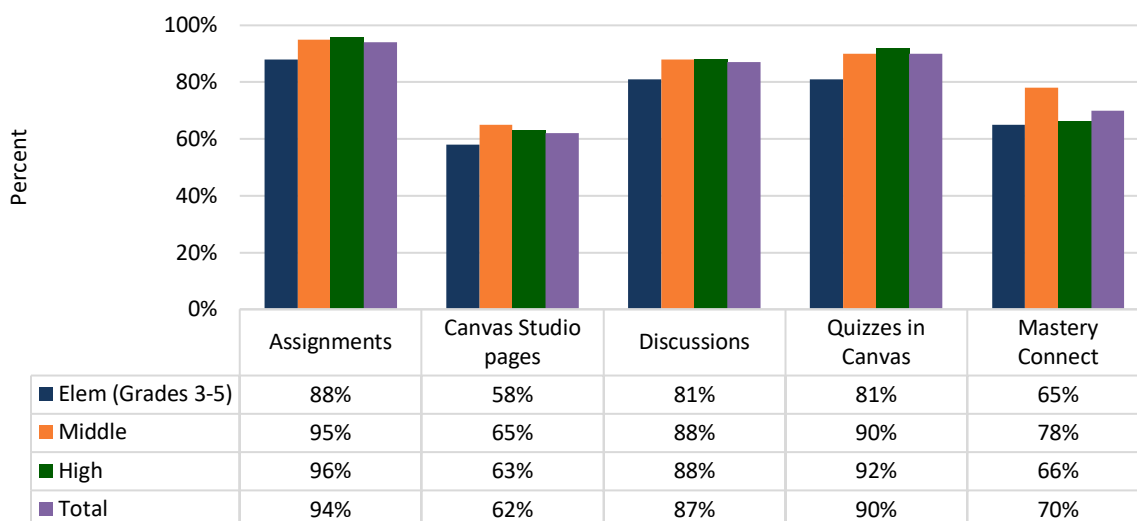
Regarding using various methods to assess or check student learning, the most common method at all levels was assignments in Canvas. Nearly all teachers at all levels (at least 92%) indicated they used assignments in Canvas (see Table 10). From 76 to 79 percent of elementary school and middle school teachers indicated they used Mastery Connect to assess student learning, while 59 percent of high school teachers indicated they had. In addition, from 69 to 78 percent of secondary teachers indicated they used discussions or quizzes in Canvas, while from 50 to 56 percent of elementary school teachers indicated they had. The least used method was Canvas Studio with 26 to 31 percent of teachers at all levels indicating they used Canvas Studio to assess or check student learning.

Table 10: Percentage of Teachers Who Indicated Use of Various Assessment Methods

Teachers – Used the following methods to assess or check student learning:	Elem (Grades 3-5)	Middle	High	Total
Assignments in Canvas	92%	98%	96%	96%
Canvas Studio	31%	28%	26%	28%
Discussions in Canvas	50%	70%	69%	65%
Quizzes in Canvas (e.g., New Quizzes, Classic Quizzes)	56%	78%	75%	72%
Mastery Connect	79%	76%	59%	69%

Regarding the usefulness of these various methods to assess student learning, at least 88 percent of teachers at all levels indicated that assignments were very useful or somewhat useful to assess student learning and/or provide feedback (see Figure 5). In addition, from 81 to 92 percent of teachers at all levels indicated that discussions or quizzes in Canvas were very useful or somewhat useful to assess student learning and/or provide feedback. Although 78 percent of middle school teachers indicated that Mastery Connect was very useful or somewhat useful to assess student learning and/or provide feedback, 65 to 66 percent of elementary school and high school teachers viewed Mastery Connect as useful. From 58 to 65 percent of teachers at all levels indicated that Canvas Studio pages were very useful or somewhat useful.

Figure 5: Percentage of Teachers Who Indicated Various Methods Were Very Useful or Somewhat Useful to Assess Student Learning and/or Provide Feedback



The objective related to students showing their knowledge for the learning assessment and reporting goal is **“Students will be able to show what they know in a variety of ways in Canvas as measured by student survey responses.”** Overall, from 82 to 87 percent of students depending on level agreed that they can show what they know in a variety of ways in Canvas (Table 11).

Table 11: Student Agreement Regarding They Can Show What They Know in A Variety of Ways

Survey Item	Elem (Grades 4-5)	Middle	High	Total
I can show what I know in a variety of ways in Canvas.	86%	87%	82%	85%

The formative feedback objective for the learning assessment and reporting goal is **“Teachers will provide students with formative feedback on discussions, assignments, and quizzes in Canvas as measured by teacher and student responses.”** Higher percentages of secondary staff agreed teachers provided students formative feedback in Canvas and agreed Canvas allowed for an efficient way to provide this feedback compared to elementary school staff. While 75 to 77 percent of secondary teachers agreed that they used Canvas to provide students with formative feedback about their learning, 49 percent of elementary school teachers agreed (see Table 12). In addition, from 75 to 78 percent of secondary teachers agreed that Canvas allowed them to provide students with formative feedback on discussions, assignments, and quizzes in an efficient manner, while 56 percent of elementary school students agreed. Consistent with teachers' responses, higher percentages of ITSs (64% to 73%) and administrators (91% to 97%) at the secondary level agreed that teachers at their school used Canvas to provide students with formative feedback about their learning compared to elementary ITSs (29%) and administrators (80%).

Table 12: Teacher Agreement Regarding Providing Formative Feedback and Canvas Allowing Them to Provide Feedback Efficiently

Survey Item	Elem (Grades 3-5)	Middle	High	Total
I use Canvas to provide students with formative feedback about their learning.	49%	75%	77%	70%
Canvas allows me to provide students with formative feedback on discussions, assignments, and quizzes in an efficient manner.	56%	75%	78%	72%

Further, from 76 to 82 percent of students depending on school level agreed that their teacher gave them feedback on assignments, discussion posts, or quizzes in Canvas. In addition, as shown in Table 13, relatively high percentages of students at each school level indicated that teacher feedback was very useful or somewhat useful in helping them be successful learners (86% to 89%).

Table 13: Student Agreement Regarding Feedback Was Provided and Usefulness for Success in Learning

Survey Item	Elem (Grades 4-5)	Middle	High	Total
My teacher(s) give me feedback on my assignments, discussion posts, or quizzes in Canvas.	76%	82%	80%	80%
Teacher feedback was very useful or somewhat useful for being successful in my learning.	89%	88%	86%	87%

The objective related to monitoring student progress for the learning assessment and reporting goal is **“Teachers will monitor student progress through accessing and analyzing student data on assignments and quizzes in Canvas as measured by teacher survey responses.”** From 73 to 77 percent of secondary teachers indicated that Canvas allowed them to effectively monitor student progress through accessing and analyzing student data on assignments and quizzes in Canvas, while 61 percent of elementary school teachers agreed (see Table 14).

Table 14: Teacher Agreement Regarding Canvas Allowing Effective Student Progress Monitoring

Survey Item	Elem (Grades 3-5)	Middle	High	Total
Canvas allows me to effectively monitor student progress through accessing and analyzing student data on assignments and quizzes in Canvas.	61%	77%	73%	72%

The objective related to monitoring student progress in Mastery Connect for the learning assessment and reporting goal is **“Teachers will monitor student learning on assessments through accessing and analyzing student data in Mastery Connect as measured by teacher survey responses.”** From 52 to 64 percent of teachers at all levels indicated that Mastery Connect allowed them to effectively monitor student learning on assessments through accessing and analyzing student data (see Table 15).

Table 15: Teacher Agreement Regarding Mastery Connect Allowing Effective Student Progress Monitoring

Survey Item	Elem (Grades 3-5)	Middle	High	Total
Mastery Connect allows me to effectively monitor student learning on assessments through accessing and analyzing student data.	52%	64%	55%	57%

Through an open-ended survey item, teachers were given the opportunity to provide comments regarding assessing student learning in Canvas. Most teachers commented about Mastery Connect or the process of grades passing from Canvas to Synergy. Regarding Mastery Connect, teachers commented about Mastery Connect not being user friendly or being confusing or difficult to use in general. Comments also noted that it was difficult to set up assessments and difficult to interpret grades. Several teachers indicated the need for more training on Mastery Connect. In addition, some elementary school teachers noted the inconsistency in the grading scale between Mastery Connect grades and the VBCPS standards-based grading scale. At the secondary level, teachers commented on issues related to syncing grades from Canvas to Synergy. These comments focused on grades not updating correctly, the process being cumbersome and lengthy, and difficulty with or inefficiency of manually updating grades in Synergy.

Data Management and Integration Processes

The second evaluation question focused on the data management and integration processes of Canvas with other systems and the progress made toward meeting the related goal and objectives. For Canvas to work effectively, there are various systems that it needs to integrate with, including the ability to import data to and from the Student Information System (i.e., to initially enroll students and import final grade data). In addition, to aid in providing high-quality instruction, Canvas should integrate with third-party applications and resources allowing teachers the capability of using various educational resources. Due to using Mastery Connect for assessments, it is also important that the transition of assessment data between these two systems is seamless. The data management and integration goal for Canvas is **“Canvas will integrate with other VBCPS platforms to ensure efficiency and accuracy.”** Objectives for this goal focused on (1) student data, (2) secondary grades, (3) third-party integration resources and applications, and (4) Canvas and Mastery Connect.

Canvas and Synergy

For students to have access to course information within Canvas, they must be enrolled in the course. Student registration and all course information are stored within the Student Information System, Synergy. All course information in Canvas was built based on the information within Synergy. Prior to the school year, the Department of Technology works to import student course registration data from Synergy into Canvas. Any adjustments within Synergy sync nightly with Canvas. The student data objective for the data management and integration goal is **“The process of transitioning student data (e.g., course enrollment, student information) from Synergy to Canvas will be efficient and accurate as measured by ITS survey responses.”** While 92 percent of middle school ITSs agreed that the process of transitioning data from Synergy to Canvas is efficient, from 69 to 73 percent of elementary school and high school ITSs agreed. ITSs had more positive perceptions about accuracy with 91 to 100 percent of ITSs at all levels agreeing that the process of transitioning data from Synergy to Canvas was accurate (see Table 16).

Table 16: ITS Agreement Regarding Data Transitioning from Synergy to Canvas Being Efficient and Accurate

Survey Item	Elem	Middle	High	Total
The process of transitioning data (e.g., course enrollment, student information) from Synergy to Canvas is efficient.	69%	92%	73%	77%
The process of transitioning data (e.g., course enrollment, student information) from Synergy to Canvas is accurate.	94%	100%	91%	95%

Note: Any ITS respondents who indicated “No experience with this process” were excluded from the analysis.

The integration between Canvas and Synergy must be bidirectional to allow for student grades to be imported from Canvas into Synergy, which is the gradebook of record. However, this process only occurs at the secondary level due to the use of standards-based grading at the elementary school level. According to the instructional technology team, it was not a requirement for secondary teachers to utilize the grade passback process, although many teachers opted to do so. As previously noted, for grades to import from Canvas to Synergy, teachers must ensure that the assignment type matches within both systems. In addition, within Canvas, there must be a due date for the assignment or quiz and the teacher must select that they would like for the grade to sync to Synergy (i.e., select the sync to SIS checkbox) when creating it. The secondary grades objective for the data management and integration goal is **“The process of passing secondary grades from Canvas to Synergy will be efficient and accurate as measured by secondary teacher and ITS survey responses.”** Overall, 39 percent of secondary teachers and 56 percent of secondary ITSs agreed that passing grades from Canvas to Synergy is efficient and accurate (see Table 17). There was little variation in agreement across the middle school and high school levels for both teachers and ITSs.

Table 17: Staff Agreement Regarding Passing Grades from Canvas to Synergy Being Efficient and Accurate

Survey Item	Middle	High	Total Secondary
Teachers – Passing grades from Canvas to Synergy is efficient and accurate.	38%	39%	39%
ITS – Passing grades from Canvas to Synergy is efficient and accurate.	56%	55%	56%

Note: Any ITS respondents who indicated “No experience with this process” were excluded from the analysis. Although secondary teachers did not have a similar response option, there was a slight decrease in the number of respondents to this item in comparison to other items on the survey.

According to the instructional technology team, teachers experienced some issues when learning the grade passback process during the 2022-2023 school year, including experiencing difficulty when wanting to change a grade and entering grades manually.¹⁴ However, detailed information about the process as well as steps to take were provided to ITSs who could provide the information to teachers.

Canvas and Third-Party Applications

Canvas has the capability to integrate with other applications that provide educational content, such as BrainPOP, CK-12, Discovery Education, Google, and IXL. The integration between Canvas and third-parties relies on Learning Tools Interoperability (LTIs), which allow for web-based applications from different vendors to integrate fully into an LMS, such as Canvas. LTI integrations support individuals not needing to sign in when entering different platforms (i.e., single sign on) and for the data to transfer across applications. The third-party integration resources and applications objective for the data management and integration goal is **“Accessing third-party integration resources and applications within Canvas will be efficient as measured by teacher and ITS survey responses.”**

At the high school level, 91 percent of ITSs agreed that accessing third-party resources (e.g., BrainPOP, CK-12, Discovery Education, Google, IXL) through Canvas was efficient, while from 71 to 75 percent of elementary school and middle school ITSs agreed (see Table 18). When teachers were surveyed, from 60 to 73 percent of teachers agreed that accessing third-party resources through Canvas was efficient.

Table 18: Staff Agreement Regarding Accessing Third-Party Resources Being Efficient

Survey Item	Elem	Middle	High	Total
Teachers – Accessing third-party resources through Canvas is efficient.	60%	73%	66%	67%
ITS – Accessing third-party resources through Canvas is efficient.	75%	71%	91%	77%

Note: Any ITS respondents who indicated “No experience with this process” were excluded from the analysis.

Canvas and Mastery Connect

Student information data, including course enrollment and demographic information, are synced nightly into Mastery Connect from ClassLink. However, there is a delay of a day. In addition, grades from Mastery Connect assessments sync from Mastery Connect into Canvas. Teachers can also indicate if they would like for these assessments to be synced with Synergy, the gradebook of record, through Canvas. In addition, to use Mastery Connect within Canvas, teachers must take several steps, including linking the appropriate Curriculum Map created by the Department of Teaching and Learning with the correct course.¹⁵

The Canvas and Mastery Connect objective for the data management and integration goal is **“The process of transitioning data to and from Canvas and Mastery Connect will be efficient and accurate as measured by ITS responses.”**

When surveyed about data integration between Canvas and Mastery Connect, from 50 to 59 percent of ITSs at all levels indicated that the process of transitioning data to and from Canvas and Mastery Connect is efficient (see Table 19). Higher percentages of ITSs at all levels (from 70% to 81%) indicated that the process is accurate.

Table 19: ITS Agreement Regarding Transitioning Data To and From Canvas and Mastery Connect Being Efficient and Accurate

Survey Item	Elem	Middle	High	Total
The process of transitioning data to and from Canvas and Mastery Connect is efficient.	59%	50%	50%	54%
The process of transitioning data to and from Canvas and Mastery Connect is accurate.	71%	81%	70%	74%

Note: Any ITS respondents who indicated “No experience with this process” were excluded from the analysis.

According to the director of testing, some teachers experienced issues when syncing their Mastery Connect Tracker with the course-appropriate Curriculum Map.¹⁶ Due to these issues, ITSs were directed to work closely with teachers to follow the correct steps to sync the correct Curriculum Maps to their courses. According to the instructional technology team, in October 2022, there was also an issue with demographic data being loaded; however, when working to correct the issue, the connection between Mastery Connect and Canvas was impacted, which resulted in teachers needing to take steps to fix.¹⁷ All appropriate information to fix this issue was provided to teachers.

Through an open-ended survey item, ITSs were given the opportunity to provide comments regarding data management and integration between Canvas and other systems. Several ITSs commented about the challenges with Mastery Connect, including finding the process for building assessments cumbersome and time consuming, difficulty and confusion teachers had with finding and interpreting the data, and the need for more training. Several ITSs also commented on the challenges experienced with grades syncing from Canvas to Synergy, such as teachers having limited capabilities (i.e., when grades are locked) and difficulty with resyncing grades if changes are made in Canvas. Some ITSs further commented on teachers’ hesitation or decision to discontinue use of Mastery Connect and grade syncing as a result of these issues.

Professional Learning and Support

The third evaluation question focused on professional learning and support provided for Canvas and Mastery Connect and the progress made toward meeting the related goals and objectives.

During the summer 2022 Leadership Conference, sessions were held for administrators that provided an overview of Canvas and best practices for using it. In addition, in preparation for the divisionwide implementation of Canvas in 2022-2023, optional professional learning was offered to division staff in June and August 2022 through Camp Canvas, which was a one-day in-person event. Camp Canvas provided many sessions offered by ITSs, teachers, and central office staff on various aspects of using Canvas. Staff attending the event could choose a learning path with suggested sessions based on their grade level and familiarity with the system. Videos covering the information from all Camp Canvas sessions were posted on the VBCPS Instructional Technology Canvas Google site for other staff to access after the conference.¹⁸ School ITSs were primarily responsible for training other school staff on using Canvas beyond the Camp Canvas conference. In addition, the Canvas Best Practices documents created by the Department of Teaching and Learning were expected to be shared with teachers prior to the school year to ensure they were “Day 1 ready.” ITSs and LMSs also participated in monthly professional learning sessions throughout the 2022-2023 school year.¹⁹

There are also various self-guided professional learning opportunities for using Canvas, including videos posted on the Instructional Technology Canvas Google site, the Training Services Portal on the Canvas Help menu, the Canvas YouTube site, and various Canvas professional learning courses offered through Virtual Virginia.

Additional professional learning opportunities were also offered for creating and administering assessments in Mastery Connect. At the elementary school level, professional learning was offered to literacy leaders and math coaches who were primarily responsible for supporting teachers in their use of Mastery Connect.²⁰ In addition, elementary school ITSs were provided professional learning and handouts, which were expected to be provided to teachers for support. At the secondary levels, ITSs, library media specialists, and math and literacy coaches were provided professional learning on Mastery Connect from the Office of Planning, Innovation, and Accountability’s Office of Student Assessment in September through November 2022 on item and assessment creation and how to support teachers and other coaches in the building.²¹ At the secondary level, sessions for secondary teachers were offered on three dates in October and November 2022 that addressed using assessments that have already been created and building new test items and assessments.²² Two additional training dates were offered to secondary teachers in January 2023.²³ Teachers who attended these trainings were expected to share what they learned with colleagues in their departments and/or grade levels. Additional self-paced resources on Mastery Connect were available online: VBCPS Growing with Mastery Connect – Canvas Course, Secondary Quick Reference Guide, and Mastery Connect Help Connect.

In general, ITSs were tasked with showing students how to use Canvas.²⁴ At some schools, ITSs created activities so that students could become familiar with the system. There were also videos that elementary school teachers could show to students to introduce the system at the beginning of the school year. In addition, at some schools, courses available to all students had resources about using Canvas. On the survey, students were asked whether resources were available to help them become familiar with Canvas. From 90 to 92 percent of elementary school and middle school students agreed that resources were available to help them become familiar with Canvas so that they could use it in their classes, while 83 percent of high school students agreed.

The professional learning and support goal for Canvas is “**Professional learning opportunities and support will provide teachers, administrators, and ITSs with the necessary information to utilize Canvas and Mastery Connect.**” Objectives for this goal focused on (1) Canvas professional learning, (2) Canvas support, (3) Mastery Connect professional learning, and (4) Mastery Connect support.

Canvas

The Canvas professional learning objective for the professional learning and support goal is “**Professional learning for Canvas will provide teachers, administrators, and ITSs with the necessary knowledge to use Canvas as measured by staff survey responses.**” At least 88 percent of teachers, ITSs, and administrators at all levels indicated they participated in professional learning on Canvas (see Table 20).

Table 20: Percentages of Staff Who Participated in Professional Learning on Canvas

Group	Elem	Middle	High	Total
Teachers	97%	98%	95%	97%
ITS	92%	100%	100%	96%
Admin	93%	91%	88%	91%

Overall, 73 percent of teachers who participated in professional learning on Canvas indicated that the professional learning provided them with the necessary knowledge to use Canvas in their classroom. As shown in Table 21, higher agreement percentages were found at the secondary level (from 73% to 78%) than at the elementary school level (61%). Nearly all ITSs agreed that the professional learning received on Canvas allowed

them to support the teachers at their school during implementation and from 82 to 86 percent of administrators agreed that the professional learning received on Canvas provided them with the necessary knowledge for their school's Canvas implementation.

Table 21: Staff Agreement Regarding Effective Professional Learning on Canvas

Group and Survey Item	Elem	Middle	High	Total
Teachers – The PL I received on Canvas provided me with the necessary knowledge to use Canvas in my classroom.	61%	73%	78%	73%
ITS – The PL I received on Canvas allowed me to support the teachers at my school during implementation.	100%	94%	100%	98%
Admin – The PL I received on Canvas provided me with the necessary knowledge for my school's Canvas implementation.	86%	84%	82%	84%

The Canvas support objective for the professional learning and support goal is **“Canvas 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.”** When surveyed about the support they received related to Canvas, at least 75 percent of teachers at all levels indicated that the help they received was available, resources were helpful, and there was a timely resolution of the issues (see Table 22). In addition, at least 90 percent of administrators and ITSs at all levels agreed with these items.

Table 22: Teacher Agreement Regarding Receiving Effective Canvas Support

School Level	Help Available			Resources Helpful			Timely Resolution of Issues		
	Teacher (Grades 3-5)	Admin	ITS	Teacher (Grades 3-5)	Admin	ITS	Teacher (Grades 3-5)	Admin	ITS
Elementary	78%	95%	100%	75%	95%	100%	76%	100%	100%
Middle	85%	97%	100%	82%	93%	100%	83%	93%	100%
High	90%	91%	100%	87%	93%	90%	86%	95%	100%
Total	86%	94%	100%	82%	94%	98%	83%	97%	100%

Note: These percentages exclude staff who reported the question was not applicable.

When teachers were surveyed about the training or support they used to learn about Canvas, the highest percentage of teachers at all levels indicated that they used ITS or LMS support (from 63% to 69%) (see Table 23). In addition, approximately half of teachers indicated they used the Canvas Page on the VBCPS Instructional Technology Google site (from 47% to 54%). From 20 to 35 percent of teachers, depending on level, indicated they used Camp Canvas, Canvas Quick Guides, or the VBCPS Canvas YouTube Playlists. Lower percentages indicated they used tools on the Canvas Help Menu or Panda Pros. From 8 to 11 percent of teachers depending on level indicated they did not use any of the listed resources for Canvas training or support.

Table 23: Percentage of Teachers Who Indicated Using Various Canvas Trainings or Supports

Used for Canvas training or support	Teachers			
	Elem (Grades 3-5)	Middle	High	Total
ITS/LMS Support	69%	63%	67%	67%
Canvas Page – Instructional Technology Google Site	47%	51%	54%	51%
Canvas Quick Guides	28%	29%	34%	31%
Camp Canvas	35%	30%	28%	30%
VBCPS Canvas YouTube Playlists	20%	22%	28%	24%
Training Services Portal (Canvas Help Menu)	10%	9%	9%	9%
Canvas Support 7 days/365 (Canvas Help Menu)	4%	7%	4%	5%
Panda Pros	3%	3%	3%	3%
None of the above	8%	11%	8%	9%

When ITSs were surveyed about the training or support they used for Canvas, at least 64 percent of ITSs at all levels indicated they used the Canvas Page on the Instructional Technology Google Site, Camp Canvas, and the Canvas Quick Guides (see Table 24). Nearly half or more of ITSs at all levels indicated they used the VBCPS Canvas YouTube Playlists and other ITS/LMS support. In addition, 64 percent of high school ITSs indicated they used the training services portal on the Canvas Help Menu. Similar to teachers, lower percentages of ITSs indicated having used the Canvas Support through the Canvas Help Menu or Panda Pros. No ITSs at the elementary school and high school levels indicated they used none of the resources, while 6 percent of the middle school ITSs did. For administrators, the majority indicated that they used ITS or LMS support (from 73% to 84%). From 39 to 47 percent depending on level indicated they used the Canvas Page on the Instructional Technology Google site. Lower percentages of administrators indicated they used the other resources, while from 4 to 12 percent indicated they did not use any resources.

Table 24: Percentage of Staff Who Indicated Using Various Canvas Trainings or Supports

Used for Canvas training or support	ITS				Admin			
	Elem	Middle	High	Total	Elem	Middle	High	Total
ITS/LMS Support	72%	72%	45%	67%	84%	76%	73%	78%
Canvas Page – Instructional Technology Google Site	84%	83%	73%	81%	47%	39%	39%	43%
Canvas Quick Guides	68%	89%	73%	76%	30%	21%	35%	30%
Camp Canvas	76%	83%	64%	76%	30%	18%	20%	24%
VBCPS Canvas YouTube Playlists	52%	50%	45%	50%	5%	12%	8%	8%
Training Services Portal (Canvas Help Menu)	24%	44%	64%	39%	8%	0%	6%	6%
Canvas Support 7 days/365 (Canvas Help Menu)	24%	33%	45%	31%	3%	6%	0%	3%
Panda Pros	20%	11%	9%	15%	1%	0%	8%	3%
None of the above	0%	6%	0%	2%	4%	12%	10%	8%

Mastery Connect

The Mastery Connect professional learning objective for the professional learning and support goal is **“Professional learning for Mastery Connect will provide teachers with the necessary knowledge to use Mastery Connect as measured by teacher survey responses.”** When surveyed about professional learning related to Mastery Connect, from 80 to 89 percent of elementary school and middle school teachers indicated they participated in professional learning, while 68 percent of high school teachers indicated they did (see Table 25). Nearly all ITSs indicated they participated in professional learning on Mastery Connect and from 73 to 85 percent of administrators indicated they did.

Table 25: Percentages of Staff Who Participated in Professional Learning on Mastery Connect

Group	Elem	Middle	High	Total
Teachers	89%	80%	68%	76%
ITS	96%	100%	100%	98%
Admin	77%	85%	73%	77%

When surveyed on the effectiveness of the professional learning received, from 49 to 56 percent of teachers depending on level who participated in professional learning agreed that the professional learning provided them with the necessary knowledge to use Mastery Connect in their classroom (see Table 26). In addition, from 60 to 87 percent of ITSs agreed that the professional learning they received allowed them to support the teachers at their school during implementation. From 59 to 70 percent of administrators agreed that the

professional learning they received on Mastery Connect provided them with the necessary knowledge for their school's Canvas implementation.

Table 26: Staff Agreement Regarding Effective Professional Learning on Mastery Connect

Survey Item	Elem	Middle	High	Total
Teachers – The PL I received on Mastery Connect provided me with the necessary knowledge to use Mastery Connect in my classroom.	49%	56%	51%	52%
ITS – The PL I received on Mastery Connect allowed me to support the teachers at my school during implementation.	87%	71%	60%	76%
Admin – The PL I received on Mastery Connect provided me with the necessary knowledge for my school's Canvas implementation.	69%	70%	59%	66%

The Mastery Connect support objective for the professional learning and support goal is **“Mastery Connect 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.”** When surveyed about the support received related to Mastery Connect, from 60 to 72 percent of teachers at all levels agreed that the help was available, that resources were helpful, and there was a timely resolution of the issues (see Table 27). In addition, from 68 to 83 percent of administrators at all levels agreed with similar items with the exception of high school administrators who had 90 percent agreement that help was available. At least 75 percent of ITSs at all levels agreed with similar items regarding support for Mastery Connect with lower agreement at the middle school level. Overall, teachers were notably less positive than ITSs and administrators about the support received for Mastery Connect.

Table 27: Teacher Agreement Regarding Receiving Effective Mastery Connect Support

School Level	Help Available			Resources Helpful			Timely Resolution of Issues		
	Teacher (Grades 3-5)	Admin	ITS	Teacher (Grades 3-5)	Admin	ITS	Teacher (Grades 3-5)	Admin	ITS
Elementary	65%	81%	91%	60%	77%	95%	63%	83%	100%
Middle	72%	70%	75%	67%	70%	81%	68%	68%	75%
High	70%	90%	90%	64%	72%	90%	63%	81%	80%
Total	69%	81%	85%	64%	74%	90%	65%	79%	87%

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

Through an open-ended survey item, teachers, administrators, and ITSs were provided the opportunity to provide comments regarding professional learning and support. While some teachers commented on the strength of their school team in providing learning or support for Canvas, other teachers indicated that the professional learning or support they received was not helpful. Administrators also noted the strength of their school's team. Teachers and administrators also indicated the need for more professional learning on Canvas and Mastery Connect. ITSs also highlighted the need for more training specifically on Mastery Connect. Some teachers also noted that the professional learning was satisfactory, but they still generally had difficulty with the program.

Parent Access and Communication

The fourth evaluation question focused on the status of parent access to Canvas and communication using Canvas. Currently, parents can access their children's course information in a Canvas account through ParentVue. Parents can view information in Canvas as an observer, including modules, assignments, and assessments. Due to the potential of being able to view another student's work, parents are unable to view

discussion boards. According to the instructional technology team, there is a connection issue between ParentVue and Canvas when parents attempt to access Canvas using the phone application. The alternative for parents is to utilize a web browser on their phone to access Canvas through ParentVue. Although attempts were made by the Student Information System company, Synergy, to correct the connection issue with the phone application, it will likely not be fixed. Detailed information for parents and the community regarding the Canvas system and how to access Canvas through the web browser were posted to the VBSchools.com website in August 2023.

When surveyed, overall, 73 percent of parents of students in grades 3 through 12 indicated they were aware that they could access their child's Canvas account and related course information through ParentVue. Higher percentages of secondary parents (79% at MS, 76% at HS) indicated they were aware than parents of students in grades 3 through 5 (64%).

Of parents who were aware, approximately 62 percent indicated that they accessed their child's Canvas account through ParentVue. Again, slightly higher percentages of secondary parents (67% at MS, 64% at HS) indicated they accessed their child's account than parents of students in grades 3 through 5 (54%). When surveyed about the usefulness of accessing Canvas, 91 percent of parents who accessed their child's Canvas account indicated that accessing the information was very or somewhat useful with little variation by school level (see Table 28).

Table 28: Percentages of Parents Who Were Aware of Canvas Access, Accessed Canvas, and Agreed Access Was Useful

Survey Item	Elem (Grades 3-5)	Middle	High	Total
Aware could access child's Canvas account and related course information through ParentVue.	64%	79%	76%	73%
Accessed child's Canvas account through ParentVue.	54%	67%	64%	62%
Accessing child's course information or work in Canvas was very or somewhat useful.	89%	90%	92%	91%

Of those parents who accessed their child's Canvas account, from 77 to 87 percent depending on level agreed that the information in Canvas was easily accessible for them. As shown in Table 29, similarly high percentages of parents also agreed that accessing Canvas helped them understand what their child was working on in school (from 79% to 83%).

Table 29: Parent Agreement Regarding Accessing Canvas

Survey Item	Elem (Grades 3-5)	Middle	High	Total
Information in Canvas is easily accessible for me.	87%	77%	82%	81%
Accessing Canvas has helped me understand what my child is working on in school.	81%	79%	82%	81%

Through an open-ended survey item, parents were provided the opportunity to provide comments related to Canvas in general. Several parents commented about it being cumbersome or difficult to access, including the issues related to not being able to access it through a mobile device. Parents also commented that it was difficult to navigate the system or confusing to find the information they wanted, such as grades or missing assignments. Some parents also noted that they felt they had a limited view of information compared to what their children can see, such as assignment work, and they often received a message that they do not have access. In addition, parents commented that there was additional difficulty because teachers used the system differently with different layouts, which lead to challenges for them finding information.

Initial Progress Toward Meeting Outcome Goals and Objectives

The fifth evaluation question focused on initial progress made toward meeting the outcome goals and objectives. The outcome goals for Canvas are related to Canvas promoting communication and collaboration as well as supporting student-centered practices.

Goal 1: Canvas will promote communication and collaboration amongst teachers and between teachers and students.

A benefit of an LMS includes the ability to connect and communicate with others. Canvas allows teachers and students to communicate with each other through messaging and feedback on assignments. Canvas also allows teachers to connect, communicate, and collaborate within and across schools as well as with a broader online community. Canvas offers Canvas Commons, which is a learning objective repository where teachers can store course content for their own use and for collaboration with colleagues both within and outside the division.

Objective 1: Canvas will help facilitate the communication between teachers and students through messaging and assignment feedback as measured by staff and student survey responses.

The majority of middle and high school teachers, students, and other staff agreed that Canvas helped facilitate communication, while there were lower percentages of agreement at elementary schools. When surveyed, from 71 to 72 percent of secondary teachers indicated that Canvas has helped facilitate their communication with students through messaging and assignment feedback, whereas 38 percent of grades 3 through 5 elementary school teachers agreed (see Table 30). Similarly, from 80 to 85 percent of secondary students indicated that Canvas helped them communicate with their teachers through messaging and assignment feedback, while 59 percent of fourth- and fifth-grade elementary school students agreed. A similar pattern of results was found for ITSs (from 80% to 88% for secondary and 38% for elementary) and administrators (from 89% to 93% for secondary and 80% for elementary).

Table 30: Staff and Student Agreement Regarding Canvas Facilitating Communication Between Students and Teachers

Survey Group and Item	Elem	Middle	High	Total
Teachers – Canvas has helped facilitate my communication with students through messaging and assignment feedback.	38%	71%	72%	65%
Students – Canvas helps me communicate with my teachers through messaging and assignment feedback.	59%	85%	80%	76%
ITS – Canvas has helped facilitate communication between teachers and students through messaging and assignment feedback.	38%	88%	80%	65%
Admin – Canvas has helped facilitate communication between teachers and students at my school through messaging and assignment feedback.	80%	93%	89%	86%

Objective 2: Canvas will help facilitate the collaboration between teachers as measured by teacher survey responses.

Regarding collaboration with other teachers, as shown in Table 31, relatively low percentages of teachers across all school levels agreed that Canvas helped facilitate their collaboration with other teachers (from 41% to 57%). However, from 80 to 88 percent of secondary ITSs and from 84 to 90 percent of secondary administrators agreed that Canvas has helped facilitate collaboration between teachers at their school and from 64 to 68 percent of elementary school ITSs and administrators agreed.

Table 31: Staff Agreement Regarding Canvas Facilitating Collaboration Between Teachers

Survey Group and Item	Elem	Middle	High	Total
Teachers – Canvas has helped facilitate my collaboration with other teachers.	41%	57%	50%	51%
ITS – Canvas has helped facilitate collaboration between teachers at my school.	64%	88%	80%	76%
Admin – Canvas has helped facilitate collaboration between teachers at my school.	68%	90%	84%	78%

Goal 2: Canvas will support student-centered practices that foster student agency and student engagement.

Another potential benefit of an LMS includes the ability to support educational practices that are student centered. As noted in the VBCPS Canvas Best Practices documents, “As we progress in using a learning management system, course instructors should consider designing student-centered experiences that blend active and engaged learning both online and offline. Blended learning strategies support increased student agency concerning time, place, path, and pace and allow for alternate methods to assess mastery.”²⁵ Therefore, it is the hope that teachers will utilize Canvas to design student-centered experiences that blend active and engaged learning.

Objective 1: Using Canvas will allow students to make choices about their learning as measured by student survey responses.

From 73 to 78 percent of students at all levels agreed that using Canvas allowed them to make choices about their learning (see Table 32).

Table 32: Student Agreement Regarding Canvas Allowing Them to Make Choices About Learning

Survey Item	Elem (Grades 4-5)	Middle	High	Total
Using Canvas allows me to make choices about my learning.	78%	78%	73%	76%

Objective 2: Using Canvas will help students monitor their learning as measured by student survey responses.

From 75 to 81 percent of students at all levels agreed that using Canvas helped them monitor their learning progress (see Table 33).

Table 33: Student Agreement Regarding Canvas Helping Them Monitor Learning Progress

Survey Item	Elem (Grades 4-5)	Middle	High	Total
Using Canvas helps me monitor my learning progress.	77%	81%	75%	78%

Objective 3: Using Canvas will help encourage students to think creatively as measured by student survey responses.

Somewhat lower percentages of students at all levels agreed that using Canvas helped encourage them to think creatively, with 66 to 71 percent of students at all levels agreeing (see Table 34).

Table 34: Student Agreement Regarding Canvas Helping Encourage Them to Think Creatively

Survey Item	Elem (Grades 4-5)	Middle	High	Total
Using Canvas helps encourage me to think creatively.	71%	71%	66%	69%

Objective 4: Canvas supports teachers providing student-centered practices as measured by teacher survey responses.

When teachers were surveyed, overall 71 percent agreed that Canvas helped them provide instruction using student-centered practices. As shown in Table 35, higher percentages of secondary teachers agreed (from 73% to 74%) than elementary school teachers (61%).

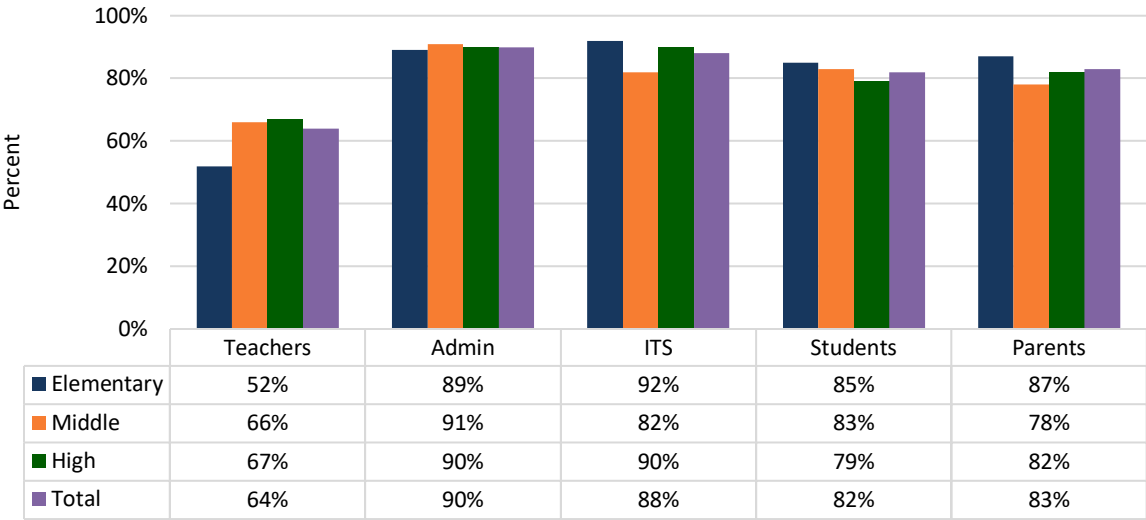
Table 35: Teacher Agreement Regarding Canvas Helping Provide Student-Center Practices

Survey Item	Elem (Grades 3-5)	Middle	High	Total
Canvas has helped me provide instruction using student-centered practices.	61%	74%	73%	71%

Stakeholder Satisfaction and Program Strengths and Areas for Improvement

The sixth evaluation question focused on stakeholder satisfaction and areas of strength and improvement. When surveyed about satisfaction with Canvas, across all levels, at least 89 percent of administrators, 82 percent of ITSs, 79 percent of students, and 78 percent of parents indicated they were satisfied with Canvas (see Figure 6). Lower percentages of teachers indicated they were satisfied (66% to 67% of secondary teachers and 52% of elementary school teachers reported being satisfied). During the first year of Schoology implementation, there was a similar pattern of lower teacher satisfaction at the elementary school level, although the percentages of teachers who were satisfied was higher (71% to 81% depending on school level). Satisfaction will continue to be monitored during the second year of the Canvas evaluation and may increase as teachers become more familiar with the LMS. There were improvements in teacher satisfaction in the second year of Schoology implementation (at least 10 percentage points at all levels).

Figure 6: Staff, Student, and Parent Satisfaction



Through open-ended survey items, teachers, administrators, and ITSs were provided the opportunity to provide comments regarding what worked well and what could be improved. Themes from teachers regarding what worked well included various aspects of the system, including the modules within the courses and providing students with various resources, materials, assignments, and quizzes. Some teachers noted that they liked the ease of use, while others generally commented about their dislike of the system.

Themes regarding improvements from teachers focused on the Canvas system itself, including the platform not being user friendly, taking too many clicks or steps to complete processes, and being too time consuming.

In addition, teachers commented on the need for more organization within the platform, such as the use of folders within modules. Teachers also commented on the need for additional training, the need for additional time to learn the system, or that the implementation occurred too quickly. Some teachers also commented about Mastery Connect, including experiencing general difficulty with the system or regarding specific issues with the functionality, such as not allowing for multiple attempts or not being able to print assessments.

Additional Cost

The final evaluation question focused on the cost to VBCPS for implementation of Canvas during 2022-2023 as well as the expenses not incurred by VBCPS due to the state providing access to Canvas for all Virginia school divisions free of cost for five years. A comparison of the Canvas-related costs and the expenses not incurred by VBCPS that would have been incurred if Canvas had not been adopted resulted in a cost savings for the school division. Cost data were collected from the departments of Teaching and Learning, Technology, and Budget and Finance as well as the Office of Planning, Innovation, and Accountability. Costs for 2022-2023 related to Canvas were totaled for the following areas: subscription fees/student licenses for Mastery Connect, the Respondus assessment lockdown browser, and teacher access to Schoology to transfer materials. In addition, approximated savings were totaled to include the cost of subscription fees/student licenses for Schoology in 2021-2022 as well as the Certica item bank, which is included in the total cost of Mastery Connect in 2022-2023. Table 36 summarizes the costs and savings.

Table 36: Cost and Savings for Canvas in 2022-2023

Items	Expenses Not Incurred in 2022-2023 (Savings)	Costs in 2022-2023
Canvas LMS Subscription fee/student license		\$0
Schoology Subscription fee/student license	\$417,520.00*	\$0
Certica item bank	\$182,594.00**	Included with Mastery Connect
Mastery Connect Subscription fee/student license		\$337,212.00
Respondus (lockdown browser)		\$9,295.00
Schoology teacher access to curriculum materials		\$44,520.00
Total	\$600,114.00	\$391,027.00
Savings for VBCPS	\$209,087.00	

* The total included under savings for the Schoology subscription fee/student license was the total cost for Schoology and the assessment management platform (AMP) for the 2021-2022 school year which VBCPS did not pay during 2022-2023.

**The Certica item bank was included in the cost for the Mastery Connect subscription fee/student licenses in 2022-2023.

For the 2022-2023 school year, the total cost for the subscription of Mastery Connect was \$337,212, which included the item bank. The Respondus lockdown browser, which ensures that website browsers were locked down during testing, totaled \$9,295. Additionally, a license with Schoology was maintained during the 2022-2023 school year to ensure that teachers could transfer their curriculum materials which totaled \$44,520. Although there was professional learning provided through Camp Canvas, the costs related to this event were not considered additional costs to the division due to summer professional learning being provided every year by the instructional technology team. The focus of the professional learning during the event may be adjusted each year and was focused on Canvas in summer 2022.

Expenses not incurred by VBCPS due to utilizing Canvas during 2022-2023 included the total cost for the subscription of Schoology and AMP (estimated at \$417,520) as well as the total for the Certica item bank (\$182,594), which is now included in the cost for Mastery Connect. Therefore, although the cost to the school division was \$391,074, there was an estimated savings of \$600,114. This resulted in a net savings of \$209,087

during the 2022-2023 fiscal year for a learning management system and assessment platform due to VDOE providing Canvas for school divisions.

Summary

Canvas is an LMS adopted by the VDOE in 2020-2021 to deliver educational content to students online. VDOE offered to provide the Canvas LMS for all Virginia school divisions free of cost for five years. Canvas provides an application for interacting with and accessing instructional content. In conjunction with Canvas, Mastery Connect provides an application for assessing student learning in a variety of ways. VBCPS began a pilot of Canvas with seven schools during the 2021-2022 school year, and all schools were expected to use Canvas during the 2022-2023 school year with grades 3 through 12. Goals for the Canvas implementation focused on instructional material creation and course delivery, learning assessment and reporting, data management and integration, professional learning, communication and collaboration, and student agency and engagement.

The goal for instructional material creation and course delivery included objectives related to accessing division-created content, content design and storage, providing a variety of learning activities, and use of third-party resources and applications. To support school-based instructional staff with high-quality curricula, the Department of Teaching and Learning curriculum coordinators provided instructional resources through Google docs. These division resources may also be shared with teachers through Professional Learning Community (PLC) courses within Canvas. Regarding accessing these division resources, higher percentages of elementary school (85%) and middle school teachers (71%) indicated they used division-created instructional content for their Canvas course(s) than high school teachers (59%).

An LMS provides the ability to house and manage educational curricula and course content, which can include assignments, discussion boards, embedded content, pages, and third-party integrated resources and applications. Regarding designing and storing content in their courses, most elementary school teachers indicated they designed and stored content in one or more of their published courses (83%), while most secondary teachers indicated they designed and stored content in all of their published courses (89% at MS, 86% at HS). When surveyed about using Canvas to provide a variety of learning activities for their students, 64 percent of elementary school teachers and from 85 to 86 percent of secondary teachers agreed. In addition, regarding use of third-party integrated resources and applications for instructional content, 68 to 69 percent of elementary school and high school teachers indicated they used third-party resources in Canvas for students to interact with instructional content, while 84 percent of middle school teachers indicated they did.

Canvas offers the ability to monitor student learning through a variety of assessment methods, including discussion boards, assignments, Canvas Studio, and Canvas quizzes. In addition, although Canvas does not offer a way to administer divisionwide assessments with the platform itself, Mastery Connect was purchased by VBCPS to be integrated within Canvas to offer the ability to administer divisionwide assessments. Regarding the student learning assessment and reporting goal, objectives focused on assessment methods, students having the ability to show their knowledge in Canvas, formative feedback, monitoring student progress in Canvas, and monitoring student progress in Mastery Connect. When surveyed about the use of a variety of assessment methods, higher percentages of secondary teachers (from 77% to 81%) agreed that they utilized a variety of assessment methods to check for student learning elementary school teachers (58%). In addition, overall, from 82 to 87 percent of students depending on the school level agreed that they can show what they know in a variety of ways in Canvas. Regarding the ability to provide formative feedback, the majority of secondary teachers agreed that they used Canvas to provide students with formative feedback about their learning (75% to 77%), while 49 percent of elementary school teachers agreed. When surveyed about monitoring student progress, from 73 to 77 percent of secondary teachers indicated that Canvas allowed them to effectively monitor student progress through accessing and analyzing student data on assignments and

quizzes in Canvas, while 61 percent of elementary school students agreed. In addition, from 52 to 64 percent of teachers at all levels indicated that Mastery Connect allowed them to effectively monitor student learning on assessments through accessing and analyzing student data.

For Canvas to work effectively, there are various systems that it needs to integrate with, including the ability to import data to and from the Student Information System (i.e., to initially enroll students and import final grade data), third-party applications, and the assessment platform, Mastery Connect. Overall, staff were more likely to agree that the integration with various systems was accurate than efficient, but in terms of passing grades from Canvas to Synergy, relatively low percentages agreed that the integration was efficient or accurate. Overall, from 91 to 100 percent of ITSs at all levels agreed that the process of transitioning data from Synergy to Canvas is accurate, while from 69 to 73 percent of elementary school and high school ITSs agreed that the process of transitioning data from Synergy to Canvas is efficient with the exception of middle school ITSs (92%). Similarly, from 70 to 81 percent of ITSs agreed that the transition process between Canvas and Mastery Connect is accurate, while 50 to 59 percent of ITSs at all levels indicated that the process is efficient. As noted, low percentages of secondary ITSs and teachers (39% to 56%) agreed regarding the syncing from Canvas to Synergy is efficient and accurate. Regarding the efficiency of accessing third-party resources, from 60 to 73 percent of teachers and from 71 to 91 percent of ITSs agreed.

Currently, parents can access their children's course information in Canvas through their ParentVue account. Parents can view information in Canvas as an observer, including modules, assignments, and assessments. When surveyed, overall, higher percentages of secondary parents (79% at MS, 76% at HS) indicated they were aware that they could access their child's Canvas account and related course information through ParentVue than parents of students in grades 3 through 5 (64%). Of parents who were aware, 67 percent of middle school parents and 64 percent of high school parents indicated they accessed their child's account compared to 54 percent of parents of students in grades 3 through 5. When surveyed about the usefulness, from 89 to 92 percent of parents who accessed their child's Canvas account indicated that accessing the information was very or somewhat useful.

Although the focus of the current evaluation was on implementation-related goals, baseline data for outcome goals related to communication and collaboration as well as supporting student-centered practices were analyzed to provide preliminary results. Results showed that perceptions about using Canvas for communication between teachers and students were more positive than perceptions about collaboration among teachers themselves. In addition, perceptions were notably higher at the secondary level than the elementary school level. Regarding communication between teachers and students, from 71 to 72 percent of secondary teachers indicated that Canvas has helped facilitate their communication with students through messaging and assignment feedback, whereas 38 percent of elementary school teachers agreed. Similarly, from 80 to 85 percent of secondary students indicated that Canvas helped them communicate with their teachers through messaging and assignment feedback, while 59 percent of elementary school students agreed. Regarding collaboration with other teachers, relatively low percentages of teachers across all levels agreed that Canvas helped facilitate their collaboration with other teachers (from 41% to 57%).

When students were surveyed about Canvas helping support student-centered practices, from 66 to 81 percent of students at all levels agreed that Canvas allowed them to make choices about their learning, helped them monitor their learning progress, and helped encourage them to think creatively. Overall, there were higher agreement percentages for elementary school and middle school students than high school students. When teachers were surveyed, higher percentages of secondary teachers (from 73% to 74%) agreed that Canvas helped them provide instruction using student-centered practices compared to elementary school teachers (61%).

As an overall measure of how the implementation of Canvas was perceived, stakeholders were asked about their level of satisfaction with Canvas. Across all school levels, at least 89 percent of administrators, 82 percent of ITSs, 79 percent of students, and 78 percent of parents indicated they were satisfied with Canvas. Lower percentages of teachers indicated they were satisfied with 66 to 67 percent of secondary teachers and 52 percent of elementary school teachers reporting that they were satisfied. In response to an open-ended question about areas for improvement, teachers commented about the Canvas system, including the platform not being user friendly, taking too many clicks or steps to complete processes, and being too time consuming. In addition, teachers commented on the need for more organization within the platform, such as the use of folders within modules. Teachers also commented on the need for additional training, the need for additional time to learn the system, or that the implementation occurred too quickly.

In 2022-2023, the cost to the school division for the implementation of Canvas, including an assessment platform, was \$391,027. However, there was an estimated savings of \$600,114 due to costs *not* incurred as a result of adopting Canvas. This resulted in a net savings of \$209,087 to VBCPS during the 2022-2023 fiscal year for a learning management system and assessment platform due to VDOE providing Canvas for school divisions.

The recommendations included continuing Canvas with modifications; exploring further the reasons for lower teacher satisfaction with Canvas, especially at the elementary school level, to identify potential solutions; ensuring professional learning opportunities and support on utilizing Mastery Connect are provided for classroom teachers to have the necessary knowledge to use Mastery Connect in their classrooms; and disseminate resolutions to secondary classroom teachers for commonly experienced issues with the grade passback process between Canvas and Synergy to ensure the process is efficient and accurate for teachers.

Recommendations and Rationale

Recommendation #1: Continue Canvas with modifications noted in recommendations 2 through 4. (Responsible Group: Department of Teaching and Learning)

Rationale: The first recommendation is to continue Canvas with modifications noted in the recommendations below. Based on School Board Policy 6-26, following an evaluation, a recommendation must be made to continue the initiative without modifications, continue the initiative with modifications, expand the initiative, or discontinue the initiative.

Recommendation #2: Explore further the reasons for lower satisfaction rates with Canvas among teachers, especially at the elementary school level, to identify potential solutions. (Responsible Group: Department of Teaching and Learning; Office of Planning, Innovation, and Accountability)

Rationale: The second recommendation is to explore further the reasons for lower satisfaction rates with Canvas among teachers compared to the other groups, especially at the elementary school level, to identify potential solutions. When surveyed about their overall level of satisfaction with Canvas, of those who indicated they used Canvas during 2022-2023, 52 percent of grades 3 through 5 teachers, 66 percent of middle school teachers, and 67 percent of high school teachers indicated that they were satisfied. In response to an open-ended question about areas for improvement, teachers commented about the Canvas system, including the platform not being user friendly, taking too many clicks or steps to complete processes, and being too time consuming. In addition, teachers commented on the need for more organization within the platform, such as the use of folders within modules. Teachers also commented on the need for additional training, the need for additional time to learn the system, or that the implementation occurred too quickly. Throughout the second year of the evaluation, teacher satisfaction with Canvas will continue to be investigated to identify potential solutions. Additional data collection will also allow for a determination of whether these findings may have been a result of the first year of implementation and teachers needed additional time to become familiar with the LMS.

Recommendation #3: Ensure professional learning opportunities and support on utilizing Mastery Connect are provided for classroom teachers to have the necessary knowledge to use Mastery Connect in their classrooms. (Responsible Group: Department of Teaching and Learning; Office of Planning, Innovation, and Accountability)

Rationale: The third recommendation is to ensure professional learning opportunities on utilizing Mastery Connect are offered and that they provide classroom teachers with the necessary knowledge to use Mastery Connect in their classrooms. When teachers were surveyed on the effectiveness of the professional learning received on Mastery Connect, from 49 to 56 percent of teachers who participated in professional learning depending on school level agreed that the professional learning provided them with the necessary knowledge to use Mastery Connect in their classroom. When surveyed about the support received related to Mastery Connect, from 60 to 72 percent of teachers at all levels agreed that the help was available, that resources were helpful, and there was a timely resolution of the issues. In addition, from 52 to 64 percent of teachers at all levels indicated that Mastery Connect allowed them to effectively monitor student learning on assessments through accessing and analyzing student data. In response to an open-ended survey item about assessing student learning in Canvas, several teachers commented about Mastery Connect not being user friendly or being confusing or difficult to use in general. Comments also noted that it was difficult to set up assessments and difficult to interpret grades. Several teachers indicated the need for more training on Mastery Connect. In

addition, in response to an open-ended survey item about data management and integration between Canvas and other systems, several ITSs commented about the challenges with Mastery Connect, including the cumbersome and timely process for building assessments, difficulty and confusion teachers had with finding and interpreting the data, and the need for more training.

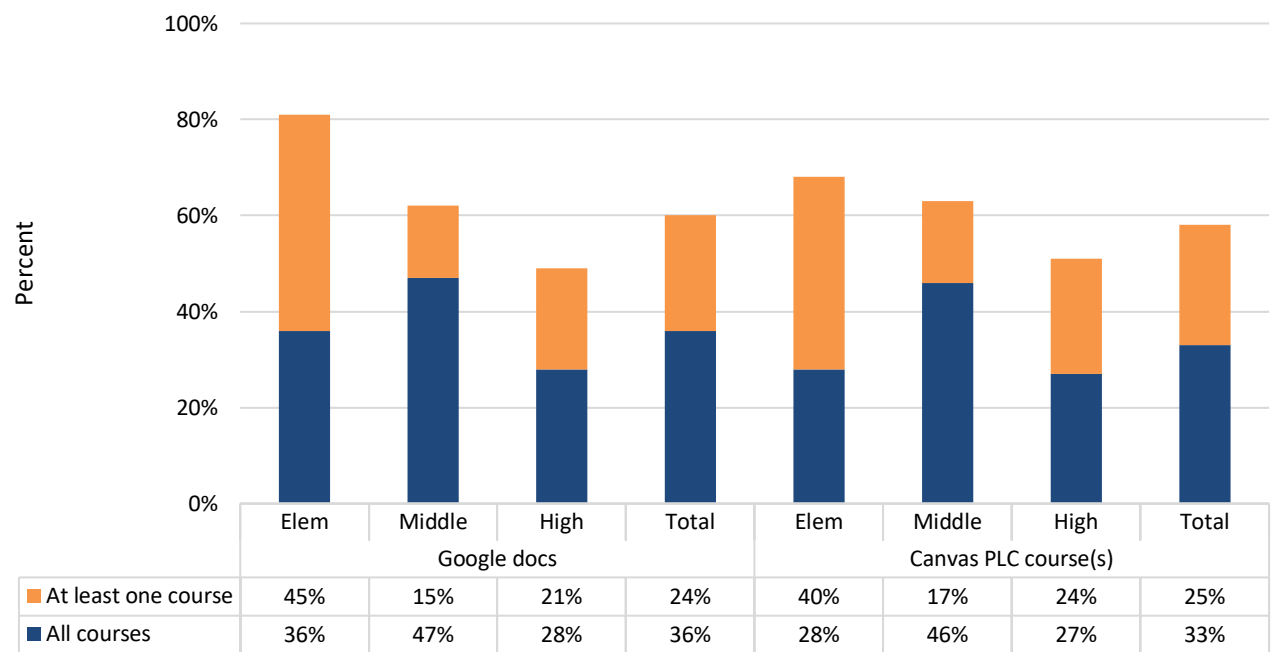
Recommendation #4: Develop a communication plan for disseminating resolutions to secondary classroom teachers for commonly experienced issues with the grade passback process between Canvas and Synergy to ensure the process is efficient and accurate for teachers. (*Responsible Group: Department of Teaching and Learning*)

Rationale: The fourth recommendation is to develop a communication plan for disseminating resolutions to secondary classroom teachers for commonly experienced issues with the grade passback process between Canvas and Synergy to ensure the process is efficient and accurate for teachers. Overall, 39 percent of secondary teachers and 56 percent of secondary ITSs agreed that passing grades from Canvas to Synergy is efficient and accurate. In response to open-ended questions about assessing student learning in Canvas, several secondary teachers commented on issues related to syncing grades from Canvas to Synergy. These comments focused on grades not updating correctly, the process being cumbersome and lengthy, and difficulty with or the inefficiency of manually updating grades in Synergy. In addition, in response to an open-ended survey item about data management and integration between Canvas and other systems, several ITSs commented on the challenges experienced with grades syncing from Canvas to Synergy, such as teachers having limited capabilities (i.e., when grades are locked) and difficulty with resyncing grades if changes are made in Canvas. According to the instructional technology team, although some issues were experienced during the 2022-2023 school year with difficulty making changes to grades after syncing (within Canvas and/or Synergy) and manually updating grades in Synergy, detailed instructions were created for teachers about the process and steps to take.

Appendices

Appendix A

Percentage of Teachers Who Indicated Use of Division-Created Instruction Content by Location Accessed



Appendix B

Example of Elementary School View (C4E)

Modules

Collapse All

▼ Week of 9/9/21

Tell About Yourself

Practice assignment

Example of Secondary View

Home

Assignments

Discussions

Grades

Pages

Syllabus

Modules

Collaborations

Google Drive

WeVideo

Mastery Tracker

Office 365

Badges

IXL Learning

Canva For Education

Collapse All

▼ Practice Module

Discussion Test

Practice Assignment

Aug 15, 2022 | 4 pts

Weekly Opener 1

Aug 15, 2022 | 25 pts

Endnotes

- ¹ <https://www.instructure.com/resources/blog/virtual-virginia-expands-instructure-relationship>.
- ² S. Shewbridge. Canvas School Board Workshop Presentation. November 9, 2022.
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- ⁵ L. Kelley, personal communication, August 18, 2023.
- ⁶ <https://resources.finalseite.net/images/v1675437195/vbschoolscom/met4r7uzxbnoudj9jhn4/StrategyMap.pdf>.
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- ¹⁵ T. LaGatta, personal communication, August 10, 2023.
- ¹⁶ T. LaGatta, personal communication, August 10, 2023.
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- ¹⁹ ITS and LMS Professional Learning Series for SY 22-23. Principals' Packet Memo, May 19, 2022.
- ²⁰ L. Kelley, personal communication, August 10, 2023.
- ²¹ Principals' Packet Memo. Mastery Connect Resources. Sept 29, 2022.
- ²² Principals' Packet Memo. Mastery Connect Training – Fall 2022. Oct 6, 2022.
- ²³ Principals' Packet Memo. Mastery Connect Training – Fall 2022. Dec 15, 2022.
- ²⁴ S. Shewbridge, M. Callahan, J. Clements, C. Hinsch, and S. Teri, personal communication, August 14, 2023.
- ²⁵ VBCPS Canvas Best Practices – Secondary and Elementary.

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Produced by the Office of Planning, Innovation, and Accountability
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October 2023

Version July 18, 2023