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Case Study

Hilton Central School District and Castle Learning Online

Hilton, New York

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Background in Hilton, NY

Hilton Central School District is comprised of students from the Village of Hilton, the Town of Parma, along with a part of City of Greece, NY, the Town of Clarkson and the Town of Hamlin, NY. These locations fall within Monroe County, New York.

Location	Grade K-12
Village of Hilton	1,161
Parma	1,275
Hamlin	402
Greece	1,919
Clarkson	112

Compared to the rest of the country, Hilton's cost of living is 10.79% lower than the U.S. average. The Hilton public schools spend \$8,134 per student. The average school expenditure per student in the U.S. is \$6,058. There are about 13 students per teacher in Hilton.

Hilton High School serves grades 9-12 and has an approximate population of 1,514 students (2006-07; NYSDOE BEDS [Basic Educational Data System] census), with 11% eligible for Free Lunch, 7% eligible for Reduced-Price Lunch, a student stability rated at 96%, and a racial / ethnic diversity of 0% American Indian or Alaska Native, 3% Black or African American, 1% Hispanic or Latino, 1% Asian or Native and 94% White.

Merton Williams Middle School serves grades 7-8, and has an approximate population of 704 students (2006-07; NYSDOE BEDS [Basic Educational Data System] census), with 5% eligible for Free Lunch, 5% eligible for Reduced-Price Lunch, a student stability rated at 96%, and a racial / ethnic diversity of 0% American Indian or Alaska Native, 0% Black or African American, 1% Hispanic or Latino, 0% Asian or Native and 98% White.

District Assessment of Current Education Needs

One of the tools used by Hilton teachers is *Castle Learning Online*, a web-based review, testing, and assessment service found at www.CastleLearning.com. The administration of Hilton CSD, primarily through the office of the Learning through Technology Coordinator, Patti Sullivan, and in cooperation with many members of the staff and administration, sees teachers generally using *Castle Learning Online* as a learning tool and for formative assessment. **Formative Assessment** is the use of assessment to give students and teachers feedback on student ability levels and performance prior to and during instruction. When a district concentrates on improving student academic performance, it uses every available tool that addresses its need.

Therefore, it was an initiative by Ms. Sullivan to conduct Staff Development training in using *Castle Learning Online*. She found teachers in Hilton were “ecstatic to learn more ideas” during her sessions. Current educational needs in the Hilton CSD promote more hands-on experiences for teachers and students—often through technology—and Ms. Sullivan has developed a strategy to help teachers achieve this end. She has explained that the “new tips and tricks” features that are continually being developed with the product are being used by the educators she trains.

An addendum point made by Ms. Sullivan, and probably a result of her effective training, was that the district would continue to address the needs of Special Education teachers. She commented that she has seen a lot more use of *Castle Learning Online* by these teachers, “since it’s great for differentiation” of the curriculum content for each student.

Castle Learning Online in Hilton Schools

Students at **Hilton Middle School** and **Hilton High School** have been using the *Castle Learning Online* website for more than three years. In 2007-08, students answered over 535,101 questions with many teachers giving assignments almost every week. In order to learn how teachers currently use *Castle Learning Online*, a Teacher Questionnaire was provided to teachers in Hilton HS who are using *Castle Learning Online*. The questions encompassed two primary areas; **(a)** How teachers currently use *Castle Learning Online* and **(b)** how effective is the use of *Castle Learning Online* for teachers and students.

Current Use of Castle Learning Online by Educators

The Teacher Questionnaire provided three questions regarding how teachers use *Castle Learning Online*, how often they use it and what features are being used for their students. The results revealed the following:

- **Purposes for Use:** Teachers are using *Castle Learning Online* primarily as a review, remediation before testing, extra credit assignments and for homework assignments with a few using it for actual tests and for introducing material.
 - 65% use *Castle Learning Online* for review of several units of study.
 - 55% use *Castle Learning Online* for remediation before a quiz or test.
 - At least 60% use *Castle Learning Online* for extra credit assignments,
 - 50% use *Castle Learning Online* for homework assignments.
 - Only 10% responses indicated "often" use of *Castle Learning Online* for a test or quiz while the predominant response was split with the remaining teachers saying “sometimes” and “never.”
 - The least use of *Castle Learning Online* was for introducing a unit of study with 76% responding “never.”

This might suggest that *Castle Learning Online* is a supplemental tool that enhances and supports the classroom lesson and is being used for assessment of student strengths and weaknesses after the teacher has been instructing them.

▪ **Frequency of Use:**

- A minimum of at least once per month
- Some teachers using it almost every week
- Frequently before a major exam is given
- Few report use *only* at the end of the year, the typical time in New York when students take final exams.

▪ **Features Emphasized:**

- Sharing assignments with colleagues (A feature that allows a teacher, who creates an assignment, to share it with colleagues.)
- Importing questions from old assignments (A feature that allows a teacher to view questions from all prior assignments, recognize how many students displayed a weakness or a strength with that content area and then to be able to select it, with checking a box, to be included in a new assignments; thus, teachers can “review” while giving students “new” questions.)
- Mixing content from different grade levels (One teacher offered the example of mixing the content from a course in elementary school such as adding and subtracting fractions with more involved concepts in an Algebra course for high school students.)

▪ **Features Also Used:** To a lesser extent, with about 35% of the respondents answering in the affirmative, the teachers use several other features of *Castle Learning Online*. These included:

- Posting Public Assignments (Developed in response to requests from administrators in many districts, this feature is an invaluable tool for teachers and district administrators when used correctly. In essence, the Public Assignment is a set of questions that are posted by the creating teachers for other educators to use for review or testing. These Public Assignments have two key features:
 - a. Editing: Assignments may be edited by teachers to suit specific needs.
 - b. Locking: When used as a formative assessment or benchmark, the Public Assignment session would be submitted as a ‘benchmark.’ In this test mode, the assignment becomes a locked test that must be opened for access by a school administrator who has access the benchmark.
- Creating vocabulary worksheets and the corresponding flash card assignments (Drawing from an extensive database of thousands of defined vocabulary terms for all subjects, teachers can provide students with vocabulary derived from any assignment or by directly selecting vocabulary associated with a specific unit of study.)
- Using the ‘quiz mode’ for assignments (The ability to review the hints and reasons associated with a question and a second try for incorrect answers is eliminated so that teachers may create instantly graded tests).

Effectiveness in Meeting Needs of Students and Teachers

The Teacher Questionnaire also provided teachers an opportunity to elaborate on the effectiveness of *Castle Learning Online* in meeting the academic needs of their students. In these responses, teachers refer to the NYS Regents exams, which are state course tests given each year, similar to EOC (End of Course) or EOG (End of Grade) exams administered in other states.

- **Types of Students Who Benefit**—Teachers said that *Castle Learning Online* assignments can be tailored to the needs of all students. They reported finding that all students can potentially benefit because the website provides basic, intermediate and advanced level questions. (All teachers and all students have access to all courses at all levels). Their key points included:
 - “My higher level kids love it because they really care about passing and the average students use it just to get better,” a teacher reported.
 - Another echoed this remark saying, “The higher achievers who don’t guess at the question and care about finding the right answer will see the best benefits.”
 - The same teacher also noted that “remediation students who take the time to look at the solution and self-correct will benefit.”
 - Parents were key to another teacher who said that “high achievers [benefit] and those in need of remediation that have parents who require they practice using the website.”
 - When it comes to the self-paced aspect of working online with *Castle Learning*, a teacher explained, “I think most students benefit. High end achievers can move at a pace that doesn’t bore them, while struggling students don’t feel rushed or overwhelmed by getting ‘left behind’ because the pace of the rest of the students is too quick for them.”
- **Benefits Offered to Teachers**—Educators chose to comment about these *Castle Learning Online* benefits:
 - “It saves time and gives a bank of questions in the format that the students need to be familiar with.”
 - Another teacher said that while some questions are challenging for middle school students, “I am able to immediately see student strengths and weaknesses.”
 - “It is a nice way to have students review a variety of topics.”
 - Many of the teachers made this the point of this teacher who wrote that *Castle Learning Online* provides “a great review resource before every unit test.”
 - Many comments were similar to those of one who said that students “look forward to completing assignments.”
 - The immediate feedback component was the topic of many comments. This feature was described by one teacher as the ability to “compare classes by class and by individual analysis.” Others said:
 - “Good way of finding out what topics I need to review in class before state tests”
 - “I can assess the areas that need to be re-taught or reviewed,”
 - “I can tell quickly and easily which students are having troubles with a topic”
 - “I can learn what is working and what isn’t with regards to how I present material,”
- A teacher articulated, “The greatest benefit is students are getting plenty of practice and they get immediate feedback from wrong answers.”
- Perhaps echoing the administrative need shared by Ms. Sullivan, a teacher explained and then elaborated, “It saves paper. Assignments are quick and easy to set up. Students can work on it at home and in the classroom, and I can scramble the questions to encourage independent work.”
- Another said it provides “topic review at the click of a button and allows the students to get hints and vocabulary related to the topic.”
- This teacher added, “[I don’t have] to correct the assignment myself.”
- It gives me ... “an insight into individual and class misconceptions.”
- A math educator remarked, “It saves time in creating tests, quizzes and assignments.”
- This math instructor added that students can “access questions and see solutions to them.”
- A variation on this teacher’s view was paralleled by another. “Students get another place to use for help when they don’t understand something. Students don’t always have to come to me.”

- *Castle Learning Online* allows students to “self generate” their own practice sessions and teachers monitored the use of this feature. Some teachers said they “encourage students to self-generate questions” and that they monitored this work. They explained that “independent sessions are encouraged in Regents Physics” and with AIS (Academic Intervention Services—identifying students who have weaknesses), they can “use the questions that students got wrong to determine if we need to review the overall concept.”
- One expressed the common hope that students take a personal interest in their education. “I let my students know that just because I do not have an assignment posted does not mean they cannot study by using *Castle Learning*.”
- **Performance Results**—Teachers were asked whether students perform better or exceed expectations on state exams when using *Castle Learning Online*. Only a few said they were unsure, and the overwhelming majority responded in the affirmative.
 - One teacher summarized, “My students absolutely perform better using *Castle Learning Online*.”
 - A teacher reported that although overall students in her school “did not perform well on state ELA, Science or Math exams...my students performed markedly better than the other students in the school, and no other teacher uses *Castle Learning* even close to the extent that I do.”
 - While this study does not provide raw data, a summary of the remarks made by teachers pointed out they viewed the positive performance of their students as related to review activities with *Castle Learning*:
 - “Yes, I absolutely believe this. Most students who complete the review assignments and flash card review score well.”
 - “There are no surprises in the question style when they sit down to take the exam, [and it] helps them perform better overall,”
 - “Practice in math is essential ... if they take the time to do the additional practice, they benefit.”
 - “Without a doubt they do better. My mastery level [of my students] went up.”

Concluding Thoughts

Castle Learning Online, assessment reports are an electronic, paperless documentation of students’ weaknesses and strengths. At times, it is necessary to provide a print copy of an assessment tool. *Castle Software*’s goal is to provide a cost effective solution that meets the education community’s needs. We offer a low cost product and ongoing content development of our quality K-12 core subjects.

By working with administrators, such as Ms. Sullivan in Hilton CSD, *Castle Software* can produce invaluable changes that accommodate a school’s needs.