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## Case Study

### Richmond Hill HS and Castle Learning Online

### Jamaica, Queens, New York

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#### Demographic Background in Richmond Hill, NY

Richmond Hill and **Richmond Hill High School** are part of Queens, one of the largest of five boroughs in the City of New York. It is a neighborhood in the southeastern part of New York State, at the western end of Long Island and extending across the width of the island from the junction of the East River and Long Island Sound to the Atlantic Ocean. It is bordered by Kew Gardens to the north, Woodhaven and Ozone Park to the west, South Ozone Park to the south and South Jamaica to the east. The neighborhood is split between Queens Community Board 9 and 10.

Queens was first settled by the Dutch in 1635 and became part of greater New York in 1898. Its estimated population in 2000 was 2,260,000. The first settlements, made by the Dutch 1636-1656, came under English control in 1664. The area of Queens became a county in 1683 and a borough in 1898. Main commercial streets in the neighborhood include Jamaica Avenue, Atlantic Avenue and Liberty Avenue.

Originally, many German, Italian and Irish families lived in Richmond Hill. Now Richmond Hill has many Hispanics, Guyanese, other West Indians, South Asians, and some Europeans living in the community. Today many Sikhs, Christians, Hindus, and Muslims live alongside a small Jewish population.

**Richmond Hill High School** serves grades 9-12, and has an approximate population of 3,676 students (2006-07 and is defined in the NYSDOE Basic Educational Data System (BEDS) as containing:

- 86% eligible for Free Lunch
- 5% eligible for Reduced-Price Lunch
- A student stability rated at 78%
- A racial / ethnic diversity of
  - 1% American India or Alaska Native
  - 12% Black or African American
  - 51% Hispanic or Latino
  - 30% Asian or Native
  - 5% White.
- 16% of the students have Limited English Proficiency

Academic achievement is measured by colleges in **SAT** scores (Scholastic Aptitude Test). In a *New York Times* article (November 20, 2008), it was reported that Richmond Hill High School students who took the **SAT** in 2005 scored **382** on the Verbal section and **403** on the Math section, compared with

the statewide averages of **497** Verbal and **511** Math. In addition, the article explained that 63% of the students continued by enrolling in a two- or four-year college.

In this environment, a strong administrative team, led by **Principal Francis De Sanctus**, has created an educational community where the posted **Mission Statement\*** is one which strives to make Richmond Hill High School a place where young adults can be happy, well adjusted and “academically well prepared to face the challenges of the future and to contribute significantly to societal progress,” and this in an environment where the school **Slogan** matches the state’s ethnicity data which reflects a school where “diversity is a strength, from a multi-cultural population.”

**Principal De Sanctus’** message to students is posted throughout the building, supporting an environment where students can meet success. The listed **School Goals** include:

- All students will graduate in 4 years
- Students will obtain a passing grade in all their classes
- Students will aim for mastery, earning a minimum of 75% on Regents exams
- All students will receive a Regents diploma and will aspire to earn an advanced Regents Diploma
- Students will develop a post-secondary school plan
- Students will attend school a minimum of 90%
- Students will receive an outstanding education to prepare them to be citizens and contributing members of society

### Richmond Hill High School Assessment of Current Education Needs

The administration of **Richmond Hill High School** has developed a **Comprehensive Assessment Plan**, authored by the Principal and Assistant Principals, in an effort to meet the **School Goals**. The overall goal of the plan is to increase the NYS Regents passing rate. As explained by the AP for Technology, **Kenneth Dornbaum**, “one of the conduits to doing this is by increasing the use of *Castle Learning Online*.” The plan was initiated after the Assistant Principal for the Social Studies Department, **Debra Bodie**, reported that at the end of 2008 there was a significant increase of 8.4% in the **Global History** passing rate that corresponded to an increased use of *Castle Learning Online*.

Richmond Hill HS, Queens, NY					
Global History Regents					
	Tested	0-54%	55-64%	65-84%	85-100%
2007	801	48.0%	16.0%	30.0%	6.0%
2008	893	38.9%	16.8%	35.4%	9.0%
Changes		-9.1%	0.8%	5.4%	3.0%

**Ms. Bodie** then mandated use of *Castle Learning* for her whole department. Other departments followed, after this initial step, when the Principal learned of the students’ success and asked that all students preparing for the NYS Regents exams be required to use *Castle Learning*.

The Assistant Principal for ISS (Instructional Support Services) has mandated use of *Castle Learning Online* for her teachers, explained through **Kenneth Dornbaum**, because she believes “it increases literacy.”

### **Castle Learning Online in Richmond Hill High School**

Students at **Richmond Hill High School** have been using *Castle Learning Online* for more than three years, and in **2007-08**, students answered over **556,620 questions**, with many teachers giving assignments almost every week. On June 20, near the end of the 2008-09 school year **Richmond Hill High School** students had answered more than **1,169,213 questions**. The greatest use for this 10 month period was:

Course	Total Questions Answered
<b>Mathematics – ALL: 125,777 questions answered</b>	
With heaviest use of questions in these Math courses:	
<b>Algebra</b>	<b>23,359</b>
<b>Integrated Algebra</b>	<b>44,265</b>
<b>Math A</b>	<b>29,807</b>
<b>English – ALL (HS-MS-ES): 52,353 questions answered</b>	
<b>English – HS only</b>	<b>49,541</b>
<b>Foreign Language</b>	
<b>Spanish</b>	<b>53,319</b>
<b>Sciences – ALL: 348,048 questions answered</b>	
With heaviest use of questions in these Science courses:	
<b>Earth Science</b>	<b>188,471</b>
<b>Living Environment</b>	<b>88,854</b>
<b>Chemistry</b>	<b>62,137</b>
<b>Social Studies – ALL: 579,194</b>	
With heaviest use in these Social Studies courses:	
<b>Global History and Geography</b>	<b>376,754</b>
<b>U.S. History and Government</b>	<b>195,263</b>

With a mid-year completion rate of about 650,000 questions, teachers reported to that they had set an ambitious goal to complete more than **1,000,000** questions by their June Regents exams (NY State end of course exams). Obviously, they surpassed their goal by more than 169,000 questions.

In order to learn how teachers currently use *Castle Learning Online*, a **Teacher Questionnaire** was provided to teachers in Richmond Hill HS who are using *Castle Learning Online* (found at [www.CastleLearning.com](http://www.CastleLearning.com)). 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.

### **How Teachers Currently Use *Castle Learning Online***

The **Teacher Questionnaire** provided 3 questions regarding how teachers were using *Castle Learning Online*, how often they were using it and what features were being used for their students. The results revealed the following

- **Purposes for Use (primary):** Teachers are using *Castle Learning Online* primarily for remediation before a quiz or test, followed closely by using it as a review for several units, creating homework assignments and for extra credit. To a lesser extent, a few teachers reported they use *Castle Learning Online* for a test grade.
  
- **Frequency of Use:** A majority of the teachers reported that they use *Castle Learning Online* once each week, with others varying use with once per unit, once every two weeks, once each week for a quiz grade, twice each marking period as a way to review for tests, and one teacher saying she uses *Castle Learning Online* one to two times per unit as a review, with a semester having as many as eight units. One educator explained that she likes to use *Castle Learning Online* 2-3 times each week for short assignments.
  
- **Features Used:** The features of *Castle Learning Online* that teachers gave the most emphasis to could be spread among five primary areas:
  - Creating vocabulary worksheets and the corresponding flash card assignments (i.e. with an extensive database of thousands of vocabulary terms with definitions for all subjects, teachers can actually provide students with vocabulary derived from any assignment OR by directly selecting a unit of study and then the vocabulary associated with that unit of study)
  - Using the ‘quiz mode’ for assignments (i.e. a feature that allows a teacher to give students the assignment questions without students having the ability to review the hints associated with every question or to re-try a question if it is answered incorrectly).
  - Sharing assignments with colleagues (i.e. a feature that allows a teacher to create an assignment then share it with a colleague in the same department or in another related area of study).
  - To a lesser extent Features Used included:
    - Mixing content from different grade levels (i.e. For one example, this is a feature that allows a teacher to mix the content from a course in elementary school [ex. Adding and subtracting fractions] with more involved concepts in an Algebra course for high school students).
    - Importing questions from old assignments (i.e. 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).
    - Only one educator (with a comment by another they will be using it soon) said she used the feature for Posting of Public Assignments (i.e. a feature developed in response to requests from administrators in many districts. It can be 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) they can be edited to the new teachers liking, but (b) if used as a formative assessment or benchmark, the session would be submitted as a ‘benchmark.’ In this way, the test is ‘locked in place’ eliminating any changes by teachers. These sessions must be OPENED for access by a school administrator on Castle Learning. If not opened by an administrator, the teacher cannot access the benchmark.

## Effectiveness of *Castle Learning Online* 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.

- **Type of Students Who Benefit:** When asked what kinds of students would benefit most from using *Castle Learning Online*:
  - A majority of the teachers responded that high achievers, average students and students needing constant remediation can benefit from using *Castle Learning Online*. Only a few emphasized two types of students in the group of three, with each leaning either from average to high achievers or from average to students in need of remediation.
  - Teachers remarked that questions can be selected at all levels; i.e. basic, intermediate and advanced.
  
- **Benefits Offered to Teachers:** When asked what benefits does *Castle Learning Online* offer to you, educators commented:
  - One educator described how the questions “reinforce the content” that is being taught.
  - Another explained the same idea somewhat differently by saying that “learning is reinforced, it addresses the different learning styles of students and it parallels the instructional content of the course.”
  - Another educator explained he didn’t have to use another product to find useful review questions.
  - Since the questions parallel end-of-course exams, such as the NYS Regents exams, a teacher explained that *Castle Learning Online* “can prepare students for the types of questions on the Regents” and it serves as a “good analysis of students’ strengths and weaknesses.”
  - Several teachers wrote that the use of *Castle Learning Online* “saves time [‘a lot of time’] in creating assignments and tests, saves time grading and getting feedback and helps them gain insight into strengths and weaknesses of students.”
  - Realizing that all teachers face time constraints throughout the week, one math teacher said that “it allows me the opportunity to give more questions than the class time allows.” Put another way by someone in the same department, “I can give m any more questions disguised as ‘extra credit’ than they would do in class.”
  
- **Performance Results:** When asked whether students perform better or exceed expectations on state exams when using *Castle Learning Online*, comments included:
  - A mathematics educator explained that “the hints promote the idea that it’s okay to be wrong and it allows them to stop and think again.”
  - The fact that some students don’t like to do an assignment outside of class is a “given” for many teachers, but one educator explained that “after the first few weeks (using *Castle Learning Online*), they like it and prefer doing homework that way.”
  - When introducing a topic, a math teacher described how the lesson is tied to content found on *Castle Learning Online*, so “it gives them a thrill and makes the lesson easier.”
  - Since teachers can mix previously assigned questions, perhaps those where students

- were weakest, with new content material being taught, proved very useful for a teacher who wrote “By mixing the content of questions, I am able to consistently review all topics, not just one at a time.”
- Teachers want their students to be engaged and enjoy the learning experience. For example, a 10<sup>th</sup> grade Global Studies teacher explained that “student feedback has been very positive. They have noted that their understanding of ‘how’ a question is asked has improved. The student’s vocabulary has also improved.” As a result, “my June 2008 Regents results were higher for frequent users of *Castle Learning Online* and lower for those who failed to use it.”
  - A teacher of Honors US History & Government simply said that “student outcomes clearly improve,” while another teacher in an Introduction to Law course, said that “test performance has improved.”
  - A teacher of Living Environment said this about her 10<sup>th</sup> grade students: “At this time, about 50% of my students do the *Castle Learning Online* assignments that I post, with the result that more students attain higher scores.” She added that her students had asked her to post flash cards because “they like it and it is a good activity for my lower performing students.”
  - The same Living Environment teacher also explained that “many of my students tell me that they learn from the program because on the second attempt to answer a question, the ‘hint’ helps them learn.”

As a final point in assessing how students improve by using *Castle Learning Online*, the Department Chairperson of Social Studies, **Debra Bodie**, shared some data with me that brought attention to her department, some of whom gave over 75 assignments and consistently used *Castle Learning Online* every week.

Repeating the earlier reference to the improvement in the **Global History Regents**, with an impressive increase in **students earning a grade of 65% or better by 8.4%**, **Ms. Bodie** continued by sharing that the “passing rate for the **US History Regents** also improved, with a resulting **4.5% increase in the number of students earning a grade above a 65%**. The two course references are shown below:

Richmond Hill HS, Queens, NY					
US History Regents					
	Tested	0-54%	55-64%	65-84%	85-100%
2007	522	24.0%	20.0%	40.0%	15.0%
2008	669	20.9%	19.6%	41.6%	17.9%
Changes		-3.1%	-0.4%	1.6%	2.9%

Global History Regents					
	Tested	0-54%	55-64%	65-84%	85-100%
2007	801	48.0%	16.0%	30.0%	6.0%
2008	893	38.9%	16.8%	35.4%	9.0%
Changes		-9.1%	0.8%	5.4%	3.0%

## Concluding Thoughts

Many of the goals set forth by the educators and administration at Richmond Hill High School are being met by the use of *Castle Learning Online*.

- **Staff Development:** **Kenneth Dornbaum**, AP for Technology, has been providing excellent support to teachers by training several key people in Richmond Hill High School. Two such educators included the schools' Librarians, **Andrea Gomes** and **Sharon Kimelstein**. Each time I visited the building, I witnessed the use of a bank of computers in the Library being used by students who are using the services of *Castle Learning Online* or I would find students being trained on using the services for many of their Regents classes. This unique team of Librarians have set up an easy access Sign-in procedure for students and are always available to advise students who want to use *Castle Learning*.
  
- **Parent Coordinator:** Coordinating use of *Castle Learning Online* with parent's of students who attend Richmond Hill HS is the job of **Carol Bouchard**, who explored with me what she and **Principal De Sanctus** have in mind. Ms. Bouchard explained that when she conducts **Parent Workshops**, the parents have been "**extremely impressed with *Castle Learning Online***" and they find it to be "**a valuable tool.**" An interesting story was shared with me about a parent, after learning about *Castle Learning Online*, began to look at the content for geography and US History. This particular parent was so interested in these two areas of study, that her children were getting annoyed that she was taking up their home time using *Castle Learning Online*.
  - Ms. Bouchard also said that her goal and that of the Principal was to make even more parents aware of the learning tool. In order to aide her, I provided a **Parent Letter** that was adapted to meet the Sign-in information needed specifically for Richmond Hill High School. Ms. Bouchard plans to use the letter at workshops, parent meetings and as a "welcome" note for incoming freshman at their annual orientation or throughout the year when a new student arrives at the school.
  - In addition, the two educators have been visiting parents outside of the school, such as a local Sikh Temple, to communicate with parents about how Richmond Hill High School is a part of the learning environment for the whole community. Ms. Bouchard said that one of the sources for learning they convey to parents is the use of *Castle Learning Online*. I explained that whatever our company can do to help them achieve results, we'll be available to hear from them and adapt *Castle Learning*, wherever possible, to their needs.
  
- **Regents Classes and *Castle Learning Online*:** During the 2008-09, teachers of Regents classes were uniformly addressing the request by administration to use *Castle Learning Online*. This of course was part of the response to the initiative of the Social Studies Department to increased usage at the end of 2008 and the resulting improvement in the "passing rate" above 65% for **US History** and more so, for **Global History**.

As the **Richmond Hill High School** teachers reach into the resources of *Castle Learning Online* to meet the **Comprehensive Assessment Plan** authored by the administration, the Castle team will make every effort to support the **Goals** set forth by Ms. De Sanctus. Increasing the passing rate for the

challenging NYS Regents Exams is attainable when addressed by the capacity of the teachers and administrators I met and their willingness to adapt technology in the classroom.

We look forward to this continued relationship with Richmond Hill High School staff and students.

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\* **Richmond Hill High School Mission Statement:** Our mission is to produce young adults, who are happy, well adjusted and academically well prepared to face the challenges of the future and to contribute significantly to societal progress. The highlight of our strong instructional program is our interdisciplinary approach to teaching English and Social Studies as well as Math and Science within a guidance-oriented house structure as it encourages success in our ninth graders. The school's slogan, "Diversity is our strength" is derived from our multicultural population and promotes a learning environment based on self-discipline and mutual respect for all people. It is our goal to develop in each student a curiosity for continued learning throughout life.