After the Storm: A Digital Literacy Game

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The World of Work

Developed for struggling readers, Classroom Inc.'s *After the Storm* focuses on the aftermath of a major hurricane in the community of Port Douglas. Players take on the role of Editor-in-Chief of an online magazine. As students navigate through a day in the life of a working professional, they experience challenges related to how the storm has affected both their workplace and the community. Players must decide how best to respond to these challenges based on the information gathered during the game through informational texts such as press releases, official reports, emails, text messages, conversations with colleagues and much, much more.

The Game

The game presents students with a wide variety of reading and workplace experiences. Designed for use as a literacy program in various implementations, *After the Storm*, consists of 10 episodes of online game play, each representing a full day at work. Episodes can be played in any order, except for the first one, which provides context to the student's role and workplace. An episode spans 4 class periods and contains an overarching narrative them with mini-stories and goals specified for each class period. Offline activities include collaborative classroom projects and book-centered discussions.

Each episode contains three acts and a writing activity. Each act represents the beginning, middle and end of a workday while the writing activity is a culminating piece written by the player, as Editor-in-Chief. At the beginning of each act, players are directed towards their "To Do" list, which is pre-populated with goals and tasks for that part of the day. As the storyline is non-linear, players are self-directed and decide what tasks to complete first within certain limitations.

Standards were specifically chosen so that players will develop a strong foundation for success in reading comprehension and college and career readiness. The game addresses top-level 21st Century Skills as defined by The Partnership for 21st Century Skills (P21 Framework) and assesses the following six Grade 6 Common Core State Standards (CCSS) for reading informational text:

- RI 6.1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- RI 6.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
- RI 6.7. Integrate information presented in different media or format as well as in words to develop a coherent understanding of a topic or issue.
- RI 6.8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
- W 6.1. Write arguments to support claims with clear reasons and relevant evidence.
- W 6.2. Write informative/explanatory texts to examine a topic and convey ideas, concepts and information through the selection, organization and analysis of relevant content.

Assessment

In each episode, players complete several embedded assessments or main reading activities (see Figure 1), where they read a variety of real-world documents, written at the 6th grade level, and perform specific CCSS related tasks such as choosing the best images or text for a blog post or citing evidence that supports various opinions or ideas.

Based on their initial performance in these main activities, players will be routed seamlessly in different ways:

- ☐ If performance is above the designated threshold, players will move to a more challenging activity written at a high 6th grade level and includes a higher level of critical thinking tasks.
- If performance is below the designated threshold, players will move to an easier and shorter activity that offers support to students on the CCSS skill assessed in the main activity. If players successfully complete

this activity, they are routed back to the main activity so they can try again.

 If student performance on the initial support activity is unsuccessful, players are routed to another much shorter support activity that incorporates more visual strategies and focuses on a particular foundational skill within the main activity standard. Players are then routed back to the main activity to try again.

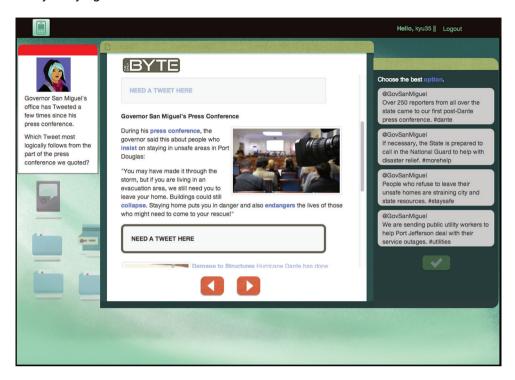


Figure 1: Main Reading (RI. 6.7) Activity

As decisions are made and tasks or activities completed, the game collects, assesses and responds to provide each player a different experience; however, all players complete the same main activities which are scored and data is sent to a teacher dashboard. Upon completion of each episode, players will complete a writing activity set in the game's environment. Teachers have access to writing activities in their dashboards and can assess them using a CCSS based rubric.

Teacher dashboards allow for account creation and management, show student progress on a variety of metrics such as performance on specific activities and by standard, and access to teacher resources. Teachers will use the dashboard information to determine next steps for his/her class or individual students and students can use the information to determine goals and individual progress.

Research and Results

An initial episode was developed and piloted in two New York City schools with about 90 students. Each school had one general education class and one integrated co-teaching (ICT) class that consists of both general education and special education students. Key findings that we have incorporated from this pilot include:

- Increased emphasis on student choice and control of their experience was popular and will be expanded moving forward.
- Based on the difficulty some students had understanding required interactions in activities, we are working with our developer to redesign some UI elements to make this more intuitive.
- Teachers provided feedback on dashboard reporting prototypes that we will use to redesign these screens before building them.