

Leveraging Technology in the Classroom: Using Comic Life Software to Support Literacy

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Abstract: *This paper examines how using technology, including the comic creator software Comic Life, can enhance language development and support genre-based writing literacies in the K-12 classroom. The research question guiding this brief study is: how might using comic creator software improve scaffolding and increase writing for middle-grade English Language Learners (ELLs) in a large urban middle school?*

Technology in the classroom is broadly conceptualized to encompass many areas and trends including, but not limited to, Bring Your Own Devices (BYOD), Massive Open Online Courses (MOOCS), integrating interactive whiteboards (such as Promethean or Smart Boards) into instruction, or using web 2.0 tools, such as the Google Application Suite or Dropbox to collaborate. Teachers frequently employ a range of technologies to enhance learning in K -12 classrooms. An estimated 97 percent of teachers have at least one computer in the classroom for student use and 40% of teachers estimate that their students use computers during the instructional day (National Center for Education Statistics, 2009). In 2013, approximately 4 billion dollars was spent on instructional hardware alone in U.S, K-12 schools, and this expenditure is expected to rise (Nagel, 2014).

This proliferation of technology in the K-12 classroom has resulted in an increase in research into the effectiveness of these technologies to support literacy (Tamim, Bernard, Borokhovski, Abrami, & Schmid, 2011). It also created an instructional environment whereby instructional hardware, software and web-tools are used symbiotically with each other across platforms. Despite this surge in technological advancements, many districts do not offer training or support in the process of integrating technology into instruction. Further, policy guidelines on effectively utilizing this technology are ambiguous or non-existent (Caspary, Kusserow, Lavin, & Movassaghi, 2009; Anderson & Dexter, 2005; Gray, Thomas, & Lewis 2010). It is, therefore, left to teachers to decide how to best integrate technology into their classrooms to support and enhance literacy. This paper will investigate how a middle school teacher (the author) has integrated the comic creator software, Comic Life into a sixth-grade English Language Arts classroom to enhance vocabulary and writing literacies. The author sought to explore how using this software might improve scaffolding and increase writing for ELLs in a large urban middle school context.

Instructional Context for the Study

The action research study was implemented in a large middle school on the border of Sunset Park and Chinatown in Brooklyn, New York. The school has 1,492 students, 40% of whom are ELLs (New York City Department of Education, 2015). Only one hundred and two students speak English as their dominant language at home; 45% of the population is Hispanic, 43% are Asian. The majority of the Latino students are from the Puebla region and the Federal District of Mexico and most of the Asian students are from the Fujian region of China. These demographics are reflective of the local community in Sunset Park and Chinatown.

Participants

Student work samples were collected from an intermediate class of sixth grade adolescent English Language Learners (ELLs) ages ten to thirteen with diverse learner profiles (N=27). Students' level of English language proficiency varies from beginner to proficient as measured by the New York State English as a Second Language Achievement Test (NYSESLAT). The learners' average independent reading levels are J-K (DRA levels 18-20), grade two as assessed using the Fountas and Pinnell (2007) assessments for reading.

Integrating Comic Life: Enhancing Writing Abilities

Comic Life is a photo-comic creation software that uses templates with your computer's built-in camera to create visually attractive stories. While there are many software programs and apps that can be used to create comics, Comic Life was chosen for its price point, user-friendly characteristic, intuitive interface, and because it was readily available in the instructional context. Notable competitors include Comic Creator by Summitsoft, Manga Studio, Pixton and Comic Strip Creator.

There are also excellent user-friendly applications for the Droid and IOS devices including Comic Creator and Go Comics. When using these applications, students can use their IOS or Droid devices to create comics, integrating work into other media or software such as PowerPoint or Keynote presentations. This integration of software, web-based, cloud storage and syntheses of applications is a unique feature that provides the user choices and multiple entry points into publishing a project. The elements choice, personalization and control are embodied in the creative process for students when working with Comic Life or many other graphic software platforms. Research suggests that providing students with choice, personalization and control are powerful motivators for student learning (Cordova & Lepper, 1996; Malone & Lepper, 1987).

Comic life allows users to create templates that aid in story creation; these templates are helpful for students to organize their ideas and writing. For example, speech bubbles and narration templates can be used to teach point of view, construct dialog or describe character traits (Figure 1).

The program is simple to use for both novices and the tech savvy and provides an easy access point for English Language Learners (ELLs) to write and use pictures as a vehicle to generate personalized stories. The author has used Comic Life in a variety of ways to support language development. Figure 2 is an example from a beginner ELL class that was creating personal narratives. This 3rd grade student created a comic book about her life, including her immigration to America.

Figure 1. 3rd grade student using thought bubbles to teach dialog.

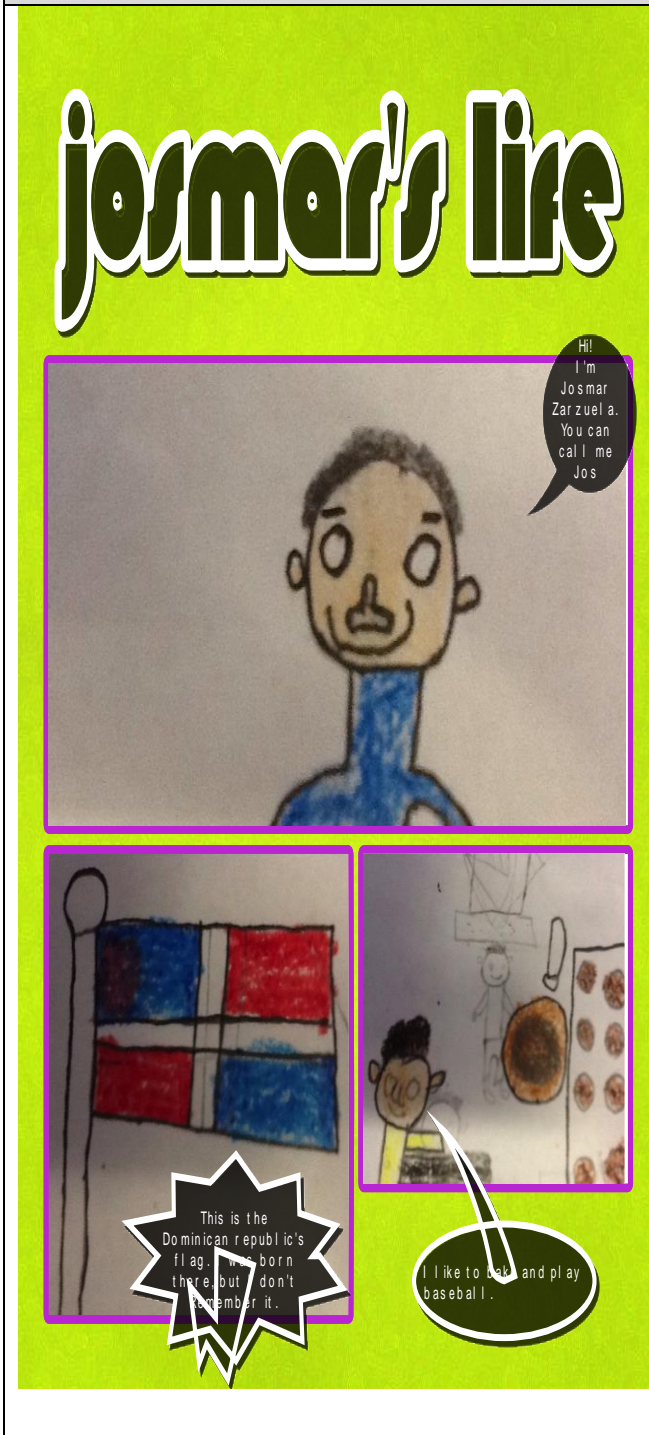
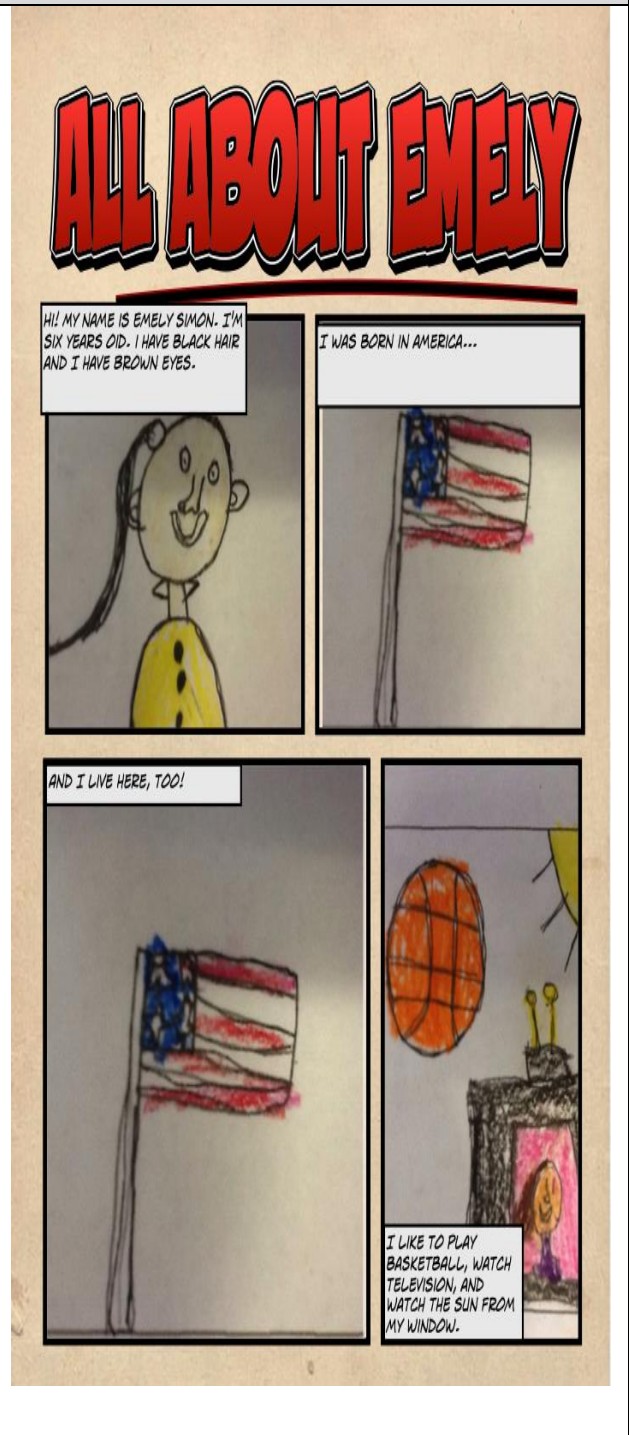


Figure 2. Personal narrative example, 3rd grade student



The software has a variety of uses to support literacy in the classroom including a method to generate a wide range of genre-based writing to enhance project-based learning or as a differentiation tool to scaffold literacy. Students can use Comic Life in various ways to support literacy including creating stories in various genres such as how-to guides, expository essays or narrative writing. As part of this process, students can storyboard writing pieces using images and dialog. This is a useful activity to teach concepts such as sequencing, character change, dialogue, conflict and story elements. Comic Life is also useful as a summative assessment tool whereas students demonstrate their knowledge of a concept.

Included with this report are examples from the author's sixth grade intermediate ESL class. These projects were created during two writing units of study where students were taught how to write both fictional narratives and non-fiction reports.

Using Comic Life to Improve Students' Fictional Narrative Writing Ability

Students were given a baseline measurement and asked to write a fictional story. They were then taught a series of lessons on the components of plot structure including characters, events, action, dialogue, conflict and resolution. From informal classroom assessments, the author determined that most of this group of students had not been exposed to elements of plot in English and only a few had knowledge of the components in their native language. Students were guided through the steps of the writing process including story webbing. For the penultimate step, students were tasked with creating a short story that was then used to create a comic (Figure 3).

THEY USEEN WARRIOR DID A LOT OF FIGHTING HE DID HIS SIGNATURE MOVE

THE UNSEEN WARRIORS GETS DESTROYE THERE IS NOT A CHANCE HE CAN COME BACK! HE HAD NOT DEFEATED THE SPINSTER MONSTER. HE FAILED HIS FRIENDS AND THE PLANET.

THE NIGHT WOLF COMES TO THE UNSEEN WARRIOR RESCUE WHILE THERE SIDE KICK FIGHTS DOCTOR BLOOM BERG

Brian rosa

Script

Panel 1: the unseen warrior is at the white house where the evil dr. Bloomberg is attacking the president

The unseen warrior: Curse you dr. Bloomberg!

Dr. Bloomberg: Mwa hahaha aha. I will steal the presidents hair. Byahahahahahaha.

The president: mph mmpb mmpb.

Panel 2: the unseen warrior comes out of no were. dr bloomberg said you will not see me bald unseen warrior said you will found

The unseen warrior: you can't get rid of me that easy!

Dr. Bloomberg: I should have test my trap first

Panel 3: dr bloomber escaped the useen warrior struggles to find dr bloomberg in the Act suddenly the unseen warrior follows the acbam and it was the President

Panel 4 : the unseen warrior saw Dr bloomberg and the unseen warrior heard moaning. The unseen warrior saw a zombie? He felt happy because he finally found acton. Then Unseen warrior saw a crack on the glass he new it was not time to come out from we're He was hiding then the glass broke and the zombies , Came out and ate dr Bloomberg an turn him In to a zombie

Panel 5: the zombie were loos in the city. And biting pepole almost every body Been bitten lets see what's the news zombies are taking over the Over the city

Panel 6 This city brings me a big challenge he calls night wolf and he calls his sidekick he forgot about dr bloomberg the last Time he saw him was when he was bitten

Panel 6:

Figure 3: Fictional narrative.

Using Comic Life as a Support for Non-fiction Writing

As part of a writing unit of study, students were tasked with creating non-fiction books with text features such as captions, pictures, dialogue and factual information that supports the pictures. Students were exposed to model texts that were used to teach the features of non-fiction writing. Students then created concept maps, webbing their story ideas. Concept mapping has been shown to support students writing as a generative or classification tool (Frayer, Fredrick & Klausmeier 1969). After mapping, students created books on white paper, to story board their concepts. These books were given two rounds of revisions by both the teacher and peers. Students were then asked to create a non-fiction book illustrating their knowledge acquired from the lesson (figure 4). A few students created drawings; photographed the drawings; and then created the text boxes for the comic, producing a multi-media integration.

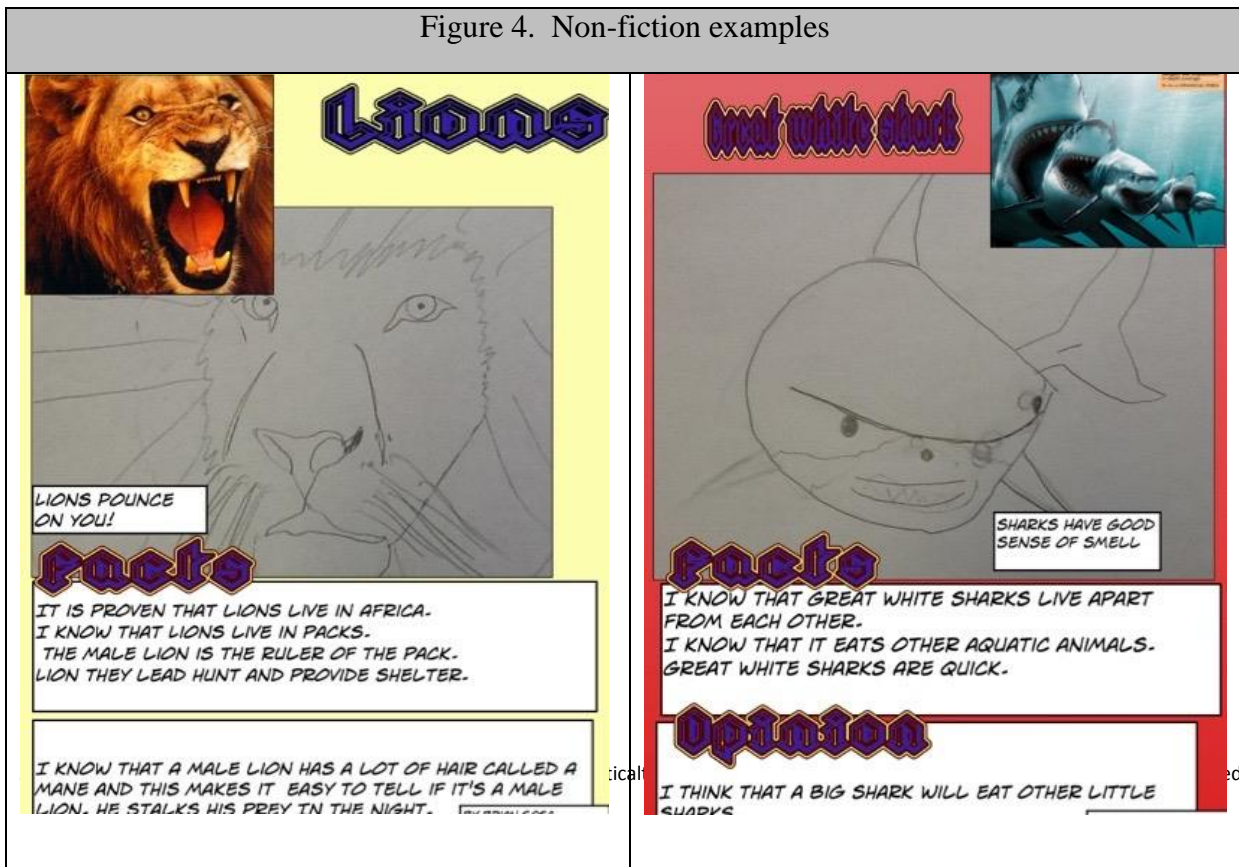
Conclusion: Comic Life Integration

The author discovered that this software has a variety of uses to support literacy in the classroom including as a method to generate a wide range of genre-based writing to enhance project-based learning or as a differentiation tool to scaffold literacy. This tool would likely be helpful for teachers who are seeking specific and manageable ways to integrate technology into the classroom or scaffold writing using technology. Potential ways to explore the affordances and constraints of using this software in the classroom is to pilot the program with a small group, offer the program as an alternative process or as an assessment seeking to gauge students' understanding of a literacy concept or skill.

The variety of classroom-based uses for this program includes creating stories in various genres such as how-to guides, creating expository essays, or for use in narrative writing. As part of this process, students can storyboard writing pieces using images and dialog. This is a useful activity to teach concepts such as sequencing, character change, dialogue, conflict and story elements. Comic Life is also useful as a summative assessment tool whereas students demonstrate their knowledge of a concept. These are a few of the ways this technology can be used to leverage literacy and support the writing process in the classroom. Quantitative and qualitative research overwhelmingly suggests that teaching the writing process with story webbing, multiple drafts, and peer editing has positive effects on student writing ability (Calkins, 1986; Romova & Andrew, 2011; Goldstein & Carr, 1996). These positive effects can become lasting and be transferred to other content areas, enhancing student performance. Writing also supports students in developing critical thinking skills as it forces the writer to clarify ideas and to communicate meaningfully (Bean, 2011).

Implementing Comic Life significantly improves students' knowledge of and comfort with the writing process and may be visualized in their writing output. It also allowed students to develop writing skills, creatively express their knowledge of concepts, fiction and non-fiction writing via visual means.

Figure 4. Non-fiction examples



About the Author

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REFERENCES

- Anderson, R. E., & Dexter, S. (2005). School technology leadership: An empirical investigation of prevalence and effect. *Educational Administration Quarterly*, 41(1), 49-82.
- Bean, J. C. (2011). *Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom*. John Wiley & Sons.
- Calkins, L. M. (1986). *The art of teaching writing*. Heinemann Educational Books Inc., 70 Court St., Portsmouth, NH 03801.
- Casparly, K., Kusserow, T., Lavin, J., & Movassaghi, M., (2009). *Managing Technology Efficiently in California K-12 Schools*.
- Cordova, D. I., & Lepper, M. R. (1996). Intrinsic motivation and the process of learning: Beneficial effects of contextualization, personalization, and choice. *Journal of Educational Psychology*, 88(4), 715.
- Goldstein, A. A., & Carr, P. G. (1996). *Can Students Benefit from Process Writing?* NAEP Facts, 1(3), n3.
- Gray, L., Thomas, N., & Lewis, L. (2010). Educational Technology in US Public Schools: Fall 2008. First Look. NCES 2010-034. National Center for Education Statistics.
- Freyer, D. A., Fredrick, W. C., & Klausmeier, H. J. (1969). A schema for testing the level of concept mastery. Madison: Wisconsin Research and Development Center for Cognitive Learning (No. 16, p. 82). Working Paper.
- Malone, T. W., & Lepper, M. R. (1987). Making learning fun: A taxonomy of intrinsic motivations for learning. *Aptitude, Learning, and Instruction*, 3(1987), 223-253.
- Nagel, D. (2014). Spending on Instructional Tech To Reach \$19 Billion Within 5 Years. *The Journal*. Retrieved from <http://thejournal.com/articles/2014/06/11/spending-on-instructional-tech-to-reach-19-billion-within-5-years.aspx>
- National Center for Education Statistics. (2014). *Educational Technology Data Statistics* Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=46>
- New York City Department of Education. (2015). *Programs and Services for ELLs*. Retrieved from <http://schools.nyc.gov/Academics/ELL/ProgramsServices/default.htm>
- Quizlet, About Page. (n.d.). Retrieved from <https://quizlet.com/mission>
- Romova, Z., & Andrew, M. (2011). Teaching and assessing academic writing via the portfolio: Benefits for learners of English as an additional language. *Assessing Writing*, 16(2), 111-122.
- Tamim, R. M., Bernard, R. M., Borokhovski, E., Abrami, P. C., & Schmid, R. F. (2011). What forty years of research says about the impact of technology on learning a second-order meta-analysis and validation study. *Review of Educational Research*, 81(1), 4-28.