

#### Introduction

Modern innovations in technology can be leveraged to revolutionize and enhance the ways in which information is taught to students. Hands on strategies have been proven to enhance students' performance in content related skills, and — as such — educators must incorporate hands-on instructional mediums that will enhance the practice of content related skills. Among these mediums is that of video creation/video editing, which allows students to apply content related skills to an authentic final product. Activities incorporating such technology would align to constructivist principles of learning, which posit that states students learn best by planning, creating, designing and applying ideas that are meaningful to them. According to Bers (2008), constructionism allows students to "design, create, and build projects that are personally and epistemologically meaningful" (Bers, 16).

#### LITERATURE REVIEW

Regan, (2018) describes the strength that technology provides for differentiating writing instruction so that all students have opportunities to demonstrate success and mastery of learning goals. The study examined the use of mobile graphic organizers and learning strategies that organically embedded self-regulation learning strategies and strategic instruction of persuasive writing. Use of the technology tool increased writing quality as students increased the number of transition words used in the their writing. The tool provided increased opportunity for students who learn differently and students that may have limited vocabulary and grammar. Writing with the technology increased success for students in inclusive classrooms. Essentially, using technology to provide students with a variety of means through which students could

demonstrate master over a skill, afforded them opportunities to master that skill in ways that were palatable to them.

This is consistent with assertions made by the Partnership for 21st Century Skills (2011), which emphasize "technology-enhanced" assessment and use of technology to organize, evaluate, and communicate information, and these are all skills outlined by (NJSLS) standards for language arts. Essentially, mastery of skills associated with core subjects, such as English Language Arts, are built through use of technology to create and communicate information and ideas to a broad audience. The fact that technology offers student a variety of ways through which students can demonstrate mastery is especially important, as "...technology engages students and personalizes their learning...[and] When instruction is active and students are engaged, learning soars!" (Smith and Throne, 2009, p. 65).

Loomis, (2018) found twitter to be an effective tool for increasing outcomes for students. "Including video in assignments became more accessible with the advent of smartphone cameras. I embraced social media early as another teaching opportunity." Editing skills were developed as students learned to communicate thoughts and ideas in 140 characters. Words were chosen carefully and critical thinking was a required element.

Social writing was also identified as a means to strengthen english language skills by Shin, (2018). Shin describes learning as a social practice through which learners express themselves and engage with others within the "cultural, social and historical contexts of the discourse community" made possible by technology mediation (Shin, p. 13). Explicit instruction for use of the technology combined with the social construct by which students participated encouraged students to complete assignment and edit assignments and correspondingly, learning outcomes were accomplished.

Beach (2012) examines the literature on digital tools that redefine learning outcomes as digital tools as the nature of features that digital tools organically facilitate literacy experiences. Collaborative reading, writing and discussion and student opportunity to share their work among a public audience. Research has shown increased writing scores on Video technology is described one of the digital tools that has transformed literacy for many students and positively impacted learning outcomes as students use video trailers as a book talk or to recommend books. This increased student interest in reading and storytelling which in turn increased student agency and effort and student performance increased.

Young, Long and Myers (2010) comment on what is defined as the new literacy. The multimodal form of composition, provides many opportunities for students to practice, fine tune and demonstrate composition skills. It is stated that writing instruction in the 21st century includes written prose, animated graphics, video clip, photo slideshow, and image with little verbal information and/or an image with audio information vs. textual information (Yancey 2009). Video as a technology tool allows multiple affordances.

Studies of classrooms that used digital video composition produced data that documented learning gains (Miller, 2010). The multimodal literacy pedagogy and "digital affordances for creating, and mixing print, images, sounds, video and music" produces new practices for relevancy, instruction and practice (Miller, p. 198). The case studies found that many students did not attempt a previously literature exam and therefore 50% did not pass, however, using a multimodal approach, 100% of the students passed the exam which was a graduation requirement. Knowledge was transformed.

Essentially, using technology as a means through which students express mastery over skills can be a way of promoting what Bers (2008) refers to as "...powerful ideas [which] afford

new ways of thinking about everyday ... disciplines..." (p. 77). Essentially, in order for an idea to become a powerful idea, a useful and meaningful context for the idea must be created and the idea must be applied within that context, and technology can be used to create this context. For instance, Loomis, (2018) found twitter to be an effective tool for increasing outcomes for students. This was because things on Twitter are published, giving students incentives to critically think about what they are writing. In other words, as they are creating authentic final products that will be shared with real audiences, students are compelled to think more deeply about the content they are working with and are more cognizant of the skills they are using to convey a given message regarding the content.

Such assertions that the creation of an authentic context for knowledge has potential to enhance student performance is substantiated by Bers (2008), who asserts that technology acts as a means through which students are able to make epistemological connections among content related skills and the surrounding culture, thereby encouraging deeper thinking about the knowledge and skills they are engaging with. For instance, Bers refers to ideas which are "...established in a culture... [and] the culture reaches consensus about its importance and relevance for the culture itself...and appears as if it was always there" (Bers, p. 25). Essentially, establishing and conveying and disseminating ideas in a shared cultural space encourages students to engage in the necessary meta processes involved in their writing for maximum output. Such a cultural phenomenon, can be seen through people's act of sharing through digital platforms, such as Facebook and Twitter. This is also consistent with Loomis's aforementioned assertion that Twitter can be used as a tool through which learning outcomes are enhanced. Essentially, such digital platforms allow for authentic contexts for communicating ideas, and these ideas can require use of content related skills for the purposes of effectively

communicating those ideas. As such, sharing through digital platforms is a cultural phenomenon that can encourage mastery of content related skills, and students can participate in this cultural phenomenon within their content courses by conveying their ideas through platforms that will allow them to share their work with the masses; use of video editing software is a platform that provides such opportunities, as students can publish their videos, uploading them to various websites, which will allow students to communicate their ideas to the masses.

This notion that language arts activities should empoy activities that replicate authentic contexts for students to share their ideas, which will be communicated through use of content related skills is further supported by Shamburg (2008), who emphasis the importance of the content related skills being practiced in authentic contexts. As Shamburg states, "...the high school English class should be a place for words in *action* and words in *actions*" (2008, p. 4). Essentially, "literacy is about engaging with the word and the world" (Shamburg, 2008, p. 4), so content related skills should be used in authentic contexts where they can be used to communicate ideas to a legitimate audience. Though practicing the skills is important, the importance of those skills becomes lost, when there is no authentic reason for the skills to be used. As such, standards must be made to be applicable, and this can be done by using the National Educational Technology Standards for Students (NETS) as a guideline to create the contexts that would make such skills applicable (International Society for Technology in Education [ISTE], 1998).

According to the NETS, activities should be designed to foster growth in creativity and innovation, collaboration, research and fluency in analyzing information and problem solving, among other things (as cited in Shamburg, 2008). Technology can be used to create the contexts in which skills are being used for these purposes. As such, aside from creating shared products,

technology can be used to facilitate activities that replicate authentic uses for skills such as conducting research for specific purposes and using information to solve problems.

Consequently, if students are generating authentic solutions to authentic problems, they should have a platform through which their authentic ideas on these authentic matters can be shared.

For instance, conducting research is something that is required in many professions, and it also has implications for practical daily life. If one wants to determine whether or not they want to watch a movie in theatres, they may research information on it to make an informed decision. If one wants to determine whether or not a particular purchase would be a prudent decision, they would research information on that item. Mastery of such a skill has potential to enrich the lives of individuals who have mastered it, yet "Student research was not easy to teach...before the Web" (Shamburd, 2008, p. 29). With the advent of the Internet, however, new implications for research have been created, as information is easier to access, thereby making enhancing the social aspect of conducting research — social referring to the ability to interact with shared ideas. According to Shamburg, conducting research through the Internet make the learning process "...internal and social [as] students internally revise their prior knowledge through social interactions with other people — interactions in forms as various as reading, having conversations, and watching Youtube videos" (Shamburg, 2008, p 33). Essentially, by exploring ideas through the lenses of other who have shared their ideas on a particular subject acts as a dialogue through which students make meaningful connections among those ideas. These connections are made through the practice of content related skills, such as the NJSLS standards for reading informational texts. Moreover, reporting the findings of one's research gives students a sense that they are reporting to an audience, and "The power of an audience, real or imagined, does a lot to guide student research...[as the learning is situated] in authentic or

simulated roles...that reflect actual activities outside of school [which] motivates students and provides a support system of reasons and expectations for their work" (Shamburg, 2008, p. 33). Essentially, by situating learning within an authentic context, students understand why certain skills are useful, thus motivating them to maximize their output when they are applying skills to create final products. The interactions with different online sources also makes the research process more authentic, as students are engaging in a dialogue of sorts with various people and their ideas, which allows them to make meaningful connections among ideas through use of content related skills. Technology can be used to facilitate this process, as it provides a means of making the aforementioned dialogue an easy process, and it can be used as a means by which students can shared the connections they made by applying content related skills to a final product that can be shared with a wider audience.

Technology can facilitate the process of students applying skills to create final products that will be shared with a wider audience through a variety of means. Among them are podcasts, the creation of fanfiction, blogging, the creation of wikis, online memoirs, and videos, among other technological platforms. Podcasts, for instance, can facilitate this process as they can be used to complete audio essays "...the [most] salient feature [of which]...is that it connects students' experiences with some larger social or political issue" (Shamburg, 2008, p. 40). The nature of many podcasts are political, and — as such — students can engage in skills associated with investigated journalism (which also pertains to various skills for reading informational texts, outline by NJSLS) in order to provide commentary on it. The podcast can be shared with the school community and broader communities beyond that.

The same applies to having students create fanfiction, which can also be shared through podcasts. "Fanfictions refers to the cultural phenomenon in which fans write and share fictional

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works based on the stories that capture their interests" (Shamburg, 2008, p. 49). Because these stories are rooted in existing stories, students will have to practice skills for reading literature and and writing that are outlined by the NJSLS to ensure that their writing is not only coherent, but is in accordance with and follows from the spirit of the source material. For instance, student would have to determine characters motivations in order to create new conflicts for them, which pertains to the third standard for reading literature, outlined by the NJSLS. This standard posits that students are to analyze characters' interactions and how they advance the plot (NJSLS, n.d.). Student that can effectively do this will invariable be able to create scenarios that these characters are likely to find themselves in, considering the nature of the character and his/her interactions with the fictional world in which he/she is immersed. Moreover, because such works can be shared with a broader community, through "Online blogging communities such as LiveJournal and sites such as FanFiction.Net..." (Shamburg, 2008, p. 50), students will be motivated to produce quality works that make sense, as they will want recognition within that community. In the same vein, the creation of a wiki will prompt student to maximize their output, as their work will be shared with a broader audience and community, which provide students with authentic contexts in which they would seek validation. Effective employment of skills to create neatly polished final products where ideas are conveyed accurately and thoroughly will secure such validation.

Among all of the suggestions offered by Shamburg (2008) for technology use in the languages arts class, his proposal to use videos to create final products is among the most salient. This is due to the fact that it affords students the benefits of engaging in social learning in the same ways as each of the aforementioned technological platforms and offers students a larger

variety of tools and avenues through which they can apply content related skills to convey their ideas.

Aside from embodying principles of constructionism, using technology to facilitate language arts instruction in ways proposed by the existing literature are also indicative of social constructivist principles of learning, which "...ecnompasses theories that focus on how people work together to create new knowledge..." Ormrod, 2012, p. 155) which occurs as a result of the establishing of a shared culture and space in which students' final products are viewed by a larger audience. Because incorporating such use of technology, such a video editing software that will allow for shared final products to be created encourages students to maximize their output in activities related to language arts, it is prudent that such use of technology be implemented in our institution, as this is an area of growth, as indicated by Partnership for Assessment of Readiness for College and Careers (PARCC) data.

#### **PARCC**

Partnership for Assessment of Readiness for College and Careers (PARCC) is a group of states that work collaboratively to design and administer state assessments. These assessments are used to monitor student progress in lieu of individual state assessments and provide teachers and parents with information about students' skills and development. These assessments evaluate college and career readiness starting in third grade. Evaluating college and career readiness and assessing students yearly, allows teachers and parents with opportunities to prepare their children for the future. The PARCC exam assesses the students in English/Language arts. The exam aims

to be an assessment of competency in problem-solving skills higher-level critical thinking.

PARCC assesses the development of skills needed for students to succeed.

Through a careful review and analysis of the XYZ school district 2017-2018 PARCC assessment results, the districts' administration has identified a need for an increase in student achievement in English Language Arts. Although the district strives to show an increase in student achievement in both content areas, the focus for this upcoming year will be in English Language Arts due to a significant decrease in scores.

PARCC develops a two page report titled the PARCC District and School Evidence
Statement Analysis Report, which analyzes the performance of the PARCC evidence statements
at a state, district, and school level for each item on the assessment. Evidence statements can be
referred to as the actual standard on the assessment. Data is reported for each grade level and
content area and compares the school, district, and state. The evidence statements are listed on a
graph from most difficult to least, which allows the district to see what standards students
excelled in and the standards that students had the most difficulty with. The second page of the
report provides a district student count, which informs the district on the number of students who
actually responded to the specific item. This is useful for districts to focus on the items that most
students responded to, but had the most difficulty with. This report clearly allows for the district
to use data to drive instruction.

#### **Educational Technology**

According to the Association for Educational Communications and Technology (2008), "Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources".

As Educational Technology leaders in an effort to improve student performance on the PARCC assessment in English Language Arts for the XYZ school district, we are recommending the integration of video creation/video editing as an innovative tool that will stimulate student learning and understanding of a variety of concepts. The following systematic unit has been designed related to video editing software as a proposal to increase PARCC scores in English Language Arts based on the evidence statement analysis report.

## **Uses for Video Editing Software**

Outlined in this proposal are several projects students can complete, using the proposed technology. These outlines will delineate how this technology can be used as a catalyst through which students will be able to apply content related skills to relevant contexts, which also pertain to their interests, thereby making learning more meaningful. Essentially, use of this technology will encourage deeper learning and autonomy, as students will be planning, organizing, writing, communicating, collaborating, and analyzing content via student-centered learning activities.

## Research Project Using iMovie/Movie Maker

Personal involvement with a project results in increased and enhanced learning. By using videos, students apply various content related skills in authentic ways, which invites deeper inquiry and promotes precision, on part of students' responses or solutions to a problem. Thus, the completion of a video fosters mastery of various skills in order to communicate ideas. Such activities can would involve — but are not limited to — the following NJSLS skills:

- NJSLS.ELA-READING HISTORY.RH.6-8.7: Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
- NJSLS.ELA-READING HISTORY.RH.6-8.8: Distinguish among fact, opinion, and reasoned judgment in a text.
- NJSLS.ELA-READING HISTORY.RH.6-8.9: Analyze the relationship between a primary and secondary source on the same topic.

### **Digital Storytelling**

Digital storytelling is another powerful activity through which students can apply the skills pertaining to language arts for both reading literature and writing. For example, one of the skills of the (NJSLS) for reading literature posits that students should be able to analyze how a particular point of view is reflected in literature. The relevance of such a skill lies in the fact that stories are inspired by the concerns and values of the culture that produced it. Such an notion can be reinforced for students, as they can create stories which reflect particular points of view that people from various societies have. Such an activity will involve — but not be limited to — application of the following NJSLS skills:

- NJSLS.ELA-READING LITERATURE..RL.9-10.6: Analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.
- NJSLS.ELA-WRITING.W.9-10.3: Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

 NJSLS.ELA-WRITING.W.9-10.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

#### **Book Trailer**

Chance and Lesesne (2012) define a book trailer as a visual representation of a book. Its main purpose is to entice an audience to seek out the book's full version. By advertising a book they've read for a variety of purposes by making a "movie trailer," students will be introducing the plot, characters, setting, problem and solution in a dynamic and authentic manner, as various forms of media would be involved: live video clips, pictures, music, voice-overs and other digital media. Students will also be using these digital tools to re-create significant scenes from the text. As this will require them to determine what constitutes a significant scene, specific skills outlined by the NJSLS would be applied. For instance, since important excerpts are ones that move the plot forward by revealing details about the conflict and that relate to the theme or central idea of the story, skills pertaining to the respective third and second standards outlined by NJSLS will have to be practiced. Moreover, the authenticity of such an activity is expounded upon due to students having the affordance of being able to share their final products on websites such as www.booktrailersforreaders.com. Also, the activity is designed to encourage NJSL skills to a professional field: film marketing and marketing in general. Since they are applying the skills outlined by the NJSLS, their ideas they learn become powerful ideas (Bers, 2008).

#### **Considerations and Solutions**

There are many things to consider when systemically implementing the use of video editing tools and software. Among these considerations are funding for the purchase of software/program licenses, funding for training, facility management, online safe/legal

regulations, and classroom management. Clearly stating the costs of technology implementations and how such implementations will be funded is imperative. A communications strategy is needed to share the technology and learning goals with all stakeholders. A readiness assessment will identify the starting point and a path toward desired outcomes. Planning an implementation that starts small and expands over time supports the growth for policies, procedures and tests the infrastructure. Clear goals and milestones must also be formulated (Frazier, 2012).

#### Funding For The Purchase Of Computers Software/Program Licenses

The cost associated with the purchase of computers and associated software is a primary consideration when implementing video editing programs. Laptop and desktop computers must be secured, as well as the necessary software. Thus, considerable money must be spent in order to create an infrastructure conducive to use of video editing. Computers may incur a cost within the range of \$299- \$1800 per computer, and — according to the National Education Association, there is an average ratio of 12 students per teacher in New Jersey. Even given the most conservative of estimates, a school must have a minimum of 12 computers for each building. (Rankings of the States 2012 and Estimates of School Statistics 2013, 2014). A such, districts can expect to spend, \$3600- \$21,600 on only meeting the minimal requirements for technology. Moreover, Current video editing software can range from between \$4.98/year per user (Collaborative video projects for your digital classroom, 2016) to \$50 per user. (DVD MovieFactory Pro 7, 2016). A SWOT analysis of strengths, weaknesses, opportunities and threats can be used to determine conditions that are essential, citing evidence and responding to strategy questions maximizing strengths, minimizing threats and how these will be prioritized (Frazier, 2012).

There are, however, a variety of solutions that can be provided to address the issues associated with costs regarding purchasing software and licenses for said programs. One solution can be using video editing software that is built in to the purchased hardware, such as iMovie or Windows Movie Maker. These programs are standard on Mac or Windows computers, respectively. Additionally, the purchase of programs and/or licenses such as Videostudio Pro X9, or use of Wevideo and Kioza can be cheaper alternatives to the basic built in video editing software being that both Videostudio Pro X9, and Wevideo provide discounts to school districts, and Kioza is free to use. That lattermost alternative — using free video editing platforms that can be found online — can work well if the most cost effective options, such as the purchase of Google Chromebooks, are standard. As Google Chromebooks' exclusivity to use of applications on Google Play comes at the expense of being able to use certain types of video editing software, utilizing free online platforms would be the most prudent recourse.

Furthermore, funds can be raised in numerous ways including grants from district PTAs, online fundraising/crowd-funding sites such as gofundme.com and donorschoose.org, grants from various charitable organizations, and donations from local organizations within the community.

#### **Funding for Training**

Additionally, implementation of video editing programs will incur costs associated with training teachers; such costs must also be taken into consideration. Depending on the software purchased/licensed, the cost of training/online support can range from \$4.99- 23.58 per user (Collaborative video projects for your digital classroom, 2016), (DVD MovieFactory Pro 7, 2016). However, mobilizing stakeholders including community groups and parents can allow

school districts to attain the funding for such an initiative. For instance, one could apply for grants from district PTAs to accomplish such a task. Additionally, donations can be sought from local community organizations. Donations can also be attained using the interconnectedness of the global world through online fundraising and crowdfunding platforms, such as Gofundme and Donorschoose. Another form of recourse to raise sufficient funds would be to attain grants from various charitable organizations. However, outsourcing is not absolutely necessary, as utilizing knowledgeable personnel from within the school district is most cost-effective, in terms of providing professional development. Such faculty led professional development can be free, so it would likely be the best recourse for professional development. Also, in order to remain current on trends in technology, these teachers can be sent to technology conferences such as the ISTE conference or NJECC conference for low costs, for the purposes of providing the most relevant professional development to the staff, when they turnkey what was gleaned from these conferences, ultimately saving the district money and resources.

#### **Facility Management**

Attention must also be paid to use of media facilities. As software programs are expensive, software and/or licenses must be shared amongst departments or schools. As such, measures must be taken to facilitate and ensure equitable access to resources. One way this can be accomplished involves having media center signup forms, on which teachers will be able to schedule specific times to use the media center within a given month. This will afford all equal access to the media lab facility, as each teacher will have the same amount of time available to reserve.

# Conclusion

In an order to provide all students with a rigorous and powerful education, educators and educational decision should apply the principles of constructionism and social constructivism to their pedagogy. This will allow students to develop powerful ideas and promote use of skills and analysis of information and encourage them to maximize their output, as using the technology to create authentic, shareable projects allows student to fully apply diverse and unique skills to make an impact on their world.

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