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MOTIVATING STRUGGLING MIDDLE SCHOOL READERS: DIGITAL IMAGES AS AN AID FOR SELF-MONITORING AND ENHANCING RETELLINGS OF TEXT

By

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ABSTRACT

The benefits of motivation, mental imagery, self-monitoring and guided retellings on reading comprehension have long been lauded as effective methods for improving reading achievement. At a time when technology continues to flourish, yet secondary reading performance remains at a level far below proficiency, identifying strategies that assist in efforts to advance middle school readers via digital resources is critical. This work, therefore, links these influential ideas and presents a promising approach for working with struggling readers. The use of technological devices during mental imagery activity and self-monitoring tasks is introduced and encouraged as a best practice when reading narrative and informational text. As narrative story elements and/or expository text structures are encountered, struggling middle school readers curate digital images that represent mental pictures that are internally and socially constructed during the reading process. This collection of digital images is then utilized as a motivating resource and aid for adequately supporting and enhancing retellings of text.

Keywords: Technology Integration, Comprehension, Mental Imagery, Retellings, Self-Monitoring, Struggling Readers, Culturally Responsive Instruction.

INTRODUCTION

It was back in the 1990's, when a mathematics program named, "Read It! Draw It! Solve It!" was very popular among elementary teachers in the United States (Miller, 1997). This was so well liked, because it allowed for struggling young mathematicians to capitalize on the use of visuals to assist in their acquisition of challenging math concepts presented through story problems. Here, students read the problem, sketched visuals to assist in comprehension of the task, and eventually put computation in motion and solved the problem.

This once fashionable practice of using visuals to monitor understanding is not solely beneficial for mathematics, but when reading narrative and informational text, as well. Keene & Zimmerman (1997) highlighted the advantages of sensory images when comprehending text, which was widely introduced and currently known as mental imagery (Gambrell & Bales, 1986). Mental imagery was launched as a method for self-monitoring understanding of text through visuals (Gambrel & Bales, 1986). These images popped into the reader's mind as various elements of text were encountered. Readers creating such images in their minds served as a vehicle for benchmarking or self-monitoring their understanding of passages they encountered (Pressley, 2002).

Scope and the Need for the Paper

With a minimal thirty-seven percent of 12th graders scoring at or above proficiency on the 2015 NAEP results, practices that benefit adolescent readers are a necessity (U.S. Department of Education, Institute for Educational Sciences, 2015). This data reveals a lack of significant growth in the area of reading that continues to plague schools in the U.S. With these statistics in mind, it becomes difficult to ignore the needs of struggling readers. More specifically, there is an even greater urgency to advance work related to secondary level readers and their lack of engagement with text often resulting in limited academic achievement (Guthrie & Davis, 2003). The scope of this

paper, therefore, addresses this gap in reading performance and is built on the foundational work related to the positive effects of motivation, mental imagery, self-monitoring and guided retellings on reading comprehension. It has been designed with the aim of equipping educators with the tools for engaging middle school readers with text.

Conceptual Framework

Self-Monitoring

Self-monitoring text is a foundational component of reading comprehension. It is rooted in the idea that understanding of text is reliant on consistent evaluation by the reader. The reader, therefore, periodically stops and employs a meta-cognitive check assuring, that sufficient progress or understanding is being made (Pressley & Ghatala, 1990). If progress is not being made, a fix-up strategy is employed to mend the lack of understanding (Pressley & Ghatala, 1990). These steps are in place to secure understanding of the reading that is taking place. When self-monitoring is not present, or is continuously turning up limited results, comprehension suffers. Pressley and Ghatala (1990) ultimately assert that, it is these poor monitoring skills that attribute to learning failures.

Mental Imagery

Mental imagery is one of the meta-cognitive tools that readers can use to self-monitor comprehension. Gambrell & Bales (1986) endorsed mental imagery because of its ability to, "provide a framework for organizing and remembering information from text" (p. 638). They asserted that, constructing visuals is an easy, natural task for students of all ages (Gambrell & Bales, 1986). Mental imagery also promotes active reading which is widely linked to increased comprehension (Duke & Pressley, 2005).

Struggling readers, though, require direction when embarking on the self-monitoring process through the construction of visuals. More specifically, a structure for creating mental images of basic, key story elements such as the character, setting or significant plot development is encouraged (Duke & Pressley, 2005). Stopping and generating images based on these elements strengthens memory and the likelihood of adequate understanding at the conclusion of the reading of text (Pressley, 1976).

Additionally, there are values in transferring mental images, constructed internally while self-monitoring, to an external platform (De Koning & Van der Schoot, 2013). Although these external platforms typically involve a pencil and paper based medium, there are ample opportunities for presentation through various technological devices. Tablets, smartphones, and personal computers, all house embedded resources for searching, capturing and revisiting digital images representative of student internal visualizations or mental images.

Guided Retelling

As noted, the overall goal of self-monitoring through mental imagery is to attain greater success comprehending text. One promising route for rehearsing and assessing reading comprehension is known as a retelling (Gambrell, Koskinen & Kapinus, 1991). A retelling is as would be expected, a student account of the story elements or main aspects of the text that was read.

Retellings reveal both comprehension of the text, but also evidence of student discourse or the ability to enact language (Morrow, 1986). This opportunity to employ language allows for dynamic engagement in the reading process and self-evaluation during the presentation of comprehension of text (Morrow, 1986). Many reinforce the benefits of verbal rehearsals through oral retellings (Gambrell, Pfeiffer & Wilson, 1985). Yet, many also caution that student discourse does play a consequential role in retelling performance. "Retellings are as various as the readers making them" (Irwin and Mitchell, 1983, p. 391). As a result, researchers have just begun to note this practice as having those qualities aligned with culturally responsive instruction (Piazza, 2012). Students are provided opportunities to gather images that best represent individual interpretations of text based upon socio-cultural experience and language living with their personal discourse (Gee, 1989).

With this in mind, that retellings provide insights into a student's ability to comprehend and that mental imagery or the creation of visuals as a tool for self-monitoring supports such comprehension, why not consider technology as a vehicle for supporting struggling readers in their work with images to promote language and learning.

External visuals (Hibbing & Rankin-Erickson, 2003), such as those that appear online, can be used when the images are not constructed internally and serve as a quality resource for retelling. Morrow (1985) refers to a scaffold for retelling via visuals or cues as a guided retelling (Morrow, 1985).

Motivation and Struggling Readers

In addition to the overt, supportive strategies and methods deployed when working with struggling readers, there is a critical covert element that requires attention, as well. It is motivation. When considering struggling middle school readers, motivation is paramount (Guthrie & Davis, 2003). These middle schoolers are students who have been challenged by the reading process long before their arrival in the sixth grade. For this reason, tending to the self-efficacy and willingness of these students to participate in literacy based activities holds a place on the forefront of any effort in working with struggling adolescent readers.

The idea behind using technology as a resource for collecting images to encourage self-monitoring and comprehension houses a few key aspects of motivation. First, it allows for autonomy (Guthrie & Davis, 2003). As a child reviews narrative or informational text they may hope to house a visual in their mind but are uncertain of what that image might entail. Autonomy enables each student to access a tablet, smartphone or personal computer, open a search engine and search for an immediate image. When they are presented with a series of visuals via the search engine results, they also have the autonomy to select the image that best represents their view of the item and enacts a culturally responsive approach (Piazza, 2012). Therefore, it is this simple step allows for interaction with the real-world and actual images of how these items appear in the landscape that surrounds our learners outside of the classroom which is also widely practiced as a motivator for struggling middle school readers (Guthrie & Davis, 2003). These personal connections have proven effective in improving retellings (Piazza, 2012).

Steps for Implementation

So how do all of these pieces fit together in a way that benefits lower performing readers? As with any new strategy being introduced to students at any level, it begins with the teacher. Modeling by the instructor is required (Moss, 2004, Gambrell, Kapinus, & Wilson, 1987). Thus, it becomes vital that when the process of utilizing technology to locate digital images while self-monitoring a structure and explicit instruction is in place (De Koning & Van der Schoot, 2013). For this reason, it is essential that, a gradual release (Pearson & Gallagher, 1983) occurs as a method from moving from explicit teacher instruction regarding strategy use, to guided student practice and ultimately becomes independent student practice.

Once the aspects of effective instruction are in place, the next step involves text selection. The text can be narrative or expository in nature and should be at the instructional reading level of the student. If the chosen text is narrative, the task will require students to locate images that represent self-monitoring of basic elements of a story: characters, setting, plot (Morrow, 1985). If the text is informational or expository in nature, students have two options. One of these options include locating people, settings and plot related to the passage. For instance, they might select a leader of a historical battle, the location of the battle and the plot that ensued. Alternately, teachers and students might also use this as a valuable opportunity to explore text structures that exist in expository pieces such as: cause effect, compare contrast, description, problem solution sequence. Such identification of text structure is critical at the middle school level, and is much more challenging than a narrative retelling (Caldwell & Leslie, 2003). In this example, students would locate images that best represent the cause(s) of the historical battle and images that reflect the effects of the battle, as well.

Once the text has been established, it is important for the teacher to provide clarity of the task through an explanation of the elements, students should be able to use as a framework for self-monitoring and gathering images. For example, if reading a narrative text, the teacher clearly states that, students are to locate digital images related to the characters, setting and plot. If reading informational text, teacher discloses if elements related to people, setting or plot or a specific text structure will guide the activity.

As noted, the teacher then models the process of

systematically gathering mental images via a digital source. The teacher models with a short, sample text typically, one to three paragraphs in length. He/she reads the brief text aloud and models the stopping and self-monitoring of understanding of the text based on the elements such as character, setting and plot. He/she might stop in the first paragraph, think aloud about a character that was introduced and then model placing a search term for that character within his/her search engine and scanning images that best align with suitable details used for describing the character. During this model, it is crucial for the instructor to model appropriate time management for such searches.

Upon the close of the teacher model, the students are introduced to the text – typically 2 to 3 pages in length - and reminded of the narrative or informational text elements or stopping points that are specifically driving the self-monitoring process. At this time, students silently read the text and begin the process of stopping and self-monitoring understanding based on the framework or elements introduced by the teacher (i.e. character, setting, plot or cause effect, compare contrast, description, problem solution, sequence). As each stopping point is reached, a digital image is sought via tablet, smartphone or personal computer. A screen shot of these images is gathered and stored as a photo within the technology. If printer access is available, students might also print the image upon a quick command.

At the conclusion of the reading and assembling of digital images supporting the pre-assigned elements from the text, students are asked to review the images selected via electronic scrolling or physically scrolling through printouts and reflect on the overall meaning of the passage.

Hence, the final step involves the actual retelling of the text through use of the images to guide the retelling. This retelling can occur with student peers in a collaborative manner or can be teacher directed. Motivation lies within the option to allow for students to collaborate on a verbal retelling once their images have been compiled and they are ready to cumulatively retell their story (Hoyt, 1999). For many social middle schoolers, this increases the enjoyment of retelling and sharing (Wood, 1987, Robb, 2000) the personally selected digital images. Students can add to one another's story as an extension, as well (Wood, 1987). Yet, assessment lives in the option for a teacher directed retelling. With either scenario, it is important to maintain accountability for the ultimate goal of the task, which is adequate retelling of the encountered text.

One route for measuring student retelling success is through the use of Irwin and Mitchell's (1983) framework that rates the quality of depth within the retelling. This depth or detail is referred to as, richness (Irwin & Mitchell, 1983). It is this richness that often sets apart a strong middle school reader from one who is less proficient. It is also this richness that can be enhanced through use of technology and digital images.

- Student generalizes beyond text; includes thesis (summarizing statement), all major points, and appropriate supporting details; includes relevant supplementations; show high degree of coherence, completeness, comprehensibility.
- Student includes thesis (summarizing statement), all major points, and appropriate supporting details; includes relevant supplementations; shows high degree of coherence, completeness, comprehensibility.
- Student relates major ideas; includes appropriate supporting details and relevant supplementations; shows adequate coherence, completeness, comprehensibility.
- Student relates a few major ideas and some supporting details; includes irrelevant supplementations; shows some degree of coherence; some completeness; the whole is somewhat comprehensible.
- Student relates details only; irrelevant supplementations or none; low degree of coherence; incomplete; in comprehensible (Irwin & Mitchell, 1983).

Conclusion

Motivation and comprehension are two areas frequently highlighted as having significant impacts on struggling middle school readers. This work presents a route for integrating technology and the instructional practices of mental imagery, self-monitoring and guided retellings. With implementation, students are found engaging with

technology and in active reading through ongoing visualization related to their self-monitoring of story elements and text structures they encounter. Students are transformed to curators of meaningful digital images. These images hold great promise as an aid in oral retellings, but also as a culturally responsive strategy for assisting struggling readers.

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