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Pre-Service Teachers' Perspectives on How the Use of TOON Comic Books during Guided Reading Influenced Learning by Struggling Readers

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Cover Page Footnote

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National guidelines such as the *Standards for the 21st Century Learner* (American Association of School Librarians, 2007) and the *Common Core State Standards* (Common Core State Standards, 2010) recognize the importance of using a wide range of informational texts, including comic books and graphic novels to teach content, in kindergarten through fifth grade (Gavigan, 2014). To reinforce this expectation, the Common Core State Standards website features a video clip, "Learn about the Common Core in 3 minutes" (<http://www.corestandards.org/about-the-standards/>), in the format of a comic informational text that introduces the reader to the CCSS standards.

Comic books and graphic novels, as examples of sequential art, have gained a prominent place in education (Gavigan, 2014; Hammond, 2012; Mortimore, 2009). Weiner and Syma (2013) reported, "Teachers in secondary and elementary schools, professors in universities, and instructors of all kinds are using comics and graphic novels to illustrate points about gender, history, sociology, philosophy, mathematics, and even medicine" (p. 1). Thus they concluded, "It is no longer a question of whether sequential art should be used in educational settings, but rather how to use it and for what purpose" (p. 1).

The study presented in this article examines the use of comic books, TOON comic books, during guided reading. The TOON book concept was created by Françoise Mouly, an art editor of *The New Yorker* magazine, and her husband, Art Spiegelman, a prizewinning comic book artist, and author of *Maus: A survivor's tale* (1986). On the official TOON comic book series website (<http://www.toon-books.com/our-mission.html>), Mouly and Spiegelman indicated that these books were designed to promote literacy skills development among elementary students at different reading levels. The instruction with this comic book series was provided to struggling readers, kindergarten through fifth grade, by the pre-service teachers enrolled in the *Early Literacy* and *Literacy Assessment and Applications* courses at a comprehensive university in southeastern United States. In this work, a struggling reader is defined as a student who reads below grade level and who lacks proficiency in decoding, fluency, and comprehension skills (Rasinski & Padak, 2005).

Theoretical Framework

This study is informed by a visual literacy approach, which emphasizes that today's learners acquire information and make sense of text predominantly through visual modes of communication (Frey & Fisher, 2008; Jennings, Rule, & Zanden, 2014; Kist & Pytash, 2015). Burmark (2008) explains, "Because of

television, advertising, and the Internet, the primary literacy of the twenty-first century is visual. It's no longer enough to read and write text. Our students must learn to process both words *and* pictures" (p. 5). The National Council of Teachers of English (NCTE, 2003) expects that all future language art teachers will incorporate visual literacy into their classroom literacy instruction. Teacher candidates are asked to be "knowledgeable about language; literature; oral, visual, and written literacy; print and non-print media" (NCTE, 2003, p. 6).

In this work, visual literacy is defined as the ability to understand not only "design elements" and "the various sign systems (e.g., photography, diagrams, graphs, typography, illustrations)" but also the ways in which "images represent and construct meaning" (Serafini, 2011, p. 343). This in turn requires knowing how these complex design elements and sign systems relate to one another in a multimodal text and knowing how to navigate through such complex structural and semiotic systems (Serafini, 2011). This is because "written text and visual images are governed by distinct logics" (Serafini, 2011, p. 343). Accordingly, while a written text compels "'a reading path' set by the order of words" which the reader "must follow" (Kress, 2003, p. 3), a comic book relies on a "sequence in time" and "the logic of space and spatial display" to provide a path for reading images (Kress, 2003, p. 4). In addition, in order to interpret visual material, readers must employ "visual thinking" as well, which entails "thinking about" what [they]'re seeing or "visualizing what [they]'re thinking" (David, 2012, p. 26). Duke et al. (2013), who studied this area closely, found eight concepts of graphics that they considered "fundamental to understanding how graphics work in texts," such as "Action (*static graphics can be interpreted as representing dynamic action*) or Representation (*illustrations and photographs represent objects, but do not share the same physical properties as those objects*)," among other elements (p.175).

Comic books in this work are books written for children and that are in a comic book format, which means that they include text, images, word balloon sound effects, panels and other comic book elements. Although comic books can be any genre, including "funny animal comics, romance comics, superhero comics, Tijuana bibles, alternative comics, autobiographical comics, mini-comics, graphic novels, comix, adult comics and fumetti (also known as photo-comics)" (Abell, 2011, p. 69), the comic book genre in the context of our work is a simple fictional narrative that resembles in length and structure a narrative in children's literature, especially a picture book. Such narrative is typically a story with traditional beginning-middle-climax-end structure. Within the narrative plot sequence, a main character, the protagonist, faces a problem or a conflict, which grows over time and requires help from other characters to solve, as well as a resolution and a lesson or insight for all, especially the protagonist who learns and changes in the process (Shepard, 2016). The comic book format is however what

makes a comic book and what distinguishes it from a picture book or other forms of children's literature.

Accordingly, in our analysis, we are interested in pre-service teachers' perspectives on how the visual and textual conventions, design principles, and modes of expression of the comic book influence learning by struggling readers during tutoring. More specifically, the analysis process concerns the influence of a comic book as regards: a) the content and its appeal to young learners in kindergarten through fifth grade; b) the conventions and affordances of a comic book and their effect on student skill development; and c) the conventions and affordances of a comic book and the difficulties they may pose to the novice reader.

Benefits of Comic Books and Graphic Novels for Student Learning

Previous research has established many educational benefits resulting from the incorporation of visual literacy, including comic books and graphic novels, for student learning and achievement. Humphrey (2014) explains that "educational comics (by which we mean comics designed primarily to inform, educate and/or provoke further study) have been published since before World War II" (p. 73). There is a "growing presence of comics in school and university libraries" due to "the increased literary legitimization of graphic novels" (Humphrey, 2014, p. 73). Versaci (2008) argues, "Visually speaking, comics lend themselves to extensive interpretation, providing teachers with numerous opportunities to help develop visual literacy among their students" (p. 97). Duke et al. (2013) reported however a great deal of variability in developing understanding of the fundamental concepts of graphics in text, not only at but also within grade levels among the children in their study. Specifically, they observed children having acquired different concepts at different grade levels, with some children showing "much greater acquisition of concepts than their peers" (p. 198). For instance, as indicated by Duke et al. (2013), by the end of pre-K, all children had no difficulties with understanding static graphics that represented dynamic actions. By the end of second grade, all children demonstrated an understanding of the graphics that communicated the purpose and the larger context of the text, or the graphics that illustrated the information provided in the text, but the majority of the children, even at the end of third grade, were confused when the graphic art provided additional information to what was presented in words alone, or when the information represented in the graphics conveyed a more important point than content appearing in other places in a text. These findings suggest the need for differentiated instruction when reading comic books to meet the needs of all readers.

Comic books and graphic novels help readers advance their comprehension skills. For example, Rapp (2011) contends that understanding textual messages (words) in comic books requires not only “determining the underlying concepts those words convey, relying on grammar to determine how those concepts fit together, and drawing inferences that go beyond what’s explicitly stated in the text” (p. 64) but also “learning the ‘language’ of comics” and “recruit[ing] other processing behaviors that support comprehension” (Rapp, 2011, p. 64).

One such processing behavior is constructing meaning. Specifically, Serafini (2012) offers that when reading multimodal texts such as comic books, readers have to design their own reading path from “numerous paths possible given the compositional and spatial arrangements of multimodal texts” (Serafini, 2012, p. 28). That is, readers need to “construct the actual texts to be read and interpreted” (p. 29), as opposed to relying on the predetermined texts and direction for reading of non-multimodal texts. Interpreting comic books thus positions the reader as “*reader-reviewer*,” which in turn requires a different skill set than the one readers are used to employing to comprehend “monomodal, print-based texts” (Serafini, 2012, p. 26).

Similar to pieces of work possessing only alphabetic text, comics can be used to help readers improve critical thinking through an analytical process that they employ to find meaning in them (Rapp, 2011). Such a process requires “analyzing text and forming interpretations, development of meaningful thesis, control of organization and effective use of evidence and supporting details,” among other skills (Olson & Land, 2007, p. 271), and it is applied to *both* textual and visual information, within text, images, and panels as well as between these semiotic and structural meaning making systems (Serafini, 2011). Unfortunately, these skills are not always taught to struggling readers because many teachers believe that they “are too sophisticated for the population they serve” (p. 271).

In addition, reading comic books and graphic novels, as well as writing/creating comic books can help to create an enjoyable learning environment and active engagement (Rapp, 2011), especially for “children with reading problems or deficiencies because they view it as recreational reading rather than academic reading” and because comics “offer a visual element for comprehending the text (McVicker, 2007, p. 87). The motivational merit of reading and creating comics was observed among 5th and 8th graders who participated in an after school program, The Comic Book Project, in Bitz’s (2004) study. One of the main questions of the study asked, “Will children who are not performing well in English or who are struggling in all their academic classes stay engaged in a project if it involves an extensive reading and writing component?” (Bitz, 2004, p. 575). In a survey that was conducted at the end of the study, 92% of students said that they liked writing their own stories, 94% reported that they

liked to draw pictures to accompany their stories, and 86 % believed that they improved their writing. The classroom teacher reported, “The children who remained in the project demonstrated interest and willingness to participate [in reading activities], keeping the goal of their very own comic books in mind” (Bitz, 2004, p. 585).

In Chase, Son, and Steiner’s study (2014) on graphic novels and teaching sequencing among first and second grade students, all students found graphic novels a highly motivational and enjoyable reading material and they all believed that they improved their writing and sequencing skills. The researchers agreed. Thus, we ask: Will the TOON Comic Book series have an appeal to the struggling readers in our study and will the use of these texts create an enjoyable learning environment for these students? We are also interested in pre-service teachers’ perspectives about the ways in which struggling readers interpreted graphics in comic book text and the ways in which these pre-service teachers supported their students in this process during guided reading.

Methodology

Participants

The participants of this study were pre-service teachers enrolled in *Early Literacy* and *Literacy Assessment and Applications* courses at a comprehensive university in the southeastern United States, and as such, this was a convenience sample (Creswell, 2009). The courses required pre-service teachers to tutor children in small group and one-on-one settings for the purpose of learning and applying research-based reading and writing strategies.

The pre-service teachers were all undergraduate students in their junior and senior years in either early childhood education or special education. There is a great deal of uniformity among these pre-service teacher participants, all of whom were under 25 years of age, primarily female (with one male) and of Caucasian background. Each pre-service teacher completed study consent forms.

The students the pre-service teachers tutored were struggling and reluctant readers and writers, from kindergarten through fifth grade. They were identified as struggling readers and writers by their parents and classroom teachers due to their low performance on standardized tests and classroom assessments. So that they could receive the literacy supports they needed, the students were enrolled in the tutoring program at the university literacy center that served their community. The pre-service teachers, who were registered for the literacy courses that were taught at this university-based literacy center, were their tutors.

Tutoring with TOON Comic Books

Guided reading was an instructional approach that facilitated tutoring. It was selected because it is a research-based approach that helps teachers “to explicitly teach reading strategies at the students’ individual levels” (laquinta, 2006, p. 418). Fountas and Pinnell (1996) explained the nature of this student-centered approach in this way: “It is through guided reading...that teachers can show children how to read and can support children as they read. Guiding reading leads to the independent reading that builds the process; it is the heart of a balanced literacy program” (p. 1).

Teaching at the students’ individual levels was of critical importance when working with struggling readers in our study as these learners were at a variety of reading ability and achievement levels. The pre-service teachers used the Classroom Reading Inventory (Wheelock, Campbell & Silvaroli, 2009) and running records for assessing children’s reading levels, which ranged from level E (emergent) to R (proficient). The pre-service teachers then carefully chose the TOON comic books that corresponded to these particular reading levels. When selecting a particular comic book, they also considered text supports (i.e. picture clues, punctuation marks, headings, etc...) within the book and the potential of text to “appeal to and delight the children” (Fountas & Pinnell, 1996, p. 135).

The TOON comic books series was chosen because it is widely considered to offer high quality books. TOON comic books won the industry’s top prizes, such as The Comic Book field’s Eisner Award, Newbery and Pulitzer Awards, and they received praise from the School Library Journal and the American Library Association (Ito, 2014). Many of the TOON comic books have been placed on the “Honor Books in Graphic Novel Format” reading list (Chase, Son, & Steiner, 2014, p. 436). To facilitate standards-based instruction in the classroom, TOON comic books are accompanied by Common Core Guides (<http://www.toon-books.com/ccss-aligned-teachers-guides.html>) as well as with read-along videos (<http://www.toon-books.com/read-along-videos.html>). The pre-service teachers in our study were invited to consult these materials if they needed additional support for developing their lessons.

The guided reading lesson plan format that the pre-service teachers used during tutoring was developed by the course instructor, and was based on the Reading Recovery lesson plan format (Clay, 2005). Consistent with a guided reading program, the reading lesson plan incorporated activities for improving children’s attitude towards reading (i.e. use of character voices, using drama to reenact scenes, etc...), motivation (i.e. giving students choice when appropriate), and confidence (i.e. rereading), as well as their literacy skills. The guided reading lesson involved before, during, and after reading strategy instruction, especially,

word attack, fluency, and comprehension strategies. The amount of time spent on specific strategies was based on children's individual needs.

In *Before Reading*, the pre-service teachers introduced text and built background knowledge of the book they were reading with the child, by providing author information and previewing unfamiliar vocabulary. They also modeled reading the text using a specific reading strategy (i.e. making predictions, making connections, or generating questions), which also gave the reader a purpose for reading.

Through *During Reading*, the readers had the opportunity to read independently, and the pre-service teachers modeled the reading strategies that readers needed help with in addition to providing support with the strategy they had started during *Before Reading*. The pre-service teachers also documented the areas where the children were doing well and where they struggled. They used this information to plan the upcoming session.

In *After Reading*, the children reflected on the meaning of the text and made connections to it through extension activities (e. g., writing a letter to the author inquiring about the character issue discussed in the book). They also had the opportunity to reread a section of the text to improve fluency or revisit a word attack strategy and/or a reading strategy, to improve comprehension skills.

Data Collection

This article draws its analysis from the individual and focus group interviews with pre-service teachers. The interview questions were generated based on a review of the relevant literature (Mortimore, 2009; Simons, S., & the Toon Team, 2013; Sonnenschein, Baker, Katenkamp, & Beall, 2006). The individual interview questions asked for the basic background information about the participants and each session's objectives. Examples of these questions are the following:

- Whom did you work with today? (Please use only first name or pseudonym.);
- At what grade level?;
- Which of the leveled TOON comic books have you used in today's guided reading lesson? Provide author, title, and reading level;
- What were the main goals on which you focused today's lesson?;
- How did you use the TOON comic book in this guided reading lesson?

The focus group interview questions, on the other hand, were process questions and they invited the pre-service teachers to reflect on their experiences with comic books as a text and as an instructional strategy. Examples of the focus group interview questions from each category are these questions:

- What were your thoughts about using comics books in teaching, prior to this tutoring experience with the leveled “TOON” comic books during guided reading?;
- When you started using the leveled “TOON” comic books during the guided reading lessons you taught, how do you think students responded to this experience and the comic book genre? Were you surprised by this kind of response?;
- Have you noticed any improvement in student reading and/ or writing skills as a result of using the leveled “TOON” comic books during the guided reading lessons? Why do you think so?

The individual interviews were conducted in one author’s office. The length of each interview was between 10-15 minutes. The focus group interview was conducted with all seven participants in a classroom setting. It was approximately 60 minutes in length. All interviews were digitally recorded for later transcription. The individual interviews and focus interview data yielded 33 pages of transcription.

The pre and post assessment student data were collected to determine student reading levels and performance before and after tutoring. However, in this work these data are mentioned only indirectly and to the extent the pre-service teachers chose to reference them as they shared their observations and reflections on working with their student readers. As the interview questions show, this work concentrates on the pre-service teacher, not the student *per se*.

Data Analysis

Qualitative data analysis was completed on the individual and focus group interview transcriptions (Creswell, 2009). A multi-step approach was used for analysis. First, two researchers independently read the entirety of the pre-service teachers’ transcribed interview data and developed a preliminary coding schema. Second, after the preliminary coding schema was developed, the same two researchers analyzed the data together by randomly selecting a few transcriptions to test and revise their original coding schema. Finally, the researchers identified major themes within the revised coding schema (Stake, 1995). Quotes from the interviews have not been edited for grammatical errors to preserve the integrity of the collected data. All qualitative data were analyzed using the NVivo 10 qualitative software and were hand-coded, as well. Each coder’s final analyses were compared, and they were found to agree 98% of the time. According to Creswell (2009), good qualitative reliability is obtained with 80%, or higher, inter-rater consistency.

Study Limitations

The present study had some limitations such as a small number of the participants. Another limitation is that the comic book tutoring intervention took place only over a six-week time period, therefore, the sustainability of tutoring over an extended period of time should be examined in future studies. A further limitation is that the pre-service teachers were making perceived judgments regarding student learning based on their observations of student learning and their emerging understanding and use of student assessment data. These perceived judgments may thus have a certain degree of bias given the subjectivity of self-report (i.e. interview) and the humanistic desire to want to see growth, impact, and improvement in student learning.

In addition, in this study, the pre-service teachers reflected upon their efforts to support student readers in reading comic books. We did not have the opportunity to study the supports they would provide for students reading a traditional text. This raises the following questions: Do comic books, as opposed to traditional texts, require different preparation and modeling from the teacher and tutor? Do tutors employ significantly different thought processes when they model reading traditional texts and reading a comic book text to student readers? If there are significant differences, will they influence the degree of success by the student reader when reading either type of text? Future research should address these important questions.

Nevertheless, the findings from this study represent novice teachers' experiences (and indirectly of their students' experiences) with using comic books as an educational medium during guided reading. Teachers and teacher educators might find these teachers' experiences and insights helpful in planning and teaching with and about comic books and guided reading in K-12 instruction and teacher preparation respectively.

Findings

What follows is a discussion of four major themes that have been derived from the pre-service teachers' interview data. The themes include: motivation, skill development, challenges, and newness to comics as an educational medium. These themes represent these pre-service teachers' perceptions about how using TOON comic books during guided reading influenced learning by the struggling readers they tutored and as such they represent a secondary source about their readers' experiences with comic books in this study. Also, since the readers they tutored were new to comic books as an educational medium, they acknowledged that they tended to provide a great deal of modeling and scaffold for their student readers. This variable should be considered when reading these themes. The

discussion of the themes is presented from most to least frequent, based on the reference count (See Table 1).

Motivation

Tracy Edmunds (2014, August 4), a Curriculum Manger at *Reading with Pictures* (a nonprofit organization that provides support for the educational use of comics), wrote:

But perhaps the most important reason that kids should read comics and graphic novels is because they want to. Many young readers, when confronted with solid pages of text, become intimidated and overwhelmed and just give up. Give the same reluctant reader a literary graphic novel like *Bone* by Jeff Smith or a historical work like Nathan *Hale's Hazardous Tales* and they dive in eagerly, devouring every page. With many struggling readers, motivation is the key, and comics are motivating (para. 10).

The pre-service teachers' perceptions about how using TOON comic books influenced learning by struggling readers echo Tracy Edmunds' (2014, August 4) experiences as well as the findings from other studies (Bitz, 2004; Chase, Son, & Steiner, 2014; Gavigan, 2014; McVicker, 2007) that found comic books and graphic novels to be highly motivational to reading, especially for struggling learners. In this study, the pre-service teachers shared the ways in which they believed comic books in general, and TOON comic books in particular, provided motivationally supportive learning environments for their struggling readers. For example, one pre-service teacher commented, "I think it is good for hesitant readers who are just kids who don't like to read, and it's a good way to kinda, slowly push them into the room of reading." Others agreed, "I think that if it works with him, a child who is struggling to being able to tell you every detail of what is happening, I think that would work with every student." In yet another exchange, the pre-service teacher explained how a comic book layout supported students with special needs, "...even students with special needs, who enjoy reading comic books better than reading normal kids' books, because it is so spread out, and they get so excited."

According to the pre-service teachers, comic books stimulated and sustained their students' interest because they believed that comic books created fun learning environments to start with. One pre-service teacher commented, "I think it is a fun way to really start reading." Another pre-service teacher likewise commented, "Um, I think it is fun. I like reading them. I like when my study buddy reads them. ..Ya, fun, fun, fun."

The pre-service teachers also noticed that the students looked forward to reading comic books during guided reading. Here is how a pre-service teacher described one student's excitement in anticipation of learning what was going to happen in the story he was reading during the tutorial session:

He definitely looked forward to it every day, and wanted to jump right into guided reading right after running records all the time. And I would have to put it aside and come back to it, going in the order of the lesson, but he definitely always wanted to, he hated giving it up and having to come back to it. He wanted to just finish the book and see what happened.

This pre-service teacher also believed that story reading sessions contributed to this student's engagement and staying focused: "I think it helped the student, especially with his like engagement in the lesson. It was very easy for me to pull out the book and his face light up and want to read it."

What the pre-service teachers believed made TOON comic books a highly motivating and appealing reading material for the students in our study was the fact that comic books provided an element of novelty so much more than the traditional reading text they read in class. In this statement, the pre-service teacher explained what her students considered novel about comic books: "I feel like it is a very inviting way and fun way too to read because it is set up differently." From this pre-service teacher's point of view, the element of novelty her readers found in TOON comic books offered a way of escape from what they perceived as overwhelming and unexciting learning environments, which they associated with reading traditional texts. Research shows that such negative emotions are experienced by many unmotivated and struggling readers in today's classrooms (Bomer & Bomer, 2001). The following pre-service teacher elaborated on what she believed contributed to these negative sentiments based on her own experience with reading at school. The factors she identified as culprits were the excessive length of traditional texts and content mismatch with student interests.

When I was younger, I also did not like to read, at all. Just like me, a lot of what is going on in these students' minds is that they can't be interested in normal books because the words just get all jumbled up, and it is just a whole lot to read to them. And it's not interesting. And it's not fun. And I think with these books, they are fun. And I think in a classroom, it would get students excited to read, and I think that it is something that is missing in our classrooms a lot, in a lot of our classrooms.

This pre-service teacher's personal experiences with comic books helped her to understand and connect to her student's reading experience. At the same

time, the pre-service teacher might have been projecting too much of her feelings onto the student without awareness, which could have resulted in unintentional bias in interpreting (Creswell, 2009) her student reader's experiences.

The pre-service teachers also observed that reading comic books had a positive effect on student confidence. This pre-service teacher explained what this was like for her student. "[It] has built my kid's self-confidence up, amazingly. If he gets stuck, he's constantly looking at the pictures, oooh, and then he is adding things like expressions in, and you know, he loves it. He looks forward to it!" The same held true for other students, "When he is reading TOON books, "he feels like he is really smart," commented another pre-service teacher.

Skill Development

Similar to Chase, Son, and Steiner (2014) who found that "an investigation of graphic novels supported and developed a wide range of reading and writing abilities" in their early childhood class (p. 436), the pre-service teachers in this study observed growth in a number of literacy skills among their students who read the comic books during tutoring. This finding is the second theme that emerged from the data. Specifically, the pre-service teachers believed that reading TOON comic books had a positive influence on their students' oral fluency, and they reported gains in reading speed, accuracy, and reading expression. During pre-testing and post-testing the students read monomodal texts, but during tutoring the children read comic books exclusively. The perceived improvements in fluency and comprehension translate to monomodal texts used during post-testing after the use of comics. The following pre-service teacher explained:

...his pace has also improved, which I didn't put as one of my goals, because at first, when I did his pretest, he did read pretty well. But then, the more that I noticed it, I kinda, like when we actually got to reading, his pace would be so inconsistent, he would look at the pictures for like 2 minutes, and then read the text as fast as he can, and blah blah blah and then he would look at the picture. Now, he actually got where he pauses, looks at the picture, and goes back to the picture as if he is in a normal talking voice.

Another pre-service teacher described similar impact on her student as well, "His expression went from a robot to reading like the character, like a little girl or even on the mouse he read like with a squeaky voice. He definitely noticed the exclamation marks and other punctuation. His expression went through the roof."

According to the pre-service teachers, their partnered reading of TOON comic books also supported their students' early reading skills development. For

example, this pre-service teacher observed her student improve his decoding abilities during shared reading of TOON comic books:

It was easier for him to decode the words and break them apart. Um, instead of him, you could tell when he would read it himself, he would try and sound out each letter, but with that font, he could try to group the letters together and decode it that way.

Another pre-service teacher reported the positive effects of reading comic books on her students' awareness of sight words as well,

...when we work on his sight words and he sees his sight words in the TOON books, he makes sure to point them out to me more. 'I saw this word in the book' and so and so said this. So it is like all of it in one, so that definitely did improve.

Most importantly, the pre-service teachers reported that incorporating comic books as read-alouds into reading instruction helped to improve their students' reading comprehension, especially information recall, as in this teacher's experience:

I have noticed that when we were doing pretesting, his comprehension skills were not too good at all. And with these TOON books, most of the books that we have read, if you ask him, 'What happens at the very beginning of the book, when you are just reading the end of the book?', he can tell you everything that has happened and details. I think that is a really big deal for him because he was not able to do that during pretesting. So I think something about, I guess, him being able to see you say it is what helps him a lot, especially with comprehension.

In many cases, exploring TOON comic books allowed students to relate to the experiences about which they had been reading in these texts. They were able to expand their own understandings of these experiences with the new information they gleaned from these comic books. This pre-service teacher described such personal learning experience for her reader:

My study buddy, he makes connections to himself a lot. Like the first book that we read, *Otto's Backwards Day*, and at the beginning of the book, he walks in on his own surprise party, and ruins it and then his mom is upset with him because he ruined his surprise party. Then my study buddy without questions, he just started talking about things that he's done on his

birthday or if there were ever a time when he ruined one of his birthday parties. He is always bringing stuff in these stories back to himself, which I thought is a really good thing.

Another pre-service teacher explained how reading comic books improved the use of comprehension strategies such as previewing, predicting, and interpreting the visual, “Um, you know, so it is easier for students to read because they have the pictures in front of them but then they’re having to make out what pictures mean, um and how the comic strip goes.” The pre-service teacher compared this process to “watching television, you know, but it’s, you know, square-by-square, you know, comic-by-comic strip.” And she explained that it required “having to make that movement within the picture as well, and um, read who said what. In the boxes, what is happening in the pictures, and making that meaning....”

Finally, the pre-service teachers indicated their students’ improvement in retention of the content their tutors acquired from comic books, as evident in this excerpt:

Before, he couldn’t really remember what happened at the beginning of the story if we are reading the end of the story. And now, um he is remembering everything, he can even tell me what happened in the very first book we read, three books later...

The same pre-service teacher also observed this student’s growth in writing skills, especially “differentiating between the different characters and stuff.”

Collectively, the pre-service teachers emphasized how comic books, more so than traditional books, engaged their students in integrative literacy skill development and active meaning making: “It’s not just reading to understand what you are reading; it’s reading to understand what you are reading, what you’re seeing, putting those together, both...then you can add the voices, and really get into it.” Indeed, engaging students in reading comic texts such as TOON comic books provided these pre-service teachers with opportunities to enrich their student readers’ literacy skills.

Challenges

The paradox of comic books is that the same features that make them highly appealing to young readers also make reading them challenging (Alverson, 2014). The pre-service teachers in this study, who were aware of this paradox, identified several challenges. The discussion of these challenges formed the third theme in the current study.

Some of the immediate challenges focused on understanding the conventions of comic books, in comparison to the traditional monomodal texts, with highly predictable structure and linear story progression, with which they were familiar. Instead, comic books introduced different text orientation and structure as well as different forms of dialogue. They also use bubbles, different lines and shapes to express emotions and to convey the tone of the speakers. All these attributes led to experiencing initially some difficulty in reading these texts by the students in this study. Determining the direction for reading was a particularly difficult task for many young readers in this study. For instance, this pre-service teacher illustrates how her student initially did not know how to orient himself on the page and how to read a comic:

The way it is told is laid out differently than a regular book. And I think that caught his interest but I think he still struggled with okay, 'Which bubble do I read first?' You know, 'If there is one on top of the other, or if there are multiple bubbles on a page, where do I go, left to right, do I go up or down, you know, how do I do that?' And then, you know, there is different characters saying different things at different times, so 'Do I have to, what kind of expression do I use?' It was a rough start.

Another pre-service teacher's student experienced similar difficulties:

Challenge for him, personally, was to follow the text in the book, because of where it was all located, differently compared to a normal text, where it is. 'Point your finger, follow left to right, and then once you finish that line, go down to the next line and finish the text.' 'With this, there is no line, there are only lines within the bubbles, but you have to follow bubbles and lines to catch onto the story.' He had a harder time doing that.

Experiencing challenges by students who are reading the comic book text for the first time is not an atypical experience. Kelley (2010) explains: "Though some students will instantly understand how to read graphic novels, other students may experience difficulties" (p. 9).

In addition, the pre-service teachers saw that pictures challenged their students when they lacked the detail and/ or when they were short on a literal visual-to-text match necessary for adequate comprehension of the content of the comic, a problem that Cary (2004) identified when discussing the use of graphic novels in the multilingual classroom. This is because "[s]ome pictures consistently and directly support and clarify the narrative; they quite literally illustrate the text. Other pictures offer the reader only occasional and indirect support" (Cary, 2004, pp. 59-60). In this study, some students may not have had enough visual detail to

comprehend the content of the comic book they were reading. This pre-service teacher commented on this difficulty, "...sometimes there's not something in the picture that should be there that would explain what is going on in the text more."

According to the pre-service teachers, the wordless comic books in particular challenged their readers because they found it difficult to make meaning out of the pictorial material alone. This required a great deal of cognitive effort on these readers' part as they had to decode both the visual and textual clues provided in the text in order to create their interpretation. This pre-service teacher explained,

Some of the books, like in Otto's *Backwards Day* and in *The Shark King*, there was too much going on to where him trying to read the pictures of what was happening, because in some of them it was just a big picture and there weren't any words and him trying to follow it like a TV or motion picture and he couldn't really follow it sometimes and couldn't really understand what was going on.

Alternatively, the pre-service teachers observed that some comic books overwhelmed their students, especially when they contained too many pictures and too much text, contributing to confusion and cognitive overload for their readers. This pre-service teacher spoke to this matter, "My only concern would be for those students who do get very distracted and overwhelmed with the amount of pictures and text going on." In such cases, students tended to go quickly through the comic book without paying any attention to picture content and their sequence.

On the opposite end, the pre-service teachers noticed that some students tended to read too much into the visual data, and in doing so they resorted to fabricating a story of their own:

At the same time the pictures are so helpful that he will add words in his sentences just because he will see something in the picture. Like in *The Shark King*, there was picture of the little boy in the book who was wearing a cape and he felt just because in the picture he was wearing a cape, he incorporated that into the speech bubble that went along with that picture. So they are effective but sometimes I think sometimes they can be a little too effective.

Fabricating a story based on the abundance of visual information can be viewed as an indicator of the student's creative sense making an attempt to arrive at an interpretation that is defensible as per the evidence in the text. This is because "the graphic novel persistently invites all of its readers to consider the book object beyond its function as a transparent container of text" (Joseph, 2012, p. 456). Sanders (2013) too argues that when it comes to reading a graphic novel "genre

boundaries should be seen as invitations to play rather than as rules to prevent creative refiguring” (p. 58). As the pre-service teachers realized, the students in this study acted upon these affordances to derive a story and their interpretations out of the comic books they read during tutoring.

The limited number of comic book titles that might appeal to their students' diverse interests was another challenge for these pre-service teachers. The following pre-service teacher explained:

I just wish there was enough choices, so that I could try to match his interests. I didn't know that he liked sharks that just happened. But I do wish that there was enough of a choice where I didn't have to choose a book just because it was the only one, but I could choose a book because I thought that he might like it better than another.

And this pre-service teacher was concerned about a lack of comic books at different readability levels:

I say that same thing, like have it for each reading level too. I wanted to start mine on level O and there weren't any O's, so there are like gaps with it, so it seemed like it.

High marketplace prices were another concern for some teachers: “My major challenge, this sounds really weird, would be the cost of the book. What if your school doesn't have enough money to pay \$13 per TOON book, per classroom, per grade level, all that? That is really expensive if you think about it.”

Newness to Comics as an Educational Medium

The pre-service teachers were not specifically coached on how to use comic books during instruction. At the start of the study, the pre-service teachers indicated that they were new to teaching with comic books in general and the TOON comic books in particular, as is evident in these representative excerpts, “I personally have never used comic or study books before this study.” “I have not used comics prior to this study; I'd heard of them and did it in the Helen Ruffin Reading Bowl [reading competition], we did it. And I got some interest in that, but I didn't use it in any of the lesson that I had written.” In addition, the pre-service teachers were worried about the logistics that might go into integrating comic books into the classroom curricula. This may have been due to their unfamiliarity with comic books as a medium. One pre-service teacher reflected, “Yeah, I was worried at first. I thought it was going to be too difficult to follow, because I feel like I might get confused on

a really hard comic, and be like, I don't know where to go." Another pre-service teacher echoed these concerns when she commented,

I was kinda hesitant too because I figured you know I'm gonna have to teach him to how to read this and I'm gonna have to teach him like, you know, what to read first and what to read next. Sometimes it is really difficult to tell what bubbles do I read first and everything, and sometimes I figured that there would be too many pictures or there would be a lot going on and they wouldn't be able to understand it, and I was kinda like worried about that difficult aspect of it.

As a result, the pre-service teachers reported that they made purposeful efforts to help their students see the difference between the comic book and the traditional text, and thus helped them become more astute readers of comic books. For example, this pre-service teacher described how she pointed out such differences to her student:

I would definitely walk through the differences between a regular book and a TOON book in the layout of you know, who's talking, how you need to use expression more and I feel like in TOON Books, it's strictly what they are saying. It's not just narrated like a normal book would be. Um, because I feel like that helps with comprehension more, and that's been one of the things that I've worked on.

Another pre-service teacher modeled the thought process to her student every time they started reading a new comic book. She began with a preview of the comic book and then focused on the comic book medium:

Um, we started off with the title, like if it was introducing the book completely, we would go over the title and what he thought it was about and the pictures. Normally we would go over the tricky words that he would normally have trouble with. And then, I would ask him how we read, the first book is introducing the TOON books, I made sure he knew how to read them, just like reading left to right, and how you read top bubble bottom bubble in that block, and moving on. How you read the comics.

The pre-service teacher continued to provide this form of scaffold, releasing gradually more responsibility to the reader:

In each lesson, I would reinforce that, and I would ask him over and over again how you read it, and he would point and do the left to right

directionality, and point to the actual bubbles of which ones he was going to read first and second. And then, we would go through and read it. In a couple of lessons, if there were two characters, he would read one character and I would read the other character.

Indeed, the literature supports the need to provide such purposeful scaffolding to students who may not be familiar with a comic book or graphic novel medium. For example, Kelley (2010) observed, "Modeling how to read a graphic novel is very helpful for students who struggle with these texts" (p. 9). Chase, Son, and Steiner (2014) too deliberately decided to preview the essential elements of a graphic novel in their lessons on sequencing skills and graphic novels in the elementary classroom:

We first introduced different features of graphic novels such as the speech bubble, thought bubble, narrative box, frame, and sound effects. We created cut-out shapes that represent the speech bubble, thought bubble, and sound effects and explained what they are and when they are used. Then, we held each sign above our head or mouth and modeled the usage of each graphic novel feature by making a comment, sound effect, or vocalizing a thought. (Chase, Son, & Steiner, 2014, p. 438)

As the pre-service teachers got more exposed to comic books and got used to planning with using comic books, they acknowledged the educational value of this new educational tool for their students. In fact, they applauded the unique features of this medium. For example, this pre-service teacher appreciated the dialogue characteristics in a comic book:

I think for younger kids it is a cool way to introduce storytelling and really emphasizing like who is saying what at what time, instead of having to use quotation marks all the time. You can look at the bubbles and say, 'You really see that this character is saying this, and this character is saying this and the pictures are cooler.'

Another pre-service teacher agreed, "I like the way that the writing is set up in TOON books, in speech bubbles, where it makes it obvious who is saying what and when. Because I think it makes the reading very clear." Other pre-service teachers expressed a preference for a comic book over a traditional text because they believed comic books offered rich content and presented it in distinct and engaging ways, as evident in this excerpt:

I like the differentiated style of reading. You know you can read a regular book any day, but TOON books show it in such a different manner because you get more out of the pictures, and you really get to understand the characters speaking. It's not just 'Sally went to the store;' 'Sally did this.' It's, 'I am going to the store today.' 'Oh, the cash register says, 'Oh, what are you going to buy?'

Discussion and Implications

What the pre-service teachers in this study noted was that comic books served as an effective tool for getting their students interested in reading at least one medium designed for reading, namely, comic books. The perceived gains in the affective domain are of particular importance because engaged reading is a predictor of performance in reading comprehension and information recall (Guthrie, McRae, & Klauda, 2007). Unfortunately, struggling readers often find reading at school either uninteresting, because of misalignment of the texts they read with their interests or confusing, because the texts are too difficult (Marinak, & Gambrell, 2010; Parsons, Malloy, Parsons, & Burrowbridge, 2015), and as a result, they do not read willingly or enjoy reading at all (Bomer & Bomer, 2001; Fredricks, Blumenfeld, & Paris, 2004; Gambrell, Hughes, Calvert, Malloy, & Igo, 2011).

In contrast, according to the pre-service teachers, the struggling readers in this study looked forward to guided reading sessions, and they exhibited a genuine interest in what they were reading and even wished to read more when the tutoring sessions were coming to an end. The optimistic disposition the pre-service teachers observed in their students might have been due to having the opportunity not only to read the novelty texts, comic books, but more importantly, it might have been due to being able to discuss and process these texts with their tutors, thereby "externaliz[ing] the act of reading in conversation" (Bomer & Bomer, 2001, p. 90). During such conversations, the tutors became the attentive listeners the students needed to relate their stories to and were at the same time their friendly teachers, or, to use a Vygotskian concept, they served as the "*More Knowledgeable Other*" (Vygotsky, 1978).

In these "reading alongside the struggling reader" roles, the tutors helped these students with the challenging aspects of the comic book layout; they modeled how to navigate and negotiate the textual and visual content of the comic book; they supplied strategies for figuring out the meaning of unfamiliar words or concepts, and they offered advice on how to pronounce difficult words and how to monitor for sense. From the perspective of the guided reading program, the tutors in this study were able "to explicitly teach reading strategies at the students' individual levels" (Iaquinta, 2006, p. 418). This finding underscores the

importance of engaging struggling readers in scaffold talk and in providing direct instruction in reading strategies in general and as well as strategies for reading a comic book text. The latter strategy instruction will teach “explicitly” the elements of comic book medium (e.g., speech bubble, narrative box, panels) to young readers (Chase, Son, & Steiner, 2014). Teachers must make time for having such instruction and conversations in their classrooms on a daily basis.

Clearly, supports of this sort are key components of good reading instruction in general, but, as evident in this study, they proved to be essential to effective instruction with comic books for our struggling readers. This is because such supports served not only as an instructional scaffold but also as a safety net for these struggling readers. As a result, as many pre-service teacher tutors noted in their conversations with the researchers, their readers were not afraid to explore various features of the comic book text, such as pictures, dialogue, or graphics and other sign systems they encountered in comic books. They even ventured to create their own stories as they were making sense of complex comic book texts.

Reading comic books with tutors as partners in conversation with the struggling readers in this study was also a powerful medium for facilitating these students' literacy skill development, particularly in the areas of reading fluency and reading comprehension. These findings are consistent with the research that has pointed to the educational value of comic books for improving student motivational and literacy skills (Alvermann, 2005; Frey & Fisher, 2008; Gavigan, 2011; Hammond, 2012; Jennings, Rule, & Zanden, 2014; McTaggart, 2008).

The pre-service teachers in this study also embraced visual literacy and visual text in their own conceptions of literacy and text and were committed to teach it to their students using comic books in their instruction. In doing so, the pre-service teachers strongly objected to those critics who dismiss comic books as not ‘real’ literature (Eileen & McIver Lopes, 2004; Wolk, 2008). For example, Wolk (2008), a literary critic, contends that although comics aspire to being literature, they are not literature: “They bear a strong resemblance to literature — they use words, they’re printed in books, they have narrative content — but they’re no more a literary form than movies or opera are literary forms” (p. 14). This excerpt from *Scholastic* (2015), on the other hand, captures the most common objections to using comics for instruction with young readers, both from parents and educators:

Some parents and educators may feel that graphic novels are not the “type of reading material” that will help young people grow as readers. They may cling to the belief that graphic novels are somehow a bad influence that undermines “real reading”—or they may dismiss graphic novels as inferior literature, or as “not real books.” At best, they may regard them as something to be tolerated as a means of motivating the most reluctant

readers, who, they hope, will eventually “move on” to more “quality literature.” (para. 7)

As such, the pre-service teachers’ beliefs and pedagogy in this study offer a counter narrative to these negative views of comic books and they also reflect the literacy instruction that is recommended in the *Standards for the 21st Century Learner* (American Association of School Librarians, 2007) and the *Common Core State Standards* (Common Core State Standards, 2010). Both sets of standards urge teachers to use a wide range of informational texts. This would include comic books and graphic novels to teach across the curriculum (Gavigan, 2014).

Reading visual text, including comic books and graphic novels, is not a simple process (Mortimore, 2009). The pre-service teachers found this out firsthand as they witnessed their readers’ struggles. One such challenge was their students initially having difficulty with making sense of visual images, particularly in wordless comic books. In these findings, the pre-service teachers’ students were not alone. According to the research, “Not all visuals are created equal” (Cary, 2004, p. 60) consequently making reading of the comics challenging for some students. Another reason why some students may have found it difficult to read wordless comic books was that they require multiple skills to be involved in the processing of and interpreting them. That is,

These books connect image to thought, which is also connected to language. As readers make meaning from images, they continuously utilize language to interpret, break-down, and comprehend an image. In graphic novels, including wordless graphic novels, readers apply this skill to multiple images while also synthesizing or integrating knowledge from prior panels. (Kelley, 2010, p. 4)

In order to be able to support their students in processing and interpreting the visual material in the comic book text, the pre-service teachers would need some training in semiotics (the study of signs, symbols and how they communicate and create meaning). Knowing how sign systems and complex design elements relate to one another in a multimodal text would enable the teachers to understand how to help their students to navigate through such complex structural and semiotic systems of the comic book (Serafini, 2011). As evident in this study, knowing how to read a comic book text with images, especially when the images were interwoven with layers of dialogue and narrative descriptions, was a struggle for many readers, who did not always know where to begin reading and how to proceed. This is because they were used to the linear and knowable logic of the traditional written text, while the comic book text

required from them to follow the “logic of space and spatial display” (Kress, 2003, p. 4) of the narrative content it served (Abell, 2011). In addition, the comic book text required from them the ability to discern the reading path as appropriate for a particular text and its narrative intent (Abell, 2011), the strategies they had yet to master.

Teacher education programs thus have an important role to play in introducing pre-service teachers to semiotics and also cognitive psychology since reading images and other visual material involves not only interpreting of the sign systems and how they relate to one another (Serafini, 2011), but also understanding the mental processes the readers utilize as they interpret the visual material, that is, their “thinking about” what [they]’re seeing or “visualizing what [they]’re thinking” (David, 2012, p. 26). Only then will they be able to provide their students with the scaffold and activities they need to be able to understand, think through, and learn and remember from the visual material in the comic books they read in class. This study has shown that struggling readers need guidance by such experts.

Nonetheless, the challenges the pre-service teachers reported they encountered with incorporating comic books in the classroom did not prevent them from appreciating their educational merit. On the contrary, the relative novelty of the comic book medium for both them as teachers and their students was an impetus for studying this medium, its conventions, and for using it in their teaching. To this end, they taught their students how to read the comic book format and they also shared with their students the joy of exploring comic books in the classroom. As such, pre-service teachers followed the advice provided by previous research (Mortimore, 2009; Versaci, 2008) that suggested not to assess comic books based solely on what they may be lacking, but to embrace them for what they can offer.

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Table 1 Pre-Service Teachers' Major Themes from the Individual and Focus Group Interview Data (*N = 7)

Major Themes	*Sources	*References
Motivation	8	79
Skill Development	8	74
Challenges	8	66
Newness to Comics as an Educational Medium	7	49
Total	31	268

* N indicates the number of pre-service teachers that participated in this study.

*Sources refer to the number of interviews in which the particular theme was discussed by pre-service teachers in both individual and focus group interviews.

*References mean the number of times pre-service teachers discussed that particular theme in both individual and focus group interviews.