

EXAMINING PARENTS' PERCEPTIONS OF AND PREFERENCES TOWARD  
THE USE OF COMICS IN THE CLASSROOM

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## ABSTRACT

While many researchers openly acknowledge the educational benefits of comics, the academic use of the medium has been met with much fear and apprehension from parents, teachers, and scholars, who have been reluctant to support the inclusion of such texts in the classroom. The literature on the topic of resistance to comics, however, is mostly limited to historical perspectives from the mid-20<sup>th</sup> century and is largely silent on contemporary parental perspectives. The purpose of this study was to collect data concerning parental perceptions of the academic potential of comics, parental preferences concerning how frequently the medium should be incorporated into academic lessons, and generalized parental feelings concerning the use of comics in first through twelfth grade education. Additionally, this study attempted to discover if relationships existed between the quantified parental perceptions and preferences and demographic data such as the grade and gender of the respondents' children, the respondent's gender, and personal readership habits of the respondent in reference to both comics and non-comics material. The instrument for this study was a survey designed to collect information about parents' perceptions and preferences concerning the academic potential and use of comics and other information related to the study's independent attribute variables. Results of the survey and statistical measures revealed that (A) parent gender was significantly related to parents' perception of the comics medium to be an effective tool in helping their children achieve successful learning outcomes, (B) the readership habits of parents in regards to comics was significantly related to parental preferences concerning the frequency of comics incorporation

into the curriculum, and (C) the readership habits of parents in regard to non-comics material was significantly related to both parents' perceptions of comics as an effective learning tool and parents' preferences concerning the frequency of comics incorporation into the curriculum.

Several statistically significant relationships were discovered between the study's core dependent variables and other independent attribute variables as well. The insight gained into these relationships may help teachers and others to better understand how these external educational stakeholders regard a medium that has experienced a varied social and educational reception throughout American history.

## DEDICATION

“You are my God, and I give thanks to You; You are my God, I extol You.”

Psalm 118:28

To my beautiful wife, whom I adore with continual wonder:

You have been my rock and my strength throughout this tedious yet fulfilling journey. I thank God for your love and faithfulness each morning, and I am in awe that someone as amazing as you could make a home in your heart for someone as flawed as myself. Your patience and steadfastness mean more to me than you will ever know. I could never have done this without you by my side. I love you. I love you. I love you.

To my parents, the world’s most selfless people:

Thank you for always fostering a keen sense of curiosity in me and for supporting all of my various excursions into strange and whimsical interests. You raised me to love learning and to appreciate all of the wonders of God’s creation, whether big or small. For this, I will always be grateful.

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To the parents of Boyd Buchanan students who participated in this study:

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## TABLE OF CONTENTS

ABSTRACT.....	iii
DEDICATION.....	v
ACKNOWLEDGEMENTS.....	vi
LIST OF TABLES.....	x
LIST OF FIGURES.....	xiii
CHAPTER	
I. INTRODUCTION.....	1
Background of the Problem.....	1
Statement of the Problem.....	10
Purpose of the Study.....	12
Research Questions.....	13
Rationale for the Study.....	14
Theoretical Framework.....	15
Significance of the Study.....	17
Definition of Terms.....	19
Methodological Assumptions.....	22
Delimitations of the Study.....	23
Limitations of the Study.....	24
II. LITERATURE REVIEW.....	27
Defining Comics.....	27
An Overview of Reading Comprehension.....	38
Comics as a Unique Mode of Conveyance.....	44
A Widening Generational Gap.....	85
Strengths of Comics.....	93
Fears and Dangers of Comics.....	110
A Brief History of the American Perception of Comics.....	122

III. METHODOLOGY .....	145
Description of the Population and Sample.....	145
Instrumentation .....	148
Research Design.....	156
Core Variables .....	159
Dependent Variables.....	159
Attribute Independent Variables.....	162
Procedures.....	165
Data Analysis Techniques.....	168
IV. RESULTS .....	172
Instrument Response Rate.....	172
Research Question 1 .....	173
Research Question 1, Variable A.....	178
Research Question 1, Variable B.....	180
Research Question 1, Variable C.....	184
Research Question 1, Variable D.....	188
Research Question 1, Variable E.....	190
Summary of Research Question 1 Results.....	192
Research Question 2 .....	194
Research Question 2, Variable A.....	199
Research Question 2, Variable B.....	200
Research Question 2, Variable C.....	204
Research Question 2, Variable D.....	208
Research Question 2, Variable E.....	210
Summary of Research Question 2 Results.....	211
Research Question 3 .....	213
Summary of Research Question 3 Results.....	223
Additional Findings .....	224
V. DISCUSSION .....	228
Introduction.....	228
Research Question 1 .....	229
Research Question 2 .....	231
Student Gender.....	233
Respondent Gender.....	235
Enrolled Grade of Student .....	237
Parents' Readership Habits in Regard to Comics.....	239
Parents' Readership Habits in Regard to Non-Comics Material .....	243
Additional Variables .....	245
Respondent Age.....	245
Respondent Level of Education.....	246
History of Employment in Education .....	247



Student Readership Habits of Comics .....	249
Student Readership Habits of Non-Comics Material.....	251
Research Question 3 .....	252
Suggestions for Further Research .....	256
REFERENCES .....	258
APPENDIX	
A. BOYD BUCHANAN SCHOOL DEMOGRAPHICS DATA.....	282
B. VARIABLES ANALYSIS.....	289
C. VARIABLE ALIGNMENT WITH SURVEY ITEMS .....	292
D. STUDY INSTRUMENT.....	296
E. LETTER OF IRB APPROVAL .....	301
F. EMAILS SENT TO STUDY POPULATION.....	303
G. QUALITATIVE DATA CODING GUIDE.....	307
H. RESPONSES TO THE STUDY INSTRUMENT .....	310
VITA.....	329

## LIST OF TABLES

1 Survey Response Rate.....	173
2 Descriptive Statistics Concerning Respondent Perception Scores in Regard to Comics as a Learning Tool .....	175
3 Likert Scale Rankings of Potential Learning Outcome Dimension.....	177
4 Number and Percentage of Respondents' Oldest Children Enrolled at Each Grade Level.....	178
5 Spearman rho Test Concerning the Grade Level of Respondents' Oldest Child and Respondents' Perception Scores in Regard to Comics as a Learning Tool.....	180
6 Descriptive Statistics Concerning the Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Upon Child Gender.....	181
7 Mann-Whitney U Test Comparing Mean Ranks of Respondent Perception Scores Based Upon Child Gender.....	184
8 Descriptive Statistics Concerning Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Upon Respondent Gender .....	184
9 Mann-Whitney U Test Comparing Mean Ranks of Respondent Perception Scores Based Upon Gender .....	188
10 Hours Respondents Spend Reading Comics Material Per Week.....	188
11 Descriptive Statistics Concerning the Hours Respondents Spend Reading Comics Material Per Week .....	189
12 Spearman rho Test Concerning the Hours Respondents Spend Reading Comics Material Per Week and Respondents' Perception Scores in Regard to Comics as a Learning Tool.....	190
13 Hours Respondents Spend Reading Non-Comics Material Per Week .....	191

14 Descriptive Statistics Concerning the Hours Respondents Spend Reading Non-Comics Material Per Week.....	191
15 Spearman rho Test Concerning the Hours Respondents Spend Reading Non-Comics Material Per Week and Respondents' Perception Scores in Regard to Comics as a Learning Tool .....	192
16 Summary of the Results of the Statistical Tests and Procedures Required for Research Question 1 .....	194
17 Descriptive Statistics Concerning Respondent Preference Scores in Regard to the Frequency of Comics Incorporation .....	196
18 Likert Scale Responses to the Three Dimensions of Comics Incorporation Into the Classroom .....	198
19 Spearman rho Test Concerning the Grade Level of Respondents' Oldest Child and Respondents' Preference Score in Regard to the Frequency of Comics Incorporation .....	200
20 Descriptive Statistics Concerning the Preference Scores in Regard to the Frequency of Comics Incorporation of Respondents Based Upon Child Gender.....	201
21 Mann-Whitney U Test Comparing Mean Ranks of Respondent Preference Scores Based Upon Child Gender.....	204
22 Descriptive Statistics Concerning the Preference Score in Regard to the Frequency of Comics Incorporation of Respondents Based Upon Respondent Gender.....	204
23 Mann-Whitney U Test Comparing Mean Ranks of Respondent Preference Scores Based Upon Gender .....	208
24 Spearman rho Test Concerning the Hours Respondents Spend Reading Non-Comics Material Per Week and Respondents' Preference Score in Regard to Comics Incorporation.....	209
25 Spearman rho Test Concerning the Weekly Hours Respondents Spend Reading Comics Material and Respondents' Preference Score in Regard to the Frequency of Comics Incorporation.....	211
26 Summary of the Results of the Statistical Tests and Procedures Required for Research Question 2.....	212
27 Qualitative Coding Guide With Frequency Results from Respondents .....	215

28 Summary of the Results of the Statistical Tests and Procedures Required for the Analyses of Additional Variables (in Regard to Possible Relationships With Perception Score in Regard to Comics as a Learning Tool) .....225

29 Summary of the Results of the Statistical Tests and Procedures Required for the Analyses of Additional Variables (in Regard to Possible Relationships With Preference Score in Regard to the Frequency of Comics Incorporation) .....226

## LIST OF FIGURES

1 Distribution of Respondent Perception Scores in Regard to Comics as a Learning Tool.....	176
2 Histogram of Respondents' Oldest Children Enrolled at Each Grade Level (With Color Shading Indicating Elementary School, Middle School, and High School Divisions).....	179
3 Bar Graph Displaying the Mean Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Upon Child Gender .....	181
4 Histogram of Perception Scores in Regard to Comics as a Learning Tool for Respondents With an Oldest Male Child .....	182
5 Histogram of Perception Scores in Regard to Comics as a Learning Tool for Respondents With an Oldest Female Child.....	183
6 Bar Graph Displaying the Mean Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Respondent Gender Child .....	185
7 Histogram of Perception Scores in Regard to Comics as a Learning Tool for Male Respondents .....	186
8 Histogram of Perception Scores in Regard to Comics as a Learning Tool for Female Respondents.....	187
9 Distribution of Respondent Preference Scores in Regard to the Frequency of Comics Incorporation .....	197
10 Bar Graph Displaying the Mean Preference Scores in Regard to the Frequency of Comics Incorporation of Respondents Based Upon Child Gender .....	201
11 Histogram of Preference Scores in Regard to the Frequency of Comics Incorporation for Respondents With an Oldest Male Child .....	202
12 Histogram of Preference Scores in Regard to the Frequency of Comics Incorporation for Respondents With an Oldest Female Child.....	203

13 Bar Graph Displaying the Mean Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Respondent Gender.....	205
14 Histogram of Preference Scores in Regard to the Frequency of Comics Incorporation for Male Respondents .....	206
15 Histogram of Preference Scores in Regard to the Frequency of Comics Incorporation for Female Respondents.....	207

# CHAPTER I

## INTRODUCTION

### **Background of the Problem**

In today's world, educational technologies are changing at such a rapid rate that teachers often struggle to keep up (Kressly, Herbert, Ross, & Votsch, 2009; Williams, Foulger, & Wetzel, 2009). However, digital natives, students who have been immersed in technology for all of their lives (Bennet, Maton, & Kervin, 2008), seem to have no trouble adapting to the quick pace of technological advancement. Many researchers refer to the broadening generational divide between students and teachers as a cultural gap that has rapidly widened due to the invention of the Internet and the digital era of electronic communication (Dallacqua, 2012; Fitzsimmons, 2007; Martin, 2011; McVicker, 2007; Pantaleo, 2012; Schieble, 2011). In this regard, Kress (2003) noted that we are moving more toward the act of showing and away from the act of telling in how we communicate. The author expounded upon this idea by explaining that we are living in a rare moment in history that can only be compared to the colossal communication revolution initiated by the invention of the printing press in the 13<sup>th</sup> century (Kress, 2003).

King (2012) commented upon this phenomenon by asserting that the increasing popularity of multimodal texts has broadened the ways students read and receive information as well as the ways they communicate. As a result of this shift in communication preferences, students are spending less time engaged in traditional reading as their culture transforms from being word-oriented to image-oriented (van Ours, 2008). Reading books is an activity that is

becoming less and less favored (Missiou & Koukoulas, 2013). Additionally, a reshaping of how we define the very notion of literacy is upon us (Duncan, Smith, & Levitz, 2015; Gallego, 2000; Monnin, 2010), and proficiency in this new type of literacy is not optional, but is a matter of survival (Kress, 2006). Hall (2011) and Duncan et al. (2015) supported this claim by asserting that we are now living in a world in which verbal and visual communication are increasingly converging and that visual literacy is becoming just as important as verbal literacy. This cultural shift is especially important to note because the traditional privileging of words over images is deeply ingrained in Western philosophy and has existed at least since Plato and Descartes expressed a distrust of the perception of the senses and touted words as the most essential and reliable tool of thought (Sousanis, 2015b).

As a result of this ongoing transition in how individuals communicate and interact with technology, many of today's students are being drawn to a much wider range of stimulation than what is offered in the traditional classroom in order to learn about the world around them (Mathews, 2011). This, in turn, has produced a landscape of children's and young adult literature that is continuously changing (Gavigan, 2012). This amorphous landscape of communication and learning is challenging the traditional notion of the classroom as a single homogenous space and has led many researchers and educators to explore the value of new types of text in contemporary learning spaces (Carter, 2011). In more specific terms, many young people today are interacting with graphic texts, also called graphic novels and/or comics, which provide heightened levels of visual stimulation (Lawn, 2012; Tabachnick, 2010; Vandermeersche & Soetaert, 2011; Weiner, 2013). Also, many teachers are realizing that teaching with comics helps students acquire the visual literacy skills necessary in today's world (Dong, 2013).



Overall, the literature related to the use of comics in today's classrooms is supportive of their academic value. For example, the president of Four Color Perspective and board member of Reading with Pictures, John Shableski (as cited in Gavigan, 2012) said,

We are in the midst of a cultural shift. Educators, librarians, publishers and parents are beginning to realize that literacy has multiple access points and the comics medium, aka graphic novels and digital graphic novels, are opening doors for so many readers who have been traditionally overlooked. (p. 32)

Likewise, Tabachnick (2010) commented on the value of graphic texts by saying they represent the attempt of the physical book to survive in an electronic age; he noted that the comics medium accomplishes this by combining certain advantages of the traditional reading experience with those offered by the computer screen. Missiou and Koukoulas (2013) offered similar sentiments by saying the graphic novel is simply the newest manifestation of literature. Martin (2011) also commented upon the strength of comics and the need to utilize them when he said that ignoring the potential of the graphic novel could lead to an insurmountable generational divide and result in dangerous intellectual impoverishment. While this claim may lean towards a black and white fallacy of the issue, the idea that the utilization of multimodal texts in the classroom is essential to the intellectual development of today's students is not uncommon in scholarly literature.

A great deal of the literature related to the use of comics in the classroom details the benefits of the medium for reluctant and struggling readers (Brozo, 2012; Clark, 2013; Haines, 2012; Hughes, King, Perkins, & Fuke, 2011; Mathews, 2011; McVicker, 2007; Pantaleo, 2012; Schwarz & Crenshaw, 2013; Smetana, Odelson, Burns, & Grisham, 2009; Tilley, 2013b; Weiner, 2013; White, 2011). Notable statements about the power of comics and graphic novels include claims that the medium is a "panacea" (Connors, 2012a, p. 33) for struggling readers and an "invaluable tool" (Brozo, 2012, p. 550) for motivating and supporting those with reading difficulties. Along these same lines, Griffith (2010) said that "the graphic novel format enables

some students to read materials that were previously too difficult in length or in use of language” (p. 184). She, along with Haines (2012), also pointed out that comics can aid in vocabulary development for those students who struggle with language and learning disabilities. Similarly, Sabeti (2012) called graphic texts a “tool for social cohesion and confidence-building” (p. 192), which implies that the power of comics can extend beyond the realm of academia and lead to more meaningful interactions with peers.

In this regard, Schmidt (2011) stated the following about the use of graphic texts in his own classroom,

My students— students who were supposed to be nonreaders and who had defined themselves as reluctant readers— wanted to read books, for fun. I encouraged them to borrow the books and listened when they returned them and offered recommendations and critiques to their peers. (p. 107)

He went on to say that the goal of many English teachers is to create lifelong readers and “for that to happen they first have to be interested in reading... and graphic novels can be the hook to draw them in” (Schmidt, 2011, p. 107). Hosler and Boomer (2011) also noted that reading comics has been shown to lead to other types of reading as well. These statements offer insight into the possible power of graphic literature as a stepping stone to not only other works of literature, but to a lifestyle of literary study and enjoyment.

Commenting upon this high level of excitement that comics often engenders in readers, Decker and Castro (2012) said that graphic novels had an enlivening impact on their classrooms and that their students expressed appreciation for the opportunity to read something as different and unique as graphic novels. Short, Ketchen, and Shelstad (2013), as well as Fox (2013), expressed similar sentiments. McVicker (2007) and Bakis (2012) also claimed that the medium allows educators to add variety to their daily teaching practices as well as to their curriculum as a whole. Additionally, the medium seems applicable across the curriculum and has been utilized

by teachers in a variety of subject matter, ranging from the study of contemporary art (Fox, 2013) to English, social studies, science, and math (Rubin, 2013).

A number of authors have also commented upon the general popularity of comics among today's youth (Carter, 2007b; Dallacqua, 2012; Holt, 2006; Kan, 2013; Moeller, 2011; Pantaleo, 2012). Kan (2013) noted that comics are even popular amongst nonreaders and stated they are loved by "kids who hate all books" (p. 30). Pantaleo (2012) and Moeller (2011) also pointed out the rapid growth and increasing level of interest in the medium in recent years, and Carter (2007b) claimed that students have a seemingly unquenchable interest in graphic texts. Likewise, Dallacqua (2012) noted comics are a powerful attractant that children seem to naturally and willingly gravitate towards.

Even though many researchers openly acknowledge the popularity of graphic texts and benefits of the multimodal experience that graphic texts offer, the academic use of the medium has been met with much fear and apprehension from parents, teachers, and scholars, who are reluctant to support the inclusion of such texts into the classroom (Connors, 2012b; Fitzsimmons, 2007; Martin, 2011; Rice, 2012; Schmidt, 2011; Tabachnick, 2010; Weaver-Hightower, 2013). This discrimination may be due in part to a lack of hard evidence for the benefits of incorporating graphic novels into formal education or the fact that scholarship related to the role of comics in student learning has been described as scant and superficial (Carter, 2008; Schieble, 2011; Tilley, 2013b). Despite the large number of scholarly sources that claim comics to be educationally beneficial, only a few empirical studies on the benefits of the medium have been conducted (Schieble, 2011). Given this fact, it is important to note that while the inclusion of innovative teaching methods can heighten enjoyment, boost engagement and interaction, and increase cognitive learning (Winsted, 2010), the current research on the innovative role of

comics in the classroom provides opportunity for further examination. Additionally, while many researchers report that learning, comprehension, and memory increase when text is paired with graphics (Carney & Levin, 2002; Mayer, 2001; Mayer, Hegarty, Mayer, & Campbell, 2005; Mayer & Moreno, 2002; Moreno & Mayer, 1999a, 1999b, 2000), not every instance of the combination of graphics and text constitutes comics. In actuality, even establishing an agreed-upon definition of comics is somewhat elusive and has proven to be confusing (Dong, 2013; Stearn, 2005).

Aside from a lack of hard evidence concerning the benefits of the medium, the literature on the subject suggests that the academic aversion to comics is likely due to a two-part fear held by educators: part one being the idea that an emphasis on comics will strip away the sacred nature of traditional texts and part two being that teachers feel ignorant of how to successfully incorporate comics into their curriculum. Tabachnick (2010) observed that many educators worry that if readers increasingly make meaning from visuals rather than print, this will lead to the eventual extinction of print. The sentiment has also been presented by Schmidt (2011) who noted that some have questioned whether an increase in the popularity of multimodal texts could lead to the disappearance of traditional books and may even result in a loss of democracy. Connors (2012b) said that some worry whether readers who become overly-reliant on images may become less likely to use their imaginations and unable interact with text in a variety of ways.

Researchers have commented upon the academic prejudice against comics in a number of ways and have identified a variety of groups besides teachers who have taken issue with the academic use of the medium; however, while some researchers clearly identify both the prejudice-holding group and the specific nature of the prejudice, other researchers comment

much more generally upon overarching societal fears and concerns. For example, while Connors (2012a) specifically noted that “educators have traditionally held the comic book in low esteem” (p. 33), Martin (2011) more generally claimed that graphic novels have always been iconoclastic. Likewise, while Ryall and Tipton (2009) noted that librarians, along with other adults, in the late 1940s hated the idea that comics might detract from the more scholarly pursuit of reading actual books. Masuchika and Boldt (2010) more generally stated that graphic novels have long been viewed as “low-brow entertainment primarily for children” (p. 511) but did not clearly say by whom. Additionally, Rice (2012) said that graphic novels are often viewed as “lazy and even aberrant reading” (p. 37), and Weiner (2013) said they are often viewed as literary “mush” (p. 1), but neither author clearly attributed these beliefs to a specific faction of the population.

While such descriptions of general societal fears and concerns are informative from a cultural standpoint, their lack of specificity does little to help identify the perspective of any one group of people in American society, past or present. This causes difficulty when one attempts to examine the current or previous perceptions of comics held by any particular group of individuals. As one might naturally assume, the majority of scholarly literature concerning the academic use of comics focuses largely on teacher perspectives. As such, the literature does not present a comparable overview of past or present parental perspectives. While exploring teacher beliefs and perspectives is vital to an in-depth understanding of the academic use of comics, exploring the beliefs and opinions of parents is vital as well, and it is here that the literature on the subject falls short.

Still, a number of authors have produced well-researched histories of the American public’s relationship with the comics medium, and many of them did reference parental perspectives. Notable examples include the following:

- *The Power of Comics: History, Form, and Culture* by Randy Duncan et al. (2015)
- *Seal of Approval: The History of the Comics Code* by Amy Nyberg (1998)
- *Comic Books 101: The History, Methods, and Madness* by Chris Ryall and Tipton (2009)
- *Comics, Comix, & Graphic Novels: A History of Comic Art* by Roger Sabin (1996)
- *The Comic Book History of Comics* by Fred Van Lente and Dunlavey (2012)
- *Faster than a Speeding Bullet: The Rise of the Graphic Novel* by Stephen Weiner (2003)
- *Comic Book Nation: The Transformation of Youth Culture in America* by Bradford Wright (2001).

While the authors of these books did focus on the thoughts and feelings of parents, they largely did so by examining traditional or historical perspectives from the mid-20<sup>th</sup> century and were largely silent on contemporary parental perspectives. Additionally, in their discussion of the American public's relationship with comics, many of these authors offered fairly generalized descriptions about the feelings and opinions of adults, church-goers, civic groups, and so on. The authors often lumped parental perspectives in with those of the general public, doing little to separate parents as a particular demographic of interest.

Ryall and Tipton (2009) discussed comics' historically unfavorable reputation, but generally focused on the perceptions of what they called "moralizing adults," (p. 28) church groups, and civic organizations. Similarly, Van Lente and Dunlavey (2012) said that "comic books had been making parents nervous since they first appeared" (p. 68), but the authors focused most specifically on the treatment of comics by Catholic schools, boy and girl scout troops, and various other civic organizations in the 1950s. Also, Wright (2001) mentioned that adults and critics blamed comic books, at least in part, for what was believed to be a diminishing

respect for authority and a declination of traditional family values in the 1930s, but he did not single out parental concerns as a specific area of focus.

Several authors discussed the social and cultural impact of the book *Seduction of the Innocent* by Dr. Frederick Wertham, which was published in 1954 and focused intently on proclaiming that a direct link existed between childhood delinquency and comic book readership. Sabin (1996) noted that the book caused “widespread moral panic” (p. 68), and Weiner (2003) remarked that the book caused “quite a stir” (p. 8). Duncan et al. (2015) argued that while most parents did not actually read the book, they could not avoid the messages of the text since media coverage of the book’s claims was so widespread. While these authors did seem to suggest and hint at parental attitudes, their discussions did not focus intently on parents and their reactions as a specific area of focus

In summary, there is a dichotomy of praise and disparagement concerning the academic use of comics and the comics medium in general. While much has been said about the historical and contemporary arguments of teachers concerning comics in the classroom, the literature that focuses on parental perspectives largely does so from a historical standpoint or does not focus specifically on parents while excluding other groups, leaving a dearth of information related to the viewpoints of parents today. Given the seemingly divisive nature of the medium as presented in the literature, it is important to fill the existing gap in the body of knowledge concerning comics in the classroom by examining the perspectives of contemporary parents. This need for more information related to the perspectives and preferences of modern-day parents gave rise to this study, which focused upon examining parents’ perceptions of the academic value of comics, their preferences concerning the frequency of academic use of the medium, and their general feelings about the use of comics in first through twelfth grade education.

## **Statement of the Problem**

Scholarly literature related to the use of comics in the classroom indicates that comics can be instrumental in inspiring struggling and reluctant readers (Carter, 2013; Lawn, 2012; Petrucha, 2008; Schmidt, 2011; Tilley, 2013a; Wolfe, Kleijwegt, & Fink, 2012) and can be helpful in aiding these readers in the acquisition of reading skill (Weiner, 2013). The literature on the subject also indicates that comics are academically beneficial for proficient readers (Brozo, 2012; Clark, 2013; Connors, 2012a; Cooper, Nesmith, & Schwarz, 2011; Griffith, 2010; Hughes et al., 2011; Mathews, 2011; McVicker, 2007; Smetana et al., 2009) and that the medium offers opportunities for all students to read new material (Carter, 2007a; Rice, 2012), exercise their verbal and visual imaginations (Decker & Castro, 2012), and become more critical consumers of visual texts (Connors, 2012a). However, despite the reported academic advantages of comics and the fact that teachers have been advised by experts to teach graphic texts for more than 20 years (Rice, 2012, p. 38), the literature also indicates that teachers have been traditionally loath to incorporate comics into their curricula for a variety of reasons (Connors, 2012b; Fitzsimmons, 2007; Schmidt, 2011; Tabachnick, 2010; Weiner, 2013; Wolfe et al., 2012).

Additionally, scholarly literature reports reluctance on the part of parents to embrace the medium academically (Feiffer, 2003; Griffith, 2010; McTaggart, 2008; Monnin, 2010; Norton, 2003; Nyberg, 1998; Sabin, 1996; Van Lente & Dunlavey, 2012; Weiner, 2003). While the literature that focuses on parental perspectives and examines the thoughts and feelings of this group is insightful, most of it approaches the subject from either a largely historical perspective, emphasizing comics' tumultuous social standing in the 1930s-1950s, or a very generalized perspective, grouping parents with other adult members of society as a whole. The result is a



body of literature related to the academic use of comics that is fairly thorough in its treatment of historical and contemporary teacher perspectives, but that is also relatively barren in its treatment of contemporary parental perspectives.

Parents are a key stakeholder of any educational institution, and their perspectives on academic reading material may be of vital importance to teachers and administrators who work to serve the needs of these parents and their children. Information related to parental opinions on various subject matter may be collected by teachers, administrators, or individual schools as a whole in order to better understand their stakeholders; however, the scholarly literature on the subject also needs to reflect efforts from researchers to gather such information so that teachers and administrators may use it as a reference for interacting with parents and other stakeholders. Against this background, the problem this study addressed is the dearth of quantitative information concerning parents' perceptions of the academic value of comics and parents' preferences concerning its frequency of use in the classroom, along with a dearth of intentional and carefully-gathered qualitative data concerning parents general feelings about the use of comics in first through twelfth grade education. The quantified perceptions and preferences of parents were analyzed alongside demographic data related to the grade and gender of the respondents' children, the respondent's gender, and personal readership habits of the respondent in reference to both comics and non-comics material. The qualitative perspectives offered by parents were coded and analyzed in order to reveal a thorough summary and synthesized overview of parental perspectives. The results of this study and accompanying commentary may work towards enabling teachers and administrators to better understand the feelings and preferences of these stakeholders.

## **Purpose of the Study**

The purpose of this study was to collect data concerning parental perceptions of the academic potential of comics, parental preferences concerning how frequently the medium should be incorporated into academic lessons, and generalized parental feelings on the use of comics in first through twelfth grade education. Additionally, this study attempted to discover if relationships exist between the quantified perceptions and preferences and demographic data such as the grade and gender of the respondents' children, the respondent's gender, and personal readership habits of the respondent in reference to both comics and non-comics material. The insight gained into these relationships may help teachers and others to better understand how these external educational stakeholders regard a medium that has experienced a varied social and educational reception throughout American history.

Ideally, examining these phenomena and their relationships will provide readers with an insight into a field of study that has largely been unexplored quantitatively and will provide a foundation for future studies that seek to go beyond examining mere relationships. Future studies may venture into the realm of establishing actual influences and causes of parental perceptions and preferences. In undertaking such future studies, researchers may then be able to use their understanding of these relationships and their causes to develop tactics for helping teachers and administrators communicate more clearly, openly, and successfully with parents who express a wide variety of feelings pertaining to the use of comics in the classroom. Therefore, this study could provide the underlying infrastructure for future studies that seek to develop theories and practices concerning successful parent-teacher interactions. This, in turn, may aid teachers in better meeting the educational needs of their students in any number of ways.

## Research Questions

Research Question 1: To what extent do parents perceive the comics medium to be an effective tool in helping their children achieve successful learning outcomes? Is this perspective related to the following variables?

- A. The enrolled grade of the student
- B. The gender of the student
- C. The gender of the parent
- D. The readership habits of the parent (in relation to comics material)
- E. The readership habits of the parent (in relation to non-comics material)

Research Question 2: How often do parents feel it is appropriate for comics to be incorporated into their children's curricula and classroom instruction? Is this preference of frequency related to the following variables?

- A. The enrolled grade of the student
- B. The gender of the student
- C. The gender of the parent
- D. The readership habits of the parent (in relation to comics material)
- E. The readership habits of the parent (in relation to non-comics material)

Research Question 3: What are parents' general thoughts and feelings about the use of comics in first through twelfth grade education?

## **Rationale for the Study**

Gibson (2013) argued it is vital to explore how teachers perceive the academic use of comics. Doing otherwise, Gibson (2013) said, may allow concerns about content and a lack of confidence to fester and thus exclude comics from the classroom altogether. The literature on the subject of comics in the classroom does not indicate a dearth of teacher perceptions. As reported in the literature, teacher perceptions of the academic use of comics are vast, with many teachers expressing fears and dangers concerning the use of the medium and many others offering full endorsements and unabashed support.

The true dearth in the literature related to the academic use of comics lies in the study of parental perceptions and beliefs. A number of researchers have noted the historically iconoclastic nature of comics in education (Connors, 2012a; Martin, 2011; Masuchika & Boldt, 2010; Rice, 2012), and many researchers have noted parents' longstanding concern over comics in general (Griffith, 2010; Monnin, 2010; Nyberg, 1998; Ryall & Tipton, 2009; Sabin, 1996; Van Lente & Dunlavey, 2012); however, the parental perceptions presented in the literature are typically very generalized or historical in nature and do not focus on contemporary viewpoints and opinions.

Examining the opinions and beliefs of contemporary parents in both a quantitative and qualitative manner will hopefully lead to increased clarity for teachers and administrators concerning the use of a medium that has reportedly been quite divisive for much of its history. This clarity concerning parental opinions might possibly then lead to more data-driven decisions about the academic use of the medium and could potentially work towards the creation of academic policy in certain institutions. As such, the ultimate rationale for this study was the fact that if teachers and administrators hope to make informed decisions about which types of

material to include in their curricula, parental perceptions and beliefs could possibly ease this process by offering more insight into the views and beliefs of these key stakeholders.

### **Theoretical Framework**

In today's world, schools exist not simply as educational institutions; they are community organizations whose success is of vital importance to a wide variety of stakeholders (Nor, 2014). In particular, the success of any particular school is important to the parents whose children are enrolled there, and if a school does not succeed in endowing its students with a knowledge and skillset that allows those students to meet national standards, it is likely that the parents will blame the school's management for the children's lack of academic achievement (Nor, 2014). Additionally, parents tend to voluntarily enroll their children in schools that have high achievement records and are more prone to choose these particular schools over others. It is therefore no surprise that in recent years, stakeholder perceptions have become a matter of prime importance to school leaders and administrators (Nor, 2014).

While high expectations from parents may be daunting to school leaders and administrators, Graham, Kennedy, and Lynch (2016) remarked that when parents and professionals share the same rigorous expectations and collaborate in helping students achieve lofty educational goals, students are more likely to succeed academically and develop a more healthy self-image. As such, simply consulting with parents about their perception of any or all school-related matters could very well be the first step towards forming such partnership between internal and external school stakeholders. Graham et al. (2016) also remarked that the creation of a solid internal/external stakeholder team is one in which no question is off limits.

These ideas concerning the high expectations of parents and the need for educational institutions to consult and collaborate with parents formed the theoretical underpinning of the current study. As Yilmaz, Altinkurt, Guner, and Sen (2015) stated, “teachers should be in collaboration with the school administration, colleagues, parents and other stakeholders for effective teaching and learning” (p. 75). Kabir and Akter (2014) stated that schools worldwide are reforming more and more to reflect the different views of their various stakeholders, including parents. Kabir and Akter (2014) also remarked that partnerships between schools and their communities have led to increased understanding between these stakeholders and have also strengthened various school activities. Ultimately, this suggests that a successful school is not a lone entity, but is made up of teachers, students, parents, and a wider community of other significant players who must all communicate freely and effectively in order to achieve the highest possible level of academic success for the school’s students (Kabir & Akter, 2014).

This study focused upon parents’ perceptions of the comics medium, preferences concerning the frequency of use of comics in the classroom, and general feelings about the use of comics in first through twelfth grade education. While the upcoming review of the related literature reveals that the comics medium is exceedingly complex and its reception by the American public has an equally complex history, the theoretical foundation for this study was quite simple: School teachers and administrators must continually seek to understand the parents of those they wish to educate. This is because an increased understanding of the viewpoints, concerns, and expectations of parents may very well lead to new academic directions for the school and may aid school leaders in making sound decisions concerning the students’ educational programming. As Alverson and Yamamoto (2014) pointed out, in this age of technology, the use of data to improve education programs is simply a given. Thus, data

collection is of vital importance because it can lead not only to increased knowledge; it can also drive educational change and reform.

### **Significance of the Study**

In his work *Comic Book Nation: The Transformation of Youth Culture in America*, Bradford Wright (2001) wrote that comics as an expression of American popular culture is extremely recognizable but far from properly understood. Wright (2001) stated that the medium has a lengthy and intricate history, at one point finding footholds in millions of American homes and figuring into the childhoods of most Americans born in the last 100 years. Tilley (2013b) pointed out that just 70 years ago, comics readership in America was not merely a casual pursuit; readership was over 10 million people and more than 80% of elementary and high school students regularly read comic books.

Despite the huge number of comic book readers in recent American history, the nuances and complexities of the medium remain mysterious and confusing to most adults, and even most scholars (Wright, 2001); however, Heer (2009) more recently stated that despite comics' marginalized history, the quantity and quality of scholarly research related to comics is on the rise and that it "has become a lively field of inquiry and is no longer merely a topic area" (p. xi). While a considerable amount of literature exists on various topics related to comics as a cultural phenomenon, some researchers have noted that issues related to the academic use of comics in the classroom are still fairly unexplored (Carter, 2008) and that research is scant (Schieble, 2011). While the scholarly treatment of comics may be experiencing the kind of boom indicated by Heer (2009), there is still much left to explore as Wright (2001) has indicated. This dichotomy of perspectives suggests that comics is both a medium of high interest as well as one whose

accompanying body of knowledge is in need of further exploration. This is especially true concerning scholarly literature that focuses upon parents' perceptions of the academic use of comics. While researchers such as Feiffer (2003), Griffith (2010), Monnin (2010), Nyberg (1998), Sabin (1996), Van Lente and Dunlavey (2012), Weiner (2003), and others noted that parents have traditionally held a low opinion of comics, very little quantitative data has ever been collected concerning parents' actual feelings about the academic use of comics.

Since this study explored relationships between certain parent and student attributes and parents' perceptions and preferences concerning the use of comics in the classroom, the study may extend the existing knowledge concerning the use of comics in education. Along with suggesting relationships between these phenomena, this study may also contribute to the development of any number of theories related to parent/teacher relationships and communication between these two groups concerning classroom content. Since parents are key external stakeholders of any educational institution, understanding as much as possible about how parents perceive certain types of media or reading/instructional material could be instrumental for teachers who seek to meet the academic needs of students and the expectations of those students' parents. This is not to suggest that if parents do not perceive comics to be worthy academic material, teachers should abandon the medium. Nor is it to suggest that if parents are supportive of the use of comics on a daily basis in the classroom, all teachers should instantaneously begin utilizing the medium as much as possible. Rather, this study will hopefully allow for educators and others in the academic community to better understand the parents of those whom they wish to serve, and therefore be able to serve and educate those students with greater effectiveness.



## **Definition of Terms**

The following terms have been operationally defined for the purposes of this study. Many of the definitions were constructed by combining elements of various pre-existing definitions found throughout the scholarly literature related to graphic texts. These terms have been defined with newcomers to the comics medium in mind, in hopes that all readers of this study may acquire a true understanding of all the terminology used here.

**Cartoon:** a form of two-dimensional visual art marked by its attempt to depict reality in a simplified and/or exaggerated way.

**Comics:** a form of media in which combinations of words and pictures are typically contained within panels and arranged sequentially in order to form a cohesive narrative or provide information.

**Comics creator:** any individual who works individually or collaboratively in the creation or construction of a work of the comics medium. Examples may include writers, artists, colorists, and/or pencillers.

**Closure:** the act of using background knowledge, inference, and an understanding of panel relations to combine panels mentally into a series of meaningful events.

**Comic book:** a work of comics relatively short in length (i.e., typically between 20 and 40 pages) that is often bound with staples and center-folded.

**Comix:** a term first popularized by cartoonists in the underground comics movement of the 1960s and 1970s in an attempt to move the word away from its etymological origins. The term is often associated with comics whose subject matter is nontraditional and abrasive in both style and content when compared to works of previous eras.

Graphic novel: a work of comics of considerable length or that is comparable in length to that of a traditional novel. Graphic novels are often marked by subject matter that is more mature or themes and character development that is more ambitious than traditional comic books; however, the term may also be applied to bound collections of serialized comic books.

Graphic text: any text that relies heavily upon the use of traditional comics principles.

Gutter: the small space between panels where readers must make necessary assumptions and commit closure to gain meaning (Bakis, 2012).

Non-comics material: written works or material that does not feature the major defining features of comics such as the use of panels and illustrations to create a sequential narrative.

Examples may include but are not limited to prose novels, magazine articles, newspaper articles, essays or reports, various website content, etc. Non-comics material includes traditional literature, which is also operationally defined for the purposes of this study; however, non-comics material is broader in its reach than traditional literature.

Page layout: the grouping of panels on a comic page or strip (Jenkins & Detamore, 2008).

Panel: a unit of organization featured in comics, which consists of an individual frame, or single drawing, in a multiple-panel sequence. A panel typically consists of a single drawing depicting a frozen moment in time. Panels exist in various shapes and contain the pictures in a comic (Jenkins & Detamore, 2008).

Parent: any individual with full or shared custody of a K-12 student.

Perception score in regard to comics as a learning tool: a numeric score, which represents a respondent's overall perception of the value of comics as a learning tool. This score is determined by averaging a respondent's answers to a multi-faceted Likert scale question

that focuses upon a respondent's perception of the potential of comics to serve as an effective learning tool in five distinct categories. This score may also be referred to in this study as simply a perception score.

Preference score in regard to the frequency of comics incorporation: a numeric score, which represents a respondent's overall preference towards the frequency of the incorporation of comics into their child's school curriculum. This score is determined by averaging a respondent's answers to a multi-faceted Likert scale question, which focuses on respondent preferences concerning the frequency of comics instruction in three different categories. This score may also be referred to in this study as simply a preference score.

Picture book: a book that contains pictures but may or may not contain words and is intently focused on appealing to children. Picture books may feature the primary convention of comics, which is the sequential arrangement of combinations of words and pictures; however, picture books often less frequently feature other typical conventions of comics such as the use of multiple panels per page and the consistent use of word bubbles.

Traditional literature: A written form of media that includes both prose and poetry and that does not heavily rely on comics principles such as the use of illustrations and paneling. It should be noted that the word traditional in this instance is in no way a reference to literary pedigree or age, but is simply used in this study to refer to literary material that should not be categorized as comics.

Webcomic: any work of comics which is featured or published on a website and which has been originally designed for that purpose. Webcomics are also known as online comics or Internet comics.

## **Methodological Assumptions**

- The instrument (i.e., survey) was as reliable and valid as possible, thus making it appropriate for this relationship-based study.
- The sampling method of this study was selected in a way that would allow the results to be generalized effectively to the population and to comparable populations in other geographic regions.
- The respondents' contact information, which was provided by Boyd Buchanan School, was accurate and correct.
- The data collection and data recording procedures were accurately performed.
- The appropriate parametric or nonparametric tests were used to analyze the data provided by respondents in their answers to the instrument's questions. Also, the tests for normality and other requirements for determining whether parametric or nonparametric tests should be performed were conducted accurately and appropriately.
- The respondents' answers were thorough and they had no information to add that could have impacted the results of the study.
- The respondents had a thorough and clear understanding of what each question on the instrument was asking.
- The respondents' answers were truthful and genuine.
- Only the intended recipients of survey responded to the survey.

## **Delimitations of the Study**

The following delimitations are evident in this study:

- The study sample was limited only to parents of first grade through twelfth grade students at Boyd Buchanan School in Chattanooga, Tennessee. The decision for this delimitation was based upon the ease of accessing the population and the fact that Boyd Buchanan School offered the opportunity for the researcher to interact with parents of students at every grade level. Also, while exact numbers were not available, the school's president and administrative assistants reported a consistently high return rate of parental surveys in the past. Additionally, although the school does offer kindergarten and prekindergarten classes, parents of students in these classes were exempt from the study due to the fact that children in these classes would most likely not be independently reading, and thus a study which focuses on a particular type of reading material would not be highly applicable to parents of students in this grade range.
- The study sample included both parents of each student, and each parent was asked to complete an identical but separate survey. The decision for this delimitation was based upon the fact that the gender of the respondent allowed for more insight into this variable of gender and any relationship(s) with any other variables that may be present. For the purposes of this study, a parent was defined as any individual with full or shared custody of a student.
- The study sample included only the oldest child of each respondent currently enrolled at Boyd Buchanan School. The decision for this delimitation was largely based upon considerations related to the potential ease or difficulty in responding to the study's instrument. The researcher believed that asking parents to only respond to survey items

about one child in the family would reduce both the time required to complete the instrument, as well as possible confusion, and would generally make the instrument more clear and straightforward. The eldest child was chosen by the researcher as the focus for families with more than one child in order to avoid any possible confusion related to allowing respondents to choose which child they would like to focus upon. Also, the oldest child was chosen by the researcher as the focus of this study for the sake of consistency in data collection.

- The sample of the study did not exclude parents of Boyd Buchanan students who are also teachers at the school. Since many teachers at Boyd Buchanan School do have children who attend the school, excluding these teachers as potential respondents would have reduced the potential sample size of the study.

### **Limitations of the Study**

- As with any study, there was a possibility of researcher bias in this study. Years of study involving this topic and related topics could have influenced the researcher (consciously or unconsciously) to be desirous of certain outcomes or predict certain outcomes that may taint the interpretation of the data. Constant focus upon ethical research practices and a conscious awareness of this bias helped to eliminate the possibility of the bias impacting the results of the study as much as possible.
- The population chosen for this study was largely one of convenience and was chosen, at least in part, because the researcher is employed at Boyd Buchanan School. It was predicted that not every parent of every Boyd Buchanan student would participate in the study. Those that did participate constituted the study's sample. The sample utilized for

the study may provide generalizable results for the entire population of Boyd Buchanan parents; however, this population represents only a small collection of American parents. The results of the study may be generalized to comparable populations, but the generalizability of this study should not be overestimated and the demographics of any supposedly comparable population would need to be closely scrutinized before generalization takes place. In order to provide for as much insight into Boyd Buchanan School itself and thus help to identify potential comparable populations, Appendix A was constructed, which offers insight into a wide variety of Boyd Buchanan student and parent demographics.

- Since Boyd Buchanan is a relatively small independent school and boasts close relationships between stakeholders on a variety of levels, it was possible that response bias could have been an issue with this study. There could have been parents who were aware of the researcher's personal thoughts and feelings related to various academic philosophies and practices, and these parents may have been tempted to respond to certain survey items in a manner that they believed would be the most pleasing to the researcher. This may have been especially true for faculty members who participated in the study since these individuals are colleagues and coworkers of the researcher. Also, response bias could have occurred if individuals perceive any item option to be the "correct" answer for whatever reason and marked that answer instead of the answer that most accurately reflected their actual opinions or beliefs.
- While conscious attempts were made to increase the reliability and validity of the study instrument to the highest degree possible, the notions of perfect reliability and/or perfect validity were not possible for this study's instruments. Information about the instrument

and the efforts made to achieve reliability and validity in its construction can be found in Chapter III of this document.

- While every attempt was made to address additional attribute variables that may give further insight into the relationships explored in this research study, it is possible that the researcher overlooked other important and relevant variables.
- Since this study focused upon relationships and not causation, the findings of the study may only be incremental; however, the study and its findings may provide a foundation for future studies that may strive to address actual causation.



## CHAPTER II

### LITERATURE REVIEW

#### **Defining Comics**

The literature related to defining comics and describing the major characteristics of the medium is varied and features many overlapping elements, as well as many contradictions. Overall the process of defining comics appears to be marked by confusion, misconceptions, and a struggle to identify the specific distinctions of the medium that separates it from others. However, despite the apparent difficulties in defining the medium, exploring the definitions that do exist is important because whatever definitions that parents choose to adopt for the medium may very well impact their perceptions of comics and its academic value, as well as their preferences concerning the frequency of the medium's academic use. Therefore, understanding how comics as a medium has been defined and described may lay a foundation for a study that seeks to explore how parents perceive the medium and how often they believe it should be utilized by teachers and explored by students.

A number of definitions for the medium of comics exist; however, there is no single agreed-upon definition (Dong, 2013), and confusion over defining comics persists in spite of the fact that comics as a viable art form is continually gaining acceptance (Stearn, 2005). In his work *Understanding Comics*, McCloud (1993) dedicated the majority of the first chapter to developing a satisfactory definition. The author proposed several options which range from simply "sequential art" (p. 7) to "juxtaposed pictorial and other images in deliberate sequence, intended

to convey information and/or produce an aesthetic response in the viewer” (p. 9). Cohn (2005) noted that this definition is logical since comics do largely consist of images and text and that most often the images occur in a specific sequence. Cohn (2005) noted that nearly all definitions of comics focus on the interaction of these elements in some way.

Eisner (2008), in his work *Comics and Sequential Art*, as well as Duncan et al. (2015) also chose to define comics as sequential art; however, it seems that Eisner (2005) actually views sequential art not as a definition of the term comics, but as a more preferable name for the medium, remarking that comics as a name for the medium is a total misnomer that is not easy to kill. Eisner, often referred to as the father or grandfather of today’s comics (Eisner, 2005; Novak, 2014; Van Lente & Dunlavey, 2012) or the pioneer of the comic-art field (Evans, 2013), said that he considers himself to be a writer who writes with pictures, and therefore does not see the term comics as encompassing his craft (Eisner, 2005). He noted that this is why he and others are continually trying to change the name, description, and/or classification of comics (Eisner, 2005). Also, according to Van Lente and Dunlavey (2012), Eisner also never claimed to have coined the term graphic novel, which is often attributed to him. Much like Eisner (2005), Duncan et al. (2015) claimed that the term comics does not refer to a distinct medium but is a useful general term for describing instances of the juxtaposition of images in an intentional sequence. In light of this claim, Duncan et al. (2015) described comics as a communication practice that blends texts and pictures to varying degrees.

Jenkins and Detamore (2008) offered a fairly succinct definition of comics when they described it as a visual language, the purpose of which is simply to communicate. The authors based this assertion on the idea that the sequential nature of the images in comics can be compared to words in a sentence; therefore, the pictures work collaboratively to create a larger

linguistic whole. Sturm (2005b) offered a similar metaphor by claiming that panel design in comics is comparable to the use of diction in traditional writing. In comparing comics to poetry, Bennett (2011) argued that the panels in comics serve a similar purpose to line breaks in poems and impact meaning-making in a comparable way. Along this same line, Lehman (2004) has compared panels to lines of poetry.

Comics researcher Neil Cohn (2005) also explored the definition of comics as a visual language. The author argued that comics follows comparable structural properties and spurs mental processes similar to those spurred by verbal language but that it manifests itself in a separate modality of thought: a visual modality. Cohn (2005) went on to say that what separates visual language from other modalities or other forms of visual communication is the deliberate systematic sequence that comics features, otherwise known as the syntax of comics. This assertion led Cohn (2005) to then argue that since comics is a form of language, the methodological investigation of its properties must reflect this and that it must be treated as language and explored via a linguistic and psychological framework. This line of thinking also led Cohn (2005) to explore the very nature of language, and he ultimately concluded that linguistic expression is multimodal in nature, consisting of different types of languages, whether they be aural, manual, and/or visual. Ultimately, Cohn (2005) argument that comics reflects “a holistic semiosis that emerges out of the combination of these parts in the natural and common capacity for communicative multimodality” (p. 4) is largely based upon recognizing a broader than typical idea of language that includes elements such as gestures and illustrations.

Just as Cohn (2005) argued that one must examine the very notion and definition of language if one is to define comics as a visual language, he also argued that if one is going to define comics as sequential art, the idea of what constitutes art must also be considered. In his

ensuing discussion Cohn (2005) differentiated between art as a process and art as a product, indicating that one must consider whether the term refers to the act of creation or a resulting artifact that may or may not meet certain individual and cultural qualifications to be included in the category of art. Cohn (2005) sided with the latter and stated that visual language may be utilized to produce a variety of products but that not all of them would be considered by all to be art, just as language itself is not considered art, but the interpretable product of its process may be. This is largely because art is typically viewed as a skill acquired via instruction but language is accepted as a naturally occurring element of human maturation (Cohn, 2005). This inherently makes the concept of comics as a visual language all the more powerful because it indicates that, since all humans have the capacity to learn language, all have the potential to learn the grammar of the visual language employed by comics. Cohn (2005) did note, however, that great variance exists in people's ability to learn this grammar and their capacity to create sequential visual narratives. All in all, Cohn (2005) did not seem to define comics as either sequential art or visual language but noted instead that comics and visual language have a symbiotic relationship in which the comics medium exists as a cultural artifact that exemplifies the use of visual language.

Other definitions and explorations of the term comics can be observed as well. For example, Hayman (2005) defined comics as a form of pictorial narrative, but Meskin (2007) noted that this definition is faulty because it is based upon a historical perspective of comics and may be argued against by using certain prehistoric examples of the medium to counter this particular idea. Meskin (2007) asserted that utilizing a historical perspective is a common flaw in defining comics and took issue with other definitions such as that provided by Kunzle (1973) who noted that comic strips consist of a sequence of separate images with a preponderance of image over text that appears in a mass medium and tells a story which is both moral and topical.

Meskin (2007) noted that this definition does not properly explain the notion of preponderance and that it is too narrow in suggesting that comics are exclusively presented in mass mediums. Meskin (2007) also took issue with the notion that all comics deliver some sort of moral content. Additionally, Meskin (2007) pointed out flaws in the definitions of Eisner (2008) and McCloud (1993), suggesting that these definitions do not adequately separate comics from the medium of animation or any other form of art which may also be presented in a sequential form. For example, Meskin (2007) said that the pictorial and sequential conditions of comics are not enough to distinguish the medium from film and television.

While Kidd (2005) claimed that comics must tell a story and Cohn (2005) remarked that most sequences of images in comics do work to present a narrative, Meskin (2007) argued that the assumption of comics presenting a narrative may be fallacious. Angel (2013) noted that the medium of comics shares some similarities with film, but the author was quick to point out that in her opinion, this interdisciplinary nature of the medium simply makes it all the more powerful. Weiner (2013), Bakis (2012), Spiegelman (2011), Stearn (2005), and Jenkins and Detamore (2008) have noted that no matter how comics is defined, it is important that the medium be seen as a format and a technique for storytelling or conveying information, and not as a particular genre. Viewing comics in this way will aid in differentiating the medium from the content.

In order to further explore the medium of comics, Meskin (2007) used children's books as a point of discussion and noted their differences when compared to what is traditionally viewed as comics. He pointed out that children's books are typically not serialized in the same manner as comics and stated that their illustrations do not appear to be juxtaposed in a vitally important manner, as is often the case in comics. Moreover, the author asserted that children's books do not typically feature the use of gutters, which is a common feature of comics (Meskin,

2007). Interestingly, much of the early controversy over America's youth interacting with comics when the medium began to explode in the 1940s, was fueled by comparisons of comic books to traditional children's books; however, Nyberg (1998) argued that comics was a completely new and separate medium with its own highly developed conventions and that focused more intently on the conscious interaction of text and pictures.

Ultimately, Meskin (2007) did not offer his own definition for the medium and remarked that a satisfactory definition may not be possible. He concluded by saying that a definition of comics might provide some standard features but that there is no reason to think that a definition for comics is totally necessary since researchers should be focused more on the medium as an art form and less on the specific conditions for achieving the confines of a particular definition. In the end, Meskin (2007) argued that the definitional project is misguided and that researchers and casual readers alike should move beyond it. Somewhat similarly, Storey (2005) argued that the term comics should be abandoned altogether, stating that using the term "makes all our efforts those of fools and clowns" (p. 76), a statement that gives insight into how emotionally-charged the issue of the medium's name has become.

Throughout the scholarly literature on comics, a number of authors seem to eschew strict definitions, but several do offer some insight into the medium through various descriptions of its qualities and capabilities. For example, Hall (2011) stated that comic books "are one of the newest fully fledged art forms, a vibrant, hybrid medium birthed in America and brimming with all the wildly experimental vigor of youth" (p. 39). Park, Kim, and Chung (2011) stated that "comics are powerful visual messages that convey immediate visceral meaning in ways that conventional texts often cannot" (p. 275). Hosler and Boomer (2011) noted, "comic books employ a complex interplay of text and images that gives them the potential to effectively

convey concepts and motivate student engagement” (p. 309). Such descriptions often focus more on what comics are able to accomplish as opposed to presenting a strict outline of characteristics that would aid one in identifying an artistic work as actually being an example of the medium.

On another note, there is an additional event in recent comics history that has impacted the way that comics are being defined: the development of the term graphic novel. Rudiger and Schliesman (2007) noted that the term graphic novel is enough to give pause to some teachers and librarians since it may suggest objectionable content; however, the application of the word graphic in this instance does not indicate mature or violent content so much as it expresses the highly visual nature of these works. Often the invention of this term is credited to Will Eisner upon the creation of his comic *A Contract with God* (Lawn, 2012; Masuchika & Boldt, 2010; Mathews, 2011). Other sources that do not directly mention Eisner assert that the inception of the graphic novel as a genre is traceable back to the 1960s or 1970s, which still place the origination the term graphic novel roughly during the same time period as the publication of *A Contract with God* in 1978. (Martin, 2011; Tabachnick, 2010).

Gravett (2010) claimed that the term was created to aid the medium in conquering the stigmas of humor and childishness associated with the medium of comics, and Sturm (2005b) noted that the term had been somewhat successful in accomplishing this, arguing that the re-labeling of comics as graphic novels could liberate the medium from traditionally narrow expectations and assumptions. Duncan et al. (2015) agreed, saying that the term aids publishers in elevating their product and gaining a stronger foothold in bookstores, libraries, and the academy. Ryall and Tipton (2009) noted that the term graphic novel is largely used to suggest a higher level of sophistication and a higher quality of thematic material than what comic books

have to offer, and similarly, Duncan et al. (2015) noted that the term is often used to refer to more ambitious works in the art form.

Ryall and Tipton (2009) also pointed out that the term graphic novel has resulted in more mainstream respect for the medium, but at the same time the somewhat ambiguous title has resulted in much confusion as well. While some members of the comics community praise the use of this more respected term and claim it to be universally accepted (Weiner, 2003), Hatfield (2005) contended that such an attempt to gain the medium respectability through the use of a specific name errs on the side of narrowness and exclusion and only serves to restrict the medium in a way that the term comics does not. He also noted that trying to define the medium through such labels might mislead students into assuming a neat and simplistic history of the medium that simply does not exist.

Dooley (2005) was not a fan of the term graphic novel either and claimed it to be a “pretentious but lucrative marketing moniker,” while Reynolds (2005) claimed that the term is a pretentious attempt to increase the respectability of the medium. Dooley (2005), like Hatfield (2005) and Reynolds (2005), claimed that the term graphic novel did not adequately describe all of the various subject matters that the medium of comics may encompass. Examples include but are not limited to biography, journalism, and history (Reynolds, 2005), as well as myths, legends, and fairy tales (Hart, 2010). However, it is worth emphasizing that since the invention of the term graphic novel, their use in the classroom has become more pervasive, and the medium as a whole is gaining acceptance (Monnin, 2010; Tabachnick, 2009). In fact, Missiou and Koukoulas (2013) said that the medium has crossed over from “absolute demonization to jubilant acceptance” (p. 154) in academic settings.



While Eisner explained that graphic novels consist of sequential art that tells a story (Lawn, 2012; Smetana et al., 2009), numerous interpretations of the term persist today. Lawn (2012) pointed out that sequential art is an acceptable definition for both graphic novels and comics but that it unfortunately lacks the connotations of a book. Connors (2012b) defined graphic novels as book-length narratives written in the form of comics, but he also more casually referred to graphic novels as the older sibling of the comic book. Carter (2007a) also defined graphic novels in this unique way and noted that the American Library Association described graphic novels as the grown up version of the comic book in 2006, but Novak (2014) did just the opposite and argued that graphic novels are not simply big comic books. Likewise, Duncan et al. (2015) argued that while many might consider graphic novels and comic books to be manifestations of the same medium, they may actually exist in a different cultural space, and it may be that graphic novels are in fact becoming their own medium, distinct from comic books.

Sturm (2005b) stated that graphic novels present a narrative, but Tabachnick (2010) argued that the graphic novel medium is broad and diverse in genre and includes autobiography, biography, travel, history, reportage, and even poetry. Masuchika and Boldt (2010) echoed this sentiment by stating that the term graphic novel has been applied to any book-length publication that utilizes pictures in conjunction with narrative, and that it largely disregard whether the subject matter is biography, history, memoir, or fiction. Similarly, Hart (2010) argued that graphic novels are simply stand-alone pieces of literature which utilize illustrations and can address a wide variety of genres. Duncan et al. (2015) and Novak (2014) also noted that the graphic novel's self-contained rather than serialized nature, as well as its typically longer page count than the traditional comic book, are defining features. However, the notion of a story being self-contained can be a bit confusing. Serialized comic book series are typically expected to be

ongoing, but Novak (2014) remarked that publishers will often bind together any comic book arc and label it as a graphic novel in a somewhat manipulative manner.

Adding to the growing list of definitions with slightly different nuances, Tabachnick (2010) claimed that graphic novels are longer versions of comics which focus on a more adult audience, treat their content in a seriously artistic manner, and make use of high quality paper and production techniques. Smetana et al. (2009) offered similar sentiments by stating that the term graphic novel typically refers to lengthy comics with complex story lines similar to those found in traditional novels and that they are often aimed at more mature audiences. Similarly, Evans (2013) stated that graphic novels are often longer and typically feature a higher level of thematic unity. Rice (2012) pointed out that a simple definition might be that graphic novels are comics with more complex plots. Deitch (2005) agreed, remarking that the term graphic novel gives comics creators the license to produce longer and more ambitiously complex works with stronger character development.

Other writers have indicated that the heart of the entire comics definition issue lies in the fact that the term graphic novel has been contested and that other monikers abound. Martin (2011) noted that terms such as sequential art, bande dessinée, picture novella, picto-fiction, illustories, and adult comics have also been widely used. Rice (2012) argued that terms such as comix, sequential art, sequential art narrative, graphica, graphia, and graphien all seem to be viable options. This is further complicated when one considers the fact that online graphic novels, Web comics, or long-play comics surfaced as terms for digital forms of the graphic novel that began to appear in the 1980s (Gavigan, 2012). Additionally, Evans (2013) offered a somewhat lengthy discussion of what she calls fusion texts, works that feature some, but not all, of the elements typically thought of as defining the medium of comics.

In light of the variety of definitions and the overlap in wordplay, Lawn (2012) resorted to asking a series of seemingly unanswerable questions. As she put it, “Graphic novels are obviously books, but what kind of books?” (p. 27). The researcher went on to wonder whether graphic novels are comic books, more sophisticated picture books, or illustrated novels that contain paneling. In the end Lawn (2012) stated that paneling is the key to determining if a publication should be considered a graphic novel. Similarly, Evans (2013) argued that the key to identifying comics is examining its format, what it looks like on the page, and certainly paneling is a key aspect of the visual nature of comics.

Ultimately, although a firm definition of the terms comics and graphic novel appear to be somewhat elusive in scholarly literature, there are a few consistencies (Missiou & Koukoulas, 2013) that can be gleaned from a review of the available literature. While defining the terms graphic novel and comics may seem inconsequential to some, the benefits of studying the varying definitions could be quite important. After all, when Jenkins and Detamore (2008) asserted that comics is a visual language, he was quick to point out that understanding the linguistic nature of comics increases the possibility of fully realizing the medium’s academic and educational potential. Similarly, Cohn’s (2005) exploration of comics as visual language and/or art allow for an interesting jumping off point to explore other modes of human communication as well. Additionally, Evans (2013) noted that all of the confusion in terminology has led to much confusion among librarians and booksellers about how and where to position such texts, which also leads to confusion among readers about how and where to access them. Evans (2013) concluded that the confusion justifies an in-depth exploration of the principal characteristics of the medium, a task that is undertaken in a later section of this literature review.

## **An Overview of Reading Comprehension**

A given of the educational process in any environment is the acquisition of reading skill, and when reading is the task, comprehension is the goal (Boyle, 2008; Chen, Teng, & Lee, 2011; Cunningham & Mesmer, 2014; Kletzien, 2009; Tobia & Bonifacci, 2015); it is what teachers hope their students will achieve and a part of what parents anticipate their children will master at school. As a result of the importance that teachers and parents generally place on reading comprehension, understanding how reading comprehension is defined and measured is another important element that may lay the groundwork for gaining insight into parents' perception of comics. If comprehension is the goal of reading, exploring various definitions and descriptions of reading comprehension may give insight into what parents are expecting their children to master when they entrust their children's education to their teachers. Just as exploring the existing definitions of comics may help to building an understanding of how parents perceive the medium, exploring reading comprehension may do the same by clarifying the goal of the entire reading process.

According to Roozafza (2012), "Reading is an extremely active, complex, mental and personal process that concerns both the reader and the text" (p. 7). This statement refers to reading both traditional and graphic texts. While the next section of this literature review focuses on the topic of how one goes about reading a work of comics, this current section focuses upon the idea of reading in a more general sense in order to lay a foundation for the coming overview of the literature pertaining to the specific reading of comics.

Often, the proficiency of one's reading ability is assessed by the use of what is typically referred to as a reading comprehension test; in fact, reading comprehension assessments are the most common type of published reading test available (Litke, 2015). Many researchers note that

reading comprehension is the goal of reading (Boyle, 2008; Chen et al., 2011; Cunningham & Mesmer, 2014; Kletzien, 2009; Tobia & Bonifacci, 2015); however, academic literature features few absolute and working definitions of the term reading comprehension. This omission could be due to one of two possibilities: either (a) reading comprehension is something so easily definable and so apparent in its meaning that it does not need to be defined by those who write about it academically or seek to measure it formally, or (b) reading comprehension is so difficult to define and so ambiguous that researchers and scholars eschew the undertaking of defining the term altogether. It is also possible that the lack of definitions of reading comprehension in academic literature is an oversight and the writers of articles on the subject take it as a foregone conclusion that the reader will inherently view reading comprehension in the same terms as the writer; however, even though a brief examination of the literature on the topic is largely devoid of formal definitions, the variety of perspectives found in the literature does suggest that writers and researchers should not assume that their readers will automatically align themselves with the writers' unstated or implied definition of the term.

A fairly consistent description of reading comprehension is that it is a specific skill or set of skills (Avci & Yuksel, 2011; Basaran, 2013; Manset-Williamson & Nelson, 2005; Williams, Skinner, & Jaspers, 2007). More specifically Tobia and Bonifacci (2015) stated that reading comprehension is a very complex task consisting of multiple component skills. Similarly, Beltramo (2012) specifically described reading comprehension as higher-order skill. However, this description of reading comprehension as a skill is as specific as many authors choose to be.

Examining other literacy skills that are related to reading comprehension may offer further insight. Williams et al. (2007) and Basaran (2013) have both pointed out that reading speed is closely related to reading comprehension, but that reading comprehension and reading

speed are not one and the same. Basaran (2013) noted that an appropriate reading speed is central to achieving reading comprehension, and Williams et al. (2007) pointed out that both reading comprehension and reading speed are essential to success in college courses; however, the fact that the writers distinguish between the two terms suggests that they are not interchangeable.

The same is the case for reading fluency. Basaran (2013), Beltramo (2012), Kitano and Lewis (2007), Manset-Williamson and Nelson (2005), Nelson and Manset-Williamson (2006), and Williams et al. (2007) have pointed out that reading fluency and comprehension are related but not interchangeable. Also, like reading comprehension, reading fluency seems to have a number of definitions as presented by a wide variety of researchers that range from comprehension when vocalizing to reading accurately and at an appropriate speed and with an appropriately natural tone of voice (Basaran, 2013). Basaran (2013) and Manset-Williamson and Nelson (2005) both pointed out that proficiency in fluency can lead to increased levels of reading comprehension, but once again, fluency may be defined in a number of ways. Finally, Boyle (2008) separated the skill of comprehension from other skills such as phonemic awareness, phonics, fluency, and vocabulary, but did note that all of these skills are closely related.

Likewise, the literature suggests that decoding is related to reading comprehension but not completely synonymous with it (Kitano & Lewis, 2007; Manset-Williamson & Nelson, 2005; Nelson & Manset-Williamson, 2006). Williams et al. (2007) and Manset-Williamson and Nelson (2005) pointed out that decoding is not only separate from reading comprehension but that it is also separate from reading itself. Henderson and Buskist (2011) noted that reading comprehension is different from the ability to read words themselves. The same holds true for the notion of vocabulary. Beltramo (2012), Chen, Chen, Chen, and Wey (2013), and Kitano and Lewis (2007) remarked that vocabulary instruction may have an impact on the acquisition of

reading comprehension skills, but here again, the fact that vocabulary is mentioned as a factor in reading comprehension indicates that increasing one's reading comprehension goes beyond simply expanding one's vocabulary.

Another method of delving deeper into reading comprehension is to examine the strategies that readers use to achieve it. As Henderson and Buskist (2011) have pointed out, comprehension is a dynamic process that requires the reader to utilize a variety of strategies to construct meaning. Uso-Juan and Ruiz-Madrid (2009) stated, "The term reading strategies refers to those conscious or unconscious procedures, actions, techniques or behaviors that learners employ in order to enhance their comprehension and make up for interpretation problems" (p. 60). Locating literacy scholars who agree on the specific strategies that must be utilized to achieve reading comprehension is another matter. Uso-Juan and Ruiz-Madrid (2009) focused on previewing, predicting, questioning, summarizing, and making text connections, while Gier, Kreiner, Hudnell, Montoya, and Herring (2011) focused on more tangible strategies such as setting goals, rereading the unfamiliar parts of the text, and using studying techniques such as note-taking, underlining, writing in the margins, and highlighting the relevant parts of the text. Kitano and Lewis (2007) focused on as many as 10 different strategies to help ensure that reading comprehension is achieved and listed utilizing prior knowledge, creating mental imagery, questioning, summarizing, connecting, inferring, determining importance, and synthesizing, among other strategies as well. Beltramo (2012) mentioned seven main strategies, three of which overlap the strategies discussed by Kitano and Lewis (2007). The overlapping strategies included summarizing, connecting, and inferring, while the more unique strategies included monitoring and clarifying, analyzing, inferring, evaluating, and predicting. Since neither author defined these strategies, it is difficult to tell if the overlapping strategies are

actually as similar as they appear on the surface, and conversely, dissimilar strategies such as questioning and predicting may be more similar than they initially appear.

Ko (2005) discussed reading strategies as well, but, like Kitano and Lewis (2007), he noted that they may be divided into higher order and lower order strategies, further adding to the uncertainty of exactly what reading comprehension is and how it is achieved. Ko (2005) specifically mentioned inferencing as a higher order strategy and listed guessing, skipping, and questioning content as lower order strategies. Ko (2005) made no attempt to distinguish higher order strategies from lower order strategies but simply focused on providing these examples; however, it is clear from his writing he believed the higher order strategies to either lead to better reading comprehension or be practiced by those who engage in a high level of reading comprehension. Beltramo (2012) listed strategies as well, which included determining text structure, activating prior knowledge, utilizing graphic organizers, monitoring understanding, summarizing information, making inferences, and using visualization. He also noted that when students perform poorly on reading comprehension assessments, it is difficult to tell if students are simply not using the strategies or are just unaware of their existence. To add to the list of possible strategies which lead to reading comprehension, Gaddy, Bakken, and Fulk (2008) mentioned active participation and self-reflection, summarizing, and finding the main idea, while Nelson and Manset-Williamson (2006) focused on prediction, summarization, and asking questions.

Additionally, reading comprehension scholars have mentioned a variety of other factors that impact reading comprehension and may give insight into the nuances of the term and how it is related to reading as a whole. Chen et al. (2013) pointed out that interest and background knowledge, as well as one's attitude toward the material at hand, can have a potential impact on



reading comprehension. Lee (2009) made similar remarks but referred to this idea as the importance of topic congruence and topic interest. On a related note, Horchak, Giger, and Pochwatko (2014) noted that reading comprehension of sentences can be affected by one's emotional state, and Nelson and Manset-Williamson (2006) pointed out the importance of self-efficacy in achieving reading comprehension.

There are a few authors who have presented clear and lucid definitions of reading comprehension within their writings. While these definitions appear to be wide-sweeping conceptual definitions and are not simply operational definitions, each is somewhat different. Basaran (2013) offered a definition of reading that seems to incorporate a definition of reading comprehension within it when he stated that reading involves not only the perception of written symbols, but that it goes beyond this to also encompass the comprehension and actual use of the information delivered in a text.

Other researchers' definitions are quite short and direct. Avci and Yuksel (2011) stated that reading comprehension is the process of finding the meaning of the text, thinking about it, and then making inferences. The authors also seemed to equate reading comprehension with understanding. One possible issue with this definition is the ambiguity inherent in what it means to simply think about a piece of text and the fact that inferencing is largely viewed by other researchers in this literature review as a strategy for achieving comprehension and not a definition of reading comprehension in and of itself. Beltramo (2012) offered a similar description when he stated that reading comprehension is reading to learn. While this definition is concise, it does not quite seem adequate enough to fully encompass the complexity of the phenomenon when compared to the descriptions of other researchers presented in this literature

review. Finally, Manset-Williamson and Nelson (2005) simply claimed that comprehension is reading and vice versa.

Ultimately, Roozafza (2012) pointed out that the reading process is affected by a wide range of reader and text-related factors. Duncan (2009b) reiterated this idea by pointing out that metalanguage, phonic decoding, motivation, the act of reading aloud, the manifold relationship between reading and time and other factors all impact the reading process. Obviously, the literature related to the reading process and reading comprehension suggests that reading is a complex process, but Horn (2009) argued that the reading process involved with comics is even more complicated than an interaction with text or illustrations alone. This may also be why researchers, such as Dong (2013), suggest that the engagement that comics offer and require can often help aid readers in developing reading comprehension and critical thinking skills.

### **Comics as a Unique Mode of Conveyance**

Comics is a medium that is inherently different from others because of the exclusive combination of communicative elements that it offers to potential readers. The particular methods of communication that comics employs no doubt impact how parents perceive the academic value of the medium. Additionally, the uniqueness of comics causes the question of how parents feel about the medium to be one that is as powerful, compelling, and unique as the medium itself. Understanding the rare way that comics communicates its messages to readers and how this mode of conveyance is different from traditional literature may help lay a foundation for a study which seeks to explore how parents perceive the medium and its potential academic value. While comics is different from other forms of communication in many ways, the medium does share similarities with other modes and methods of human communication, and

both the uniqueness of comics as well as its shared qualities with modes of communication are explored in this section.

Horn (2009) argued that how the human brain interacts with comics is more complicated than comparable interactions with illustrations or text alone. This same researcher, along with Sipe (2008), noted that mentally processing comics goes beyond the type of reading that takes place when one interacts with traditional texts because it requires the reader to engage in transmediation, an act that consists of simultaneously considering, processing, and responding to information that is presented by a combination of media forms. The uniqueness of comics as a groundbreaking medium is reinforced by Tabachnick (2009) who claimed that the combination of words and images creates a “stunning, hypnotic form of poetry” (p. 4). Similarly, Tucker (2009) noted that comics is a unique art form because it is not limited to representing objects in space, as is the case with painting, and is not restricted by simply representing sequential actions, as is the case with poetry). In his mind, the combination of these two art forms creates emancipation from the limitations of each medium and results in an art form that is truly new. This is partially because the special combination of modes of conveyance offered by comics allows it to make up for the individual shortcomings of each of its combinatorial mediums. Additionally, while many Americans have grown up reading comics and most people are fairly familiar with comics as a popular medium, Lessing (as cited in Tucker) also gave insight into the notion of their newness by claiming that the depiction of action through a series of images was “beyond the bounds of aesthetic possibility” (p. 32). Similarly, Weaver-Hightower (2013) said comics’ multimodal quality allows it to utilize meaning resources that neither of the two modes of communication that it combines could do on their own. In a more casual manner Harvey

Pekar (as cited in Rifas, 2005) famously expressed a similar sentiment when he touted that comics are simply words and pictures, and with that, anything is possible.

While this hybrid medium (Eisner, 2008; Hignite, 2005; Sousanis, 2015b) or blended art form (Duncan, 2009a) in which words and pictures become costars and partners (Monnin, 2010) is new and interesting, it can also be equally confusing and challenging for those who have relatively little experience with it (Fox, 2013; Gravett, 2010; Novak, 2014). Ryall and Tipton (2009) noted that comic books ask more of the reader than a typical novel or magazine, and Rosen (2009) noted that comics challenge the traditional left-to-right, top-to-bottom, linear, progressive ways of reading. He also stated that comics require a different sort of reading, and that this new form of reading is deceptive because many students assume they have already mastered it due to some previous experience with comics. Likewise, Versaci (2009) noted that when an individual reads an entire page of comics which has been constructed by a skilled visual architect, the reader's eye is especially active and not simply working in the elementary left-to-right motion that traditional reading requires. This reinforces the idea that newcomers to comics may struggle with exactly how to approach the medium.

Rosen (2009) said that readers from either a design or literary background are likely to approach comics from the perspective of their individual experiences and may tend to give preference to either the words or the illustrations when examining comics. This results in an unbalanced view of the major two elements of the medium. Rosen (2009) also claimed that form and content are intimately connected in comics and that in the most successful instances, the design of a particular comic is inseparable from its narrative. As a result, the medium of comics is complex because it complicates the traditional triad of the reader, the concept, and the text by adding illustrations and thereby allowing the elements of the concept and the text to be

embedded within one another. In such instances, the reader remains the same, but how s/he constructs meaning is essentially different (Rosen, 2009).

Nearly all comics share a few common features with which the reader interacts in his/her effort to draw meaning from the story. The first and most consistent of these is the comics panel, which Lawn (2012) noted is a central component of the very definition of comics. Heller (2009) stated that the medium of comics is largely architectural in nature, and the panel is the primary building block of the medium's infrastructure, with rows of panels serving almost like floors of a building. In essence, the panels of a comic serve as concrete narrative units that present visual metaphors and also establish the rhythm of the story (Kuhlman, 2009), or more simply put, panels are the shapes that contain the pictures inherent within comics, and the pictures contained within them largely serve as the story's prime narrator (Jenkins & Detamore, 2008). Duncan et al. (2015) also defined the panel as any discernable area that contains a moment of the narrative at hand. Everything that the reader sees and reads in a literal sense takes place within the panel, and it is here that the reader first begins to connect to the comic's creator (Jenkins & Detamore, 2008).

Eisner (2008) pointed out that the comprehension of images in comics requires a commonality of experience and that the reader and creator are brought together through the creator's ability to evoke images stored in the minds of both parties. Burmark (2002) expressed a similar idea when he said that "you can't understand or 'get' anything until you have a mental hook to hang it on" (p. 23). Wolk (2007) offered similar sentiments but focused more on this connection being made through the general legibility of the text and illustrations so that the reader will be able to immediately recognize and connect to everyone and everything in the image.

Finlayson (2009) pointed out that even though a comic artist's style cannot be examined in isolation if one is to make sense of comics as a whole, the first aspect of any comic that a reader encounters is the visual style. In actuality, few comics researchers have focused on the importance of the aesthetic style of the comics creator as a general phenomenon. If they have, they have typically mentioned it only in passing as Finlayson (2009) did when he simply stated that style can manipulate the reader's response to the events of the story. One may assume that this is because each comic book or graphic novel is so unique that researchers assume any analysis of style must be approached from a purely individualistic perspective; however, this idea is not consistently presented in the available literature.

One author who did offer a lengthy treatment of comics style as a whole is Douglas Wolk (2007). In his critique of a comics genre that referred to as "art comics" (p. 31) or "ugly comics" (p. 52), Wolk (2007) noted that although there is really no such thing as a neutral style of comics art, many mainstream comics are produced with a deliberate intention of adhering to a publisher's or period's "house style" (p. 24). This causes those comics to be merely vehicles of narrative and results in what Wolk (2007) referred to as a "default style" (p. 50), which has its roots in the generic mainstream comics of the 1960s. Schumer (2005) commented on this as well, noting that the impact of artist Neal Adams was so great in the 1970s that his realistic style of drawing led to watered-down clones of his style flooding the mainstream. In these instances, the comics' style is typically not supposed to be as significant as the story's plot (Wolk, 2007). Additionally, beginning in the 1950s, many comic book publishers began internally promoting a house style, not only to lend a sense of consistency to the company's line, but also to make artist's easier to replace at a moment's notice without the reading audience being aware that a change had taken place (Van Lente & Dunlavey, 2012).

While Wolk (2007) shied away from terms such as “indie” or “mainstream,” it is clear that he believes that comics fall into two camps: those that are produced with an intentionally unique illustrative style and those that are designed so that their illustrative style fades to the background and is secondary to the narrative. Still, Kubert (2005) claimed that it is impossible for two comics artists to draw alike, no matter how carefully one attempts to emulate the other. The author argues that this is because it is simply impossible for two individuals to think alike. Stearn (2005), on the other hand, argued that habits of style do exist and that certain genres of comics are prone to adherence to certain artistic and narrative styles. Kubert (2005) argued that good style is simply a matter of effective communication and nothing more.

Gravett (2010) stated that “sometimes the most technically polished illustration in comics fails to communicate or involve the reader, whereas less ‘accomplished’ drawing comes alive on the page and in your mind” (p. 11). Similarly, Wolk (2007) claimed that ugly comics work in a different way than mainstream comics. Essentially, “the more stylized and unpretty the cartoonists’ art, the more it fights back against the people who look at it” (p. 55). As a result, the author claimed that audiences inherently respond to unpretty comics (i.e., nonmainstream comics) in a more interactive and conscious manner. Mankoff (2005) offered similar sentiments when he discussed a phenomenon he called “good-bad drawing” (p. 3), which he noted was not technically polished but did create a sort of “miracle” (p.3) on the page because of the inherent enthusiasm of the communication. As Kreider (2005) noted, there is a stark difference between unconventionality and incompetence, and creators of ugly comics know and exploit this idea quite well.

This phenomenon is perhaps more easily understood by examining Duncan’s notion of equilibrium and its role in learning (as cited in Schunk, 2012). Duncan (1995) contended that the

achievement of equilibrium is an internal process that results in cognitive development when cognitive conflict exists. Essentially, an observance or experience creates cognitive conflict or disequilibrium when it does not match the individual's observed reality. Schunk (2012) claimed that learning occurs when individuals attempt to reconcile what they observe with what they already believe, thus attempting to engage in assimilation or alter their internal structures. This may be related to why Gravett (2010) and Wolk (2007) contend that nontraditional, unpretty, or ugly comics are especially powerful: they may force viewers into a state of disturbance and therefore usher them into the process of establishing equilibrium. Schunk (2012) said that creating incongruity leads to cognitive development, and this may be something that ugly comics can help facilitate.

Comparable to the idea of creating incongruity or cognitive conflict is the notion of arousal. Berlyne (as cited in Schunk, 2012) argued that the process of trying to reduce cognitive incongruity is sparked by input that is especially novel, ambiguous, or surprising. These stimuli can generate a state of arousal that spurs the learner to reduce conflict between their internal knowledge and external stimuli or expectations. Once again, what Wolk (2007) describes as ugly comics may be a tool for stimulating arousal, which in turn could explain why these nontraditional comics are so powerful and stimulating. However, it is important to point out that both Hunt and Duncan (as cited in Schunk, 2012) note that there is an optimal level of incongruity which stimulates learning, and Schunk (2012) states that the informational processing system can only handle a certain amount of processing at one time. This suggests that if a comic becomes too unpretty or ugly, it could perhaps create an unfavorable cognitive load and actually reduce learning. This is why comics creators must consciously and carefully utilize an



appropriate level of iconic abstraction as they create their illustrations and understand that they need to arouse readers without creating too much incongruence.

To further aid him in his discussion of ugly comics, Wolk (2007) called upon Immanuel Kant's *Critique of Aesthetic Judgment*. The author pointed out how Kant drew distinction between the agreeable, the good, the beautiful, and the sublime and concluded that "art comics" (p. 31) or "ugly comics" (p. 52) are unique because they refuse to provide pleasure that is not mindful and are therefore willfully disagreeable. This is directly opposed to the attempts of mainstream comics to be straightforwardly agreeable and results in the fact that an "unpretty drawing makes the fantasy of participation less easy and more powerful; it calls us back to what's really going on in an image and in the narrative it belongs to" (Wolk, 2007, p. 58). In other words, the reader of ugly comics must look beyond the surface of the images in order to successfully mine the meanings of the metaphors contained within the work in a cognitive process that is deeper and more intentional. The reader must make an effort to consider what s/he is looking as well as "what's wrong with it" (p. 58), and this inherently brings the reader to deeper levels of literary analysis and critical thinking if s/he is willing to take on the challenge. Dong (2013) noted this as well, claiming that comics can help students develop their critical thinking and analytical skills.

Even though Wolk (2007) is one of the only comics analysts to have offered an in-depth discussion of overall comics style, one aspect of comics style which several researchers do explore is a type of iconic representation known as cartooning. It is here that McCloud (1993) discussion of how the brain specifically interacts with icons is especially notable. McCloud (1993) championed the notion of the icon over the symbol because he found the latter too loaded and stated that icons are literally all around us in our daily lives. From the American flag to the

skull and crossbones, (i.e. ideological icons) to letters, numbers, asterisks, and musical notes (i.e. linguistic, scientific and communicative icons), the icon is simply inescapable (McCloud, 1993).

McCloud (1993) noted that there is one type of icon that is different from those previously mentioned and from all the rest: the picture. While the idea of a picture may not seem unique in comparison to other icons, McCloud (1993) pointed out that this type of icon differs from all the rest because pictures are actually meant to resemble their subjects. Also, as resemblance varies, the level of iconic content also varies. In other words, while the numeral 12 or the letter M always maintain an absolute or a fixed meaning regardless of their appearance or presentation, some pictures may be more iconic than others and thus achieve a unique status among icons as possessing fluid or variable meaning depending upon their presentation. Once again, this is due to the fact that words and numbers are purely abstract and bear no resemblance to what they represent, but in pictures the level of abstraction varies, and as the level of abstraction varies, so does our interpretation of and response to the picture (McCloud, 1993). Bakis (2012) noted that this is a particular strength of comics, arguing that because many images are open for interpretation, students' problem solving skills are stimulated and they are able to engage in the process of building meaning in a more social manner. This, in turn, helps to create a more open-minded and democratic learning environment.

As previously mentioned, one of the more common examples of pictorial abstraction is the act of taking a specific image and transforming it into a cartoon. The act of cartooning is what McCloud (1993) referred to as "amplification through simplification" (p. 30). While some may refer to a cartoon as a picture in which much of the detail of the real world has been eliminated, McCloud (1993) offered an alternate viewpoint by stating that cartooning is not so much about excluding details as it is about focusing on specific ones and thus amplifying the

meaning inherent within the picture. Similarly, Wolk (2007) noted that “the simplifications of cartooning are symbolic even more than they are retinal” (p. 120). In some ways, McCloud (1993) argued that this makes the cartoon even more powerful than more realistic art forms. Also, as Sousanis (2015a) remarked, simplistic illustrations are not necessarily less rigorous simply because their appearance might be simplistic.

As he progressed with his exploration, McCloud (1993) indicated that one strength of cartoons is the fact the abstraction inherent within them allows artists to create more universal imagery which is easily accessible by all peoples. This is especially true with the abstraction or cartooning of the human face. McCloud (1993) argued that humans are a self-centered race that makes world over in our image. As evidence of this, he called upon objects that range from an electrical socket to the front view of a vehicle and noted that human viewers of these objects easily project onto them the image or semblance of a face. The author noted that this drive to see ourselves reflected in the world around us is so strong that when we reflect upon the simple icon of a circle with two dots and a straight line that it is almost impossible for us not to see the representation of a human face. Van Lente and Dunlavey (2012) noted this phenomenon as well.

According to McCloud (1993) the idea of narcissism is important because we are incessantly but also subconsciously carrying a picture in our own head of our very own face. Also, this mind-picture of ourselves exists not in vivid detail but as a general sense of shape and a sketchy arrangement of parts that could essentially be referred to as a cartoon. McCloud’s (1993) discussion of the pictures that appear in our heads during a conversation with another individual addresses this idea. Essentially, the author noted that while we view and interact with the face of the other person, we are also vaguely aware of our own countenance, but this mental

image of ourselves is less detailed and resides more in the realm of cartoonish representation: a picture that amplifies our most essential features while cutting away unnecessary details.

McCloud (1993) then used this phenomenon to make a transition into saying that when humans see photographs or realistic depictions of a face, they see it as the face of another, but when people interact with cartoons, they see themselves. Bakis (2012) agreed, asserting that cartooning fosters a more intimate engagement with the text and leads to increased empathy with characters. As a result, while not all comics present images that are highly abstracted into the form of cartoons, many do. Additionally, those comics that could be described as cartoons offer the reader the unique ability to step inside the text in a way which texts with words alone cannot. McCloud (1993) somewhat boldly purported this idea when he said,

The cartoon is a vacuum into which our identity and awareness is pulled. . . an empty shell which we inhabit which enables us to travel to another realm. . . we don't just observe the cartoon, we become it! (p. 36)

Aune (2009) agreed and reiterated McCloud's (1993) statements by asserting that more specific images keep readers at a distance while cartoons allow readers to project themselves into an illustration more easily.

On a related note, in comparing comics to film, it is important to point out that the cartoon is somewhat more powerful than film's use of specific actors because the cartoon presents the characters in a symbolic or iconic representation only (McCloud, 1993). On the other hand, the use of specific actors will typically cause the viewer to assess the character being portrayed in the light of the other characters which that particular actor has depicted in other films (Finlayson, 2009). In this way cartoons are once again very universal in their appeal and their presentation of characters and narratives. Simply put, the actual actors restrict and limit the characters they present while the cartoons free them in the mind of the reader. While comics may

be reductive, this may be a strength over film since the reader will not be distracted by the idiosyncrasies of the actor's portrayal (Finlayson, 2009). Also, somewhat playfully, Satrapi (2005) remarked that comics and film differ because, unlike film, anything is possible in comics, and Mack (2005a) agreed by saying that comics is a medium that could integrate and encompass elements of all other mediums, leading to many fewer limitations for comics as a mode of conveyance. The creation of a film typically requires sponsors, agents, actors, and substantial funding. All that the making of a work of comics requires is a bit of paper and ink (Satrapi, 2005). With this being said, it is important to note that in comics construction, creators such as Mack (2005b) have noted that producing a comic strip can feel quite a bit like making a movie due to the utilization of elements such as props, angles, zooming in and out, and so forth.

To accompany the discussion of the individual's relationship with cartoons in comics, Steven Pinker, in his 2009 exploration of how the mind works, noted that natural selection has provided humans with a special mental processor specifically designed to recognize and analyze faces and facial expressions and that face recognition may utilize distinct parts of the brain. Pinker (2009) noted that facial recognition is deeply ingrained in humans. As evidence of this, the author noted that babies lock their attention to faces and facial patterns when they are just minutes old but do not lock on to other complex and symmetrical arrangements. While Pinker (2009) made no mention of narcissism in his discussion of how the brain perceives and analyzes faces, he did state that a face-recognizer module is something that is inherent within humanity and universal to all humans, with the exception of those who suffer from prosopagnosia. Prosopagnosia is the inability to recognize the faces of people with whom one is already familiar, and is often the result of neurological damage (Bate, 2016).

According to Pinker (2009), the mind's unique ability to process faces and facial expressions is a result of an evolutionary history that has selected this skill as being necessary for humans' optimal interaction with their environment. Regardless, the comics medium's tendency to present faces in a visual and tangible form sets it apart from purely literary works due to this deeply ingrained reaction to faces that all humans seem to share. Additionally, this idea is relevant to a discussion of the uniqueness of the comics medium because while a purely literary text might describe faces and facial expressions for the reader to visualize, the brain reacts differently to the experience of actually viewing the representation of a face as opposed to simply reading a description of one in a text: it reacts by encouraging us to see ourselves (McCloud, 1993).

According to McCloud (1993) this phenomenon of human nonvisual self-awareness is not restricted to faces alone. We are constantly aware of our surroundings and our entire bodies in an abstract way even when we are not directly looking at them, and this awareness once again is projected mentally as a cartoon-like impression in our minds. Pinker (2009) presented a notion that is akin to this when he stated, "We vividly experience only what is in front of our eyes; the world beyond the perimeter of the visual field and behind the head is known only in a vague, almost intellectual way" (p. 257). As a result, it is not just cartoon faces that appeal to us as readers and viewers. The ability of cartoons to connect to us through their amplification via simplification applies to items all around us in our everyday world as well.

Biederman (as cited in Pinker, 2009) presented a similar idea with his unique geon theory. According to the theory, there are a total of 24 geometric parts or shapes that the brain combines in an interesting sort of visual grammar. Additionally, the brain processes the world by visually recognizing the combinations of geons that make up the objects around us (Biederman,

1995). According to Biederman (1995), when we view any familiar or unfamiliar object, we parse or segment its parts out individually and then describe those parts with more familiar terms and definitions. In our brains, complex objects are comprised of smaller more simplistic ones such as blocks, wedges, cones, or cylinders (Biederman, 1987). When identifying an object, we mentally deconstruct it in this manner and then match the arrangement with any pre-existing representation in our memory (Biederman, 1987). Siddiqi, Kimia, Tannenbaum, and Zucker (1998) commented upon this phenomenon as well, arguing that since no organism can cope with an infinite amount of diversity, all organisms practice the basic function of cutting up and classifying their environment into nonidentical stimuli which can be treated as equivalent. The existence of this basic function is why Siddiqi et al. (1998) argues that humans are capable of recognizing another human form almost immediately, despite the immense number of possible differences in the photometric and geometric detail of that form.

When Pinker (2009) presented examples of these geons from the work of Biederman (1995), they essentially appeared to be cartoons: simplified representations of real objects that amplify the objects' basic shape and illuminate the core of the object's being by eliminating inessential details. While neither Pinker (2009) nor Biederman (1995) use the word cartoon, the discussion of geons which the authors present is strikingly similar to what McCloud (1993) presents about the power and uniqueness of cartoons. Once one is familiar with the work of Biederman (1995), it is quite easy to view cartoonish illustrations in comics as being largely built upon the artist's individual representation of the world through various geons. Also, understanding geon theory contributes to the recognition of the power of cartoons since Biederman (1987) argues that a relatively modest number of geons are able to encompass such a large portion of our capacity for visual categorization.

Sargent (2005) spoke of the power of the cartoon by recounting a historical anecdote from the 1870s about New York political boss William Marcy Tweed. Supposedly Tweed stated that he was much more concerned about the cartoonish representations of himself that were being printed in the newspaper than he was about anything that was actually written about him. This was due to the fact that anyone who could physically see would be able to interpret the derogatory visual messages related to Tweed in the newspaper, but only those who could read would be able to understand the text. As a result, the editorial cartoons depicting Tweed would naturally reach a larger audience. Sargent (2005) noted that Tweed understood that since cartoons simplify events and circumstances into their most easily understood elements, they inherently possess a great power of symbolism, which the author stated is the language of the unconscious. On the opposite end of the spectrum is Storey (2005), who is not a fan of cartoons and who stated, “No matter how brilliant cartoons can be or have been, cartoons impede seeing, reduce truth to ironic gags and encourage the dominance of words over pictures” (p. 77). This remark argues that the simplistic nature of cartoons essentially mask or distract from the message of a comic instead of enhancing it.

Regardless of individual styles of illustration, be they cartoonish or photorealistic, the panels in which any narrative is housed largely achieve the same goals and are used for the same purposes throughout the medium. Eisner (2008) pointed out that the specific construction of panels helps establish the rhythm and passage of time in the narrative. Everything from their height and width to their shape and placement on the page may be of importance (Eisner, 2008), a minor example being that a panel with jagged edges might simply be used to build suspense or create tension (Hart, 2010). What is unique about the medium is the fact that the reader makes judgments about the pacing and rhythm of the narrative inherently, without direct instruction



from the creator to slow down or speed up at any point (Eisner, 2008). McClintock (2005) noted this as well, pointing out that while comics allows readers to move at their own pace, panel size is the key to indicating and understanding the pace of the narrative. Eisner (2008) noted that readers tend to view time at its narrowest when panels are placed close together. Also, Eisner (2008) argued that one of the unique qualities of the comics panel is that it allows illustrations to be free from the restriction of presenting a single moment in time, which has traditionally been seen as one of the greatest limitations of the medium of artistic representation.

According to Tucker (2009), comics achieves its great power by combining the sequential nature of words with the simultaneous nature of illustrations. As Sousanis (2015b) said, verbal communication plods along in a linear fashion, a discrete sequence, but the visual presents itself in a simultaneous, interconnected, relational manner that is extremely powerful. As words and images become equally integral parts of communication, the two modes of communication are interwoven and inform each other's meanings in a way that allows the medium to reach even greater levels of discourse (Sousanis, 2015b). This is due to the fact that words are essentially only one method of communication and that any method of communicating, when experienced in isolation, will inherently only provide a partial view of the entire message to be conveyed (Sousanis, 2015b). Additionally, according to Burmark (2002), it is the use of sequential panels which allows the spatial to transform into the temporal. Tucker (2009) agreed and noted that creators of comics can expand and contract time by drawing out a single moment across several panels or restricting that moment to one brief panel.

Nichols (2009) expressed that panels in comics provide readers with something called selective progression. In essence this means that the artist is able to extend the static nature of images by placing them in sequence and is also able to force the reader to linger on panels that

the artist feels are especially important. While one might argue that a film director is able to accomplish the same task by extending the length of a shot, it is worth noting that the comics medium allows the reader to take matters into his/her own hands more so than film. The idea of exactly how long to linger on specific images is suggested by the artist but is largely determined by the reader (Nichols, 2009), thus giving the reader of comics more control over his/her experience and allowing him/her to take a more active role than the viewer of a film (Duncan, 2009a). Also, when a shot or scene is extended in film, the audience is often aware of the passage of real time, but in a particular panel of comics, the artist is able to hold the reader's attention for several seconds while securing the panel as a single moment in time. In other words, film is often bound by real time, while comics is not. While film directors may employ certain techniques such as slow motion to help alter the perception of time, these cannot be used extensively without becoming somewhat distracting to the viewer. With comics, however, the choice of how to present time in the panel is a conscious decision made on every page with every panel as comics creators make deliberate choices about which moments of prime action to include (Versaci, 2009).

Turning away from film and moving back to a comparison of comics and text, Tucker (2009) pointed out that reading requires time since it is comprised of creating a series of sounds, and Cohn (2009) noted that "text slows the eye, while images demand to be taken in all at once" (p. 46). Given these phenomena, a creator of comics can affect a reader's perception of time by the inclusion or exclusion of text within a panel. Rabkin (2009) echoed this point but focused more on how the complexity of the image within a given panel can impact a reader's perception of time. He said, "Time in graphic narratives is controlled, among other ways, by the degree of information density and representational immediacy in each frame" (p. 37). To expound upon

this notion, the author drew parallels between how narrative temporality is controlled in the mediums of literature and painting. He noted that literature establishes slow, even, and fast narrative pacing through the use of description, dramatization, and summary, respectively. Rabkin (2009) then pointed out that painting accomplishes the same goal through the respective use of complexity, representation, and symbolism. One of the strengths of comics, Rabkin (2009) noted, is that the mixture of the literal (i.e. comprised of words) and the graphic (i.e. comprised of images) increases the number and subtlety of choices available to the artist. Also, all of the devices used to control the viewer's sense of time in film are available to the comics artist as well.

One interesting aspect of panels is that time and narrative progression can be controlled within them regardless of whether or not they contain text; however, when text is inserted into panels, the text can bring the panel to life in an even more vibrant manner. This is largely due to the fact that written words in comics often blur the lines between what qualifies as text and what qualifies as illustration. Tabachnick (2009) noted that the written word components of comics are more akin to "concrete poetry or illustrations since their often hand-drawn nature allows them to alter the intensity and tone of the panel in which they appear" (p. 4). This sentiment was echoed by Tucker (2009) who noted that in the medium of comics, words can become visual and iconic and can take on a material quality on the page, becoming "bodies existing in space" (p. 32). Similarly, Hatfield (2005) said that in the medium of comics, words and illustrations approach each other and that words may be interpreted more visually as images while illustrations can take on the abstract and symbolic qualities of words. Put another way, the variety of fonts and typefaces utilized in comics allows readers to interact with the text in a manner comparable to how individuals interpret visual art, and likewise, readers are able to attach symbolic meaning to

the illustrations in a manner comparable to how readers of a traditional novel might assign a deeper significance to a particular description of an object, person, or action.

As Finlayson (2009) pointed out, the style of the lettering helps to focus the reader's attention on the words and provides for a visual interpretation of words as well as illustrations. With this being said, it is not just the font and style of the words in comics that readers must pay close attention to or which may impact how a reader interprets the events of the narrative. The careful use of the word bubble can have a significant impact on the reader as well. For example, speech and thoughts drawn out over several balloons and bubbles and linked in various ways significantly impacts how the reader interprets the pacing of the narrative (Finlayson, 2009). Word and thought bubbles and lettering can also impact a reader's perception of tone, loudness, and emotion (Hutchinson, 2009). Eisner (2008) also noted that lettering can function as an extension of a story's imagery, impact the narrative's mood, create a narrative bridge between the story and the reader, contribute to the measurement of time, and provide auditory imagery.

Regardless of all of the illustrative and lettering techniques used by comics creators to control time and connect to the reader as they present their narrative, it is still up to the reader as to how they will mentally approach each panel in a graphic narrative. It is here that much confusion and frustration are encountered. Harris-Fain (2009) and Streufert (2009) have pointed out that it is often difficult to learn to read words and images simultaneously, but essentially, this is exactly what the comics medium requires of readers (Sipe, 2008; Stearn, 2005). Even in most single panel cartoons, the text and picture work together to create a single message with neither element making sense without the other (Harvey, 2005). Comics as a medium presents a graphic whole with pictures and text working on the same visual playing field and being taken in by readers simultaneously (McClintock, 2005; Sienkiewicz, 2005). The result of this symbiosis or

alchemy of words and pictures is a medium whose final product is distinctly different from the sum of its parts (Blegvad, 2005; Sturm, 2005b). Additionally, Sousanis (2015a) remarked that this unique combination of pictures and text also places interesting and somewhat taxing constraints on the creator of a comic who is forced to choose words and illustrations with great care since both are sharing the same space.

The reference by Sousanis (2015a) to a comics creator choosing words and illustrations with great care assumes that the individual writing the words of a comic is the same individual who is drawing the pictures; however, this is not always the case. Klock (2006) argued that while this single-author perspective has been appropriate in the history of literature, comics is a highly collaborative medium in which a single tale may feature a multitude of storytellers. Namely, the multiple storytellers of a comic are most often the writer and the artist, and so, just as comics is a hybrid medium that combines words and images, it is also a medium that often combines the various strengths and perspectives of more than one creator (Klock, 2006). This means that in the interpretation of a work of comics, the readers are required to not only analyze a combination of words and images, but also words and images often constructed by different individuals working collaboratively to tell a single tale.

Dong (2013) stated that the interpretation of comics is complex simply because it goes beyond the use of mere words. Bakis (2012) agreed, and Marrall (2013) echoed this point by saying that comprehension of comics requires more complex skills than basic cognition since sequential art requires students to engage linguistic, spatial and interpersonal intelligence simultaneously. Similarly, Keller and Oechslin (2013) said that reading comics requires even more skills than reading traditional texts because the medium combines the regimen of both art and literature. However, Keller and Oechslin (2013) also point out that since the image and text

complement each other in comics, the reader is often able to interact meaningfully with the work, even if s/he lacks a high skill level in either textual or pictorial interpretation. Conversely, Kuper (2005) noted that pictures and text in comics do not always complement each other, but sometimes contradict each other. In instances such as these, Kuper (2005) noted that the contradiction could draw readers into deeper contemplation of the subject. Duncan et al. (2015) also noted that comics as a medium is unique because it allows words and images to be read as a single integrated text and therefore requires a different type of literacy; however, he did also state that some instances of comics are more successful at this than others.

Other researchers such as Troutman (2013) and Bakis (2012) appear to combat the notion that the complexity of comics constitutes a strength of the medium. Troutman (2013) acknowledged that comics can truly be complex, and noted that many teachers mistakenly assume that since today's students are multi-media consumers, they will be able to meaningfully interact with comics with ease. Troutman (2013) stated that this only serves to increase the responsibility of teachers who choose to incorporate these works into their curricula. Bakis (2012) noted reading comics is not simple and that it is fallacious to assume that all students would be familiar with comics, even though many people stereotype them as being material aimed at children. Similarly, Novak (2014) noted that many students may not be familiar with the medium and may have difficulties upon their first encounter with it. Also, the very fact that the medium is often associated with children's literature could, in fact, cause those children who are not familiar with the medium to feel inferior due to their lack of experience with comics, thereby exacerbating the difficulty of learning how to interact with this new mode of conveyance (Bakis, 2012). With this being said, Bakis (2012) also argued that teaching novices about the conventions of comics and graphic novels will allow them to be more informed consumers of the

medium, which will ultimately lead to interaction with works that may lead to deeper personal reading experiences. The author also argued that even though the medium may be complex, it also lends itself to easier and more efficient rereading, which can lead to stronger connections with the text and deeper introspection and metacognition on the part of students.

Berry (2012) noted that many novice readers approach comics with the question of whether they should first read the text and then move on to the illustrations or try to interpret the illustrations first and then move on to the text. The author also noted that many readers tend to view the illustrations as simply pretty pictures that serve as the “dessert” (para. 3) in the metaphorical meal of digesting a page of comics. Berry (2012) offered a figurative description of this notion when he encouraged readers to symbolically take bites of “lasagna” and “ice cream” (para. 3) simultaneously and to symbolically mash the main dish and dessert into one another. By this he meant that readers should inherently examine the images while they read the text of a panel and vice versa. Sousanis (2015b) pointed out that comics not only forces readers to digest words and images simultaneously, but it also requires the reader to take note of the entire spatial interplay of all the panels on a page; this essentially requires the reader to become one with every artistic element in a web-like fashion and break free of the chain-like sequences that are often presented by text-only works of art.

Another reason to mentally assess each panel of comics all at once is that words and images in comics can sometimes send complicated and contradictory messages which can only be understood if the panel is taken in all at once (Berry, 2012; Gravett, 2010; Ryall & Tipton, 2009). In the words of Ryall and Tipton (2009), a simultaneous analysis of text and images by the reader of comics is the only way to make the story “come alive” (p. 52). Gravett (2010) summed up the entire process when he stated, “Images and text arrive together, work together,

and should be read together. There's no one rule, but in some combination you read words and pictures in tandem and in cross reference, one informing the other" (p. 11). While these authors presented reading comics as something that the reader must practice in order to gain proficiency, Burmark (2002) noted that the brain is physiologically designed to process information in this way, stating that,

Visual and verbal information are encoded and decoded by separate, specialized perceptual and cognitive channels in the brain. (This is what Paivio calls 'dual coding.') But, as Paivio (1986) noted, the brain coordinates these independent systems so that concepts can flow seamlessly between their linguistic labels and their visual representations. (p. 20)

The mental process, which Clark and Paivio (1991) refer to as dual coding, presents the idea that nonverbal and verbal mental systems are specialized for the processing of imagery and linguistic information (Clark & Paivio, 1991). The theory portends to explain human behavior by exploring dynamic associative processes, processes which Clark and Paivio (1991) claim play important roles in a wide variety of educational domains. Erfani (2012) explained the basic premise of dual coding theory (DCT) quite simply when he said that DCT represents the idea that the human brain uses different systems to process different types of information, namely nonverbal objects or images and language. It is important to point out that Paivio and Csapo (1973) did note the traditional superiority of the image over the word in free recall testing, but still argued that image and verbal memory codes are independent yet additive in their total effect on recall. Dual coding theory has been the underlying basis for a number of studies. For example, Mayer and Sims (1994) replicated two studies focusing on the presentation of educational materials with and without a combination of language and imagery. What they found was what they and other researchers have called the contiguity effect: inexperienced students were better able to transfer their learning when visual and verbal information had been delivered



to them concurrently as opposed to separately. While dual processing theory states that the brain processes language and imagery through different systems, the contiguity effect builds upon this notion by proposing that presenting verbal and visual information simultaneously increases referential connections across these processing systems.

Mayer and Sims (1994) concluded that, as dual theory supposes, concurrent presentation of verbal and visual descriptions increases the likelihood that students will build mental connections across processing systems as the systems work concurrently in the recall process. As the authors stated, “meaningful learning involves more than building either a verbal or visual representation; the additional component is building referential connections between two kinds of mental representations” (Mayer & Sims, 1994, p. 400). More simply put, the authors noted that instructionally, teachers should understand the benefits of combining words and pictures, otherwise known as multimodal instruction. The presentation of material through multimodal means is well documented as having a positive impact on student learning, particularly the use of visual instructional aids and the presentation of text and illustrations together in instructional materials (Glenberg & Langston, 1992; Guri-Rozenblit, 1988; Mandl & Levin, 1989; Purnell & Solman, 1991; Reed & Beveridge, 1986, 1990; Waddill, McDaniel, & Einstein, 1988; Winn, 1991). Overall, it is well documented that performance on a variety of tests and examinations is better when text and graphics appear together, as opposed to when text appears alone. This is due to the fact that graphics typically provide another means of allowing subjects to understand whatever material is at hand (Danielson, Schwartz, & Lippmann, 2015). Still, it is important to point out that not all texts and illustrations are the same and that not all combinations of text and illustrations are the same. This concept is exemplified by the categorization of visuals provided by Carney and Levin (2002).

Carney and Levin (2002) identified five categories of visuals: representational, organizational, interpretational, transformational, and decorative. Danielson et al. (2015) discussed these different visual categories and noted that the purpose of the visual in conjunction with the featured text can have a strong impact on learning. For example, when illustrations are intended to entertain or decorate, growth in learning is not a foregone conclusion (Danielson et al., 2015). Moreno and Mayer (2000) described this phenomenon of extraneous illustrations compromising learning outcomes as the coherence principle. Danielson et al. (2015) concluded that the functionality of the graphics is relative to the context in which they are embedded, which leads to the fact that in any instance of comics, the featured illustrations may serve a variety of purposes which will inherently impact the reader in a variety of ways. Additionally, any combination of text and images is not necessarily considered to be comics; therefore while there is much to be gained from the study of how combinations of text and images impact learning outcomes, many of these studies may not necessarily speak directly to the effectiveness of comics in achieving learning outcomes.

Sipe (2008) provided a simplistic key to help guide beginning readers of comics. The author stated that there are five basic relationships between words and images in comics: (a) symmetry, which is marked by the equivalence of words and pictures; (b) complimentary, in which words and pictures work together to form a particular narrative; (c) enhancement, in which the two modes of communication extend the meaning of each other; (d) counterpart, where words and pictures tell different stories; and (e) contradiction, in which the words and pictures are at odds with one another. Sipe (2008) noted that these possible combinations speak to the complexity of how words and pictures can interrelate in the communicative process. Additionally, Sipe (2008) claimed that these various possible relationships reiterate the

importance of readers' conscious attempt to interpret how the words and pictures are related as a reader interacts with any example of the comics medium.

A discussion of how the reader interacts with the element of the panel in comics must inherently be expanded to include how the reader interacts with an entire page of panels as well. According to Cohn (2009), directing a reader in how to approach an entire page of comics panels can be a difficult task because text forces a reader to move through a page in a line-by-line fashion, moving from left to right. However, when a viewer approaches an image or illustration, the nature of the medium is such that it allows the eye to dart or drift from one focal point to another, seemingly at random, or at least at the whim of the viewer.

In light of this unique form of eye movement, Cohn (2009) remarked that comics creators must make conscious choices about the layout of their pages in order to focus the mind of the reader on the creator's purposes. He noted that there are primarily four types of page layouts that comics artists use to their advantage: (a) the conventional, in which the narrative predominates the page and the visual aspects operate independently from that narrative, (b) the rhetorical, in which all visual aspects serve to meet the needs of the narrative and function to serve its demands, (c) the decorative, in which the visual aspects of the page command the most attention and function somewhat separately from the narrative, and (d) the productive, in which the narrative is so related to the visual design so as to be called a product of it (Cohn, 2009). In the eyes of Cohn (2009), page layout is all about control: control of the viewer's eyes so as to better control the viewer's mind. In addition to these four types of page layouts, Cohn (2009) also noted that elements such as gestures, lines, shading and color contrasts, violations of gutter space, tiers, and columns can also be useful devices in guiding the eye and mind of the reader.

Regardless of how panels are laid out upon a page, there is one feature every page of comics will possess and which is perhaps the most important element in a discussion of how the reader makes meaning from comics. This element is the gutter: the small strip of nothingness or empty space that occurs between the frames of the panels (Bakis, 2012; Jenkins & Detamore, 2008). It is here in the tiny yet limitless divide that the reader's mind truly transforms comics from being reductive to being additive and that the comics medium leaves room for interpretation (Burmark, 2002). McCloud (1993) demonstrated this phenomenon by displaying two panels side by side, the first of which depicted a man being chased by another man wielding an axe, and the second of which featured an overview of a cityscape with a scream resonating above the skyline. McCloud (1993) argued that while viewers do not physically see the man in the first panel being murdered by the second man, most viewers bridge the gap between the panels by actively imagining the scene of the murder in their own individualistic way. As the creator of the two panels, McCloud (1993) delivered the implied narrative of the murder but also allowed for interpretation by consciously constructing the divide between the panels in such a way as to allow for personal interpretation and the use of the viewer's imagination in envisioning the actual murder scene.

While to some the gutter may be nothing more than a utilitarian divide between panels, many authors have noted their significance in allowing the reader to become an active participant in a comics narrative. Gravett (2010) stated that while a reader might be shown directly what a character or setting looks like, imagination is still necessary to fill in the gaps between illustrations and from one panel to the next. This filling in the gaps is what Bakis (2012), Versaci (2009), and McCloud (1993) referred to as a subconscious participation in the reading of comics called closure. Closure is the act of completing the narrative by moving across the gutter from

one panel to the next panel and coming to some sort of understanding between the two panels. In other words, closure is the act of making inferences (Monnin, 2010), and it is an especially powerful attribute of the medium (Scherr, 2013). As Missiou and Koukoulas (2013) noted, this act of gap-filling forces the reader to utilize both inference and the practice of making predictions as s/he moves back and forth between text and images as well as across panels. It leads to readers becoming more invested in the medium because they bring their own personal experiences to this personal act of completing the narration (Missiou & Koukoulas, 2013). Mack (2005a) agreed and said that the real magic of comics happens between the images of sequential art when the reader's mind fills in what happens based upon the reader's own personal past experience and perspective. This led Mack (2005a) to say that he does not believe that his stories are complete until a reader actually interacts with them.

McCloud (1993) addressed this notion and proclaimed the power of the gutter when he stated, "here in the limbo of the gutter, human imagination takes two separate images and transforms them into a single idea. . . nothing is seen between the two panels, but experience tells you something must be there" (pp. 66-67). A concrete example of this can be seen in an experiment by Kopp, Magliano, and Rapp (2011) in which the researchers quizzed participants on panels that they had viewed in a series of comic strips. According to the authors, students reported being familiar with middle panels that they had not seen and were apparently inferring missing events. This led to participants believing that they had actually seen the omitted pictures. This means that the readers involved in the researchers' study were constructing such vivid inferences that they even fooled themselves.

Sousanis (2015b) took this idea even further and presented the idea that the acceptance of comics as a legitimate mode of communication represents the attempt to truly see through

another's eyes and experience a perspective beyond where we, ourselves, have been. The medium allows us to actively explore other viewpoints through an infinite variety of expression that both acknowledges the differences between us but also seeks to reach across this gap and connect imaginatively. The medium allows us to experience a world outside of ourselves and come in contact with perspectives that are, as of now, inaccessible through words alone (Sousanis, 2015b).

On a related note, McCloud (1993) said that the size of divide that the reader's mind must mentally fill may vary depending upon the variance of the images presented in each frame. As the variance between panel scenes grows, the reader's participation and inferences become more individualized and more elastic, and the artist is able to put more control over the narrative in the hands of the reader so that he must work harder to bridge narrative gaps, make inferences, and use his imagination. McCloud (1993) concluded that due to this dance between the comics artist and the reader which takes place in the gutter, "no other art form gives so much to its audience while asking so much of them as well" (p. 92). Additionally, Geary (2005) noted that this act of completing the story between panels is often what gives more gruesome comics their power. The author said that he would intentionally try to imply that disturbing acts took place in the gutter instead of directly picturing them because readers' own imaginations often lead them to even more gruesome interpretations of events that are not actually shown on the page.

This control over the construction of the narrative and accompanying meaning which takes place through closure may be the key to connecting comics to the learning theory of constructivism. Schunk (2012) noted that a key assumption of constructivism is that learners actively develop knowledge for themselves, which is what McCloud (1993) said takes place in the gutters of comics. Constructivism as a theory of learning shuns the idea that knowledge is

imposed from outside sources but rather embraces that idea that knowledge is formed inside individuals as they produce knowledge based on individual beliefs and experiences which vary from person to person (Schunk, 2012). When this idea is linked to Hutchinson's (2009) claim that comics utilize so many icons, symbols, and abstractions, that it is up to readers to fill in meaning from their own subjective experiences, it becomes clear that comics can function as a constructivist learning tool or an example of how constructivism as a learning theory manifests itself in the real world. Also, when Duncan (2009a) stated that "comic books are an extremely additive medium [which] requires that receivers add their own experience or imagination to the encapsulated moments in order to construct the story" (p. 10), the notion of constructivism is again presented.

To sum up this constructivist meaning-making experience, Duncan (2009a) surmised that the process of decoding messages and thus making meaning always resides with the recipient. The cognitive and emotional reactions on the part of the receiver create closure between each encapsulated instance of communication and hopefully work to create a continuous story out of individual and discrete panels. In other words, fragments work together to create a unified whole. Duncan (2009b) noted, however, that for this to happen an understanding of the comic's subtext is usually necessary.

Perhaps part of the reason why the reading of comics relates to constructivist theory is because these texts seem to possess a highly motivational quality, which encourages struggling readers to make personal connections with each example of comics that they encounter. Many authors note the motivational power of comics (Brozo, 2012; McVicker, 2007; Sardone & Devlin-Scherer, 2015; Sokal, Thiem, Crampton, & Katz, 2009), and the literature on the subject of comics suggests that young people generally tend to hold them in high esteem and crave

graphic texts more than traditional literature (Carter, 2007b; Decker & Castro, 2012; Martin, 2011; Schmidt, 2011). Schunk (2012) noted that motivation is a key in any learning process. The author suggested that in order to usher learners into a motivational state, complex neural connections must occur between emotions, cognitions, and behaviors. This is very similar to what McTaggart (2008) said about the motivational quality of comics: “A student reads the words, sees the action, comprehends the meaning, and is motivated to read more” (p. 29). Just as reading comics is a complicated process which rests upon the interaction of the reader with the medium, Schunk (2012) also noted that motivation is not a thing, but a process.

A central part of the motivational process is the formulation of perceptions related to task demands and assessing the possible success or failure of taking on a particular task (Schunk, 2012). Additionally, Schunk (2012) stated that lowering the fear of failure and raising the hope of success can increase learner motivation. When one considers what has already been discussed about the universally relatable nature of cartoons and the idea that they attempt to amplify meaning through their simplistic delivery (McCloud, 1993), it is likely that they present themselves as nonthreatening texts and easily accessible texts. This may be a key to understanding why comics are so motivational; however, the scholarly literature on the subject does not state this directly.

Besides being motivational learning tools, Carter (2008) noted that research abounds, which suggests that the combination of words and images is successful at fostering comprehension and memory skills. Considering this phenomenon, one may be naturally drawn to view comics in light of information processing theory. While not a single theory (Schunk, 2012), the theoretical perspectives that combine to form what is largely referred to as information processing theory connect with comics because of their focus on models of memory and



information retrieval. Burmark (2002), in his defense of the use of comics in the classroom stated that one of the most compelling reasons for incorporating the use of images into instruction is that images are stored in students' long-term memory, unlike data such as factoids and phone numbers. But if one is looking for more definitive evidence of such claims, he may simply turn to Glenda Rakes (1999) who said this in her discussion of teaching literacy in the multimedia age that positron emission tomography reveals that different brain areas are activated when individuals are exposed to verbal and visual information. This led Rakes (1999) to claim that the use of visuals in instructional materials goes beyond mere decoration or even supplementation, but that the images help both hemispheres of the brain to be activated and can therefore result in increased comprehension via dual coding.

In the end, while individual information processing theories abound, comics research and information processing theories come together through their mutual discussions of how images are powerful tools for fostering memory and for information retrieval. As Cioffi (2009) pointed out, comics have the power to live on eidetically in the minds of readers long after they have actually laid the book back upon the shelf. This assertion helps to reinforce the notion that the unique combination of words and images that comics provides are well-aligned to the assertions of informational processing theory concerning the power of images in the learning process.

While previous connections made in this section between comics and learning theory may be logical, it is important to note that much of dominate literature on the topic is largely speculative and somewhat vague, and much of it is not based upon empirical evidence or experimental methods of observation. However, the work of comics researcher Neil Cohn has been instrumental in its utilization of experimental methods to explore comics as a unique mode of conveyance and how the human brain interacts with sequential images. His work focuses on

topics and subjects that range from the cognition of motion lines in comics and cartoons to the theory of visual narrative grammar (VNG), which asserts that panels can be categorized and that hierarchical groups of panels form constituents (Cohn, 2015).

As Cohn and Maher (2015) pointed out, something as seemingly innocuous as motion lines in comics can give insight into how the human brain interacts with the medium. Motion lines in comics are fairly ubiquitous and are often used to depict paths of motion for moving objects. Researchers such as Burr (2000) have argued that there is a biological basis for the understanding of and interaction with these motion lines and have likened them to the streaks that appear in the visual system of a viewer who is tracking a moving object. Cohn and Maher (2015), however, argued that there are numerous limitations to this theory that motion lines are an iconic depiction of a fundamental aspect of the human visual system.

Cohn and Maher (2015) noted that the understanding of motion lines could be more reflective of the viewer's understanding of a visual language, similar in underlying cognitive structure to that of spoken languages, as opposed to being directly rooted in a more basic aspect of human perception. As a result, Cohn and Maher (2015) conducted a combination of experiments designed to examine subjects' cognition of motion lines. In both experiments, Cohn and Maher (2015) utilized comic strips that featured normal motion lines, no motion lines, and lines that were anomalous, or reversed.

In the first experiment, subjects viewed the comic strips in a self-paced manner, moving through the narrative frame-by-frame. Cohn and Maher (2015) theorized that if motion lines facilitated event comprehension, then those panels with normal motion lines would correlate to a shorter viewing time than those panels with no motion lines or anomalous motion lines, regardless of postural cues or spatial relationships between objects and characters in the panels.

The results of the study showed that viewers did, in fact, move more quickly through panels with normal motion lines, followed by panels with no motion lines, and then panels with reversed motion lines. Cohn and Maher (2015) determined that these results suggest that motion lines aid in comprehension of motion-oriented panels in such a way that goes beyond the capabilities of postural cues. Additionally, the ability of readers to move from panel to panel more quickly in comic strips that feature normal motion lines supports the idea that these lines aid in comprehension to a greater degree than incongruous lines or no lines at all.

In the second experiment, Cohn and Maher (2015) focused on measuring event-related potentials (ERPs) to panels in the same sequences as the first experiment. Overall, Cohn and Maher (2015) discovered that, compared to panels which featured normal motion lines, panels that featured no motion lines at all generated a posterior positivity that was distinct from the frontal positivity elicited by anomalous lines. The distinct ERP patterns noted by Cohn and Maher (2015) once again suggest that motion lines aid in comprehension; however, the researcher also determined that this phenomenon is not a direct result of biological aspects of the human visual system but that it suggests a conventionalized mapping of the conceptual understanding of images. This was reinforced by the fact that, in both experiments, the subjects' prior experience with reading comics modulated the observed effects, thereby offering evidence for the idea that motion lines are a conventionalized part of the overall vocabulary of the visual language of comics instead of a part of the biological visual system.

Hagmann and Cohn (2016) also explored the cognition of comics in an experiment that focused upon the ordering and timing of sequential images. The perception and integration of events over time is central to human cognition, and only humans are capable of constructing a narrative in which events are presented visually and are interpreted as interrelated and dependent

upon one another (Hagmann & Cohn, 2016). While verbal narratives have been explored extensively in scholarly research, visual narratives have not, leaving room for Hagmann and Cohn (2016) study of the demands placed on perception and cognition in a rapidly presented visual narrative sequence.

Hagmann and Cohn (2016) chose to explore how a series of rapidly presented sequential images convey understanding of a concept or narrative. The authors accomplished this by developing a hypothesis that faster presentation rates of 6-panel comic strips would reduce the accuracy of respondents' ability to differentiate between ordered and mixed sequences and would also reduce overall levels of coherence. Additionally, the authors theorized that shorter narrative distance between disordered or switched panels would reduce order discrimination accuracy and promote coherence due to the adjacency effect facilitating comprehension.

Hagmann and Cohn (2016) experiment also included an element that focused upon switching panels in sequences with distinct constituent structures. According to Cohn (2012) theory of Visual Narrative Grammar (VNG) images presented in sequential order take on certain narrative roles that then work together to form hierarchic constituents similar to how sequential words adopt syntactic roles that combine to form constituents in sentences. In accordance with the VNG theory, Hagmann and Cohn (2016) hypothesized that switching panels between constituents would be more easily recognized and lead to less coherence. Hagmann and Cohn (2016) also included an additional variable of varying exposure time to the initial panel and other panels in the sequence.

In his findings, Hagmann and Cohn (2016) reported that subjects were more accurate in reporting switched panels when viewing time was increased. This was not surprising to the researcher; however, an additional increase in viewing time of the first panel did not appear to

increase accuracy, which was a bit surprising. Hagmann and Cohn (2016) stated that previous studies found that individuals tend to view the first unit of both visual and verbal narratives for longer periods of time in order to lay a cognitive foundation, but Hagmann and Cohn (2016) findings suggest that this may be merely out of preference and not necessarily vital to overall cognition of the narrative.

As far as the element of constituents is concerned, Hagmann and Cohn (2016) discovered that when panels were switched further apart in the narrative, panel order was discriminated more accurately and coherence ratings were low, indicating a strong local agency effect may be impacting judgments related to order and coherence. Overall, panels that were switched at the borders of constituents were the most disruptive to participants, suggesting that the preservation of constituent structure is vital to visual narrative grammar. Hagmann and Cohn (2016) also concluded that the study reinforces the notion that the comprehension of sequential images involves the integration of panels across a global narrative context.

Cohn (2012) noted that on the surface, the comprehension of sequential images seems simple and straightforward since the images and action generally resemble objects in the real world. However, exactly how the brain decodes the graphic, conceptual, spatial, and event structures is deceptively complex. Graphic structures connect to and build upon spatial structures that encode spatial components with meaning and allow readers to construct mental environments. Simultaneously, narrative structures order and pace information and allow for the extraction of meaning across multiple panels that feature a variety of objects and characters engaged in a range of actions (Cohn, 2012). Cohn (2012) asserted that narrative and event structures are separate entities, with event structure being tied to the knowledge of meaning and narrative structure organizing meaning into an expressible and comprehensible form. It is this

theory that underpinned Hagmann and Cohn (2016) study by arguing that narrative categories organize sequential images into hierarchic constituents, and that these constituents are comparable to the organization of grammatical categories in the syntax of sentences.

Cohn (2012) presented five basic narrative categories into which panels in a narrative sequence may fall. These categories are as follows: establisher, initial, prolongation, peak, and release (Cohn, 2012). According to Cohn (2012) these categories form phases of constituency, which function similarly in structure to that of verbal syntax. The categories act as parts of speech or grammatical functions in what Cohn (2012) calls Visual Narrative Structure. In other words, phrases belong to a sentence in syntax while phases belong to a narrative arc in a series of sequential images. Cohn (2012) used diagnostic tactics similar to those used to test the syntactic category of words in a sentence in order to test his theory of narrative categories. These diagnostic tactics included substitution, deletion, alteration, and rewording.

Ultimately, Cohn (2012) found that the narrative categories held up well and that a series of diagnostic questions can be used to identify the narrative category of a particular panel in a series or arc. Similarly, Cohn (2012) found that constituents can be identified through semantic criteria in a like manner to that of individual panels. With these similarities established, Cohn (2012) theorized that tests and studies designed to explore the cognition of written texts might also be applied to visual narratives. Whether similar behavioral and neurocognitive responses appear to manipulations of narrative structure in sequential images as to manipulations of syntax in sentences is not fully known, but Cohn (2012) argued that paradigms for studying sentences may well be applied to the mental processing of images.

Cohn, Paczynski, Jackendoff, Holcomb, and Kuperberg (2012) had previously tested this notion by conducting two experiments with comic strips, which were analogous to experiments

that had previously focused on language processing. The experiments attempted to explore possible connections between the cognitive system used by the brain to process sequential images and the cognitive system, which the brain uses to analyze syntactical elements of language. Overall, Cohn et al. (2012) concluded that the results of their experiments suggest the existence of a cognitive system of comprehension for sequential images that is broadly analogous to the cognitive system in place for the processing of verbal language. This assumption is due to the fact that sequential images and sentences both require the combination of meaning in the form of semantic relatedness and structure in the form of syntax in order to build context across a given sequence.

Cohn, Jackendoff, Holcomb, and Kuperberg (2014) expounded upon this further in another article, arguing once again that even though we read and understand sentences and sequential images in a linear fashion, they form groupings of phrases, or phrases in comics, that are imbedded in the brain in hierarchic ways. This was tested by the placement of blank panels throughout various series of comic strips. The researchers found that the blank panels were more disruptive when placed in the midst of a narrative and/or syntactical grouping than they were when placed in between narrative and/or syntactical groups. Cohn et al. (2014) concluded that this once again suggests that humans natural group series of panels together in a manner similar to how they group phrases in a sentence or series of sentences, since comparable experiments have focused on the comprehension of sentences with highly similar results.

Observations by Cohn et al. (2014) concerning brain reactions to the placement of blank panels in various places throughout a series of panels led the researchers to believe that individuals were actively making predictions about the structure of upcoming panels. For example, when blank panels were utilized in a series in which an upcoming event was implied

but not completed, such as a character tossing a ball up into the air and preparing to swing a bat, the disruption in the brain was greater than when the blank panel was placed after the panel in which the ball was actually hit by the character. Cohn et al. (2014) likened this phenomenon to a misplacement of a comma in a sentence. If a comma or pause is placed at an appropriate or expected place in the sentence, such as at the end of a constituent or phrase, the disruption to the reader would be less than if the comma were misplaced and were to be put between words in the same phrase. Cohn et al. (2014) also compared this experiment to similar studies that have examined how the brain responds to the placement of discordant notes in musical compositions. Once again, the comparable brain activity across these experiments that focus on different forms of media do work together to suggest that the brain relies on similar mechanisms when responding various forms of grammar across domains.

Cohn (2014) remarked that many researchers have taken an issue with the comparison of the understanding of comics to the understanding of language; however, he pointed out that most who would deny the connection are doing so from a structuralist standpoint, which has largely been abandoned over the past 50 years. Cohn (2014) remarked that in more recent times, the structuralist viewpoint of language has given way to a more cognitive one, the difference between the two being that the structuralist viewpoint of language frames it as a set of rules and codes that reside in a sort of cultural ether in which speakers reside, while the cognitive viewpoint professes that language is more of a product of pre-existing rules and principles that reside in the brains of speakers worldwide. In this manner, the cognitive viewpoint has allowed for researchers to more thoroughly and deliberately examine the principles at work in the comprehension of language found in people's brains. As a result, it has become easier to examine whether a phenomenon such as comics has grammar, meaning whether or not cognitive



architecture exists in the brain that processes and understands comics in a unique manner.

Specifically, Cohn (2014) defined grammar as a set of rules and constraints within the mind of a speaker that governs the production and reception of an expression; examples of such include sentence construction, or, here, a sequence of particular images.

Ultimately, Cohn (2014) concluded that any researcher who wishes to compare the understanding of comics to the understanding of language must first decide how s/he is defining language in and of itself, and first and foremost, s/he must determine whether to adopt a definition of language that is aligned with linguistic structuralism or adopt a more contemporary view of language based upon the most recent scientific study and not rely on outdated theory or everyday notions. Cohn (2014) stated that since the abandonment of structuralism in the study of linguistics, most lingual experiments and studies have focused on manipulating language or altering the structure of the system in order to test or observe the principles that govern it. This means examining the cognitive structures in the brains of the speakers/subjects.

This means of experimentation is also how Cohn has conducted the majority of his studies on the comprehension of comics and sequential images, which has helped him to show that comics does require a mental form of grammar that constrains its comprehension in the human brain. Cohn (2014) stated that only through this means of experimentation can comics, or any other system, be shown or observed to possess a grammar and thereby be comparable to what we call language. In terms of language experimentation, most experiments involve moving, deleting or substituting parts of a sentence, techniques that can easily be applied to a series of sequential images in a comic strip (Cohn, 2014). In the world of comics theory, the use of the scientific method to explore the medium aids in keeping inquiry into the field of comics constrained and specific as opposed to broad and mostly uninformative (Cohn, 2014). Unlike

with the study of language, in which much inquiry has been focused on pinpointing specific structures and then rigorously detailing them, the study of comics has been far too generalized by simplistic studies that merely point out that parts of the medium exist and behave in expected or unexpected ways (Cohn, 2014). This type of experimentation in the field of comics will lead to theories that are more verifiable because they are based upon actual testing instead of a generally accepts concepts and vague principles. Cohn (2014) remarked that without this method of testing and experimentation viable theories and unviable ones alike will be lumped together and ignorant misinformation about the medium will be accepted and disseminated alongside much truer and more well-tested theories.

Another example of a study that employed Cohn's often-used method of experimentation focused upon participant's eye movement while viewing comic strips. Foulsham, Wybrow, and Cohn (2016) conducted two experiments, one in which panels were presented one at a time and one in which panels were presented in a complete sequence. In both of the experiments, some sequences of panels were presented in a logical narrative order, while others were switched or rearranged in a less cohesive manner. Foulsham et al. (2016) found that the panels were understood more clearly when they were presented in their original order and also discovered that respondents displayed fewer eye fixations in originally sequenced series of panels. When panels were presented to subjects in a mixed or rearranged order, the same pictures required more attention (more fixations) from respondents, and respondents also engaged in more regressions or a greater need to examine previous panels in order to achieve a satisfactory level of understanding. Subjects also voluntarily spent more time viewing panels that were presented in a random order. Overall, this study by Foulsham et al. (2016) helped to confirm the idea that comic panels are not read as individual images but instead are understood by readers as relative

in relation to an evolving narrative or larger story as a whole. In other words, narrative context plays a key role in the understanding of sequential images. If the allocation of visual attention is determined simply by the specific nature of the individual illustration, then respondents' visual fixations should have remained fairly consistent regardless of the ordering of the images; however, the differences detected in fixations when the images were presented in random order suggested that this was not the case. Foulsham et al. (2016) said that viewers attended to items differently, even in simple black and white illustrations, depending upon what had been seen before and what was yet to come.

Overall, the work of Neil Cohn and the researchers that he has worked with to explore the cognitive science of comics is fairly unique for the field. However, his methods of experimentation are setting an example of the type of study that may provide more trustworthy evidence for understanding how the human brain interacts with and understands the medium of comics. As time passes it is likely that other researchers will employ similar methods and that general assumptions and vague notions about how this medium communicates its messages to readers will give way to more hard evidence and more well-founded theories.

### **A Widening Generational Gap**

This section of the literature review delves into some of the cultural forces that divide students and teachers, two groups of people from typically varying backgrounds who often struggle to find a common ground on the subjects of academic best practices, reading materials, entertainment, and educational expectations. Examining the differences in how teachers and students communicate and interact with the world may give insight into the mindsets, expectations, beliefs, and cultural norms of each group, thus providing insight into the current

landscape of American education in an age of rapid technological advancement. This section focuses on the generational divide between students and teachers as opposed to the divide between children and parents because this study asks parents to report their opinions and preferences concerning comics in the midst of the current educational situation and climate explored herein.

Every generation communicates somewhat differently (Walmsley, 2011), and a major factor in how they communicate is related to the media experiences that individuals of the same generation share (Gumpert & Cathcart, 1985). As a result of increasing rates of Information Communication Technology development, the communication preferences and practices of the rising Millennials or Net Generation, those individuals who have grown up immersed in technology, differ greatly with those of their parents and teachers. A widening generation gap is the result. Zimmerman and Milligan (2008) stated, "Today's students are digital natives, reared in a world permeated by interactive technology; as a result, they are used to a model of communication that is significantly different from that of digital immigrants" (para. 4). The author also stated there is a decided disconnect between the communication tactics and preferences of students and teachers. Considine, Horton, and Moorman (2009) echoed this sentiment by saying, "These are times of rapid technological change that challenge all educators. The children currently in school- often referred to as the 'Millennial Generation'- have always been immersed in Information Communication Technology" (p. 471). Windham (2005) noted this cultural gap as well.

Along this same line, Kress (2003) claimed that we are in the midst of one of the greatest communicative shifts in history: moving more towards showing and away from telling. Johnson (2006) also noted that effective communication through media literacy is constantly evolving,

and King (2012) stated that the rapid growth of multimedia and multimodal texts has dramatically impacted how we read and communicate. Interestingly enough, it is not only the ways that students communicate that are changing. A reshaping of how we define the very notion of literacy is occurring as well (Gallego, 2000; Monnin, 2010). Walsh (2008) stated that in today's world a conversation focusing upon even the basics of literacy is enough to spur public debate, and many do not realize that the basics of literacy may never be the same again. To address the evolution of literacy, Brooks (2010) said that reading and writing skills still represent the most widely accepted notion of literacy; however he also noted that technological advancements are now requiring that the definition of literacy undergo expansion and modification.

Jacobs (2013) pointed out that with the ever-evolving means of communication comes a complicated variety of terms and labels to address literacy, noting that the terms are often confused with one another and that definitions often overlap. Daniel (2012) addressed another problematic issue related to changing notions of communication and literacy by purporting that technology in the digital age is progressing at such a rapid rate that educational experts are finding it difficult to assess exactly how students are learning in today's world. Walsh (2009) offered additional insight when he said that research related to multiliteracies is only now emerging from the formal discourse of pedagogical theorizing and that it is unknown what shape it may take in actual practice.

Other researchers have noted additional problematic issues with this widening generation gap and new notion of literacy. Horning (2014) argued that the move to multimodal literacy only complicates existing problems with traditional literacy and stated that students must first establish foundational skills with print-based texts before diving into the world of multimodal

texts. Mills (2010) addressed similar concerns when he stated that it would be fallacious to assume that all adolescents today are digital natives. The author asserted that additional scaffolding is needed to aid students in making such a literary leap; however, Graham and Benson (2010) pointed out that it is difficult for teachers to help students acquire proficiency in new literacies because of the gap between literacy theory and application. Along these same lines, Hsu, Wang, and Runco (2013) said that even though teachers have high confidence in using ICTs, researchers have noted little incorporation of new literacy practices in the classroom. Newkirk (2006) said that in response to the media-immersed lives of the modern student, many teachers push back against this trend and attempt to separate literacy learning from recent cultural shifts in media and communication; however, Newkirk (2006) argued that this often makes school an “alien and unappealing place” (p. 64) and that teachers should embrace modern media such as comics and graphic novels.

As far as comics as a medium is concerned, Novak (2014) noted that teachers and students alike may face difficulties when encountering the medium for a first time, but he also argued that teachers and students should feel free to apply any of the traditional tactics of literary analysis to comics in order to aid in their study of the medium. Like other authors, Novak (2014) credited the increasing role of technology in the lives of students as the primary force ushering in the need for students to become visual learners if they are to interact with today’s world successfully. Novak (2014) also argued that becoming more proficient in visual literacy will help students to become more visual readers, even when the text they are reading has no pictures at all. It may also aid them in being more proficient in interpreting the variety of messages that they are encountering in all forms of visual media in this age of technology and could result in them

being less susceptible to manipulation through advertising, etc. (Novak, 2014). Connors (2012b) made similar claims.

Despite the difficulties in fostering and assessing students' proficiency in evolving communication tactics and new types of literacy, Kress (2006) noted that proficiency in these new literacies is not optional but a matter of survival. Hsu et al. (2013), argued that as new ICTs emerge and evolve, students need new literacy skills and practices to successfully participate fully in the civic life of a global community. Hall (2011) supported this claim by noting that we are now living in a "world where the visual and verbal content increasingly converge and where visual literacy is as important as verbal literacy" (p. 40). Grace (2005) also argued that acquisition of media literacy skills is a necessity for students, and Weiner (2013) stated that comics is one of the purest forms of communication that a teacher could use to teach visual literacy. Similarly, Duncan et al. (2015) argued that in the 21<sup>st</sup> century, visual literacy has become a basic skill required for proficient communication and that this phenomenon has come to be, at least partially, by the existence of the comic book and its ability to undermine the primacy of the printed word.

As Burmark (2002) stated, "Welcome to the age of images. The signs are everywhere- for those that can read them" (p. v). Fitzsimmons (2007) suggested that students read these signs more frequently and more proficiently than their teachers. He also pointed out that what is often on the shelves in bookstores and what students are actually reading is so different from what is being taught in the classroom that a generational chasm is widening within the walls of our schools. This is exacerbated by the fact that screens of all shapes and sizes are rapidly replacing hard copy texts (Fitzsimmons, 2007) and that television, movies, and computer monitors have created a highly visual landscape in which the newest generation of readers exist (Hart, 2010).

Mills (2010) made similar remarks, noting that adolescent reading practices cross multiple social spaces, particularly settings outside of schools. Gavigan (2012) seconded this notion by stating that students today are “surrounded by a mediasphere of visual and textual resources” (p. 30), which requires a broad range of literacy skills.

As a result of this drastic change in how today’s youth communicate and interact with technology, it seems that many students are being drawn to a much wider range of stimulation than what is offered in the traditional classroom in order to learn about the world around them (Mathews, 2011; Rubin, 2013). Gavigan (2012) also noted that “due to the development of new 21st-century technologies, the world of children’s and young adult literature is continually changing” (p. 30). This rapidly changing landscape of learning has led many researchers and educators to new theories concerning the use of evolving types of text in contemporary classrooms. Carter (2011) noted, “although much research on schooling has worked under the ideologically constraining notion of the classroom as a single homogenous space, this mono-spatial focus is being challenged in the 21<sup>st</sup> century by new technologies” (p. 190). Jacobs (2013) said that he believes multimodal academic literacies should be taught alongside traditional essay forms in order to create rich learning opportunities for today’s students. Feiffer (2003) offered another perspective when he argued that traditional literature becomes the enemy of students and is often viewed with hostility simply because school is generally seen by students as “an authoritarian restriction on freedom where one has to obey and be subservient to people not even his parents” (p. 25). According to Feiffer (2003), it is often this attitude that leads young people to reading material that is often labeled as junk by their teachers; it is simply an act of rebellion.

Regardless of whether the impetus is due to the increased visual stimulation in today’s world or the age-old practice of childhood rebellion against authority, it seems that many young



people today are indeed interacting with what are now being referred to as graphic texts that provide heightened levels of visual stimulation (Lawn, 2012; Tabachnick, 2010; Vandermeersche & Soetaert, 2011). Martin (2011) even stated that if educators do not take note of this phenomenon, the generational divide may become insurmountable and intellectual impoverishment of our children may become a reality. Martin (2011) went on to say that the rise of the graphic novels attests to a fundamental change in western culture: our increasingly visual orientation due to widespread usage of the Internet. Lawn (2012) summed this notion up more concisely by simply stating, “Graphic novels are also ‘visual’ and visual text, because of technology, is particularly prominent in our current era” (p. 30). Incorporating a quote from Kress’ 2003 book *Literacy in the New Media Age*, Vandermeersche and Soetaert (2011) stated,

Western culture has undergone ‘the broad move from the now centuries-long dominance of writing to the new dominance of the image’ and this occurs hand in hand with the decline of the book as the dominant medium for the dissemination and acquisition of knowledge. (para. 1)

In summary, the literature suggests that students and teachers are living in an era in which the very notion of how knowledge is disseminated is changing rapidly and age-old concepts of learning and reading are being challenged. Educators and students now find themselves living in a world in which dependency on print literacy is not enough (Johnson & Gooliaff, 2013).

Fitzsimmons (2007) addressed the issue by saying,

If we as educators fail to capture the ability to understand and use the discourse of this generation, then not only do we fail to capture the essence of critical literacy, but we will also simply continue to widen the chasm between teachers and students to the point where the contact between teachers and pupils will be akin to shouting across the Grand Canyon with the expectation that there will be understanding and genuine contact. (p. 22)

However, other authors offered interesting final words on the matter as well. Tell (2000) claimed that the distinguishing feature of today’s youth is actually not their proficiency, but their

aloneness. Turkle (2012) echoed this sentiment, but noted that this aloneness is not just limited to today's youth. Turkle (2012) asserted that the bite-sized communication which current technology and social media seems to promote does not allow us to connect with each other as deeply as more traditional interpersonal interactions, and our ubiquitous use of this technology has conditioned us to become accustomed to being alone together. Ironically, however, it is the very act of being alone that we are trying to avoid by staying constantly connected to each other via our cell phones and other technological devices. Turkle (2012) noted that establishing a healthy balance between connecting with others and being alone is vital to our overall wellbeing and asserted that adults must be actively teaching today's children not to connect electronically simply to avoid being alone. This is perhaps why Walmsley (2011) argued that the best way to bridge the technological and communicative gaps between the generations is to harbor mutual respect. Turkle (2012) also noted that we are still in the early days of digital technology and there is still time to reconsider how we use digital technology. Similarly, Monnin (2010) offered insight into this widening gap created by technology not by comparing it to a deep chasm but as an opportunity to accomplish something great:

ELA teachers have the good fortune to be living and teaching during what seems like the most exciting time in the history of ELA teaching and learning. We are the teachers who will redefine what counts as valuable literature, and literacy, for generations to come. What we do with the relationship between print-text literacies and image literacies has never before been attempted. This opportunity is more than exciting and more than seismic to the future of ELA. (p. 16)

In other words, the impact that comics are capable of having is quite powerful and perhaps even unquestionable (Holt, 2006).

## **Strengths of Comics**

Scholarly literature reveals that the educational strengths of comics are many. This section of the literature review explores those strengths and provides a background that may give insight into why so many in the field of education are encouraging the use of the medium so enthusiastically. While there are also fears and apprehension on the part of many parents, and many educators as well, a thorough exploration of the reported academic strengths of the medium will help to provide background for a study that seeks to explore parent perceptions of the medium and its academic value or lack thereof.

Fitzsimmons (2007) stated that books introduce children to the “very essence of humanity, with all its richness, depth, diversity, sorrow and joy” (p. 19). Many researchers believe that graphic texts can attain this same level of scholarly value and hold a place of literary importance alongside more traditional texts. Petrucha (2008) said the goal of traditional texts and graphic texts is essentially identical: to convince readers that what they’re seeing is something imaginatively alive, and not mere lines on a page. Masuchika and Boldt (2010) stated a similar concept when they argued comics could investigate all of the themes that classic literature strives to, namely the exploration of the human condition, and that it can accomplish this task in especially creative and imaginative ways. Likewise, Fitzsimmons (2007) pointed out that graphic novels are capable of tackling issues such as discovery of self, gender, sexual orientation, and the nature of what is meant by home, happiness, and personal relationships. He went on to say that graphic works are capable of exploring “existential issues. . . grounded in the national and spiritual identity” (p. 21). Weiner (2013) echoed this sentiment by stating that comics can be used to teach various attitudes as well as facts. Additionally, Rubin (2013) noted that the medium is capable of tackling important social and political issues, and Dong (2013) stated that the

medium offers students the opportunity to identify and analyze global issues, historical events, and cultural exchanges.

In regard to particular literary techniques, Connors (2012a) noted that graphic novels make use of traditional literary conventions in order to construct narratives, while Crilley (2009) stated that they are the perfect meeting place of words and pictures and offer an excellent avenue for encouraging visually-oriented students to read. Specific literary devices that graphic novels and traditional novels often share include but are not limited to the following list: symbols and metaphors (Wolfe et al., 2012), premise, plot, twist, characterization (Smetana et al., 2009), frame storytelling, *in media res*, and flashbacks (Martin, 2011). Along these same lines, Smetana et al. (2009) asserted that graphic texts require that the reader be “actively engaged in the process of comprehending a range of literary devices including narrative structures, metaphor and symbolism, point of view, the use of puns and alliteration, intertextuality, and inference” (p. 233). The authors also said graphic novels provide interesting reading material that is linguistically appropriate for all students and the medium requires readers to practice many of the same skills that are required of them when they interact with works of traditional prose fiction. Weiner (2013) and Rubin (2013) noted this active engagement as well, pointing out that readers’ minds are involved with both a visual and narrative content that can increase student interest and comprehension. Hart (2010) also offered a list of literary concepts that comics and graphic novels are able to incorporate, pointing out that comics provides the opportunity for students to learn about these concepts and then apply their knowledge and understanding of them to other works. These concepts include characterization, dialogue, plot, conflict, resolution, setting, theme, point of view, foreshadowing, metaphor, symbolism, and many others.

Independent researchers are not alone in their assertions of the value of graphic texts. Connors (2012b) noted that visual literacy has become a standard in many state curriculum frameworks, and other authors have echoed this assertion. Gavigan (2012) noted that the Common Core State Standards Initiatives released a statement in 2010 supporting the study of an “extensive range of print and non-print texts from media forms old and new” (p. 31). In the same article Gavigan (2012) referenced the 2007 American Association of School Librarians’ Standards for the 21st-Century Learner as saying, “Multiple literacies, including digital, visual, textual, and technological have now joined information literacy as crucial skills for this century” (p. 32). Along these same lines, Schieble (2011) referenced a significant and somewhat foreshadowing quote released by The New London Group in 1996. The statement reads,

Literacy pedagogy now must account for the burgeoning variety of text forms associated with information and multimedia technologies. This includes understanding and competent control of representational forms that are becoming increasingly significant in the overall communications environment, such as visual images and their relationship to the written word. (p. 61)

Similarly, Rice (2012) said that teachers have been heavily advised to incorporate graphic novels into their curricula since the late 1990s, and Rudiger and Schliesman (2007) stated that school libraries should be committed to collecting as many works of graphic literature as their budgets will allow.

Along with claims concerning the literary staples that comics often feature, the scholarly literature related to comics in the classroom also suggests that the medium is particularly popular among today’s youth and that students are especially attracted to graphic works (Carter, 2007b; Khurana, 2008; Low, 2012; Missiou & Koukoulas, 2013). As a small example of the appeal of graphic novels, McPherson (2006) pointed out that in one particular high school library in Florida, graphic novels account for more than a quarter of the circulated material even though

those graphic texts make up less than two percent of the library's collection. Martin (2011) surmised that this popularity is due to the fact that today's image-oriented youth are especially drawn to the new and innovative relationship between words and pictures that graphic texts offer. To add to this, McGeown, Osborne, Warhurst, Norgate, and Duncan (2016) also noted that comic book reading was highly predicted by intrinsic reading motivation as well as social reasons for reading and that young people enjoy the sharing and borrowing of these texts quite frequently.

The literature also suggests that boys are especially drawn to the medium (Cooper et al., 2011; Griva, Alevriadou, & Semoglou, 2012; Moeller, 2011; Nyberg, 1998; Sabeti, 2012). In a study conducted by McGeown et al. (2016) that focused on more than 700 students, sex was found to be a relatively weak predictor of time spent in various reading activities when compared with other child characteristics, with the exception of comic book reading. McGeown et al. (2016) found that sex was the strongest predictor of comic book reading, with boys reading comics much more often than girls. Brozo (2012) said that "national surveys reveal that graphic novels are perhaps the most popular reading choice for adolescents- especially among boys" (p. 550). Also, King (2012) said that "most research has extolled the virtues of graphic novels for boys" (p. 190). Rapp (2011) stated,

Graphic novels prove particularly engaging to readers who need additional support. For example, boys have been more interested in comics and, because they often lag behind girls on measures of reading enjoyment and comprehension, any means of encouraging their interest is worth pursuing. (p. 130)

Male interest in comic books is likely partially due to comics traditional favoring of male readers. As Robbins (2005) noted, at its height of popularity in the 1940s, the comic book industry reflected the feelings of a largely adolescent male readership, a readership that is often not necessarily fond of girls. However, by the early 1950s, female

readership of comics was increasing as romance comics became more popular (Robbins, 2005). From 1948 to 1949 the number of romance comics published in the United States increased more than twentyfold, and by 1950, *Newsdealer* magazine reported that more females in the seventeen to twenty-five age range were reading comics than males of the same age (Robbins, 2005). However, in today's world the continued dominance of the superhero genre, which has continued to fail in attracting much female readership, still serves to establish a readership of comics as primarily male (Robbins, 2005). Also, it is likely that women's traditional role of the victim or decoy in many early comic books attracted a primary male audience while isolating female readers (Nyberg, 1998; Sabin, 1996). Sabin (1996) noted that women in comics "generally came off very badly" (p. 79) and that their roles were limited to serving as helpers, plot devices, and/or sex objects.

In a study which focused on the reading preferences of several hundred primary school students, Griva et al. (2012) found significant differences in male and female reading preferences, with males favoring graphic texts more so than females. As a result of the overall findings related to differing preferences, Griva et al. (2012) argued that all students should be presented with a rich print environment in their classrooms that features a wide range of texts. Offering a variety of texts, including comics, can help all students increase their levels of reading engagement and lead to the creation of a literary community in the classroom that does not encourage biases or stereotypes (Griva et al., 2012).

Closely related to the idea that comics can aid in establishing a rich print environment in the classroom, Cirigliano (2012) described comics as a possible form of edutainment, a medium that uses entertaining elements to provide meaningful and memorable learning experiences.

While it is debatable whether edutainment practices are a suitable substitute for traditional educational practices and does have many critics, qualitative studies have pinpointed benefits of edutainment materials and practices such as increased engagement (Cirigliano, 2012). The study conducted by Cirigliano (2012) featured an original comic book entitled *Todd and Bhu Conquer Cell Biology*, which was distributed to 49 students in an undergraduate cell biology class at the University of Illinois at Chicago. The researcher used Q-methodology to explore opinions and ideas of students, and while the Q-method study did identify a variety of attitudes towards the use of the comic book as a form of edutainment, the researcher did note that many students found the educational comic book to be entertaining and memorable, which aided students in recall abilities and visualization of the material (Cirigliano, 2012).

In a somewhat similar study, Putnam and Yanagisako (1982) developed and distributed an educational comic book, which focused on the dangers of sun exposure, to 122 households and sought to measure any changes in behavior of the comic book readers. The researchers found that those individuals who had read the comic book were more cautious about sun exposure, more apt to use sunscreen and give self-examinations, and more likely to use protective clothing. Additionally, more than 90% of readers reported that the comic book was easy to understand, entertaining, and interesting (Putnam & Yanagisako, 1982).

Similarly, Van Lente and Dunlavey (2012), in *The Comic Book History of Comics*, told of Will Eisner's use of comics as the art director of the service magazine *Army Motors* in the early 1940s. The magazine largely focused upon efforts to promote preventative maintenance in all aspects of a serviceman's life and duty. At first, Eisner's inclusion of comics in *Army Motors* was met with resistance by his superiors; however, a University of Chicago efficiency test, which pitted Eisner's comics against standard manuals, heavily favored the comics as the more



effective mode of communication (Van Lente & Dunlavey, 2012). The comics produced by Eisner were especially effective in army repair manuals since illustrations presented certain advantages over photographs. For example, Eisner's comics were able to present simplified images of complex processes while eliminating distracting or confusing elements, such as irrelevant springs or screws, which a photograph could not avoid capturing and including (Van Lente & Dunlavey, 2012). In other words, while photographs are bound by what they can physically capture with the lens, comics allow more freedom of presentation and more flexibility (Van Lente & Dunlavey, 2012).

Especially prevalent in scholarly literature is the idea that comics and graphic novels possess the power to pique the interest and increase the skills of struggling or reluctant readers (Connors, 2012a; Decker & Castro, 2012; Lawn, 2012; Newkirk, 2006; Schmidt, 2011; Smetana et al., 2009; Wolfe et al., 2012). Newkirk (2006) noted that to a struggling reader, a full page of text can look "like a minefield, like an endless string of opportunities for failure" (p. 67), and that these students need increased access to comics and graphic novels in order to help them gain confidence. However, other students besides those who struggle academically may benefit from graphic works as well. The diversity of graphic novels allows them to be powerful tools for all types of learners (Evans, 2013; Marrall, 2013). Carter (2007a) noted that gifted students may benefit from the complex moral and ethical issues that superhero comics explore, while Novak (2014) argued that the superhero genre has deep roots in classical mythology as a means of examining our society and exploring the limits of human possibility. Superheroes also present an interesting opportunity to study notions related to the American dream (Feiffer, 2003).

Fitzsimmons (2007) also noted the rigorous but enjoyable challenges that graphic novels

can provide by supplying qualitative data from student interviews. He pointed out that one 16-year-old student named Erin said,

The same stuff is in there, and even more than the books we study in class. You have to look harder. There's more than one way to look at the story, and it's different each time I read them. No that's wrong; it's not different, just more involved. (p. 16)

The researcher also said that “students were reading at a much higher plane of grammatical use, more complicated than their teachers could ever imagine” (p. 20) and that graphic novels promoted intellectual activity, as opposed to the passivity which is often observed in the classroom. Putting it another way, Petrucha (2008) stated that in reading a graphic novel students are simultaneously utilizing both their verbal and visual imaginations. This, in turn allows them to create a unique combination of sound and movement in their minds and develop a uniquely intimate relationship with a graphic text.

McKean (2005) noted this intimacy as well and proclaimed that comics are a powerfully personal medium for readers to experience. Weiner (2013), Rubin (2013), and Tilley (2013b) also suggested that reading comics can improve grammar and vocabulary skills, while Madden (2005) said that comics can open students' minds to new and innovative ways of thinking about art and storytelling. Carter (2008) noted that comics are successful at fostering comprehension and memory skills, and Burmark (2002) stated that one of the most compelling reasons for incorporating images into instruction is because students store the images in their long term memories. Rakes (1999) also noted that positron emission tomography (PET) scans reveal that the brain becomes more active when individuals are exposed to both verbal and visual information.

On the subject of vocabulary and word acquisition, Hayes and Ahrens (1988) discovered that in a sample of comic books versus traditional adult novels, comic books averaged a higher

frequency of rare words per 1,000 token words. The researchers defined rare words as those that do not appear among the most common 10,000 types of words, are not proper names or numbers, and are not an inflected form of a term included in the common 10,000 (Hayes & Ahrens, 1988). This finding is more noteworthy when paired with assertions by read-aloud specialist Jim Trelease (2001) about how the mastering of rare words is essential for young learners to become proficient readers. Additionally, and in light of these data and assertions, Newkirk (2006) argued that comic books don't reduce vocabulary demand but instead offer vocabulary support through the addition of applicable illustrations. Haines (2012) made a similar claim, noting that comics can increase vocabulary by offering rare words and dividing text into manageable-sized chunks, which allow readers more opportunity to become familiar with new vocabulary and not become overwhelmed by giant blocks or walls of text.

In coming back to the notion that comics are especially attractive to boys and also especially beneficial for struggling readers, the literature also suggests that students who struggle with reading are more likely to be male than female (Boltz, 2007; Harrison, 2012; Newkirk, 2006; Sokal et al., 2009; White, 2007). As noted by Boltz (2007), boys consistently score lower than girls on standardized tests of reading comprehension in almost every country where the skill is measured. Boltz (2007) stated, "the obvious conclusion of this data is that we are failing to make readers of our sons" (para. 2). Harrison (2012) said that boys' literacy is a concern at all levels and that it can have negative consequences for their learning which can become exponential as they age. Sokal et al. (2009) broadly referred to this phenomenon as the boy problem, and White (2007) reported that anxiety over the issue is observable in media headlines, psychology books, and reports from researchers who have analyzed data from international large-scale assessments. Given the fact that reading is a fundamental skill that is vital for

personal learning and intellectual growth which greatly impacts a nation's economic and social development, it is no wonder that concern is so widespread (White, 2007).

The source of what Sokal et al. (2009) calls the boy problem is a topic of much debate and relatively little agreement. In short, theories as to why boys are being outperformed by girls on standardized reading assessments and why boys' reading skills in general appear to be suffering are quite numerous. White (2007) noted that "recent populist explanations often draw on biological theories that emphasize that gender differences, in favor of girls, are rooted in the differential brain wiring, maturation rates, and chemistry of boys" (p. 556). Boltz (2007) explored ideas that range from boys' heightened perception of reading as a forced activity to their sensitivity to cover art. Additionally, the author lists boys' tendency to believe that they are poor readers as a point of interest to be explored as well. On another note, Triggs (2005) noted that comics creator Trina Roberts lamented the fact that boys' comics seem to be more fun to read, while girls' comics focus more on didactic themes. If this difference in subject matter and focus is generally true, this may give further insight into why boys are more drawn to the comics medium.

Accompanying the idea of lower levels of self-efficacy is the notion that in order to solve the boy problem, gender-based interventions should be considered in order to bolster boys' confidence and motivation. Sokal et al. (2009) have pointed out that attempts to combat the boy problem often include the incorporation of boy-friendly books into the classroom, all male classrooms, and/or male teachers as reading models. These methods are largely undertaken in order to counteract what appears to be an overwhelming belief amongst young boys: reading is a feminine activity (Sokal et al., 2009). Harrison (2012) illustrated this point when he stated, "For many boys, literacy is associated with feminine or 'girly' subject matter. . . and from an early

age, many boys associate reading with female members of their family or female teachers” (p. 42).

Many researchers have noted that incorporating more nontraditional texts into the classroom may be the key to increasing boys’ literacy; however, it appears that the types of reading that boys tend to engage in outside of school are not being acknowledged in the school environment (Harrison, 2012). As Sanford and Madill (2007) pointed out, “clearly a disconnect occurs between school literacy practices and those that male participants practice out of school” (p. 435). The author has also said that “teachers do not understand or ignore many of the literacy practices as teachers address curriculum demands” (p. 435). Similarly, Boltz (2007) stated, “One reason boys read less is because the kind of reading they are given to do in school does not connect to their interests” (para. 1). Sanford and Madill (2007) also noted that identifying texts that appeal to boys’ interest is a critical key to increasing their literacy skills.

Again, one popular answer to the question of what reading material boys find interesting is comic books (Boltz, 2007; Brozo, 2012; Johnson & Gooliaff, 2013; Moeller, 2011; Sanford & Madill, 2007). However, even though multiple studies indicate that boys’ interests need to be catered to in order to increase their literacy rates and that boys tend to be generally interested in comics, there is still a great dearth of research on the use of comics to increase boys’ literacy rates. Additionally, one issue that teachers who view comics as a quick fix for boys may encounter is that their female students may view comic book reading as an exclusively male activity (Carter, 2013). However, Carter (2013) made it a point to note that although girls may be likely to associate comic book readership with boys, boys have traditionally displayed no outward possessiveness or ownership over the medium. Fox (2013) noted that the vast majority of creators within the realm of comics are men and that a male audience is often drawn to the

medium because of the consistently attractive portrayal of women. Fox (2013) argued that this portrayal can be problematic because of the over-sexualization of female characters, but also pointed out the study of the representation of gender within comics can be interesting for many students.

McVicker (2007) noted that comics provide readers with the opportunity to build confidence and engage in positive, successful reading experiences. This is important due to the fact that Schunk (2012) pointed out that motivation is a key to any learning process and commented upon the importance of drawing readers into a motivational state. Bakis (2012) noticed the confidence-building power of comics as well, asserting that graphic novels can promote engagement with other forms of storytelling while transforming negative attitudes into positive ones. Angel (2013) also focused upon this idea of engagement and noted that comics and graphic novels are powerful tools for fostering this essential component of learning.

Closely related to this idea of motivation is the idea that more interesting texts may serve as powerful tools, which teachers may find valuable in the classroom. Schmidt (2011) noted that graphic texts have the capacity to create a high enough level of interest to draw students into the process of becoming lifelong readers. In regard to this high level of excitement that graphic novels often engender in readers, Decker and Castro (2012) stated that graphic novels are capable of bringing new life to academic settings and that students appreciate the new reading opportunities that graphic texts offer. Rubin (2013) noted the same sentiment and stated the positive response from his students was overwhelming. Also, Khurana (2008) remarked that comic art is one of the most popular forms of storytelling media around the globe today, and Carter (2007b) stated that “the work of countless librarians has shown that students have an insatiable interest in these books” (p. 50). Angel (2013) remarked that she often finds herself

defending her academic use of comics because many see them as simply fun reading, but the author stated that it is exactly because comics are fun, due to their unique combination of words and pictures, that comics are able to reach a larger audience than traditional literature. Relating the medium's popularity to teacher values and practices, Low (2012) remarked that the high level of student interest, combined with increased interest in comics by teachers, researchers and curriculum developers, makes their inclusion in the classroom of vital importance. The work of these researchers not only makes a case for the use of comics in the classroom but also ties the academic use of comics to the popular teacher value of motivating struggling readers through the use of texts that students find interesting and appealing.

Other researchers also noted the power of graphic novels by exploring the idea that graphic and traditional texts do not necessarily have to operate in opposition to one another. In their discussion of modern graphic interpretations of Shakespearean plays, Wolfe et al. (2012) stated that graphic novels provide new vistas that allow students to tackle complex material that might otherwise be too difficult for them at their current skill level. In other words, the visual interpretation that comics provides may aid students in understanding and communicating ideas that they cannot comprehend from purely textual works. Weiner (2013) made comparable statements concerning comics' ability to introduce readers to more sophisticated material. Similarly, Lawn (2012) stated that another important role of comics is the interpretation of the classics that the medium often provides and said that visual adaptations of classic literature often prove to be stimulating introductions to classic literature. Haines (2012) also argued that graphic adaptations of prose novels can be instrumental learning tools for a variety of students.

In his article "The Graphic Novel and the Age of Transition: A Survey and Analysis," Tabachnick (2010) took it upon himself to offer reviews and criticism for a variety of graphic

adaptations of classic texts. He offered praise for many adaptations, and concluded that successful adaptations “bring out the inherent power of the original text visually and yet allow the reader to retain the pleasure of reading a book, including the original writer’s own language” (p. 27). Even as far back as the 1940s, comic book publishers focused on traditional or classic literature as a point of focus (Tilley, 2013a). One example is Albert Kanter’s *Classics Illustrated* series which started its run in 1941 and focused on abridgments of many famous literary titles, including *Huckleberry Finn*, *Moby Dick*, and *Last of the Mohicans* (Tilley, 2013a). Additionally, Sardone (2012) pointed out that not only can reading comic books aid students in developing deeper connections with classic works of literature, but actually creating them can accomplish the same goal.

Geary (2005), who worked on the *Classics Illustrated* series, said in an interview that his intention with *Classics Illustrated* was always to retain as much as possible of the original authors’ language and point of view as much as possible when adapting traditional texts to the comics medium. When it was first published in 1941 *Classics Illustrated* proved to be immensely popular, and by 1946 more than 20,000 schools reported using *Classics Illustrated* to aid in the education of their students (Nyberg, 1998). At the peak of its circulation in 1960 the average *Classics Illustrated* adaptation enjoyed a print run of approximately 262,000 copies (Van Lente & Dunlavey, 2012). Interestingly enough, *Classics Illustrated* was originally titled *Classics Comics*, but Van Lente and Dunlavey (2012) speculated that the name was changed in order to make the publication appear more legitimate in the eyes of parents who might be quick to criticize it. Angel (2013) has pointed out that reading comic interpretations of classic literature alongside the original versions allows these often complex stories to become more accessible for many students. To add to this point, the literature on the academic use of comics suggests that



comic book creation by students can aid students in developing deeper connections with classic works of literature and literature in general (Carter, 2013; Maliszewski, 2013; Sardone, 2012; Tilley, 2013b).

On a similar note, students pre-existing knowledge of certain ubiquitous mainstream comics can aid them in making connections with social studies materials that they might otherwise find unrelatable (Menzel, 1990). Since students learn more efficiently when they are able to make conceptual connections between material they are newly learning and knowledge they already possess, any background knowledge about a concept or topic may be valuable. This is why Menzel (1990) argued that historically inaccurate comic strips, like *Hagar the Horrible* or *Prince Valiant* for example, may prepare students for a study of the time period in which these comic strips are set. Comic strips like these help to teach students that history is all around us and encourages them to relate what they already know to new academic material (Menzel, 1990).

Offering additional praise for the educational use of comics is Carter (2007b) who stated, “the English classroom that integrates graphic novels will be and is becoming a classroom with books that suggest the class is a place of acceptance, diversity, deep and multifaceted reading and discussion that does not shy away from challenge” (p. 52). McCloud (2005) argued that the medium has as broad of a base of applicable subject matters as anything else. On a related note, Marrall (2013) noted that comics are capable of providing powerful multicultural experiences for readers and can contribute to the creation of an inclusive classroom environment. The author stated that graphic novels have the capacity to not just create personal enrichment, but are capable of establishing community by increasing awareness of cultural, social, and ethnic diversity. Comics are capable of opening students’ eyes to a variety of worldviews through diverse narrators who offer students engagement and enrichment (Marrall, 2013) and can also

address important personal and social issues such as ideas related to being true to one's self, the benefits of team work, coping with challenges such a divorce and bullying (Hart, 2010), perseverance, and working to the best of one's ability (Haines, 2012). The medium also has the potential to deal with challenging, uncomfortable, and thought provoking material (Evans, 2013), and Sardone and Devlin-Scherer (2015) argued that works of the comics medium can be instrumental in teaching children about sensitive and uncomfortable subjects such as genocide. This has often been a power designated to only traditional texts, but Marrall (2013) pointed out that graphic novels which challenge this paradigm are becoming more commonplace. As Sabin (1996) claimed, the medium of comics is a worthy vehicle of any message.

Bakis (2012) noted the power of graphic novels to deal with issues such as fate, karma, justice, suffering, and religious/moral values, but also noted that even though comics can address complex themes, many teachers still seem to use them as simply an accompaniment to traditional literature which focuses on companionable thematic content. Kuper (2005) argued that it is the dismissive attitude that some take towards comics as being light and funny that make it the perfect medium for portentous subjects: many readers simply don't expect the serious subject matter, which can possibly cause the message to be even more powerful. While Feiffer (2003) did not claim that the prejudice against comics has made the medium a suitable vehicle for important subjects and messages, he did note that comics are often viewed as "junk" (p. 72) and that being popularly labeled as junk does have its unique privileges. According to Feiffer (2003), the second-class citizenship of comics means that it has no respect to lose and no image to endanger, which may support the claim of Kuper (2005) that part of comics' unique power is its ability to deliver unexpectedly powerful messages, perhaps even to a greater degree than traditional texts in the eyes of today's students.

Sabin (1996) made similar remarks, noting that the artistic marginalization of comics, and their common relegation by art critics into the category of trash icons, could be one of the medium's greatest strengths. For example, the exclusion of comics from the art establishment allows it to avoid the consequences of serious art criticism. As Sabin (1996) stated, "if they are not able to become respectable in a way that only 'Art' can be, then at least they can remain unfettered by the critical machinery that this status implies" (p. 9). Additionally, comics' close association with street culture, which is also commented upon by Berry (2005), imbues a certain edge to the medium that many contemporary artists have attempted to bring into the gallery (Sabin, 1996). What results is the fact that fine art typically can only be influential within that specific community, while comics, with its broader appeal and audience base, can permeate a wider variety of communities.

Connors (2012a) offered an insight into this discussion of graphic texts versus traditional novels and the role of comics in academia when he said that graphic texts do not necessarily have to be compared to traditional texts in order to prove their worth. He stated, "Rather than attempt to compare graphic novels to traditional novels, we might more profitably encourage students to view them as different kinds of texts that invite them to read in different ways" (p. 37). This statement reiterates the idea that comics are an altogether different form of reading and that instead of merely comparing and contrasting the benefits of comics to traditional texts, educators should take them as a truly unique mode of conveyance.

Also profound is the idea that graphic novels are able to reach even beyond the classroom in their influence on readers. Connors (2012b) asserted that the study of graphic literature enables students to interact more deeply with everything from billboards to video games. He argued that training in a highly visual medium such as comics allows students to develop an

appreciation for a wider range of texts and can lead to a deeper appreciation for what it means to be a literate person in contemporary society. After all, sequential images take a wide variety of forms and are truly ubiquitous in American society today, from airline safety manuals to stained glass windows in houses of worship (Cohn, 2012).

Ultimately, no shortage of praise for the educational use of comics exists. In a clear example of unabashed endorsement of the medium, Bakis (2012) detailed a bulleted list of more than 20 reasons why comics should be incorporated into the classroom. These reasons range from the idea that they challenge readers alike to the notion that students feel respected for getting to read books that they actually like in school. The author also points out that since prefabricated essays about graphic novels are not yet ubiquitous on the Internet, critical thinking and thoughtful analysis of the material rests more squarely upon the shoulders of the students. In her fairly extensive list of strengths, Bakis (2012) is careful to credit the work of many comics researchers, thus helping to bolster her claims in research; however, it is interesting to note that in the foreword to the book in which these claims are made Carter (2012) argues that many advocates of comics in the classroom tend to make blanket statements about learning without truly relying on educational theory or figures. This sobering statement reminds educators that while praise for the academic use of comics is plentiful, it should still be examined with a critical eye.

### **Fears and Dangers of Comics**

Much scholarly literature supports the educational use of comics in the classroom, and yet the literature also seems to suggest that parents have traditionally held the medium in low academic esteem. This section of the literature review offsets the previous section by exploring

the anxiety, doubt, and uneasiness that a variety of individuals feel towards the academic use of comics. Naturally, examining parental concerns about comics will aid in establishing the underpinnings for a relationship-based study that seeks to explore connections between parent perceptions of the educational potential of comics and a wide variety of parent demographics; however, the concerns of teachers and the American public in general are also explored in this section of the literature review as well. This will hopefully provide a well-rounded view of the wide variety of fears and dangers that have been expressed towards the academic use of comics by a great number of individuals.

Even though many researchers openly tout the benefits of the multimodal experience that graphic novels offer, this theory has been met with much fear and apprehension from parents, teachers, and scholars, who are reluctant to support the inclusion of such texts into the classroom (Weiner, 2013). The literature suggests that a portion of this discrimination is likely due to a lack of hard evidence for the benefits of incorporating graphic novels into formal education. As Carter (2007b) pointed out, the benefits of graphic novels in the classroom are “still relatively unexplored” (p. 50). Schieble (2011) noted that the marginalized position of graphic novels may be due to the fact that “research on literacy and learning through graphic novels as a part of the multimodal landscape is scant” (p. 203) and that few empirical studies have been conducted. Hatfield (as cited in Schieble, 2011) noted that comics have “been the target of some of the most sustained and intense critical savaging of any cultural product in American history” (p. 204). Other researchers have reported upon this prejudice as well, pointing out that works of comics are often viewed with contempt and are dismissed as fluff reading material for the lazy, not being material worthy of academic study (Connors, 2012a; Evans, 2013; Fitzsimmons, 2007; Marrall, 2013; Martin, 2011; Masuchika & Boldt, 2010; Rice, 2012). Comic works are also thought of as

cheap, disposable artifacts of pop culture, unworthy of significant reflection or investigation (Beaty, 2005; Berry, 2005; Duncan et al., 2015; Schwarz, 2004).

One possible reason for teachers' avoidance of comics may be that many teachers simply do not know what to look for in choosing a graphic text (Pantaleo, 2012). Brozo (2012) has supported this idea by saying that the volume and variety of the medium can make choosing works a difficult and daunting task and that teachers simply do not have the experience or training to lead students into higher order visual interpretation of graphic texts. Also, without a strong background in art, many teachers may find it difficult to facilitate lessons featuring graphic texts (Wolfe et al., 2012). While Carter (2013) pointed out that there are many books which give insight into the complexities of the comics medium, Cooper et al. (2011) noted that there is a lack of resources designed to guide teachers in their selection of graphic texts. This lack of research may be related to the traditional view of comics as being unworthy of academic study (Connors, 2012b; Rice, 2012).

A specific example of teacher hesitancy to teach comics comes from Clark (2013) who chose to study preservice teachers' thinking about nonfiction graphic novels, curriculum decision making, and professional acceptance. In the article, Clark (2013) noted that many preservice teachers were loath to incorporate comics into their curricula because of the many stigmas associated with the medium. Connors (2012a) also noted that preservice teachers share concerns about graphic novels. One interviewee that Connors (2012a) spoke with said,

Because of the pictures, everyone who reads this book will come out with the same interpretation of what the setting and the characters look like. . . . So many teachers and educators tell students, 'Look beyond the text.' How are the students supposed to do that when what is beyond the text is pictures? (p. 36)

This quote inherently speaks to the perception that pictures are capable of communicating information clearly and powerfully, but expresses concern over the variety of

interpretation of text; however, McCloud (1993) offers a lengthy rebuttal to this accusation in his discussion of the individualistic nature of comics interpretation and his analysis of the act of closure while reading comics. Keller and Oechslin (2013) also noted that since comics is inherently a hybrid medium, an undue focus on the illustrations, which leads to focusing on comics as simply a visual medium, can be disastrous. The authors argued that if comics are to be taken seriously, all elements of the medium need to be examined as a unified and cohesive whole.

Daniel Rubin (2013) remembered that as an arrogant preservice teacher he never considered the use of comics in the classroom and reported that the subject was never even approached in his training. As a result, he reported that he felt they were looked down upon by his peers, whom he never saw using comics in their classrooms. Similarly, Carter (2013) noted that when he began teaching a course on the graphic novel at the university level, students informed him that other English department teachers had expressed dissatisfaction. Then the researcher noticed that his flyers to advertise the comics course were mysteriously disappearing across campus, even when students had no access to the buildings.

Weitkamp and Burnet (2007) noted that the medium is often viewed as being neither art nor literature, is commonly perceived as low brow, and has generally been unwelcome in the classroom, while Weiner (2013) pointed out that parents and members of the academic community have for decades accused the medium of turning readers' brains to mush (Weiner, 2013). Marrall (2013) pointed out that even though studies have determined that comics are just as effective as traditional media in delivering information, educators often view them to be too easy or not challenging enough for their students. Rhett (2013) agreed, saying that literary

classics like the *Iliad* and *War and Peace* are well-respected while comics such as the *X-Men* are derided as being immature, shallow, and lacking in nuance. The author also said that the medium is often eschewed by academics for generally being too broad, too general, and too unsophisticated to be academically relevant. This viewpoint, though, is often held by those who are simply unfamiliar with the medium's academic viability (Rhett, 2013).

Some researchers believe that a dual fear has led to the overall reluctance to include comics in many curricula. The first fear concerns the idea that graphic novels may erode the sacred nature of traditional texts, while the second fear is born out of a general ignorance of how to successfully incorporate graphic novels into an academic curriculum. Tabachnick (2010) observed that many educators worry that an increase in visual literacy skills could literally force traditional literacy into extinction, while Vandermeersche and Soetaert (2011) pointed out that others have viewed the shift in literary focus as a threat to cultural heritage and even democracy. Along these same lines, Connors (2012a) pointed out that some worry that “a reliance on images will deprive readers of the opportunity to use their imaginations and inhibit their ability to respond to text in different ways” (p. 35). While the previous statements address the first fear about visual literacy overtaking traditionally literacy, Wolfe et al. (2012) addressed the second fear of teacher shortcomings and ignorance by noting that many teachers simply are not adequately trained in leading students in to higher-order visual interpretation. Mathews (2011) seconded this sentiment by pointing out that teachers' aversion to medium is natural when one considers their lack of knowledge about comics.

Lawn (2012) also voiced concerns about the legitimacy of comics and took the fear of the medium's power even further when he postulated that this visual genre could effectively kill the written word. The author stated, “Provocative questions that are becoming more relevant are -



will the visual semiotic replace the linguistic semiotic? Will readers increasingly make meaning from visuals rather than print? And most provocatively, will print eventually become extinct?” (p. 31). Although they do not seem to share the popular sense of anxiety over these questions, Vandermeersche and Soetaert (2011) noted that these concerns have a legitimate foundation. The authors stated, “the graphic novel and comics in general question how literary culture creates meaning and thus the claim that the printed book would remain the only source of literary knowledge and cultural literacy is called into question” (para. 18). In a scathing article that examines the term “graphic novel” itself, Labio (2011) stated that the term “‘graphic novel,’ as well as the equally unsatisfactory ‘graphic narrative,’ privileges, quite wrongly in my view, the literary character of comics over the visual, by assigning the status of mere qualifier to the visual dimension” (p. 125).

Another cause for unease about the academic usage of graphic novels is the idea that since these works feature pictures in conjunction with text, they will detract from students’ growth in traditional literacy skills and will serve only entertainment purposes. An example comes from Pantaleo (2012) who quoted a young girl in her case study as saying, “My dad always said my picture books and graphic novels were a waste of money and time because they barely have any words and do not ‘exercise the brain’” (p. 311). Similarly, in their study of the graphic novel as a bildungsroman or coming-of-age story, Schwarz and Crenshaw (2013) wondered fearfully if students who are fans of graphic novels also read traditional texts.

In short, the literature suggests that teachers and parents are hesitant to deem graphic novels and other comic-like material as legitimate literature (Griffith, 2010; Monnin, 2010; Norton, 2003) or view it as a “simplified version of prose” (King, 2012, p. 212). And it is not only educators and parents who have concerns. Bernstein (2008) noted that students in her

undergraduate basic reading and writing courses have questions about the appropriateness of graphic novels as a part of their coursework and deem them to be merely “picture books” (p. 86). Also, Sturm (2005a) noted that artistic college students who venture into cartooning typically experience their medium of choice as being deemed “juvenile” (p. 19), while Clowes (1991) argued that cartooning as a career goal has a reputation of being a mindless and contemptible undertaking. Dooley (2005) noted the prejudice as well but argued that the word cartooning and its practice actually has an honorable etymology that dates back to the Renaissance time period when cartoons were used as outlines for oil paintings, frescoed ceilings, stained glass, and tapestries. Williams (2005) also remarked that more educated individuals are likely to take a snobbish attitude towards cartoons, even though the style of illustration has its own unique vocabulary, pictorial syntax, and graphic language of which many are unaware.

McGeown et al. (2016), in a study focusing upon child characteristics as predictors of reading habits, found that the variable of recognition negatively predicted comic reading, and surmised that children who are motivated to read to receive recognition may be less likely to read comics since comics are often regarded as less legitimate reading material when compared with traditional books. As McGeown et al. (2016) and Pitcher et al. (2007) argued, young students’ perceptions of what constitutes a reader are typically synonymous with those who read traditional texts as opposed to magazines or comics. Studies by other researchers may provide solid reasoning for these perceptions. For example, Anderson, Wilson, and Fielding (1988) and Spear-Swerling, Brucker, and Alfano (2010) found that reading comprehension and speed were more closely related to the reading of traditional books as opposed to other material, which included comics. Additionally, McGeown et al. (2016) noted that studies show that illustrations attract more visual attention than print; the author then went on to state that this phenomenon

suggests that time spent with magazines and comics may be less likely to develop word recognition skills.

Other authors have pointed out that many people do not view interaction with the illustration side of the comics medium as true reading. Petrucha (2008) offered an anecdote of selling his own *Nancy Drew* graphic novels at BookExpo of America in which a potential customer picked up his wares and simply remarked, “Now kids don’t have to read them” (p. 60). Although the author found the comment disturbing, it is not at all uncommon. In his own words, “Despite the growth in awareness, and the oft-acknowledged boon comics provide educators striving to get kids to read, some folks still don’t ‘get’ them” (p. 60). Even though comics have the power to engage and instruct students of all ages (Smith, 2013) and students’ minds are lively and engaged while reading them (Weiner, 2013), the concerns over the medium’s legitimacy are very real. These concerns about the legitimacy of graphic works as a classroom-appropriate teaching tool appear to stem in part from their lineage to early comic books and the deep prejudice against these works (Clark, 2013; Cromer & Clark, 2007). Sabeti (2012) seconded this notion by pointing out that seminal works by Wertham (1954), Pumphrey (1952), Pumphrey (1955), and Pumphrey (1964) labeled comics as a dangerous threat to literacy as well as morality. While Sabeti (2012) noted that public opinion is changing, he suggested that these two writers had a great deal of influence on the perception of the dangers of comics.

Other researchers such as Sabin (1996), Krashen (2004), and Versaci (2009) have lent support to the idea that Wertham’s publication of *Seduction of the Innocent* in 1954 had a significant impact on the public’s perception of comics. Novak (2014) quipped that Wertham nearly killed every superhero in existence, while Nyberg (1998) remarked that academic researchers largely agree that the comic book industry was nearly destroyed by the resulting

comics code, even though there were important influences as well. Dallacqua (2012) agreed and stated that comics were viewed especially negatively after the publication of *Seduction of the Innocent*. It is also important to note that the book was impactful despite suspect logic and less than credible methodology (Kreiner, 2005). Novak (2014) called the assertions made by Wertham “ludicrous” (p. 15), and Nyberg (1998) stated that many media scholars view Wertham’s work as an unfortunate example of early, unsophisticated social science research into media effects due to his lack of scientific methodology and failure to produce substantial quantitative evidence to support his assertions.

By referencing another key text, Rice (2012) also pointed out that some of the bitterest criticism of comics’ dangerous influence on children has been around for some time. The researcher discussed a 1955 article titled “The Comic Book in Perspective” by Robert Coard, which utilized colorful phrases for comics such as “marijuana of the nursery” and “an emotional earthquake” (p. 39). Coard (as cited in Rice, 2012) said that reading comics may produce “poor eyesight” and an “induced opiate state” (p. 39); however, Rice (2012) noted that these statements are reported by Coard (1955) but are mainly attributed to John Mason Brown. Nonetheless, Schieble (2011) and Martin (2011) made note of the long-term prejudice as well, and Schwarz (2004) said that graphic novels are often perceived by adults to be no more than “popular trash” (p. 17).

Regardless of the legitimacy or fallaciousness of these claims, Cooper et al. (2011) noted that teachers have just as much reason to be concerned about graphic novels as they have with any other text that they incorporate into the classroom. The authors stated, “All graphic novels are not appropriate for all teachers, nor are they appropriate in all classrooms and for all content areas” (p. 1). Similarly, Sienkiewicz (2005) argued that each work of comics should be taken on

its own merits. Cooper et al. (2011) also said hesitance in early adopters is natural and that many teachers are curious about graphic novels but wonder if a medium associated with out-of-school entertainment is worthy of a place inside the classroom. In the end the authors pointed out that concerns about graphic novels are relevant not because of their graphic nature, but simply because they may not be the best resource available to aid in the teaching of the subject matter.

Yet another source of concern for the inclusion of graphic novels into educational environments stems from feelings of inadequacy on the part of teachers who are unfamiliar with the medium (Connors, 2012a; Gibson, 2013; Mathews, 2011; Thompson, 2008). One example comes from Wolfe et al. (2012) who stated, “Many teachers may not have the experience or training necessary to sufficiently lead students to higher order visual interpretation” (p. 30). Connors (2012b) has said that many teachers said that they knew of colleagues who had expressed interest in using graphic novels in the classroom, but they also said that their unfamiliarity with the medium had led them to feeling uncomfortable with actually utilizing the medium.

Schmidt (2011) also acknowledged this idea but seemed to take a more proactive approach to the popular anxiety. She stated, “By researching graphic novels, I have learned that, as a teacher I must remain teachable. It is important that I am as open to new ideas as I ask my students to be” (p. 107). However, for many teachers, this may not be such an easy task. Griffith (2010) pointed out that adult readers who are unfamiliar with the genre may have difficulty with the sequencing aspect of graphic novels. This is corroborated by King (2012) who pointed out that because graphic texts force readers to simultaneously process words and images, these works cannot be read in the usual way to which many are accustomed. Ware (2005) argued that comics are unique because, even though they are deemed juvenile, they are somewhat more

suited for adults because of the way that adults process information. According to Ware (2005), adults engage in more active categorization of information, while children are more prone to simply looking and examining for its own sake. Comics requires and engages both of these activities as a visual art that requires reading as well simply viewing or looking. Nyberg (1998) offered somewhat similar sentiments when he stated that there is nothing inherent in the comics form, itself, that limits its appeal to children.

Also, young readers as well as adults might suffer confusion in how to approach a graphic novel if they are unfamiliar with the medium (Carter, 2013). A case study by Hughes et al. (2011) illustrated this by citing an example of a young student of this multimodal generation who did not know where to begin in reading and interpreting a graphic novel used in the researchers' study. Besides simply being new to the act of reading and interpreting comics, teachers face the additional difficulty of choosing works for their students to study. Pantaleo (2012) suggested that a critical exploration of graphic novels requires a process of close examination by teachers who have developed their own knowledge about semiotic resources and the varying interpretive demands of the multimodal media. However, the medium's rising popularity has made the body of graphic novels available to the public enormous (Novak, 2014), and selecting a graphic novel can be quite daunting for a novice due to the volume and variety of choices available (Brozo, 2012).

Along with the idea of ignorance-driven fear, the literature also suggests that few studies have been conducted with the aim of exploring the impact of graphic novels in the classroom (Carter, 2007b; Clark, 2013; Griffith, 2010; Schieble, 2011). With this dearth of empirical knowledge of graphic texts as an academic tool, many teachers find that there is a "lack of resources designed to guide educators' recognition [that] quality graphic novels exist" (Cooper et

al., 2011, p. 3). Sealey-Morris (2015) pointed out that while comics have received widespread acceptance as a literary genre, instructors and scholars in rhetoric and composition have been slower to adopt comics, due to lingering difficulty in understanding how the characteristics of the form relate to their work in the classroom. This lack of resources and empirical evidence is of special concern to new teachers. An example of this comes from Clark (2013) who chose the following title for a recent article: “‘Your credibility could be shot’: Preservice teachers’ thinking about nonfiction graphic novels, curriculum decision making, and professional acceptance.” Similarly, Connors (2012a) noted that preservice teachers share comparable concerns about graphic novels. One interviewee that Connors (2012a) spoke said that every student who reads a graphic novel will walk away with the same interpretation of certain aspects of the plot and that graphic texts defeat the purpose of instructing students to look beyond the immediate text. Keller and Oechslin (2013) actually spoke out against this claim by pointing out that while a picture shows something, what it shows lacks clear definition because each picture has its own logic, and one picture cannot be translated into another. This is unlike words, which have precise definitions that can be translated into other languages. Each picture is unique and what each viewer brings to the interpretation of the picture is unique. However, the teacher that Connors (2012a) spoke to obviously did not share this opinion.

Additionally, the fact that preservice teachers may simply associate the medium exclusively with the genre of the superhero and the particular style of artistry known as cartooning does not bode well for their ability to see the complexity in the medium (Carter, 2013). Confusion of this kind is not uncommon, according to Spiegelman (2011), because of the superhero genre’s proliferation in the early days of the medium in America. Schumer (2005) noted that while the superhero genre is the most dominant in the comics medium, it is often

viewed by comics purists as the bane of the medium. Also, in reference to the superhero genre, Steranko (2005) argued that it is somewhat difficult to generate authentic quality from cliché-ridden quality, indicating that the superhero genre is difficult to avoid. The inescapability of the superhero genre is likely tied to the fact that it was really a new genre unique to the new medium of American comic books in the 1930s (Van Lente & Dunlavey, 2012). Van Lente and Dunlavey (2012) argued that without the invention of the superhero genre, the entire comics industry may not have had the wherewithal to survive its early days. However, Hignite (2005) denied the idea that any particular genre defines comics and straightforwardly claimed that comics as a medium is no longer tied to any genre in particular in today's world. Still, the impact of the superhero genre on the medium as a whole is difficult to deny. Even the popular idea of the Golden, Silver, and Bronze Age of comics history are tied to superhero comics that were produced during these time periods and limits the history and development of the entire medium to encompassing only meaningful events in superhero comics publishing (Spurgeon, 2012).

In the end, the literature suggests that the graphic novel has much to overcome in terms of their popular conception and that there is much research still to be done; however, the National Council of Teachers of English (NCTE) and the International Reading Association (IRA) have called for teachers to incorporate non-print texts that reinforce visual language skills (Chandler-Olcott, 2008), and Rice (2012) noted that since the early 1990s teachers have been heavily advised to incorporate graphic texts into their teaching methods.

### **A Brief History of the American Perception of Comics**

The comics medium has an interesting history in American culture and society, which has no doubt shaped the way that it is perceived by a great number of people today, parents included.



Regardless of whether or not individuals are even aware of the many twists and turns in the history of the public perception of comics, the enduring prejudices against the medium and certain reputations that revolve around the medium and its readership are difficult to escape. The history of comics in America showcases strong emotions and deeply entrenched beliefs about education, entertainment, and the sanctity of youth, all of which are important to understand before undertaking a study that focuses upon parent perceptions of the medium.

Depending upon which comics scholar one should happen to ask, the origins of the medium can be traced back to everything from Greek temple walls (Berry, 2005), Grecian urns (Duncan, 2009a), and 15th century portrayals of the lives of Catholic saints (Tabachnick, 2009) to Egyptian hieroglyphics (McCloud, 2005; Tabachnick, 2009), medieval woodcuttings (Novak, 2014), and ancient cave paintings (Berry, 2005; Jenkins & Detamore, 2008; Novak, 2014; Tabachnick, 2009). Researchers note that some look to the 11th century Bayeux tapestry as the true starting point (Duncan et al., 2015; Jenkins & Detamore, 2008; McCloud, 1993), while others claim that 18th century cartoonists such as William Hogarth, Thomas Rowlandson, and James Gillray truly gave birth to the medium (Tabachnick, 2009). Yoe (2005) stated that Rodolphe Topffer “pretty much invented comics in the 1830s” (p. 179), and Novak (2014) and (Van Lente & Dunlavey, 2012) noted that some credit Topffer with creating the first graphic novel.

Berry (2005) traced the emergence of the medium alongside the development of American graffiti as an accepted form of art, stating that both mediums were shunned by academics in their early years and struggled in their infancy for legitimacy while being labeled as trash and vandalism. Berry (2005) also said that in all likelihood, the first instances of comic artwork were graffiti. Still others have stated that the comics-like combination of words and text

has existed since the very beginnings of recorded history. As Sousanis (2015b) pointed out, although the medium is often seen as a budding art form, its lineage runs deep into our history and reaches back to a time before we even had words to express our experiences. Cohn (2005) seemed to agree, but he also noted that scholars tend to be continually pushing the lineage of comics back further and further in an attempt to legitimize the medium. Cohn (2005) also noted that the pushing back of the origin of comics inherently argues that humans have always possessed bimodal language faculty and that this faculty transcends cultural and geographic landscapes. After all, Cohn (2005) stated that it is important to remember that these early communicators had no concept of the artifact(s) that we now refer to as comics and that they were simply communicating in instinctual ways.

In the end, it appears that no one is capable of identifying an inarguable origin of comics, but depending upon when and where one chooses to pinpoint the birth of the medium. Literature on the subject does suggest, however, that prejudice against comics may be old as the medium itself. Ferguson (2009) pointed out that comics discrimination is traceable back at least to the Victorian era, a time in which illustrated serials were sometimes praised for their entertainment value but were largely ridiculed as a disease which preyed upon the on refinement and culture of the times.

While it is true that comics in some form exist nearly all over the globe (Eisner, 2008), Ryall and Tipton (2009), Hall (2011), and Berry (2005) have claimed that comics is essentially an American art form, and because of assertion, this section of the literature review will focus solely on the evolution of public opinion concerning comics in America. However, the study of American comics and their reception can be difficult because of certain phenomena in the early days of the medium. As Levitz (2009) reported, for several decades after the birth of American

comics, the medium received little to no organized critical analysis and its creators generally did not engage in any self-analysis or formal documentation process. Similarly, most consumers of American comics were unaware who had created the comics they were reading and did not seem to care (Levitz, 2009).

While most American readers of daily newspapers in today's age are accustomed to seeing comic strips in a specific section of the paper, this wasn't always the case. Comic strips at one point shared a more equal billing with legitimate news stories in both their placement in the newspaper as well as in their number (Ryall & Tipton, 2009), and Jenkins and Detamore (2008) have pointed out that their original purpose was to increase newspaper sales. As a result of their close physical proximity to hard news, comics were viewed as perhaps a bit more of a legitimate mode of conveyance than they are today (Ryall & Tipton, 2009). Over time, however, many newspapers began to devote separate pages only to comics, and the medium's legitimacy began to teeter as it lost valuable real-estate (Ryall & Tipton, 2009). Then, when Dell Publishing released the first bound collection of comics called *The Funnies* in 1929, their association with hard news weakened even further (Ryall & Tipton, 2009); however, at the same time, it was a thirst for comics by the general public that led to the creation of the bound comic book as we know it today (Marrall, 2013). Comics were gaining popularity and were being read by all age groups, but the medium was also beginning to be perceived as primarily suitable for youth (Marrall, 2013). Simultaneously, comics were constantly being used in commercial advertisements, which were printed on cheap paper and contained relatively uniform and simplistic content. This also helped to remove them from serious consideration as an art form (Tabachnick, 2009).

Additionally, the name of the medium itself seems to have played some issue with its general reception. While both the historical and modern-day content of American comics may be similar to what one would find in the comics of other countries, the names for the comics medium in other languages do not suffer from the same prejudice as American comics, whose name implies a frivolity to most consumers (Tabachnick, 2009). An example of such might include the French *bande dessinée*, which simply means drawn strip. Ryall and Tipton (2009) have noted that the American name for the medium brings to mind images of stand-up comedians and stories that are exclusively humorous, and Gravett (2010) stated that many believe “comics are just funnybooks” (p. 10). Along this same line, the overwhelming popularity of two early comic strips, Rudolph Dirk’s *Katzenjammer Kids* in 1896 and Lyonel Feininger’s *Kinder-Kids* in 1906, somewhat detrimentally served to cement the medium of comics as largely for children in the minds of the general public (Ryall & Tipton, 2009) even though strips such as the *Katzenjammer Kids* were quite brash, politically incorrect, and pushed many social boundaries (Spiegelman, 2005). At this time of heavy European immigration, many newcomers to the US were bringing with them stories of loss, hardship, struggle and assimilation, and many of these tales were being told in mature and groundbreaking comics (Tabachnick, 2009); however, the fact that many early comic strips featured working class immigrants and included vulgar physical humor perpetrated by slum children was a major concern for many parents (Nyberg, 1998). In the end, while serious comic tales have seemingly always existed, they hardly got the exposure of the more lighthearted comics material (Tabachnick, 2009).

But the name comics has been detrimental in other ways as well. Some critics of the medium have viewed the title of comics as somewhat of a dangerous trick that presents the idea of levity while delivering messages of lasciviousness and violence (Ryall & Tipton, 2009). Ryall

and Tipton (2009) noted that M.C. Gaines, the creator of Wonder Woman, was prompted to add this female character to his lineup after reading an article entitled “Don’t Laugh at the Comics” in the October, 1940 issue of *Family Circle*. The article presented the idea that comics were detrimental to its young readership and were certainly not the laughing matter that its deceptive name suggested.

Repeated instances in the 1930s and 1940s of articles such as the one that appeared in *Family Circle* ultimately began to have an impact on the public opinion of comics and eventually led to what Ryall and Tipton (2009) referred to as perhaps the most important event in American comics history: the 1954 establishment of the Comics Code Authority (CCA), a governing body dedicated to exploring the role of comics in contributing to juvenile delinquency and protecting the youth from the evils of comics’ corrupting subject matter. In many ways the CCA came as a result of public outcry from civic and religious groups, which had no legal power, but which relied upon economic threats of boycotts to try to force retailers to remove unsuitable comic books from their shelves (Nyberg, 1998). Nyberg (1998) noted that in particular this anti-comics mindset was reinforced by the Catholic Church’s National Office of Decent Literature and the Cincinnati Committee for the Evaluation of Comics, whose reports were featured in *Parents’ Magazine*.

Concern for the wellbeing of children was nothing new, but in the decade leading up to CCA, the readership of comics was primarily children, and there were literally millions of them (Nyberg, 1998). Van Lente and Dunlavey (2012) noted that industry studies showed that in 1947, 95% of American boys and 91% of American girls between the ages of 6 and 11 were habitual readers of comics, along with 87% of teenage boys and 81% of teenage girls. Also, in 1947, 33% of all periodicals sold in American were comics (Van Lente & Dunlavey, 2012). Duncan et al.

(2015) argued that there was a time in American history when virtually every child read comic books and that before home use of the television became ubiquitous, the comic book was the primary element in the culture of American children. Nyberg (1998) simply remarked that nearly all children read comics. Noticing the pervasiveness of comics among pre-teens, teachers and librarians (along with other adults in general) in the late 1940s “hated the idea of comics taking kids’ attention away from more scholarly pursuits such as reading books” (Ryall & Tipton, 2009, p. 28). As a result of these concerns, a Senate subcommittee began to explore the influence of comics on America’s youth, and the CCA was born.

Ryall and Tipton (2009) noted that the CCA, which was established near the end of the Red Scare, may have filled a void of fear and panic that the American public had grown accustomed to, but the authors, along with Wolk (2007) and Tabachnick (2009), have claimed that Frederic Wertham’s 1954 book *The Seduction of the Innocent* was perhaps the most instrumental force in the establishment and resulting power of the CCA. Through the utilization of anecdotal evidence and questionable logic (Versaci, 2009), Wertham depicted comics as greatly contributing to juvenile delinquency and students’ poor grades (Nyberg, 1998; Tabachnick, 2009). He also claimed that the stimulation that comics provided made it difficult for children to sleep (Sabin, 1996), argued that superheroes such as Batman, Robin, and Wonder Woman promoted homosexual tendencies, and asserted that comic books were a factor in teen suicide and childhood corruption since they glorified crime, depravity, and dangerously experimental behavior (Feiffer, 2003). Immediate fears for children’s safety were also presented during this time, with parents fearing that children would attempt to punch through brick walls like the Hulk (Sabin, 1996) or misguidedly try to fly like Superman (Feiffer, 2003; Sabin, 1996).

Nyberg (1998) and Van Lente and Dunlavey (2012) argued that Wertham's claims were much more complex than what is typically attributed to him. Wertham viewed juvenile delinquency as a result of a societal cult of violence and largely viewed comic books simply as a manifestation of this prevalent but damaging obsession with violence (Nyberg, 1998). While Wertham did view the abolition of violent comic books as a productive course of action, he did not feel that this alone would eliminate the problem of childhood delinquency (Nyberg, 1998). Still, his apparent vendetta against the medium did legitimize the fears of those who already saw comic books as a threat. When Wertham's claims began to emerge, there was already a prevalent negative view of comics among teachers and librarians, who often viewed comic books as a dangerous diversion from the reading of real literature and a vicious medium capable of producing a generation of semi-literate citizens (Nyberg, 1998). Nyberg (1998) argued that many of these fears were unfounded by researchers, who had not found that the reading of comics would lead to roadblocks in reading skills. Nyberg (1998) stated that anti-comics mentalities were often much more related to a fear over a loss of social control over children in general, and the battle that ensued was not unlike the one that would soon occur over rock 'n' roll. The medium had become so ubiquitous among the youth of the nation that it became a general area of concern for parents and teachers who were alarmed by the medium's popularity (Nyberg, 1998).

Nyberg (1998) noted that it is somewhat ironic that adults seemed to enjoy comic strips that appeared in newspapers while simultaneously condemning comic books; however, Van Lente and Dunlavey (2012) offered an explanation. Since comic strips appeared in newspapers, adults saw them as existing within their sphere of influence. Reading comic strips in a newspaper gave adults a sense of nostalgia; and when children reached for the comic strips in a newspaper, it was an act that was, in a way, preparing them for their newspaper-reading life to come as

adults (Van Lente & Dunlavey, 2012). When comic books began to appear as self-contained texts, free from appearing only in the pages of the newspaper, adults became concerned that the reading of comics was becoming more difficult to control and monitor (Van Lente & Dunlavey, 2012).

Nonetheless, in response to Wertham's claims, some communities went so far as to engage in public comic book burnings (Jenkins & Detamore, 2008; Monnin, 2010). Programs began to appear among civic groups that promoted children swapping comic books for prose books with prizes being awarded to the children who traded in the most comic books; then the collected comic books would be destroyed in a public bonfire (Van Lente & Dunlavey, 2012). According to Ware (2005), Wertham argued that interacting with comics before they had learned the skills of scanning lines of traditional text could cause young children to develop linear dyslexia and poor tracking skills; however, this argument was eventually debunked. Ware (2005) also noted that Wertham was staunchly against the adaptation of classic literary texts to the comics format, arguing that this practice stripped the classic texts of what made them great. Interestingly enough, despite Wertham's claims that comics could offer nothing of educational value, he did promote several worthy educational causes such as his assertion that children should be engaged in a great deal of play and gaming to aid in their education (Ware, 2005). Also, Wertham was, somewhat surprisingly, a fervent anti-censorship advocate, arguing that people older than fifteen should be free to choose whatever reading material they wished (Ware, 2005).

After the establishment of the CCA, many publishers feared that without the coveted seal of approval that only the CCA could provide, distributors would reject their comic books. In order to receive a CCA seal, comics stories had to be approved by a panel of retired school



teachers would scrutinize the comic books for objectionable material (Van Lente & Dunlavey, 2012). As a result, comic book writers and artists typically accepted restrictions to exclude violent images, specific objectionable words, instances of injustice, a lack of punishment for crime, and any and all references to drug use (Ryall & Tipton, 2009). Jenkins and Detamore (2008) and Novak (2014) commented on the strictness of the CCA, while Wolk (2007) pointed out that the code was so detailed that it specifically outlawed depictions of the walking dead, vampirism, ghouls, cannibalism, werewolves, all instances of torture, and basically anything dealing with “blood, boobs, and cussing” (p. 328). Kreiner (2005) reported that the code additionally commented upon the depiction sexy women, successful criminals, dead cops, animated corpses, and the terms horror, terror, and crime in the title of any comic book, while Nyberg (1998). Marrall (2013) also pointed out that any content at all that could be deemed controversial was removed, along with any depictions of alternative culture. All in all, Fiore (2005) called the code a “huge horrible ogre that once enforced innocuousness with an iron fist” (p. 193), an emotionally-charged statement that gives insight into how oppressive some viewed the code to be.

Versaci (2009) noted that publishers’ adherence to the CCA resulted not in applause from those seeking to protect the impressionable minds of children but in a reinforcement of the idea that the medium was a caged beast that must be monitored constantly if it was to be prevented from destroying the youth of a nation. As Versaci (2009) put it, “The end result of the Code and the publishers’ conformity was the mainstream juvenilization of the medium, which in turn caused the general public to view comic books as a form suitable only for children” (p. 95). Additionally, in terms of subject matter, the CCA succeeded in producing a “barren field” (Monnin, 2010, p. 11), a “wave of blandness” (Wolk, 2007, p. 39), and an antiseptic toning down

of subject matter (Feiffer, 2003), which swept through the industry and led to work that was now seen as both potentially dangerous as well as unworthy of being taken seriously in an academic sense. Feiffer (2003) bluntly stated that Dr. Wertham and the CCA ruined the golden age of comic books, and Sabin (1996) remarked that while the CCA gave many parents peace of mind, it took away much of the appeal the medium had to children.

Over time the advent of the comics specialty store in the 1980s made it easier for publishers who did not abide by the code to reach their target audience; however, the influence of the CCA on public opinion cannot be understated and its impact on the content of the comics industry for decades to come cannot be overstated (Versaci, 2009). Still, when the backlash against the code did come, it was quite passionate (Ryall & Tipton, 2009). The resistance to censorship in the 1970s and 1980s became so extreme that in 1986 an organization known as the Comic Book Legal Defense Fund was established to fight for the First Amendment rights of comic book creators and members of the comics community. While the organization has helped to “ensure comics’ long-term viability and freedom” (Ryall & Tipton, 2009, p. 176), it is unclear as to whether this organization has had any significant impact on how the medium is perceived by those in academia or the general public (Ryall & Tipton, 2009).

Predating the Comic Book Legal Defense Fund, the resistance to CCA censorship in the comics industry had actually begun in the 1960s with the underground comix movement. Brunner (2009) noted that this movement was focused on challenging the status quo of comics which had been established by the CCA, and in doing so it produced some of the most affectionate but also offensive material that the medium has ever seen. With nearly every work that the comix movement produced, an undertone of “sly satire” (Brunner, 2009, p. 137) is noticeably pervasive, and the movement is marked by its highly creative content (Deitch, 2005).

The commix movement was an iconoclastic one, its pioneers proving that the medium can accommodate much more than the typical comic book conventions of the past and arguing that unconventional styles and modes represented viable approaches to the comics medium (Newgarden, 2005). It also helped to prove that the medium of comics could be used as a democratic tool by ordinary people engaged in the search for meaning (Rifas, 2005).

The poster child of the movement is Robert Crumb (Brunner, 2009; Buble, 2005; Van Lente & Dunlavey, 2012). Brunner (2009) noted that Crumb created “a world that was both innocent and depraved, filled with childlike formulaic narratives that at any moment might reveal a dark undercurrent, either of sexuality or commercialism, or both” (p. 138). Crumb’s work is often offensive, and portions of it may never enter into academic study; however, Brunner (2009) claimed that Crumb’s work is not just controversial, but also very complex, and succeeded in revitalizing a medium that was firmly shackled in the grip of an all-consuming censorship. While disturbing to some, Auth (2005) argued that such irreverent, iconoclastic, raucous, and impolite cartooning is classically American in nature. Needless to say, Crumb’s work completely ignored the CCA’s approval process (Van Lente & Dunlavey, 2012).

Over time, cartoonists like Crumb paved the way for artists such as Alan Moore in the mid to late 1980s who, now freed from the pressure of the weakening CCA, were able to explore violence and sexuality and other mature subjects in a more sophisticated manner. This freedom of content led in turn to deeper levels of characterization and more meaningful connections with cartoonists’ creations (Harris-Fain, 2009). From there, comics creators began to realize that their personal stories of heartache and tragedy, which would have once been far too controversial for the mainstream, were now viable material for unique comics creations (Op de Beeck, 2009). One notable example is Art Spiegelman’s *Maus* in 1986: a work which is often described as the

quintessential graphic novel (Evans, 2013). McTaggart (2008) and Gravett (2010) have pointed out the great impact that this Pulitzer Prize winner had on gaining a foothold for comics to be taken seriously, and while Levitz (2009) agreed, he also noted an interesting phenomenon: the success of *Maus* was met with the denial by some that it qualified as a comic book. This is perhaps exemplified by the fact that the Pulitzer Prize that *Maus* won was deemed a special award in an unestablished category that was difficult to classify (Van Lente & Dunlavey, 2012). Levitz (2009) noted that for a comic book to be recognized alongside the best works of literature and journalism was so unthinkable that it led to the belief that *Maus* could not be a comic book simply because it was good; it must be something else. Still, Buble (2005) argued that *Maus* is one of the most influential graphic novels ever published, and Weiner (2003) noted that *Maus* represented a new breakthrough into public consciousness, the importance of which cannot be overstated. The author also said the following,

The publication and ensuing reception of Spiegelman's book sounded a double alarm within the public discourse. The non-comic book reading public did appreciate sophisticated, rich, visionary storytelling and comic book creators could now raise the bar. If they came up with a compelling enough story which was refined enough in its presentation, cartoonists could break out of the comic book ghetto. But the chance was only there if the cartoonist revealed enough of him- or herself in the telling of the tale, and leapt, as Spiegelman had, fearlessly into the abyss. (Weiner, 2003, p. 38)

However, the popularity of *Maus* and some other darker works may have had an unwanted impact that their creators did not anticipate. According to Ryall and Tipton (2009), Alan Moore bemoaned the fact that his antiheroic character of Rorschach from *Watchmen* helped to "lead comics to their 'grim and gritty' ultra-violent period in the 1990s" (p. 112). One notable work which could be said to have ridden *Watchmen*'s wave of popularity is Frank Miller's *300* (Streufert, 2009). While Streufert (2009) noted that the violence that is pictured in Miller's *300* is often disturbing to many readers, he also contended that it allows students to discuss important

themes and questions related to “a culture’s understanding of humanity, the worth of an individual, and the role divinity has played in human history in justifying aggressive behavior” (p. 200).

Schumer (2005) argued that the maturation of comic book content may be partially responsible for the current lull in children’s readership of the medium. Schumer (2005) noted that as fan boys of the Silver Age of comics grew up, there grew with them a zeal to have comics mature at the same rate, thus leading to a production of adult-themed comics material that has “derailed an entire generation of kids away from exposure to comic books as their first reading medium” (p. 66). According to Waid (2015), this process officially began in 1986 with the publishing of *Maus*, *Watchmen*, and *The Dark Knight Returns*. After this point, comics were no longer simply artifacts of childhood and the medium became open to critical analysis by serious media outlets (Waid, 2015). With this being said, although comics are more explosive, diverse, creative, and expressive than ever before, Schumer (2005) argued that they’ve also never been further on the brink of social irrelevance, partially because the intended audience is more open and ambiguous than ever.

Overall, the pressure that has developed for artists to create comics that are serious in their thematic construction in order to legitimize the medium is very real (Eisner, 2008). Eisner (2008) noted that in the mid-1980s he believed that if comics did not address more serious subjects that they could never hope for more intellectual consideration by the general public. Conversely, there are those such as Gravett (2010) who pointed out that this desire to be taken serious has led to subject matter that is ultimately too depressing and tragic and that the medium has now developed an inaccurate reputation for gloom and doom.

But regardless of the uniqueness, brilliance, controversy, and darkness of much of the work produced throughout the comix movement and since that time, the years of fear and prejudice against comics that were born out of the grip of the CCA succeeded in producing an even greater ignorance about comics for those employed in academic settings (Carter, 2008). Carter (2008) pointed out the irony of most teachers' prejudice against comics when he noted that teachers seem to value similar materials such as concept maps, word webs, graphs, and flowcharts but simultaneously do not view comics in the same light as these graphic organizers. Eisner (2008) noted this irony as well by pointing out that design, drawing, caricature and writing have all achieved some sort of academic consideration but that comics have been slow to find critical acceptance.

In some ways, the perceived newness of the medium may be a major contributor to this ignorance and prejudice, but Carter (2008) noted that comics and education have been linked for decades and that the medium did have academic advocates as early as the 1940s. He stated that only a few years after debut of Superman there were notable individuals such as Edward Thorndike who proclaimed that the medium's educational potential should not be neglected (Carter, 2008). Also, in the early 1970s an undergraduate named Michael Uslan taught the first accredited course on comics folklore (Waid, 2015). Ultimately, these pro-comics voices were largely ignored, and since the early 1900s the medium has "lurked at the margins of academia" (Streufert, 2009, p. 208). Its modern day inclusion in course syllabi often "raises eyebrows" (Streufert, 2009, p. 209), even though Christy Blanch was able to set an enrollment record for her online course on comics by enrolling more than 10,000 students across six continents (Waid, 2015). Despite academic triumphs such as this, prejudice against the medium in the academic community is very real. Carter (2008) claimed that comics have long been viewed as "scurrilous

and unnecessary candy” (p. 58), which is unsuitable for school. Newkirk (2006) agreed. Likewise, Eisner (2003) said the medium is often viewed as “literary fast food” (Eisner, 2003, p. 9) by those in academia. Keller and Oechslin (2013) pointed out that some adult learners who are not familiar with the medium may feel degraded or treated as children when presented with a comic in an academic setting.

Tabachnick (2009) argued that the uniformity of reading tactics employed when approaching most traditional texts has resulted in a perception of comics’ lack of uniformity of construction as being anarchical. Also, in a general sense, this uniformity of prose construction was thought to prepare students for “the uniformity of the work world” (p. 4). However, Tabachnick (2009) argued that students have traditionally responded to graphic texts with open arms because the medium seems to somewhat shun the elitism attached to the traditional approach to literary construction. Versaci (2009) noted that it is exactly this disregard for comics that makes them so accessible to younger readers. Regardless of the complexity of content, students see comics approachable and manageable. Thalheimer (2009) noted that her students often assume (as many adults and teachers do) that comics provide easier reading than traditional texts but that this assumption can also lead to some very interesting discourse in the classroom. Also, Thalheimer (2009) pointed out that since the medium has a history of being disparaged by academics, it can work to the advantage of the teacher of comics because it results in students looking at comics-related assignments as less like school work. But unfortunately, Chandler-Olcott (2008) indicated that some students choose to keep their interest in comics private out of fear of their teachers’ discrimination.

Given comics’ unfavorable history of popular acceptance, it is not a surprise that many modern day teachers have shunned the medium and become ignorant of its value, but Sipe

(2008) encouraged teachers not be intimidated by their ignorance. She encouraged teachers to explore with students and learn along with them as both groups grow in their knowledge of visual literacy together. Douglas Wolk (2007) seemed to suggest that teachers' ignorance concerning the comics medium is not necessarily their fault. According to the author, "Over the last half century, comics culture has developed as an insular, self-loathing, self-defeating flytrap" (p. 64). Versaci (2009) agreed and said that comics fans are often "aggressively exclusionary to outsiders" (p. 104). Wolk (2007) further contended that many devout fans of comics are so insular in their mindset that a grossly incestuous relationship between "true" comics fans and the comics publishers has developed in which publishers perpetually seek to maintain their readership by pandering to members of the medium's "secret, embattled fellowship" (p. 64). This, in turn, results in an overwhelming body of work which leaves novices (including many teachers) scratching their heads and feeling left out of an ever-increasing number of inside jokes and stories. Kidd (2005) also noted that prejudice exists inside the readership of the medium as well, claiming that conventional wisdom dictates that you can either be an active reader of mainstream superhero comics or serious alternative comics, but not both.

Additionally, Wolk (2007) asserted that many fans of comics are preoccupied with establishing the legitimacy of the medium to the point of being counterproductive. The author suggested that traditional fans of comics are so attached to the idea of proving the medium they love is worthy of respect that they maintain an abrasive attitude of fervent defensiveness, even in a day and age in which this overly-sensitive, self-justifying attitude is becoming more and more unnecessary. According to Wolk (2007), this prickly attitude has only succeeded in furthering the divide between those who embrace the medium and those who may be genuinely interested in exploring it, either for pleasure or for academic purposes. In this regard, Wolk (2007)



concluded that comics fans are their own worst enemy in gaining acceptance of the medium that they claim to value so intensely.

As a representative of an opposite mindset, Witek (2009), in an article entitled “Seven Ways I Don’t Teach Comics,” said, “I don’t ever apologize for comics” (p. 218). The author noted that after comics long history of derision, defensiveness on the part of its supporters is understandable, but he ultimately concluded that “preemptive debunking” of negative comics stereotypes is “unnecessary and often counterproductive” (p. 219). He went on to say that there is little gain from painting comics as either the victim or the hero of academia and his task is “not to aggrandize comics or defend them but to help students understand how to think analytically about these vivid, fascinating texts” (p. 219). At last, the author rested upon the idea that individual works should be discussed in relation to their own aesthetic value and not instantly accepted or decried due to genre or medium alone.

Even though Tabachnick (2009) noted that most teachers never consider using comics in the classroom unless they are teaching a course on popular culture, the battle for creating comics’ foothold in academia is not strictly between hard-lined, traditional teachers and contemporary comics-loving students. Harris-Fain (2009), Tilley (2013b), Whitt (2013), and Ferguson (2009) pointed out that students sometimes have doubts about the academic use of comics in the classroom, as well. Cioffi (2009) noted that he has encountered particularly negative attitudes, stating, “Students seem to think that the text requires no explanation, that everyone must see (and interpret) it in the same way” (p. 186). In confronting this issue he said, “Part of my job is to show students that despite an apparently palpable thereness to these texts, people experience them quite differently, imagining their own very individual text worlds as they read” (p. 186).

Tilley (2013b) noted student prejudice as well and stated that somewhat ironically, it is more likely that today's students would question the use of comics in the classroom than today's teachers. Whitt (2013) also observed negative attitudes and stated that student reports concerning the reading of comics as a waste of time are quite common and that students often need convincing that their time and money are being well spent. Carter (2013) and Weaver-Hightower (2013) shared similar anecdotes, with Carter (2013) noting that his college students typically do not see comics as actual novels simply because they include pictures and Weaver-Hightower (2013) expressing concerns over students viewing sequential art as silly or juvenile. These observations may take on more meaning when examined alongside the fact that McGeown et al. (2016) found that the reading of comic books decreased as the age of subjects increased in a study of more than 700 students. Another researcher, Maureen Bakis (2012), reported that when she encountered a class on graphic novels in her graduate work, she was angry, skeptical, and insulted that she would be forced to read something that she believed to be so irrelevant. This was prior to her extensive research in the comics field and ultimate publishing of her book, *The Graphic Novel Classroom: POWERful Teaching and Learning with Images*. Finally, in adding another element to this topic of discussion, Arner (2013) noted that while many of his students are surprised to see graphic texts included in his syllabus, their typical reaction is more one of amusement than serious resistance.

Classroom teacher Ferguson (2009) noted that she leaves the matter more in her students' hands and encourages debate among them. She said that she encourages her students to debate the aesthetic and cultural effect of comics by asking, "Do [comics] work to prioritize low, ephemeral, popular artistic traditions over canonical ones or rather to show such categorical distinctions to be irrelevant or unstable?" (p. 206). Along these same lines, Thalheimer (2009)

said that she asks her students to read much of her assigned work in public places in order to assess public response to the medium and to experience popular opinion concerning the medium for themselves.

Teachers who are interested in incorporating graphic texts and comics into the classroom can face a number of dangers. Taking note of this, McTaggart (2008) provided a fairly lengthy and in-depth guide for avoiding discrimination and judgment by other teachers, administrators, and parents. While her suggestions about obtaining administrative approval and avoiding controversial material seem reasonable and prudent, the wording of the suggestions she made indicates the prejudice and discrimination that a hopeful teacher of comics can expect to encounter. She used phrases such as, “proceed slowly. . . when you sense the climate is right. . . you may encounter resistance. . . you will need a friend in high places. . . don’t give nitpickers an opportunity to criticize, etc.” (p. 37). She concluded that “once you get John Q. Public on your side, you have made it” (p. 38). Monnin (2010) expressed similar thoughts when he pointed out that teachers who want to incorporate comics into their curriculum must continually be prepared to justify their choice of material. Also, Versaci (2009) noted that incorporating comics into the classroom can be a “risky business” (p. 107).

With this being said, Carter (2008) asserted that teaching comics is worth the risk. This author stated that ignoring the educational potential of comics is inherently an important political statement and that such statements “might suggest that we do not care much for others who think, read, and decode differently from the narrowest notion of reading and literacy” (p. 53). He also stated, “It must be made clear that teachers are not hapless victims of political circumstance but are active policy players. Teachers’ choices, the value decisions they make and the interpretations of policy they enact, are of great import” (p. 54). Striking an even more forceful

tone, Carter (2008) claimed that to understand the value of comics and not include the medium is to “support racist, elitist, and classist notions and policies of literature and education” (p. 54). Along this same line, Versaci (2009) argued that supporting the traditional canon in a nonreflective manner will only lead to student passivity and resentment.

As a final note, while some researchers note much lingering prejudice against graphic novels in academic settings, others boldly claim that the educational use of comics has exploded in the past couple of decades and that stories related to their academic power have become commonplace (Carter, 2012; Evans, 2013; Troutman, 2013; Weiner, 2013). Groth (2002) stated that comics has even become a quite fashionable subject for university dissertations. Some other researchers have even noted that graphic texts have the ability to revolutionize how textbooks are created and perceived in higher education (Short et al., 2013). Carter (2012) argued that this increased interest in the academic applications of comics is only natural since all humans are wired to learn visually and anyone who has sight is inherently a visual learner.

Authors such as Weiner (2013) go so far as to state that questions related to the educational worthiness of comics should no longer exist and that the questions should simply revolve around how to wield the medium’s power most effectively. As Carter (2012) asserted, the use of comics in education is more than simply a fad. Likewise, Arner (2013) and Hignite (2005) argued that we have reached a point at which scholarly inquiry into the field of comics and its most prominent works no longer needs defending or legitimizing. Weiner (2013) and Tilley (2013b) claimed that the academic reception of comics is not necessarily new but that the medium has been used as an academic tool for more than 70 years and is gaining more popularity all the time.

Flanagan (2013) noted the increasing popularity as well and stated his hopes that the graphic in the near future might, in some sense, actually become the syllabus of many a humanities course. Similarly, Weiner (2013) pointed out that even those who disdain the medium may not be able to avoid it because of comics ability to so thoroughly permeate popular culture, while Carter (2013) noted that meeting the medium with resistance is becoming increasingly silly, ignorant, and stubborn, and that not preparing pre-service teachers to facilitate students' interaction with comics may be downright irresponsible.

Finally, as one last point of interest in the exploration of the history of the American response to the comics medium, it is worth briefly presenting a few differences between the European and American comic book industry as noted by Beaty (2005). According to Beaty (2005), several key factors exist that have led to fairly dichotomous cultural perceptions of comics in Europe and America, one of these being the fact that comics in Europe were collected and bound in hardcover editions from the very beginning of their publishing in Europe, helping to establish a culture that views comics as something to be kept in print instead of something to be thrown away (Beaty, 2005). Van Lente and Dunlavey (2012) noted the importance of this practice as well. As Beaty (2005) stated, "This meant that Europe developed the ideas that comics were something worthwhile, while Americans developed the idea that comics were worthless trash" (p. 143). This has also given rise to a society in which the longevity and availability of most comic book series are stronger and cartoonists are public figures. Related to this is the fact that most European series are not picked up or continued by other writers and artists once the original series ends. This has led to more prominence for comics creators and increased the reputation of comics writers as authors in their own right (Beaty, 2005). Also, in Europe it is not uncommon for large national newspapers to serialize an entire comic book over

several weeks, leading to a kind of national exposure that is rarely seen in the United States (Beaty, 2005).

Finally, it is worth noting that in the 1940s the Nazi party shut off access to American comics, largely due to their portrayals of anti-Nazi superheroes. As a result, European comics did not become dominated by a single genre like American comics (Van Lente & Dunlavey, 2012). This eventually led to a freedom in the European comics industry that allowed comics creators to cultivate more sophisticated markets (Van Lente & Dunlavey, 2012). Other differences between the American and European comic book industry exist, but these seemingly minor variances do give insight into how somewhat minor differences in the industry can lead to major differences in social reception and cultural acceptance.

## CHAPTER III

### METHODOLOGY

#### **Description of the Population and Sample**

While the ideal theoretical population for this study would have included all parents of first through twelfth grade students in the United States, accessing an appropriate sample to generalize to such a broad group was not feasible in the case of this study. Keeping this in mind, the researcher partnered with the administrative leadership of Boyd Buchanan School in Chattanooga, Tennessee, to utilize the parents of the school's first through twelfth grade students as a population for this study. While conducting this study, the researcher attempted to establish the largest possible sample size by distributing the instrument to all parents of first through twelfth graders and encouraging participation from as many as possible. For the purposes of this study, the word parent was operationally defined as anyone with legal guardianship over a student.

For the 2016-2017 school year, Boyd Buchanan's enrollment numbers were as follows: 94 lower elementary school students (prekindergarten and kindergarten), 291 elementary school students (first through fifth grade), 251 middle school students (sixth through eighth grade), and 290 high school students (ninth through twelfth grade). The total number of families with students enrolled at Boyd Buchanan for the 2016/2017 school year was 729. According to the school's grade book software, which records the parent contact information for each student, there were 1,107 parents of students enrolled in first through twelfth grades for the 2016/2017

school year. These parents served as the population for the current study. More specific family demographics and enrollment numbers are located in Appendix A of this study.

The findings of this study may be generalizable to the entire population of Boyd Buchanan parents. It is also possible that the findings may be generalizable to an even broader audience since there may exist many other schools whose parent and student populations are comparable to those of Boyd Buchanan. An example of a school with comparable parent and student populations could be one that is accredited by the same organizations as Boyd Buchanan. However, other factors would need to be taken into account as well. Of course, knowing as much as possible about the population of Boyd Buchanan parents and students would aid in assessing the overall generalizability of the study. While Boyd Buchanan does not collect extensive demographic data from its parents, certain information about the school's parent and student populations was known and was easily accessible. This information is included in Appendix A and focuses on the following elements in reference to the 2016/2017 school year: enrollment numbers, gender distribution, family status distribution, racial diversity, religious diversity, percentage of students enrolled in academic support programs, and various academic testing information.

From an ideological and philosophical standpoint, one may assume that parents of students who attend Boyd Buchanan stand by and are in support of Boyd Buchanan's overall mission and approach to education. This assumption is largely based upon the notion that since Boyd Buchanan is an independent educational institution and parents who send their children to Boyd Buchanan School do so voluntarily, they are most likely in support of the school's overall mission and educational philosophies to at least some degree. While this assumption of ideological and philosophical alignment between the school and parents may not be the case with



every family whose children attend Boyd Buchanan, briefly exploring the school's mission statement and approach to education is important because of the insight that it may give into those parents who enroll their children at the school.

The mission statement of Boyd Buchanan School is as follows:

Boyd Buchanan School offers a loving, Christ-centered environment fully nurturing the spiritual, intellectual, social and physical potential of each student. Boyd Buchanan is a rare and special place for preparing students to walk with the Master and to embrace life's challenges with joy, courage and wisdom. ("Boyd-Buchanan School: Who We Are," 2017)

Within this mission statement is a clear profession that Boyd Buchanan is not only an educational institution but is also one that embraces Christian objectives as well. Making the assumption that every family who sends children to Boyd Buchanan is a Christian family may be fallacious, but demographic data collected from students and parents does indicate that the vast majority of families do identify as being Christian. Additionally, the school is affiliated with the Church of Christ; however, fewer than half of Boyd Buchanan families profess this to be their religious affiliation or church of choice, which provides insight into how parents may support the school's mission to a certain degree but may not necessarily find themselves in complete alignment with the school in every aspect of its philosophy or ideology.

Since Boyd Buchanan is a college-preparatory school as opposed to a vocational school, one might also assume that parents who send their children to Boyd Buchanan are interested in college or university acceptance as being the next step for their children after graduation.

Although it is not the case with every student, Boyd Buchanan does typically graduate classes in which the vast majority of students attend college for at least some period of time. In its marketing and admissions campaigns, the school's leadership notes that it is accredited by the Southern Association of Christian Schools (SACS), the Southern Association of Independent

Schools (SAIS), the National Christian School Association (NCSA), and is a member of the Tennessee Association of Independent Schools (TAIS). Boyd Buchanan also offers a wide range of Accelerated, Honors, and Advanced Placement Classes, which are specifically designed to aid students in meeting the requirements necessarily for acceptance into a wide variety of colleges and universities.

### **Instrumentation**

The instrument constructed for this study was a survey designed to collect quantitative data pertaining to the independent, dependent, and other attribute variables of interest in the study. The instrument contained instructions for explaining to respondents how they should complete each item; the instrument was also accompanied by an opening note or introduction that briefly identified the focus/purpose of the study and provided the primary researcher's contact information. This information was distributed to the population shortly in advance of the actual start date of the study in order to prepare potential respondents for participation and ensure that they were knowledgeable about how to complete the instrument and cognizant of its overall purpose. In total, the survey contained 14 items related to personal demographics and attitudes/preferences concerning the use of comics in the classroom. The scale of measurement for various items ranged from categorical/nominal to true interval.

The instrument featured a final open-ended question that asked the respondents to provide any additional thoughts or feelings that they may have about the use of comics in first through twelfth grade education in their own words. The information collected through this question was used to address the third research question concerning parents' general thoughts and feelings about the use of comics in first through twelfth grade education. The responses to

this question were coded and analyzed in order to discover prevalent themes and consistent thoughts, ideas, or concerns amongst parents. The inclusion of this final open-ended question also allowed for greater triangulation of data and aided the researcher in formulating additional insight into the relationships between all collected data.

As Rossman and Rallis (2003) noted, data collection is a deliberate, conscious, systematic process that must clearly explain both the data collected as well as the research activities. If this is not accomplished, others may not understand how the study was performed and will not be able to judge the study's adequacy, strength, and ethics (Rossman & Rallis, 2003). As previously stated, the primary means of data collection for this study took the form of a survey, and thus special attention was paid to deliberately, consciously, and systematically constructing this survey in order to ensure the overall legitimacy of this study.

The work of Trochim (2006) was instrumental in guiding the creation of this study's instrument. In his description of survey research, Trochim (2006) detailed the process of population and sample selection and also explored actual instrument creation. Trochim (2006) guiding questions for populations and samples related to possible issues with enumeration, language concerns, literacy issues, geographic considerations, possible cooperation dilemmas, and response rates all helped to shape the formation of this study's instrument. Also, the researcher relied upon the work of both Trochim (2006) and Kaplan (2013) to create survey items that were clearly worded, well-formatted, of appropriate length, properly ordered and placed, and that took issues related to respondent sensitivity into consideration. Lastly, in order to test for the survey's readability and ensure that it was appropriate for the population at hand, the researcher utilized the following scales: the Flesch Reading Ease Scale, the Gunning Fog Scale, the SMOG Index, the Coleman-Liau Index, and the Automated Readability Index. The

scores on each one of these scales were averaged to produce an overall readability equivalent to a ninth grade reading level, which was deemed satisfactory for this study.

In order to aid in establishing the overall validity of the instrument after its initial creation, the survey was peer reviewed by a collection of experts in fields closely related to the study's focus. The researcher distributed the study's instrument to eight individuals, all of whom either currently work at Boyd Buchanan School or have worked at the school in the past. The individuals who currently work at Boyd Buchanan School do not have children in the age range that the study focuses upon, thus there was no need to remove them from the population of the study. All individuals who took part in the peer review of the instrument are or have been employed in educational fields related to language or the arts. The individuals included the following: a current school librarian, a current elementary art teacher, a current high school art teacher, a current high school foreign language teacher, two current high school English teachers, a previous high school English teacher, and a previous high school English teacher and department head. The researcher and researcher's dissertation chair concluded that this collection of individuals represented a core group of peers with expertise in fields comparable to those of focus in the study and thus qualified as an appropriate expert group to engage in the peer review process.

The survey was distributed to these individuals via email. The peer respondents were asked to complete the survey individually, imagining that they had a child who fell within the appropriate age range of the study. After completing the survey, those in the peer review group provided feedback via email and in person or via a telephone conversation in which the individuals commented upon the survey's focus, readability, wording, clarity, flow, length, intrusiveness, etc. The peer respondents were also asked to consider whether the categories or

dimensions that the researcher chose to represent the different aspects of the dependent variables were appropriately comprehensive and non-overlapping in nature.

Feedback to the survey from the group of experts was generally positive, with a few comments pertaining to the wording of certain questions. A few respondents noted that certain items might be ambiguous or confusing for members of the study's proposed population. The researcher addressed these issues by rewording questions and focusing more intently on clarity and lucidity in wording. The survey was then redistributed to all members of the peer review group for a final review and any additional feedback. At this point, the peer reviewers were given selected passages from (Trochim, 2006) and (Kaplan, 2013) in order to aid them in their critique and feedback. Upon re-examination, all members of the expert group confirmed that the survey met their expectations and standards of acceptability, and the survey was then determined by the researcher and his team to be in its final form. Ultimately, as Rossman and Rallis (2003) pointed out, the use of the peer review team aids in ensuring the rigor and credibility of the study by adding input from critical intellectual watchdogs and inspiring discussion among valued and trusted colleagues.

The peer-review process in the creation of the instrument also assisted the researcher in establishing satisfactory validity for the instrument. While the notion of validity is often divided into several different elements such as content validity, construct validity, and criterion validity, Messick (1993) and Kaplan (2013) noted that validity is a unitary principle not easily subdivided. Even so, Kaplan (2013) did state that content validity is the one aspect of validity that seems to encompass all others. Kaplan (2013) also noted that determinations about content validity are often made by content experts, which bolsters the researcher's decision to utilize a team of experts to review this study's instrument prior to implementation.

Messick (1993) argued that validity goes beyond simple correlation coefficients and measurement principles and that it delves into the meaning and social consequences of the measurement that a particular study engages in. As opposed to (Kaplan, 2013) claim that content validity contains all others, Messick (1993) seemed to tout construct validity as the unifying force that binds all aspects of validity together. Therefore, it is these two types of validity that took center stage in the construction of this study's instrument.

In terms of validity in a general sense, the researcher took care to operationally define any words or phrases that could have been ambiguous or have multiple interpretations to ensure that all subjects understood what was being asked about and measured. As Patton (2009) suggested, important questions should be emphasized and items should be worded so that they elicit a common, shared meaning from all respondents. The researcher paid special attention to this process. While no instrument is perfectly valid (Patton, 2009), especially one that focuses so intently on perceptions and preference, the respondents of this study had access to the researcher via email and telephone, and were able contact the researcher with any questions or concerns that might have hindered their understanding of the instrument.

Content validity and construct validity were both of major concern for this instrument. Content and construct validity were achieved in part by incorporating clear conceptual and operational definitions so that readers and respondents had a truly lucid understanding of the study's focus and a definite grasp of what each instrument item was addressing. The operational definitions mainly defined the categories or dimensions of each dependent variable by detailing how they would be measured. The major variables for this study are as follows: parents' perceptions of comics as a tool to help their children achieve successful learning outcomes, and parents' preferences concerning how often they feel it is appropriate for comics to be

incorporated into their children's curricula and classroom instruction.

In order to achieve an acceptable level of content and construct validity, a multi-faceted instrument question was utilized in measuring the separate categories or dimensions of each variable, and each question focused on a separate but equally weighted and equally important dimension of each dependent variable. The specific dimensions for each dependent variable are listed in the discussion of this study's dependent variables. For the sake of consistency and in order to further strengthen construct validity, every question related to each category or dimension of both variables featured a Likert-style scale of measurement that asked respondents to rate their perceptions and preferences on a scale of one to five. By averaging the respondents' answers to each multi-faceted Likert scale question, the researcher was able to determine a perception score and preference score for each respondent; these scores played a central role in the statistical analyses involved in this study.

For the purposes of this study, a respondent's perception score is also called a perception score in regard to comics as a learning tool. The score a numeric value, which represents a respondent's overall perception of the value of comics as a learning tool. As previously stated, this score is determined by averaging a respondent's answers to a multi-faceted Likert scale question that focuses upon a respondent's perception of the potential of comics to serve as an effective learning tool in five distinct categories. A respondent's preference score is also called a preference score in regard to the frequency of comics incorporation. Much like a perception score, a preference score is a numeric value, which represents a respondent's overall preference towards the frequency of the incorporation of comics into their child's school curriculum. This score is also determined by averaging a respondent's answers to a multi-faceted Likert scale

question, which focuses on respondent preferences concerning the frequency of comics instruction in three different categories.

Along with purposefully utilizing dimensions that are well-supported by the scholarly literature related to comics, consulting with experts to read over the instrument and having it examined by a panel helped to ensure that no possible dimensions of each dependent variable were excluded; any such exclusions would have reduced content validity. Additionally, since all questions/items needed to be relevant in order for content validity to be achieved, the panel's input has aided in this endeavor as well.

As far as external validity is concerned, the researcher paid special attention to the relationship between the theoretical population, the accessible population, and the actual sample (Gliner, Morgan, & Leech, 2009). While this researcher would have ideally liked for the study to be generalizable to the entire population of U.S. parents, access to a population that would allow for generalization to this theoretical population was not a feasible goal for this study. Therefore, the researcher chose to focus on a theoretical population that was limited to parents of students who attend schools with a mission similar to that of Boyd Buchanan School and whose student and parent populations are comparable.

The researcher did not utilize a sampling method but instead attempted to administer the instrument to all of the parents of first through twelfth grade students at Boyd Buchanan School. While it would have been ideal for every parent to respond in full to the survey, this was highly unlikely from the onset of the study. As such, the portion of parents who voluntarily chose to respond to the instrument served as the sample of the study. While not a technically nonbiased form of sampling, this method of acquiring respondents still bolstered the validity of the study by producing the largest sample size possible. However, ensuring a high response rate was still of



major consideration. In this regard, the researcher and the administrative team at Boyd Buchanan School took conscious proactive steps, such as making regular contact with possible respondents and reminding them of response deadlines, in order to help ensure that the actual sample included as many individuals from the overall population as possible. The researcher wanted to maintain a strong rapport with subjects in order to help ensure a high level of validity; this means that establishing a reasonable amount of contact that was supportive but not disruptive was especially important.

While it is true that variables such as attitudes and opinions concerning any phenomena may change over time, this study rested upon an assumption that most of its variables are relatively stable, which aided in establishing overall reliability. However, even if the perceptions and preferences of respondents do change over time, the researcher consciously and carefully selected the wording of each item in the instrument so that even if attitudes and beliefs of respondents were to change, the concepts and their definitions would most likely remain stable and reliable.

To conclude, it should be noted that the advantages of utilizing a survey for data collection in this study were numerous. As Trochim (2006) noted, the structured format allowed subjects to respond more easily than other possible methods of data collection such as interviewing and also allowed the researcher to accumulate and summarize responses more efficiently. The use of a survey also typically allows for greater privacy, limits personal interaction between the researcher and respondents, affords the respondents time to truly consider their answers, and simultaneously provides for a quick turnaround in data collection (Trochim, 2006). Additionally, the fact that this survey was administered online helped to ensure other advantages, namely cost-effectiveness, allowing respondents to quickly and easily contact

the researcher if necessary, and ensuring that information was directly sent to an online data file so as to eliminate data entry errors.

## **Research Design**

This study represented a relationship-based research design with two primary research questions that featured a quantitative focus, plus an additional research question with a focus on collecting and analyzing qualitative data. The first two research questions asked whether a series of independent attribute variables individually affected the level of each dependent variable, while the third research question sought to describe qualitative data related to parents' thoughts and feelings about the use of comics in first through twelfth grade education. A comprehensive list of all variables is located in Appendix B; this appendix features a table that lists the variables, their various levels, and their scale of measurement. Each dependent variable was measured on a continuous scale, while the independent attribute variables for the first two research questions were measured on either a continuous scale or are binary categorical in nature.

Originally, certain portions of this study were intended to explore relationships between the means of the independent and dependent variables by way of an independent t-test, while other portions were designed to utilize Pearson's correlation coefficient in an attempt to examine whether an increase or decrease in one variable will correspond to an increase or decrease in the other variable (Kaplan, 2013; Patton, 2009). It should be noted, however, that these statistical procedures are parametric in nature and that the data collected via the study's instrument did not meet the assumptions necessary for parametric testing. As a result, nonparametric measures were used as comparable substitutes. These comparable nonparametric procedures include the utilization of the Mann-Whitney *U* test and the Spearman's rank correlation coefficient. This

type of overall research design and the accompanying statistical procedures are typical in psychological research as methods of investigating naturally occurring phenomena and gathering preliminary information about a phenomenon for which experimentation may not be possible.

As is typical with many relationship-based studies, a survey was used to collect data from a sample of a larger population. While this survey collected data related to perceptions and preferences, it was mostly quantitative in nature. The advantage of this quantitative focus of the research design is that it allowed for the collection and measurement of reactions from a great many participants in a relatively quick and parsimonious manner (Patton, 2015). The survey did, however, permit respondents to share their personal thoughts and feelings in a less structured manner near the conclusion of the survey, which allowed the study to partially embody the description of a mixed methods approach to data collection. This tactic of presenting an open-ended question near the conclusion of the study's instrument allowed respondents to speak freely and openly about their perceptions about the academic use of comics, thus elucidating the quantitative data collected (Patton, 2015).

Trochim (2006) remarked that nearly all surveys like the one utilized in this study feature some sort of unstructured response question along the lines of the one used in the current study. This final qualitative aspect of the instrument also added to the credibility and rigor of the study by increasing the study's attempt at triangulation and by helping to ensure that the researcher did not examine only a fraction of what he hoped to understand through the study (Rossman & Rallis, 2003). Additionally, since articulated beliefs often represent a synthesis of cultural feelings that help to legitimize events or actions in a certain culture, asking respondents to express their thoughts and feelings in their own words can often be particularly insightful and powerful (Rossman & Rallis, 2003).

The inclusion of the final open-ended question in this study's instrument did not necessarily qualify the study as being representative of a qualitative research design; however, aspects of the phenomenological approach to qualitative research were present. For example, according to Cresswell (2013), the phenomenological approach to qualitative research aims at describing common meaning for individuals who have shared the same lived experience of a phenomenon. While very few respondents in this study had extensive experience studying comics and overall personal readership of comics among respondents was relatively low, the respondents have shared a common lived experience. All respondents were first through twelfth grade students at one point in their lives, and all respondents were in the position of having a child in first through twelfth grade. It is natural to assume that individual parents would reflect upon their own education to varying extents and also natural to assume that parents would be personally invested in the education of their own children to varying extents; however, these shared experiences among respondents allowed the researcher to explore the phenomenon of parents considering and reacting to the academic potential of comics in the lives of their children. It is true that a single open-ended question on the study's instrument would naturally not be enough to allow the researcher to reduce the individual experiences of respondents to a description of universal essence (Cresswell, 2013), especially since the phenomenological approach is usually accompanied by extensive and prolonged engagement with individuals (Rossman & Rallis, 2003). However, the collection of, coding of, and reflection upon the respondents' statements allowed for meaningful synthesis and interpretation of the data to take place, thus leading to a clearer picture of this overall phenomenon (Cresswell, 2013).

In summary, while an important qualitative aspect of the research design did exist, this study was mostly quantitative in nature, and as such, it attempts to work towards the eventual

development of theory through evidence inferred by variables that have produced numeric outcomes (Field, 2009). It should be noted that this study was designed to explore relationships and was not designed to predict outcomes or test for differences between groups who have experienced different types of treatments. Ultimately, as with all survey research, the goal of this research design was to make inferences to describe the population as a whole based upon the collected and analyzed data (Gliner et al., 2009).

## **Core Variables**

### **Dependent Variables**

#### **Perception of Comics' Value as a Tool to Help Students Achieve Successful Learning**

**Outcomes:** This variable focused upon parents' feelings concerning the academic potential of comics. Data related to this variable was collected across a total of five survey items with an ordinal/categorical scale of measurement. The five items were incorporated into one matrix-style question. The matrix-style question asked respondents to rank comics' ability to help students achieve successful learning outcomes in five dimensions on a scale ranging from one to five. Each dimension of this variable represented one aspect of the variable's concept as a whole, adding together to create a complete and well-rounded view of the variable and the concept it is meant to represent. Each dimension was closely related but not overlapping in its focus in order to aid in achieving satisfactory content validity for this specific variable. Also, all dimensions related to this variable of perception of the academic value of comics were weighted equally so as not to over-represent or under-represent any particular element or dimension. A table that indicates how this dependent variable and its accompanying research question were represented by specific survey items can be found in Appendix C.

Given this method of data collection, perception of comics' effectiveness as a tool to help students achieve successful learning outcomes was operationally defined by how the variable is measured. For the purposes of this study, perception of the academic value of comics as a learning tool was defined by a numeric score ranging from one to five, which was reached by averaging each respondent's answers to the five equally-weighted questions that were each dedicated to exploring different dimensions of the variable. The dimensions used for measuring the variable were supported by the literature on the subject of the academic use of comics; each dimension has been discussed by a number of authors in reference to comics' ability to positively impact student learning in that specific area. The dimensions included the following:

- Vocabulary development (Griffith, 2010; Haines, 2012; Rubin, 2013; Tilley, 2013b; Weiner, 2003)
- Reading comprehension skills (Carter, 2008; Rubin, 2013; Weiner, 2003)
- Analysis of literary conventions such as symbolism, characterization, plot development, dialogue, and point of view (Hart, 2010; Martin, 2011; Smetana et al., 2009; Wolfe et al., 2012)
- Analysis of thematic messages and literary arguments (Bakis, 2012; Evans, 2013; Haines, 2012; Hart, 2010; Marrall, 2013; Sabin, 1996; Sardone & Devlin-Scherer, 2015)
- Fluency in interacting with a variety of media and practicing multiple literacies (Gavigan, 2012; Missiou & Koukoulas, 2013; Tabachnick, 2010)

**Preference Concerning the Frequency of the Academic Use of Comics:** This variable focused upon parents' preferences concerning how often they feel comics should be incorporated into classroom instruction, out-of-class reading, and as choices for optional academic assignments or

free-choice reading material. Although some parents may believe that comics inherently possess great academic value, they may or may not believe that comics should be incorporated into classroom lessons or assignments on a regular basis. This variable was designed to differentiate between feelings concerning the academic value of comics and preferences related to the frequency of their use in an academic setting. Data related to this variable was collected across a total of three survey items with an ordinal/categorical scale of measurement. The three items were incorporated into one matrix-style question, which asked respondents to rank their preferences concerning the frequency of the educational use of comics across three dimensions on a scale ranging from one to five. As respondents ranked their preferences concerning each dimension on the scale of one to five, they were instructed to view a score of five as an indication that they would prefer comics to be incorporated as frequently as possible into that specific dimension of the overall variable. Alternately, respondents were informed that they should view a score of one as an indication that they would not like comics to be incorporated into that dimension of the variable at all whatsoever, or with no frequency at all. The specific dimensions of this dependent variable were as follows:

- Incorporation into in-class instruction
- Incorporation into required out-of-class reading assignments
- Incorporation into optional or free choice reading assignments

Like the variable of parental perception of the academic value of comics, this variable of preference concerning the academic use of comics was largely defined by the previously stated dimensions, which were used to measure it. These dimensions represent three major ways that teachers of any subject matter incorporate written texts into their curriculum: as pieces of in-class examination, out-of-class examination, or as part of an optional or free-choice reading

assignment or program. These dimensions of the variable were meant to be closely related but not overlapping in their focus, and all dimensions were weighted equally so as not to over-represent or under-represent any particular element or dimension. For the purposes of this study, preference toward the frequency of the academic use of comics was defined by a numeric score ranging from one to five, which was reached by averaging each respondent's answers to the three equally-weighted questions that are each dedicated to exploring different dimensions of the variable. A table that indicates how this dependent variable and its accompanying research question are represented by specific survey items can be found in Appendix C.

### **Attribute Independent Variables**

**Grade(s) of Respondent's Children:** This variable focused upon the grade level of each of the respondent's children. Data related to this variable was collected via a questionnaire item with a true interval scale of measurement ranging from 1 to 12 with 1 representing first grade and 12 representing twelfth grade. The rationale for the inclusion of this variable was the fact that the comics medium has traditionally been associated with children's reading material and has often been deemed as juvenile (Bakis, 2012; Carter, 2013; Masuchika & Boldt, 2010; Ware, 2005; Weaver-Hightower, 2013). As such, it was of interest to discover if the grade of a child was related to parental perceptions of the academic value of the medium and parental preferences concerning the frequency of academic use of the medium. A table that indicates how this and other attribute independent variable were represented by a specific survey items can be found in Appendix C.



**Gender(s) of Respondent's Children:** This variable focused upon the gender of each of the respondent's children. Data related to this variable was collected via a questionnaire item with nominal/categorical scale of measurement in which respondents marked either "Male" or "Female" for each child. The rationale for the inclusion of this variable was the fact that many researchers report that boys are especially drawn to the medium (Brozo, 2012; Cooper et al., 2011; Griva et al., 2012; King, 2012; McGeown et al., 2016; Moeller, 2011; Nyberg, 1998; Rapp, 2011; Sabeti, 2012). Given this fact, it was of interest to discover if the gender of the child was related to parental perceptions of the academic value of the medium and parental preferences concerning the frequency of academic use of the medium.

**Gender of Parent/Respondent:** This variable focused upon the gender of the respondent. Data related to this variable was collected via a questionnaire item with nominal/categorical scale of measurement in which respondents marked their gender as either "Male" or "Female." Just as it was of interest to discover if there was a relationship between the gender of the respondents' children and the respondents' perceptions of the academic value of the medium and their preferences concerning the frequency of academic use of the medium, it was also considered valuable to take note of any relationships that existed between the respondent's gender and his/her perceptions and preferences. Once again, this variable of gender was of interest in this study because readership and general interest in comics is often more closely associated with boys than with girls (Brozo, 2012; Cooper et al., 2011; Griva et al., 2012; King, 2012; McGeown et al., 2016; Moeller, 2011; Nyberg, 1998; Rapp, 2011; Sabeti, 2012).

**Personal Readership Habits of Comics:** This variable focused upon how often respondents read comics for personal enjoyment. Data related to this variable was collected via a questionnaire item with an interval scale of measurement, which asked respondents to report on average how many hours per week they spend reading works of the comics medium. There is currently no quantitative data or empirical evidence to suggest that parents who read comics with any degree of frequency would be more or less likely to support the academic use of comics in the classroom with their own children, and thus any assumptions related to such relationships would be fallacious. The purpose of the inclusion of this variable in the current study was to explore whether any relationships existed between parents' readership habits of comics and their perceptions and preferences concerning academic use of the medium, thus possibly laying the groundwork for future studies that seek to move beyond mere relationships and venture into exploring causation.

**Personal Readership Habits of Non-Comics Material:** This variable focused upon how often respondents read non-comics material for personal enjoyment. Data related to this variable was collected via a questionnaire item with an interval scale of measurement, which asked respondents to report on average how many hours per week they spend reading non-comics material for pleasure. For the purposes of this study, non-comics material was defined as written works that do not feature the major defining features of comics such as the use of panels and illustrations to create a sequential narrative. Examples may include, but are not limited to, prose novels, magazine articles, newspaper articles, essays or reports, various website content, etc. There is currently no quantitative data or empirical evidence to suggest that parents who read non-comics material with any degree of frequency would be more or less likely to support the

academic use of comics in the classroom with their own children, and thus any assumptions related to such relationships would be fallacious. The purpose of the inclusion of this variable in the current study was to explore whether any relationships exist between parents' readership habits of non-comics material and their perceptions and preferences concerning academic use of comics, thus possibly laying the groundwork for future studies that seek to move beyond simple relationships and venture into exploring causation.

## **Procedures**

The first procedure necessary for conducting this study was the creation of the study instrument, which was in this case a survey, and the establishment of acceptable levels of readability, reliability, and validity for the instrument. A copy of the study instrument may be found in Appendix D. After this initial step of instrument creation, the researcher completed and submitted the necessary paperwork to the Institutional Review Board (IRB) for approval. A copy of the IRB approval letter for this study is located in Appendix E. Following IRB approval, the researcher worked with the administrative team of Boyd Buchanan School (i.e., the school's president and principals) to determine the best method of and timeline for electronically sharing the instrument with the population of Boyd Buchanan parents.

The distribution plan agreed upon by the researcher and the administrative team consisted of the following elements: The researcher sent an email to the study's population that detailed that overall purpose of the study, encouraged participation, and provided dates for the data collection time period. Shortly after this email was sent to the study's population, the principal investigator sent an email containing a link to the online Qualtrics survey and provided details

about the data collection timeline. This email also marked the beginning of the data collection time period.

The data collection time period for the study was approximately two weeks and formally ran from May 15<sup>th</sup>, 2017 to May 26<sup>th</sup>, 2017. The data collection was then extended through June 2<sup>nd</sup>, 2017 in order to allow for the collection of as many surveys as possible. Approximately halfway through the data collection time period, the principal investigator sent an email to the study's population to remind about the survey and encourage participation. Another email was sent on the last day of the formal data collection time frame as a final call for participation. Copies of all emails sent to the study's population are located in Appendix F. Throughout the entirety of the data collection time period, the principal investigator was available via email and phone to address any questions or concerns that participants might have. The principal investigator's contact information appeared in every message delivered to the population about the study.

Next, the researcher engaged in the appropriate data analysis procedures suitable for this study in order to observe whether any noteworthy relationships between independent and dependent variables existed. For each of the first two research questions, the researcher intended to utilize an independent t-test to discover if the mean of the continuous dependent variable was significantly different for each binary categorical attribute variable of interest. Examples of binary categorical attribute variables included the gender of the respondent and the gender of the student. Also, for each of the first two research questions, the researcher intended to utilize the Pearson correlation coefficient in order to determine the strength of the relationship between the continuous dependent variable and any attribute independent variables that were also measured on a continuous scale. Examples of attribute independent variables that are measured on a

continuous scale included the grade of the student and the readership habits of the parents, which was measured in hours. Throughout the course of the data analysis procedures, the researcher discovered that the collected data did not meet the assumptions required for parametric testing; thus comparable nonparametric procedures were utilized. These non-parametric procedures included the Mann-Whitney *U* test in place of the independent t-test, and the utilization of the Spearman's rank correlation coefficient in place of the Pearson correlation coefficient.

Procedures for analyzing the data collected for the third research question included the following: aggregating the textual responses provided by respondents in order to develop appropriate codes and accompanying themes, assigning labels to said codes and themes, Examining the frequency of each code's occurrence, and then interpreting the collected qualitative data by abstracting out beyond the codes and themes in an attempt to grasp the larger meaning of the data (Cresswell, 2013). The researcher also viewed the coded qualitative data in light of the statistically analyzed quantitative data in an attempt to allow both sets of data to enrich and enliven each other as much as possible. Ultimately, the final step in the procedure of analyzing the qualitative data was to describe or tell the story that the data holds by the reflecting upon the complex intricacies of the data and by presenting a narrative that attempts to capture the essence of the phenomenon described by the respondents (Rossman & Rallis, 2003).

After the data analysis was completed, the researcher wrote and shared the results of the study with the Boyd Buchanan administrative team. The researcher then shared the results of the study with participants and addressed any questions or concerns participants had before the results of the study were considered ready to be made public. The final step in the overall procedural process was to defend the study's findings and publish the results of the study.

## **Data Analysis Techniques**

Since this study focused upon an array of variables and seeks to explore the ways in which these variables may be related, a number of statistical tests were called for. Both of the first two major research questions featured dependent variables that are continuous in nature, and both asked how these dependent variables might be related to independent attribute variables that were both continuous and categorical. For the first research question pertaining to the perception of comics as a teaching tool, the researcher planned utilize the independent t-test as well as the Pearson correlation coefficient, depending upon which independent attribute variable was being focused upon. For the binary categorical independent variables, which included the gender of the student and the gender of the parent, the researcher planned to utilize an independent t-test to discover if the mean of the continuous dependent variable was significantly different from the means of each of these binary categorical variables. For the independent attribute variables that were measured on a continuous scale, the researcher planned to use the Pearson correlation coefficient in order to determine the strength of the relationship between the two variables in question. These independent attribute variables that were measured on a continuous scale included the age of the student and the parent's readership habits (in reference to both comics and non-comics material), which was measured in hours.

The researcher intended to use these same data analysis techniques when addressing the second research question, as well. This was due to the fact that the second research question, like the first, also featured a dependent variable that was measured on a continuous scale and focused upon the same independent attribute variables. However, while analyzing the data collected via the study's instrument, the researcher found that the data did not meet certain assumptions required for parametric testing, namely normality in data distribution. As a result, the researcher

chose to rely upon comparable nonparametric procedures, which included the Mann-Whitney *U* test in place of the independent t-test, and the Spearman's rank correlation coefficient instead of the Pearson correlation coefficient.

The third research question of this study relied upon analysis of data collected through only a single open-ended survey item at the conclusion of the study's instrument, which simply asked respondents to describe their general thoughts and feelings about the use of comics in first through twelfth grade education. The researcher compiled the responses to this open-ended question and then classified and coded the qualitative data to create a framework for the overall organization and description of said data. This framework later served as the foundation for forthcoming analysis in which meaning was extracted, comparisons were made, and conclusions were drawn (Patton, 2015).

The researcher began the coding process by searching for recurring regularities in the respondents' statements, which revealed patterns that allowed data pieces to be sorted into categories (Patton, 2015; Rossman & Rallis, 2003). Since coding is the heart of qualitative data analysis (Cresswell, 2013) and is the formal representation of analytic thinking (Rossman & Rallis, 2003), the researcher expended much effort in winnowing the data so that it could be clearly labeled and placed into appropriate categories (Cresswell, 2013). The researcher examined the data collected in light of the stated goal of the third research question and made conscious decisions about which codes categories would be appropriate for addressing the question and which would not; ultimately, some initial codes were discarded, as is typical in the coding process (Cresswell, 2013). Additionally, the researcher took care to create codes that were internally homogenous while also being externally heterogeneous, in order to ensure that data was grouped appropriately but not overlapping (Patton, 2015).

Cresswell (2013) suggested that qualitative researchers should typically rely upon 25-30 codes, regardless of the size of the database that they are working with. This study's researcher ultimately decided upon 36 codes that fell into two major categories, with each category featuring more individual subcategories or themes. A full list of these codes can be found in Appendix G. Since the researcher was unable to locate a previous study comparable to the current one, the researcher chose not to utilize any preexisting codes but instead chose to develop codes by combining the respondents' own words with original statements that described the collected data (Cresswell, 2013).

Although tracking the frequency of codes may be thought by some to be contrary to the typical goals of qualitative research (Cresswell, 2013), the researcher chose to utilize this quantitative method of data analysis since other major aspects of this study are mostly quantitative in nature as well. It was believed that this systematic approach towards recording the frequency of codes would help to initially provide as thorough an overview of the data as possible. After data related to code frequency was collected, the researcher then embarked upon the process of interpreting the data or abstracting out beyond the existing codes to discover the larger meaning present in the data (Cresswell, 2013). As Rossman and Rallis (2003) noted, the process of interpretation involves attaching significance to what was discovered and compiling a narrative or story that best describes the phenomenon at hand. Rossman and Rallis (2003) also noted that interpretation may take the form of offering explanations, making sense of findings, describing the essence of a phenomenon, and taking what the researcher has learned and making it make sense to others. Cresswell (2013) said that interpretation often involves linking findings with the existing body of knowledge or research literature, while Patton (2015) said that it is the stage in which meaning is extracted from data, comparisons are made, creative frameworks for



interpretation are constructed, conclusions are drawn, and in certain instances, theory is generated. This researcher's particular goal in the interpretation of the collected qualitative data was largely twofold. The first goal was simply to develop an overarching narrative that would describe the respondents' reaction to the question at hand and offer a palatable and lucid description of the respondents' overall thoughts and feelings. The second goal was to triangulate all data collected by tying the qualitative data back to the quantitative data analyzed in the first two research questions and then viewing the results of all three research questions in light of the scholarly literature available about the educational use of comics.

## CHAPTER IV

### RESULTS

As discussed in Chapter I, this study focused on examining relationships between parental perceptions of the academic value of comics, parental preferences concerning the frequency of the use of comics in the curriculum, and a number of variables such as student grade, student gender, parent gender, and parent readership habits. The study featured three central research questions. The first research question focused on the parental perception of comics and its relationship with a number of attribute variables. The second research question focused on parental preference concerning the frequency of the academic use of comics in the curriculum and its relationship with the same attribute variables utilized in the first research question. The third research question focused on parents' general thoughts and feelings concerning the use of comics in first through twelfth grade education. This chapter is primarily organized in terms of these research questions presented in Chapter I.

#### **Instrument Response Rate**

By utilizing the school's grade book software and the demographic information it provides, the researcher determined the total population of Boyd Buchanan parents of first through twelfth grade students for the 2016-2017 school year was 1,107. The survey was delivered to these parents via the email addresses they provided to the school during the enrollment period at the onset of the school year. It was assumed that all email addresses for

parents were correct. Of those 1,107 parents, 411 accessed the survey during the data collection time period. Of the 411 parents who accessed the survey, 349 completed the survey during the data collection time period. The researcher discarded 15 surveys because respondents answered one or more questions in a manner not in accordance with the directions. The result was a total of 334 surveys usable for data analysis with a final response rate of 30.17%. A report of survey responses is located in Appendix H. Table 1 details the survey response rate.

Table 1 Survey Response Rate

	Number of Respondents	Percent of Total Population
Survey Links Clicked	411	37.13
Surveys Completed	349	31.53
Usable Completed Surveys	334	30.17

### Research Question 1

The first research question of this study was as follows:

To what extent do parents perceive the comics medium to be an effective tool in helping their children achieve successful learning outcomes? Is this perspective related to the following variables?

- F. The enrolled grade of the student
- G. The gender of the student
- H. The gender of the parent
- I. The readership habits of the parent (in relation to comics material)
- J. The readership habits of the parent (in relation to non-comics material)

In order to determine respondents' perception of comics as an effective tool in helping their children achieve successful learning outcomes, the researcher developed a multi-faceted Likert scale question. Respondents were asked to rank the potential of comics as an effective tool in helping students achieve successful learning outcomes in the following five dimensions: vocabulary development; reading comprehension skills; ability to analyze literary elements such as symbolism, characterization, plot development, dialogue, and point of view; ability to analyze literary themes; and fluency in interacting with a variety of media, i.e. practicing multiple literacies. Each of these factors was chosen because scholarly literature on the academic use of comics features consistent discussions of each of them (Bakis, 2012; Carter, 2008; Evans, 2013; Gavigan, 2012; Griffith, 2010; Haines, 2012; Hart, 2010; Marrall, 2013; Martin, 2011; Missiou & Koukoulas, 2013; Rubin, 2013; Sabin, 1996; Sardone & Devlin-Scherer, 2015; Smetana et al., 2009; Tabachnick, 2010; Tilley, 2013b; Weiner, 2003; Wolfe et al., 2012).

Respondents' rankings of the potential of comics to help students achieve successful learning outcomes in the five dimensions were averaged to create an individual perception score for each respondent. This score, referred to herein as a respondent's perception score in regard to comics as a learning tool, was used to represent an individual's perception of comics as an effective tool in helping students achieve successful learning outcomes. Since a score of 1 in each dimension of the Likert scale question represented the lowest possible perception of effectiveness in that particular dimension, and a score of 5 represented the highest possible perception of effectiveness, lower scores were equated with being less likely to believe comics can be a valuable teaching and learning tool than higher scores. Descriptive statistics concerning the overall perception scores in regard to comics as a learning tool are featured in Table 2.

Table 2 Descriptive Statistics Concerning Respondent Perception Scores in Regard to Comics as a Learning Tool

Descriptive Statistics	
Mean Score	3.82
Median Score	4.0
Std. Deviation	.792
Minimum Score	1.4
Maximum Score	5.0
Range of Scores	3.6

Figure 1 presents the distribution of perception scores in regard to comics as a learning tool across all 334 respondents. While Figure 1 may appear to the naked eye to present data that are normally distributed, the spike in scores at the 5.0 mark creates a negative skew to the overall data. This conclusion was reinforced by use of the Shapiro-Wilk test for normality (Field, 2009). This lack of normality in the overall distribution of perception scores in regard to comics as a learning tool was also reinforced by calculations involving the skewness of the distribution and the standard error. According to Rose, Spinks, and Canhoto (2015), one can gain additional insight into the distribution of data by dividing the skewness of the distribution by the standard error and noting whether the result is greater than  $\pm 1.96$ .

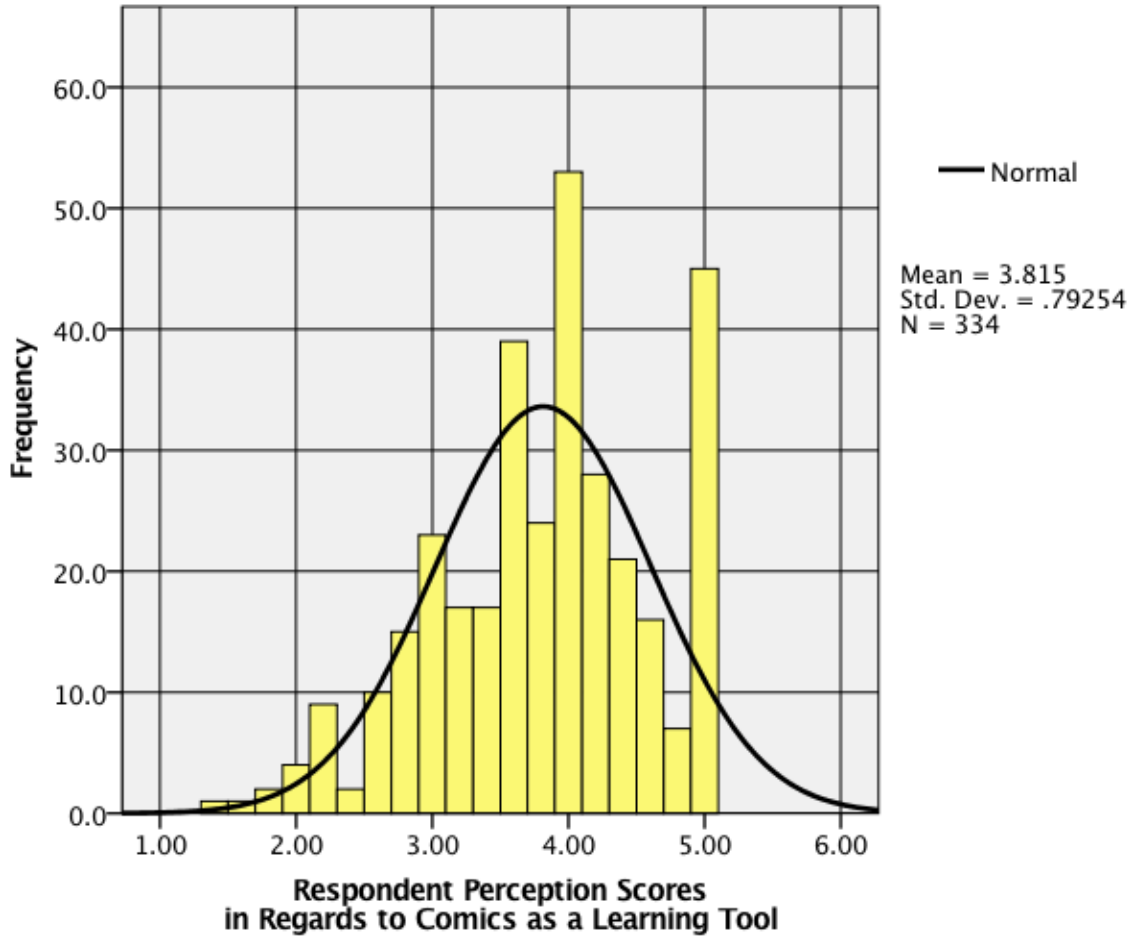


Figure 1 Distribution of Respondent Perception Scores in Regard to Comics as a Learning Tool

Figure 1 presents a histogram of perception scores in regard to comics as a learning tool for all respondents; however, as the forthcoming presentation of the results of the study demonstrates, the distribution of these scores across specific attribute variables, such as respondent gender and student gender, were similarly skewed and thus unsuitable for the parametric analyses originally intended for this research study. In order to offer further insight into the overall distribution of perception scores in regard to comics as a learning tool, Table 3 provides the frequency and percentage of respondents' Likert scale rankings of comics in each learning outcome dimension.

Table 3 Likert Scale Rankings of Potential Learning Outcome Dimension

	Score = 1		Score = 2		Score = 3		Score = 4		Score = 5	
	#	%	#	%	#	%	#	%	#	%
Vocabulary Development	9	2.7	33	9.9	95	28.4	123	36.8	74	22.2
Reading Comp.	6	1.8	32	9.6	73	21.9	142	42.5	81	24.3
Literary Elements	2	0.6	19	5.7	61	18.3	136	40.7	116	34.7
Themes and Messages	5	1.5	31	9.3	76	22.8	141	42.2	81	24.3
Multiple Literacies	2	0.6	22	6.6	95	28.4	130	38.9	85	25.4

In analyzing the relationships between variables such as student grade, student gender, respondent gender, readership habits of each group, and respondents' perception scores in regard to comics as a learning tool, the researcher intended to utilize an independent t-test and Pearson's correlation coefficient. Before these statistical procedures may be performed in any case, certain assumptions in regard to the data must be met, one being a normal distribution of data. As noted above, normality of data distribution presented an issue in this study, and thus comparable nonparametric procedures were utilized in analyzing the collected data. These procedures included the Man-Whitney U test in place of the independent t-test and utilization of the Spearman's rank correlation coefficient instead of Pearson's correlation coefficient. The results of these statistical analyses for each aspect of the first research question are detailed below.

## Research Question 1, Variable A

### Relationship Between Oldest Child's Enrolled Grade and Parents' Perception Score in

#### Relation to Comics as a Learning Tool

The first research question asked if respondents' perception scores in regard to comics as a learning tool were related to the grade levels of their children. For the purposes of this study, only data related to each respondent's oldest child enrolled at Boyd Buchanan School for the 2016-2017 school year were collected. The data collected concerning the grade level of each respondent's oldest child enrolled at Boyd Buchanan are presented in Table 4 and Figure 2.

Table 4 Number and Percentage of Respondents' Oldest Children Enrolled at Each Grade Level

Grade	Number of Children	Percent of Sample	Cumulative Percent of Sample
1 <sup>st</sup> grade	16	4.8	4.8
2 <sup>nd</sup> grade	15	4.5	9.3
3 <sup>rd</sup> grade	23	6.9	16.2
4 <sup>th</sup> grade	17	5.1	21.3
5 <sup>th</sup> grade	31	9.3	30.5
6 <sup>th</sup> grade	30	9.0	39.5
7 <sup>th</sup> grade	24	7.2	46.7
8 <sup>th</sup> grade	34	10.2	56.9
9 <sup>th</sup> grade	40	12.0	68.9
10 <sup>th</sup> grade	32	9.6	78.4
11 <sup>th</sup> grade	41	12.3	90.7
12 <sup>th</sup> grade	31	9.3	100.0
Total	334	100.0	100.0



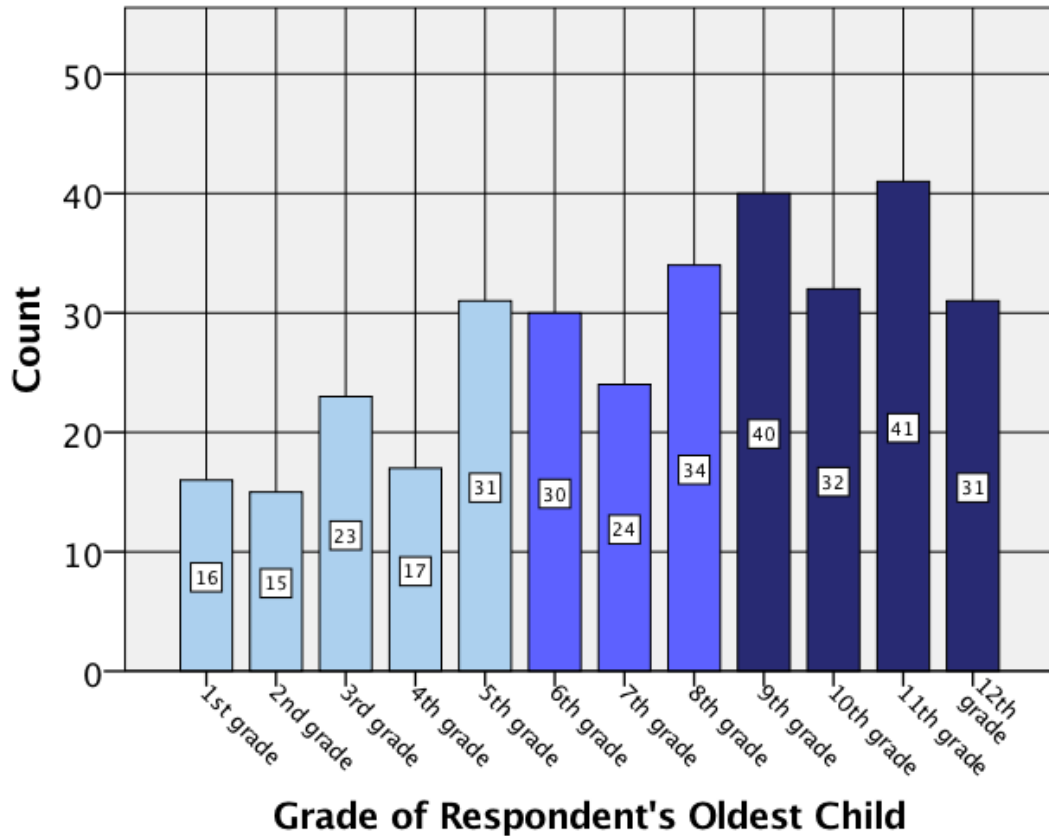


Figure 2 Histogram of Respondents' Oldest Children Enrolled at Each Grade Level (With Color Shading Indicating Elementary School, Middle School, and High School Divisions)

Since neither the overall respondents' perception scores in regard to comics as a learning tool nor the grade levels of the respondents' oldest child data were normally distributed and attempts at data transformation failed to result in normality, the researcher relied upon the Spearman rank correlation coefficient for analysis. The results of the Spearman's rho test are presented in Table 5. As Table 5 indicates, there was only a very small positive correlation between the children's grade level and respondents' perception scores, and this relationship was not found to be statistically significant ( $r_s = .015, p > .05$ ).

Table 5 Spearman rho Test Concerning the Grade Level of Respondents' Oldest Child and Respondents' Perception Scores in Regard to Comics as a Learning Tool

<b>Correlations</b>				
			<b>Child Grade</b>	<b>Perc. Score</b>
Spearman's rho	Child Grade	Correlation Coefficient	1.000	.015
		Sig. (2-tailed)		.782
		N	334	334
	Perc. Score	Correlation Coefficient	.015	1.000
		Sig. (2-tailed)	.782	
		N	334	334

**Research Question 1, Variable B**

**Relationship Between Student Gender and Respondents' Perception Scores in Regard to Comics as a Learning Tool**

As the Table 6 and Figure 3 indicate, the average perception score in regard to comics as a learning tool for parents of male students was slightly higher than that of parents of female students. The average perception score of a parent of a male was 3.82 with a standard deviation of .803, while the average perception score of a parent of a female was 3.81 with a standard deviation of .782. When followed out to the fourth decimal place, the difference in the mean scores was .0154.

Table 6 Descriptive Statistics Concerning the Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Upon Child Gender

	N	Min.	Max.	Mean	Std. Deviation
Perception Score of Respondents with Oldest Male Child	182	1.40	5.00	3.82	.803
Perception Score of Respondents with Oldest Female Child	152	1.60	5.00	3.81	.782

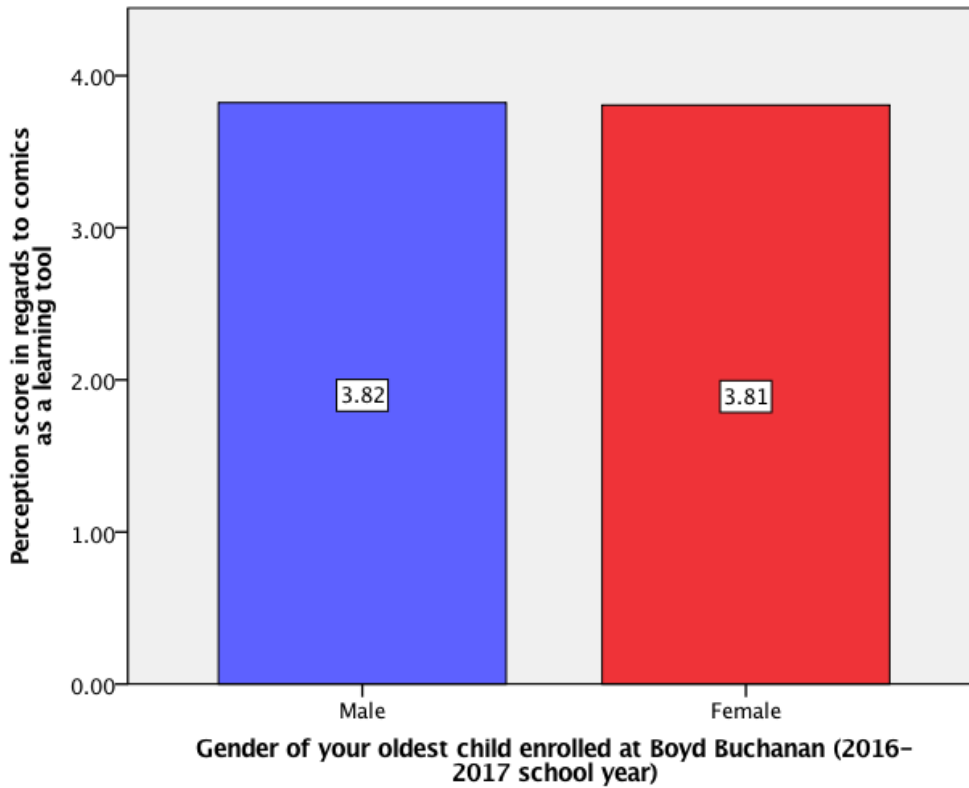


Figure 3 Bar Graph Displaying the Mean Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Upon Child Gender

As was the case with perception scores in regard to comics as a learning tool associated with parent gender, the distributions of perception scores associated with child gender were not

normal. This was confirmed by the use of the Shapiro-Wilk test for normality as well as calculations with the skewness and standard error. Various transformations of the data also did not result in normal distributions that would allow for parametric testing. Figure 4 and Figure 5, which give an overview of respondent scores for male children and female children, are provided below.

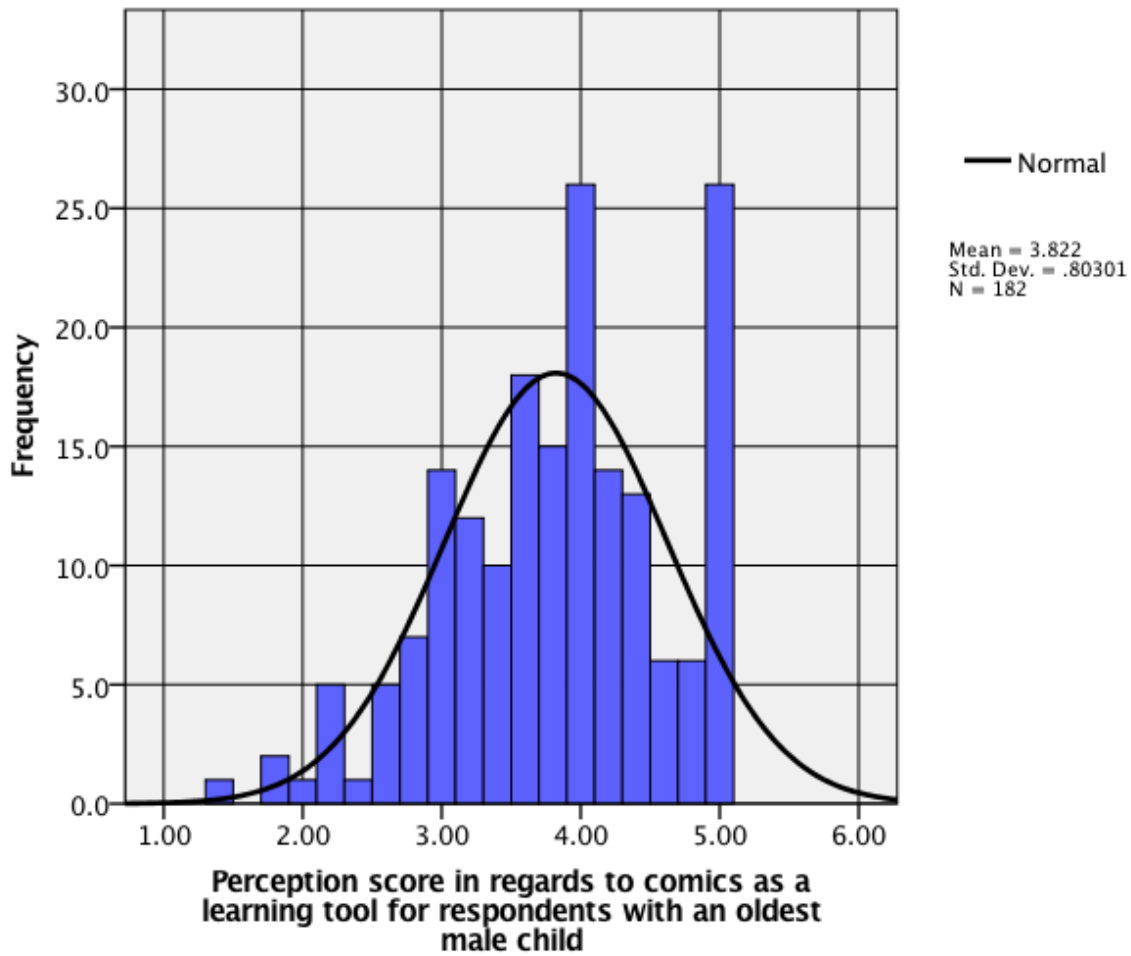


Figure 4 Histogram of Perception Scores in Regard to Comics as a Learning Tool for Respondents With an Oldest Male Child

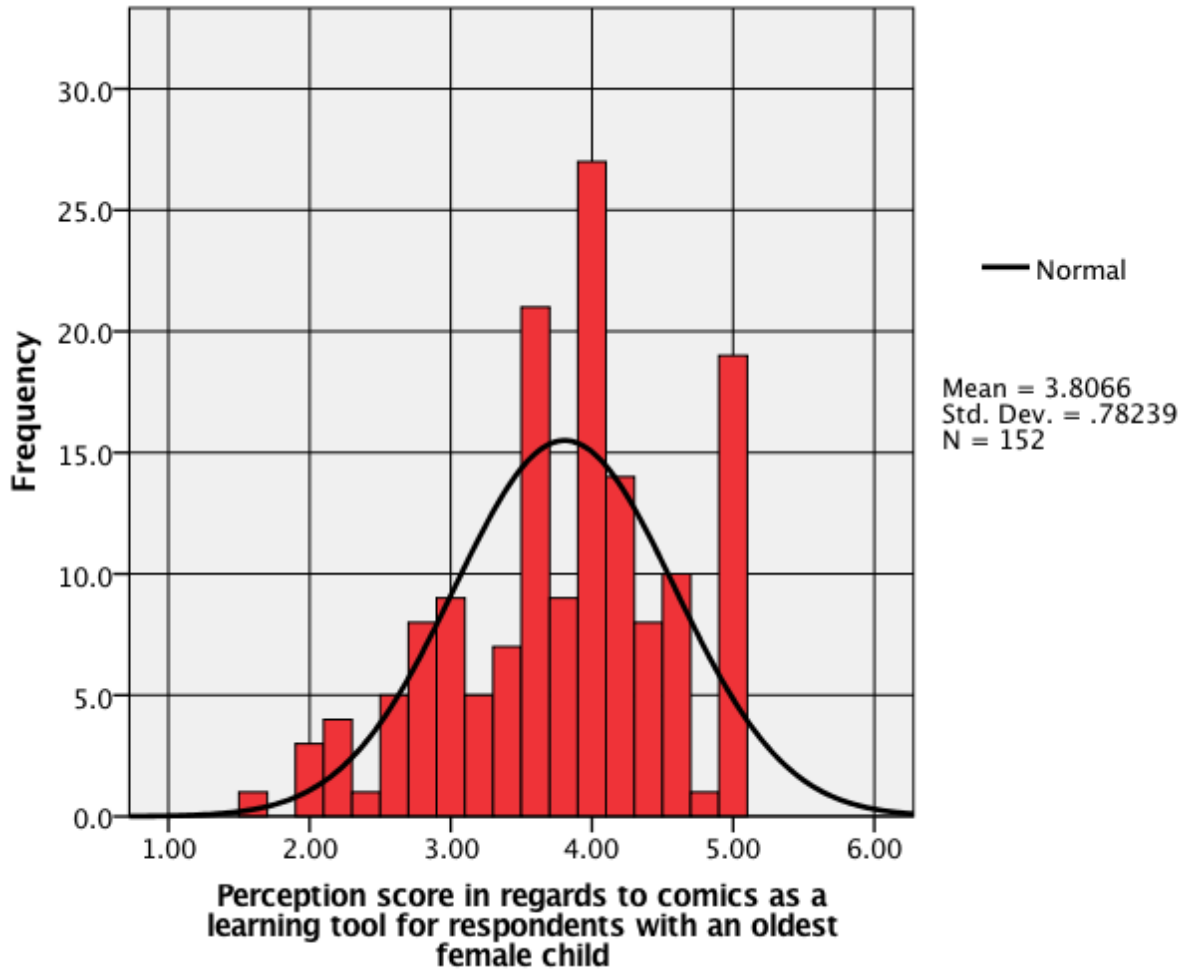


Figure 5 Histogram of Perception Scores in Regard to Comics as a Learning Tool for Respondents With an Oldest Female Child

Since parametric measures for comparing the perception scores in regard to comics as a learning tool of respondents with male children versus respondents with female children were not possible, the researcher used of the Mann-Whitney U test to compare differences between the two groups. Table 7 details the results of this test below. As Table 7 indicates, the difference in mean ranks between respondents with male children and respondents with female children was not statistically significant ( $U = 13736, p = .913$ ).

Table 7 Mann-Whitney U Test Comparing Mean Ranks of Respondent Perception Scores Based Upon Child Gender

Ranks					Test Statistics <sup>a</sup>	
	Child Gender	N	Mean Rank	Sum of Ranks		RQ1
Perc. Score	Male	182	168.03	30581.00	Mann-Whitney U	13736.000
	Female	152	166.87	25364.00	Wilcoxon W	25364.000
	Total	334			Z	-.110
					Asymp. Sig. (2-tailed)	.913
a. Grouping Variable: Child Gender						

### Research Question 1, Variable C

#### Relationship Between Parent Gender and Parents' Perception Scores in Regard to Comics as a Learning Tool

As Table 8 and Figure 6 indicate, the average perception score in regard to comics as a learning tool of female respondents was slightly higher than that of male respondents. The average male respondent score was 3.67 with a standard deviation of .77, while the average female respondent score was 3.90 with a standard deviation of .79.

Table 8 Descriptive Statistics Concerning Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Upon Respondent Gender

Group Statistics					
	Resp. Gender	N	Mean	Std. Deviation	Std. Error Mean
Perc. Score	Male	119	3.67	.77	.07078
	Female	215	3.90	.79	.05413

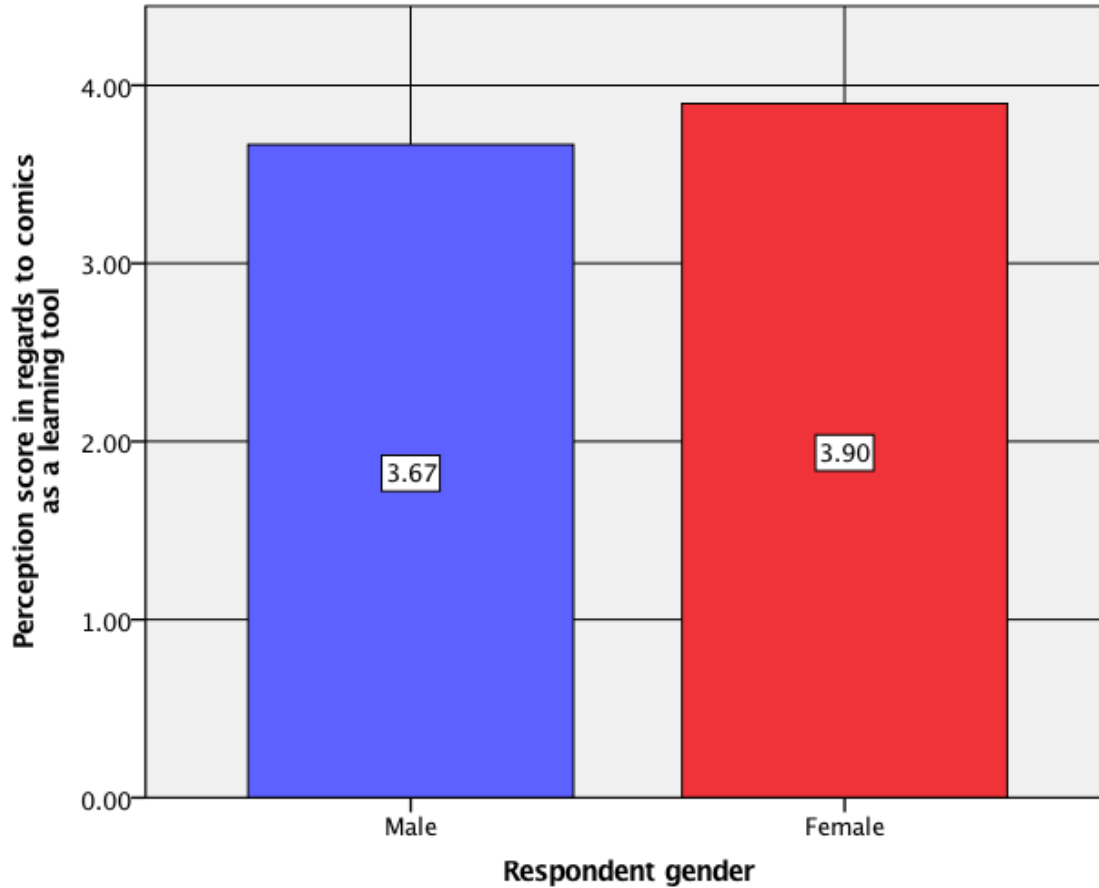


Figure 6 Bar Graph Displaying the Mean Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Respondent Gender

Figure 7 and Figure 8 below depict the distribution of both male and female perception scores in regard to comics as a learning tool. Utilization of the Shapiro-Wilk test for normality indicated that the distributions of data are not normal for either gender. The researcher made attempts to transform the data in order to achieve a normal distribution, which would allow for the usage of the independent t-test; however, transforming the data in order to achieve a distribution that would allow for parametric testing proved unfruitful.

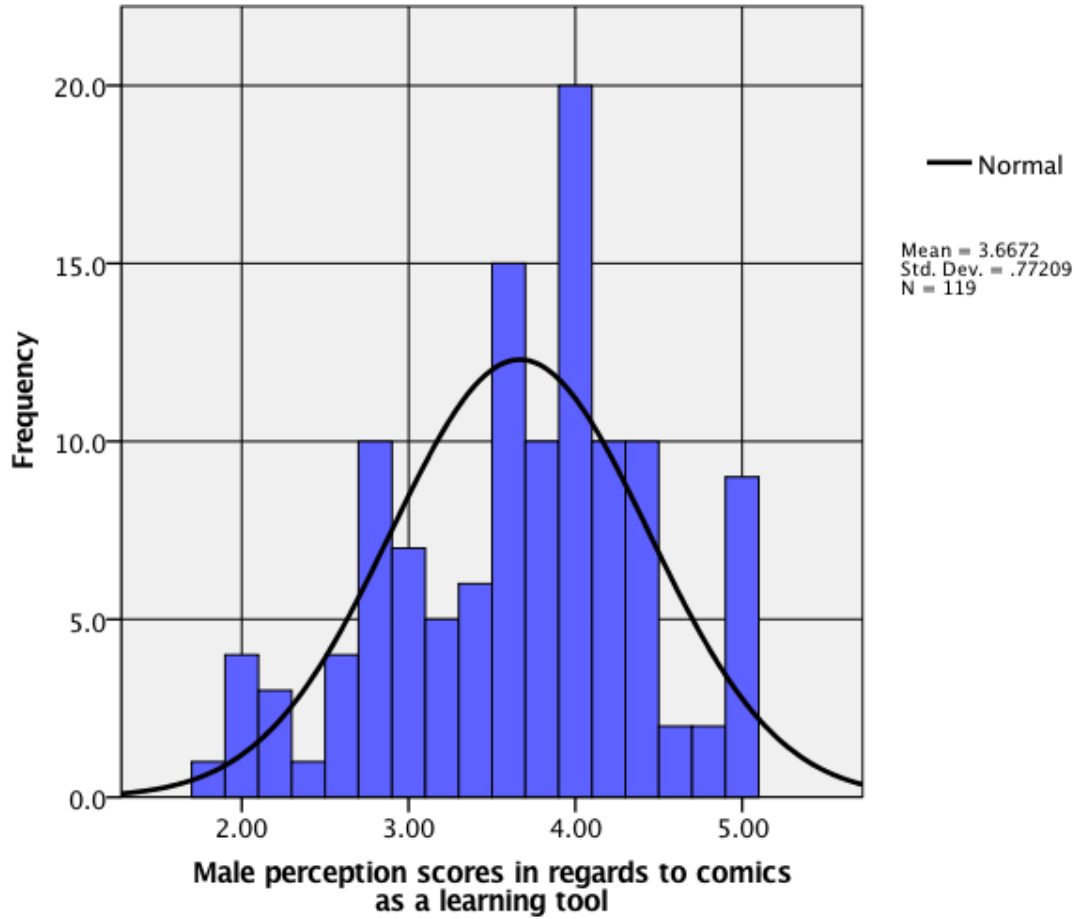


Figure 7 Histogram of Perception Scores in Regard to Comics as a Learning Tool for Male Respondents



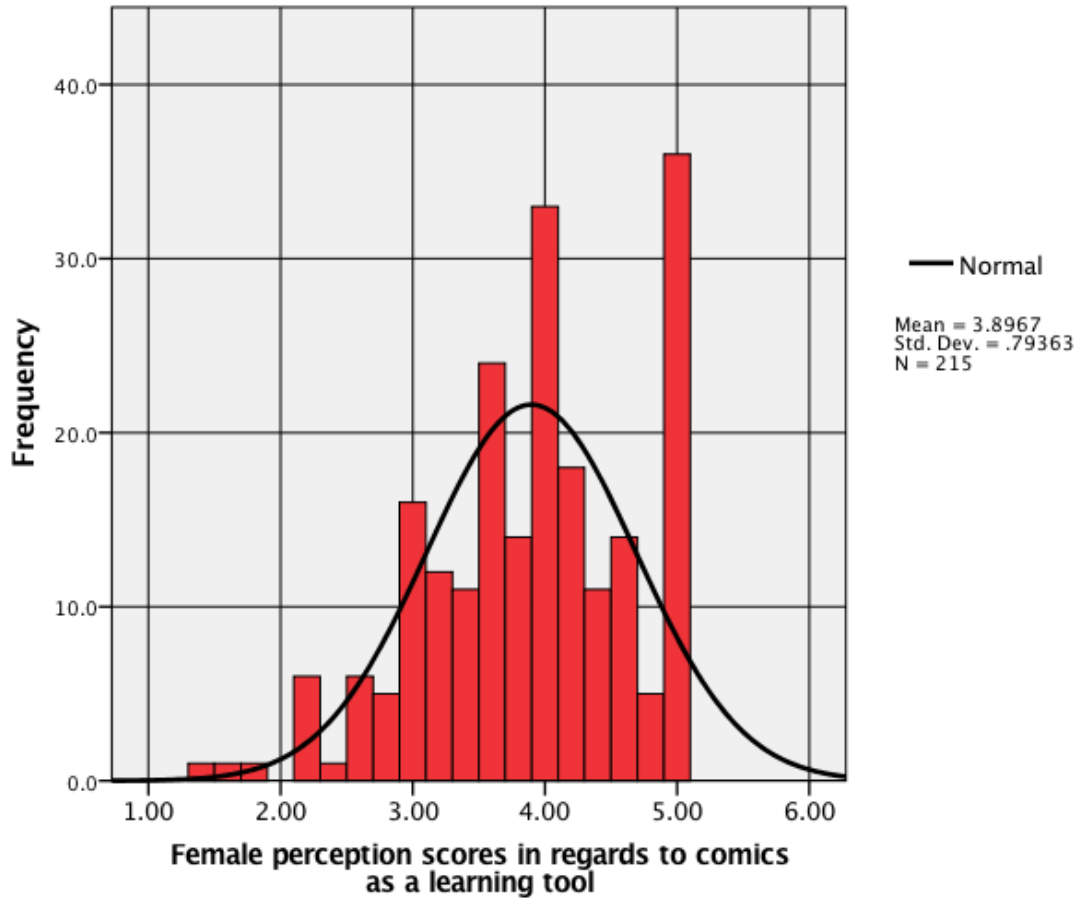


Figure 8 Histogram of Perception Scores in Regard to Comics as a Learning Tool for Female Respondents

In light of the irregular distributions of data in Figure 7 and Figure 8, the researcher utilized the Mann-Whitney U test in order to determine if a statistically significant difference existed between the mean rank of scores for males and females. As Table 9 indicates, scores for females were significantly statistically higher than scores for males ( $U = 10709, p = .013$ ). The results of the Mann-Whitney U test thereby indicated that female respondents did perceive comics to be a tool for helping their children achieve successful learning outcomes to a greater extent than male respondents.

Table 9 Mann-Whitney U Test Comparing Mean Ranks of Respondent Perception Scores Based Upon Gender

Ranks					Test Statistics <sup>a</sup>	
	Resp. Gender	N	Mean Rank	Sum of Ranks		Perc. Score
Perc. Score	Male	119	149.99	17849.00	Mann-Whitney U	10709.000
	Female	215	177.19	38096.00	Wilcoxon W	17849.000
	Total	334			Z	-2.478
					Asymp. Sig. (2-tailed)	.013
a. Grouping Variable: Respondent Gender						

### Research Question 1, Variable D

#### Relationship Between Parents' Readership Habits (in Relation to Comics Material) and Parents' Overall Perception Scores in Regard to Comics as a Learning Tool

Table 10 details the number of hours that respondents reported spending per week reading comics material, while Table 11 provides the descriptive statistics for this variable. As displayed in Table 11, the mean number of hours spent per week reading comics material was .28 with a standard deviation of .66. The range of hours for this variable was 5 hours.

Table 10 Hours Respondents Spend Reading Comics Material Per Week

Number of hours per week	Number of respondents reporting	Percent of sample	Cumulative percent
0	269	80.5	80.5
1	46	13.8	94.3
2	14	4.2	98.5
3	3	.9	99.4
4	1	.3	99.7
5	1	.3	100.0
Total	334	100.0	100.0

Table 11 Descriptive Statistics Concerning the Hours Respondents Spend Reading Comics Material Per Week

Descriptive Statistics		
N	Valid	334
	Missing	0
Mean		.28
Median		.00
Std. Deviation		.66
Range		5
Minimum		0
Maximum		5

The distribution of hours spent reading comics did not represent a normal distribution, as indicated by the Shapiro-Wilk test for normality and calculations with the skewness and standard deviation of the data. Attempts to transform the data to achieve a normal distribution of scores were not successful, and therefore the researcher utilized Spearman's rho correlation coefficient in order to check for any statistically significant relationship between this variable and respondents' perception scores in regard to comics as a learning tool, which were also not normally distributed. The results of the nonparametric test are displayed in the Table 12. As Table 12 indicates, there was a statistically significant positive correlation between respondents' hours spent reading comics and respondents' overall perception scores ( $r_s = .182$ ,  $p < .05$ ). This suggests that the more time an individual spends reading comics for pleasure, the more he or she may perceive comics to be an effective tool in helping to achieve successful learning outcomes.

Table 12 Spearman rho Test Concerning the Hours Respondents Spend Reading Comics Material Per Week and Respondents' Perception Scores in Regard to Comics as a Learning Tool

<b>Correlations</b>				
			Hours	Perc. Score
Spearman's rho	Hours	Correlation Coefficient	1.000	.182**
		Sig. (2-tailed)	.	.001
		N	334	334
	Perc. Score	Correlation Coefficient	.182**	1.000
		Sig. (2-tailed)	.001	.
		N	334	334
**. Correlation is significant at the 0.01 level (2-tailed).				

### **Research Question 1, Variable E**

#### **Relationship Between Parents' Readership Habits (in Relation to Non-Comics Material) and Parents' Overall Perception Scores in Regard to Comics as a Learning Tool**

Table 13 details the number of hours that respondents reported spending per week reading non-comics material, while Table 14 provides the descriptive statistics for this variable. As displayed in Table 14, the mean number of hours spent per week reading non-comics material was 5.02 with a standard deviation of 4.26; however, the range of hours at 30 was quite large.

Table 13 Hours Respondents Spend Reading Non-Comics Material Per Week

	Number of hours	Percent of sample	Cumulative percent
0	13	5.1	5.1
1	31	9.3	14.4
2	46	13.8	28.1
3	47	14.1	42.2
4	41	12.3	54.5
5	55	16.5	71.0
6	12	3.6	74.6
7	23	6.9	81.4
8	12	3.6	85.0
10	29	8.7	93.7
12	6	1.8	95.5
14	3	.9	96.4
15	4	1.2	97.6
20	6	1.8	99.4
30	2	.6	100.0
Total	334	100.0	100.0

Table 14 Descriptive Statistics Concerning the Hours Respondents Spend Reading Non-Comics Material Per Week

Descriptive Statistics		
N	Valid	334
	Missing	0
Mean		5.02
Median		4.00
Std. Deviation		4.26
Range		30
Minimum		0
Maximum		30

The distribution of hours that respondents spend reading non-comics material did not represent a normal distribution, as indicated by the Shapiro-Wilk test for normality and calculations with the skewness and standard deviation of the data. Attempts to transform the data

to achieve a normal distribution of scores were not successful, and therefore the researcher utilized Spearman’s rho correlation coefficient in order to check for any statistically significant relationship between this variable and respondents’ perception scores in regard to comics as a learning tool, which were also not normally distributed. The results of the nonparametric test are displayed in Table 15. As Table 15 indicates, there was not a statistically significant correlation between respondent’s hours spent reading non-comics material and respondents’ overall perception scores in regard to comics as a learning tool ( $r_s = .007, p > .05$ ).

Table 15 Spearman rho Test Concerning the Hours Respondents Spend Reading Non-Comics Material Per Week and Respondents’ Perception Scores in Regard to Comics as a Learning Tool

<b>Correlations</b>				
			Hours	Perc. Score
Spearman’s rho	Hours	Correlation Coefficient	1.000	.007
		Sig. (2-tailed)	.	.906
		N	334	334
	Perc. Score	Correlation Coefficient	.007	1.000
		Sig. (2-tailed)	.906	.
		N	334	334

### **Summary of Research Question 1 Results**

The first aspect of Research Question 1 was related to the extent to which parents perceive comics to be an effective tool in helping children achieve successful learning outcomes. By utilizing the multi-faceted Likert scale question discussed above, the researcher was able to assign a perception score in regard to comics as a learning tool for each respondent. These scores were then averaged to address the first aspect of Research Question 1 and determined the extent to which parents perceived comics to be an effective tool in helping children achieve successful

learning outcomes. The mean perception score for respondents was 3.82 with a standard deviation of .792. In light of the fact that the highest possible value for this aspect of Research Question 1 was 5.0, a mean score of 3.82 was relatively high; however, a fuller discussion of the implications of this score are discussed in Chapter V of this study.

The second aspect of Research Question 1 asked whether respondents' perception of comics as a learning tool was related to a number of other variables. These variables, along with the tests and procedures used to test for possible relationships and the results of these tests and procedures, are summarized in Table 16. Also featured in Table 16 is an indication of whether the results of each statistical test or procedure were statistically significant. As Table 16 shows, only the variables of parent gender and the readership habits of parents in regard to comics material were significantly statistically related to the parents' perception scores. Even though only two of a possible five variables were significantly statistically related to the respondents' perception scores, this does not mean that the results of this study are not meaningful or compelling; however, the more extensive discussion of these results featured in Chapter V addresses all of the study's results to a much greater extent than what is presented here.

Table 16 Summary of the Results of the Statistical Tests and Procedures Required for Research Question 1

Variable with Possible Relationship with Perception Score in Regard to Comics as a Learning Tool	Statistical Test or Procedure Utilized	Result of Statistical Test or Procedure	Statistical Significance of Results
Enrolled Grade of Student	Spearman rho Correlation Test	$rs = .015$ $p > .05$	No
Gender of Student	Mann-Whitney U Test	$U = 13736$ $p = .913$	No
Gender of Parent	Mann-Whitney U Test	$U = 10709$ $p = .013$	Yes
Comics Readership Habits of Parent	Spearman rho Correlation Test	$rs = .182$ $p < .05$	Yes
Non-Comics Readership Habits of Parent	Spearman rho Correlation Test	$rs = .007$ $p > .05$	No

### Research Question 2

The second research question of this study was as follows:

How often do parents feel it is appropriate for comics to be incorporated into their children's curricula and classroom instruction? Is this preference of frequency related to the following variables?

- F. The enrolled grade of the student
- G. The gender of the student
- H. The gender of the parent
- I. The readership habits of the parent (in relation to comics material)
- J. The readership habits of the parent (in relation to non-comics material)

In order to determine respondents' preferences in regard to the frequency of the incorporation of comics into their children's curricula and classroom instruction, the researcher



developed a multi-faceted Likert scale question. Respondents were asked to report their preferences regarding the frequency of comics incorporation into the curriculum in three dimensions: incorporation of comics into in-class instruction, incorporation of comics into out-of-class reading assignments, and incorporation into optional free choice reading assignments. Each of these dimensions was chosen because they represent three major ways that teachers of any subject matter incorporate written texts into their curriculum.

Respondents were asked to associate a numeric value to their frequency preference for each instruction dimension. A value of 1 represented a preference for no frequency at all in a particular dimension, and a value of 5 represented a preference for the highest frequency possible. Respondents' numeric frequency rankings in these three dimensions were averaged to create an individual frequency score for each respondent. This numeric score, referred to herein as a respondent's preference score in regard to the frequency of comics incorporation, represents an individual respondent's overall preference towards the frequency of the incorporation of comics into their child's school curriculum. Since a response of 1 in each dimension of the multi-faceted Likert scale question represented the lowest possible frequency preference, and a response of 5 represented the highest possible frequency preference, lower preference scores would equate with an individual being less supportive of frequent incorporation of comics into the curriculum than higher scores. Descriptive statistics concerning the overall preference scores in regard to the frequency of comics incorporation are featured in Table 17.

Table 17 Descriptive Statistics Concerning Respondent Preference Scores in Regard to the Frequency of Comics Incorporation

Descriptive Statistics	
Mean Score	3.48
Median Score	3.33
Std. Deviation	.866
Minimum Score	1.0
Maximum Score	5.0
Range of Scores	4.0

Figure 9 presents the distribution of preference scores in regard to the frequency of comics incorporation across all 334 respondents. While Figure 9 may appear to present data that are representative of a normal distribution, the spike in preference scores at the 5.0 mark results in a negative skew to the overall data. This conclusion was reinforced via the Shapiro-Wilk test for normality (Field, 2009). Figure 9 presents a histogram of preference scores in regard to the frequency of comics incorporation; however, as the forthcoming presentation of the results of the study reveals, the distribution of these scores across specific attribute variables, such as respondent gender and student gender, were similarly skewed and thus unsuitable for the parametric analyses originally intended for this research study.

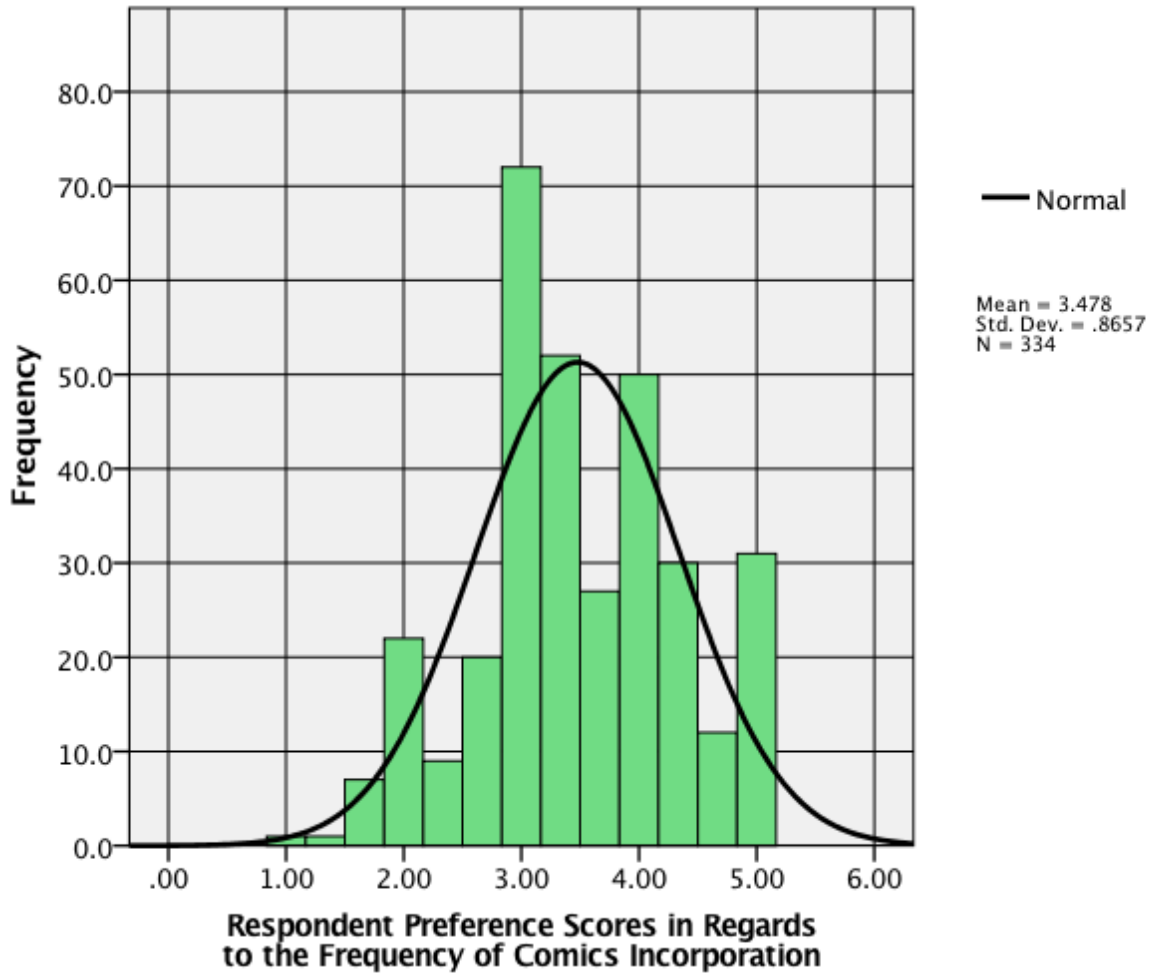


Figure 9 Distribution of Respondent Preference Scores in Regard to the Frequency of Comics Incorporation

In order to provide a clearer picture of the overall distribution of preference scores in regard to the frequency of comics incorporation, Table 18 provides the frequency and percentage of respondents' Likert scale responses to the three dimensions of comics incorporation into the curriculum. As Table 18 displays, the most consistent ranking of each dimension among respondents was three on the five-point Likert scale. Also, while the table does not detail this fact specifically, the data that respondent rankings provide shows that respondents were most

supportive of frequent use of comics in optional reading assignments and least supportive of the frequent use of comics in in-class instruction.

Table 18 Likert Scale Responses to the Three Dimensions of Comics Incorporation Into the Classroom

	Score = 1		Score = 2		Score = 3		Score = 4		Score = 5	
	#	%	#	%	#	%	#	%	#	%
In-Class Instruction	10	3.0	60	18.0	151	45.2	72	21.6	41	12.3
Out-Of-Class Reading Asgmts.	10	3.0	50	15.0	133	39.8	88	26.3	53	15.9
Optional Reading Asgmts.	6	1.8	24	7.2	85	25.4	121	36.2	98	29.3

In analyzing the relationships between variables such as student grade, student gender, respondent gender, readership habits of each group, and respondents' preference scores in regard to the frequency of comics incorporation, the researcher intended to utilize the same two primary statistical measures as those intended for use in addressing the first research question: an independent t-test and Pearson's correlation coefficient. As was the case with the first research question, normality of data distribution presented an issue in addressing the second research question, and thus comparable nonparametric procedures in the form of the Man-Whitney U test and Spearman's rank correlation coefficient were utilized in analyzing the collected data. The results of these statistical analyses for each aspect of the second research question are detailed below.

## Research Question 2, Variable A

### Relationship Between Oldest Child's Enrolled Grade and Parents' Preference Score in Regard to the Frequency of Comics Incorporation

The second research question asked if respondents' preference scores in regard to the frequency of comics incorporation were related to their children's enrolled grade level. As noted earlier, this study only focused on data related to each respondent's oldest child enrolled at Boyd Buchanan School for the 2016-2017 school year. The data collected concerning the grade level of each respondent's oldest child enrolled at Boyd Buchanan have already been presented above in Table 4 and Figure 2.

Since neither the overall respondents' preference score in regard to the frequency of comics incorporation nor the grade levels of the respondents' oldest child data were normally distributed and attempts at data transformation failed to result in normality, the researcher relied upon the Spearman rank correlation coefficient as opposed to the Pearson correlation coefficient. The results of the Spearman rho test are presented in Table 19. As shown in Table 19, there was only a small negative correlation between the children's grade level and respondents' preference scores, and this relationship was not found to be statistically significant ( $r_s = -.050$ ,  $p > .05$ ).

Table 19 Spearman rho Test Concerning the Grade Level of Respondents' Oldest Child and Respondents' Preference Score in Regard to the Frequency of Comics Incorporation

<b>Correlations</b>				
			Grade	Pref. Score
Spearman's rho	Grade	Correlation Coefficient	1.000	-.050
		Sig. (2-tailed)	.	.359
		N	334	334
	Pref. Score	Correlation Coefficient	-.050	1.000
		Sig. (2-tailed)	.359	.
		N	334	334

**Research Question 2, Variable B**

**Relationship Between Student Gender and Respondents' Preference Score in Regard to the Frequency of Comics Incorporation**

As the Table 20 and Figure 10 indicate, the average preference scores in regard to the frequency of comics incorporation for parents of male students was slightly higher than that of parents of female students. The average score of a parent of a male was 3.49 with a standard deviation of .82, while the average score of a parent of a female was 3.46 with a standard deviation of .92.

Table 20 Descriptive Statistics Concerning the Preference Scores in Regard to the Frequency of Comics Incorporation of Respondents Based Upon Child Gender

	N	Minimum	Maximum	Mean	Std. Deviation
Preference Score of Respondents with Oldest Male Child	182	1.67	5.00	3.49	.82
Preference Score of Respondents with Oldest Female Child	152	1.00	5.00	3.46	.92

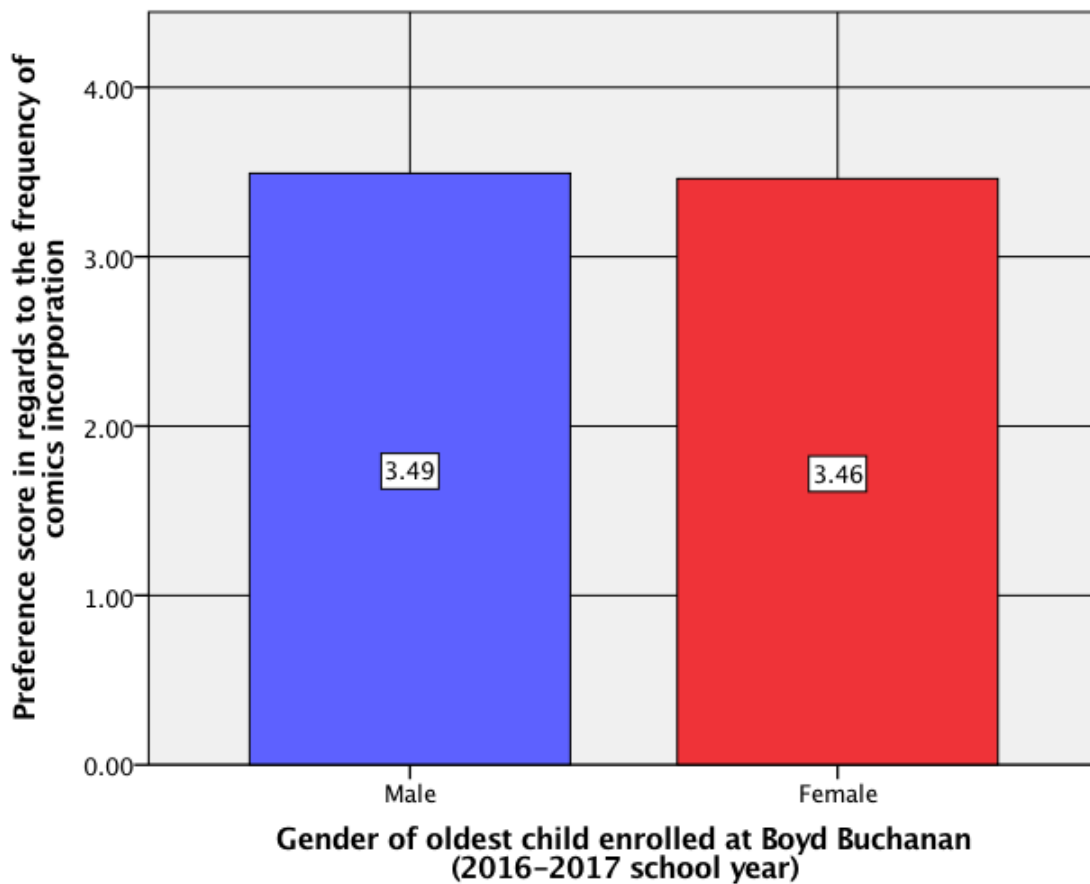


Figure 10 Bar Graph Displaying the Mean Preference Scores in Regard to the Frequency of Comics Incorporation of Respondents Based Upon Child Gender

As was the case with preference scores in regard to the frequency of comics incorporation associated with parent gender, the distributions of those same scores associated with child gender were not normal. This was confirmed by the use of the Shapiro-Wilk test for normality. Various transformations of the data did not result in normal distributions that would allow for parametric testing. Figure 11 and Figure 12, which give an overview of respondent preference scores for male children and female children, are provided below.

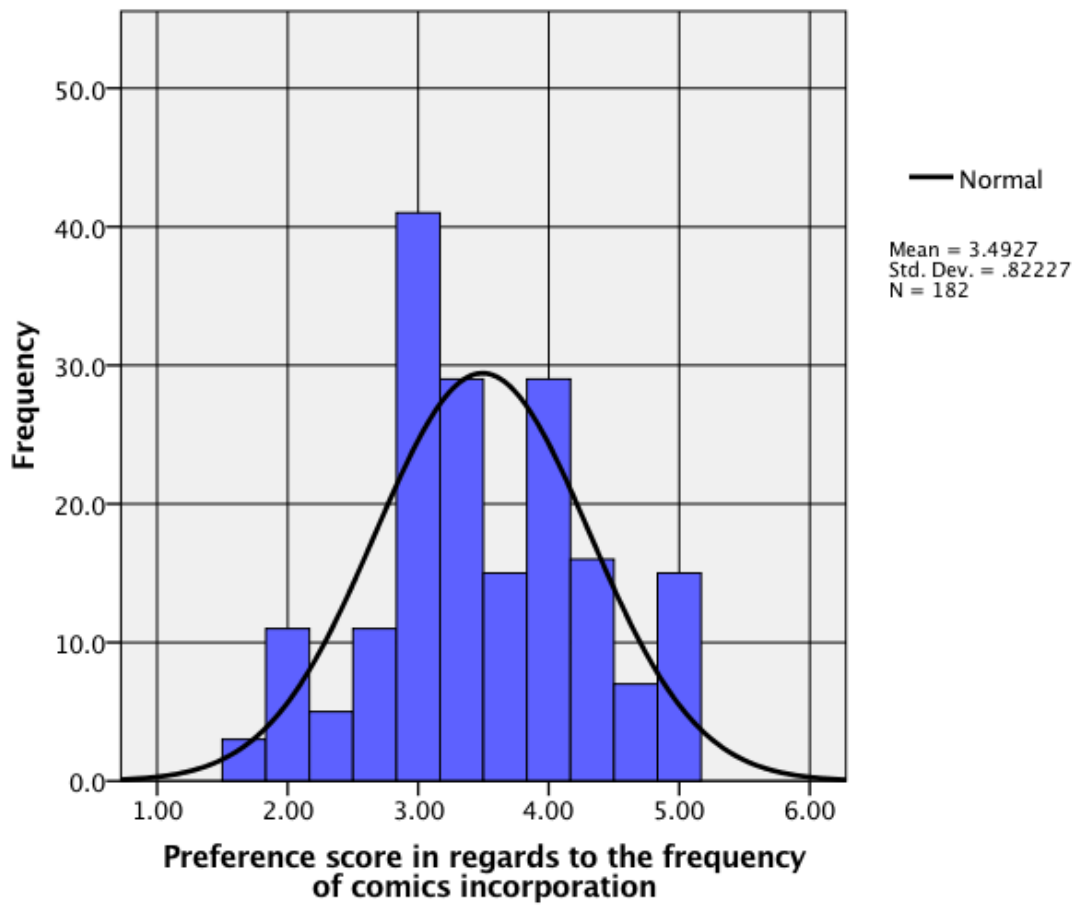


Figure 11 Histogram of Preference Scores in Regard to the Frequency of Comics Incorporation for Respondents With an Oldest Male Child



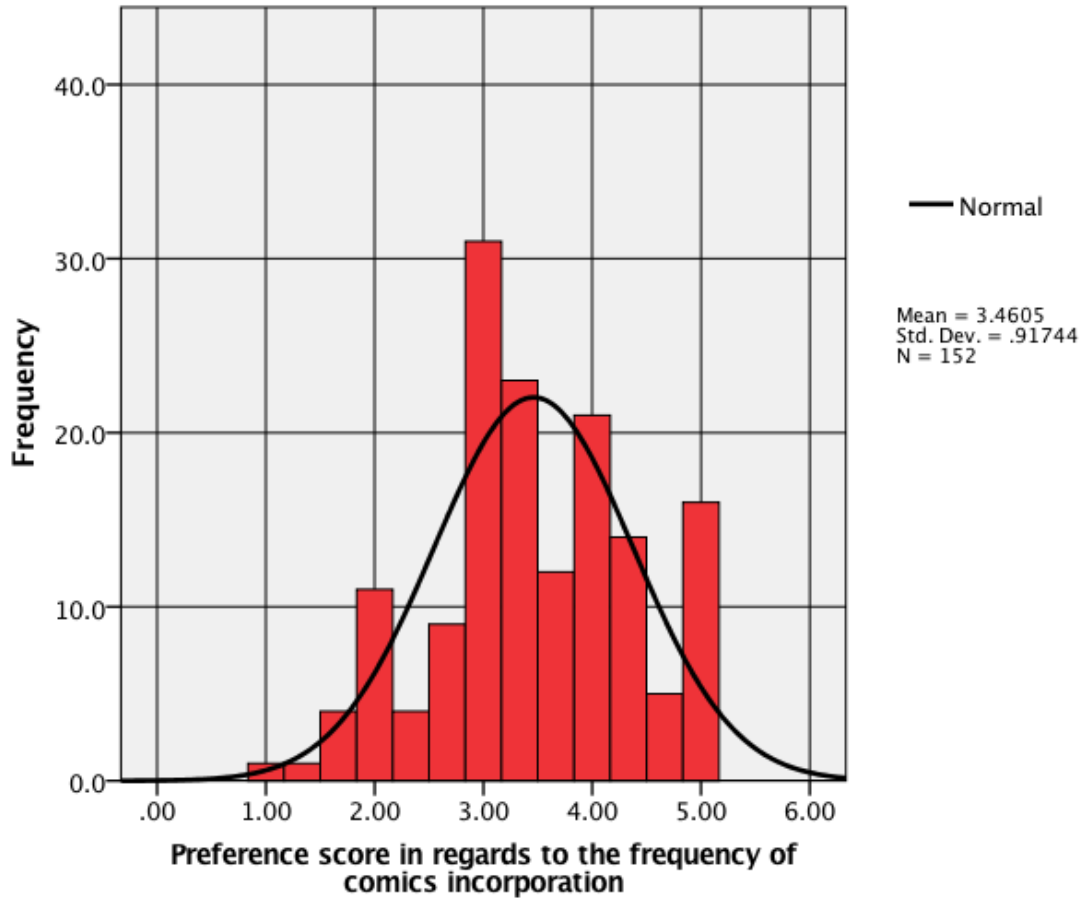


Figure 12 Histogram of Preference Scores in Regard to the Frequency of Comics Incorporation for Respondents with an Oldest Female Child

Since parametric measures for comparing the preference scores in regard to the frequency of comics incorporation of respondents with oldest male children versus respondents with oldest female children were not possible, the researcher utilized the Mann-Whitney U test to compare differences between the two groups. Table 21 details the results of this test below. As Table 21 indicates, the difference in mean ranks between respondents with male children and respondents with female children was not statistically significant ( $U = 13665, p = .848$ ).

Table 21 Mann-Whitney U Test Comparing Mean Ranks of Respondent Preference Scores Based Upon Child Gender

Ranks					Test Statistics <sup>a</sup>	
	Child Gender	N	Mean Rank	Sum of Ranks		Pref. Score
Pref. Score	Male	182	168.42	30652.00	Mann-Whitney U	13665.000
	Female	152	166.40	25293.00	Wilcoxon W	25293.000
	Total	334			Z	-.192
					Asymp. Sig. (2-tailed)	.848
a. Grouping Variable: Child Gender						

### Research Question 2, Variable C

#### Relationship Between Parent Gender and Parents' Preference Scores in Regard to the Frequency of Comics Incorporation

As Table 22 and Figure 13 display, the average preference score in regard to the frequency of comics incorporation of female respondents was slightly higher than that of male respondents. The average male respondent score was 3.37 with a standard deviation of .85, while the average female respondent score was 3.54 with a standard deviation of .87.

Table 22 Descriptive Statistics Concerning the Preference Score in Regard to the Frequency of Comics Incorporation of Respondents Based Upon Respondent Gender

	Resp. gender	N	Mean	Std. Deviation
Preference score:	Male	119	3.37	.85
	Female	215	3.54	.87

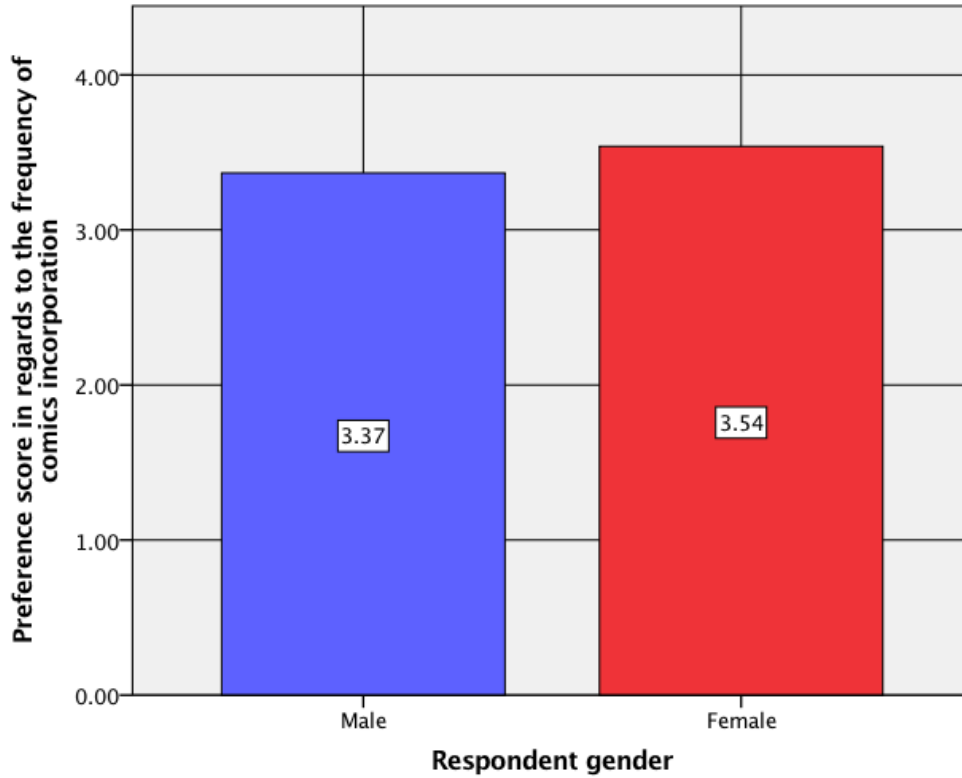


Figure 13 Bar Graph Displaying the Mean Perception Scores in Regard to Comics as a Learning Tool of Respondents Based Upon Respondent Gender

Figure 14 details the distribution of male preference scores in regard the frequency of comics incorporation, while Figure 15 details the distribution of both female preference scores in regard the frequency of comics incorporation. Utilization of the Shapiro-Wilk test for normality indicated that the distributions of data were not normal for either gender. The researcher attempted to transform the data in order to achieve a normal distribution for each data set, which would allow for the usage of the independent t-test; however, these attempts were unsuccessful.

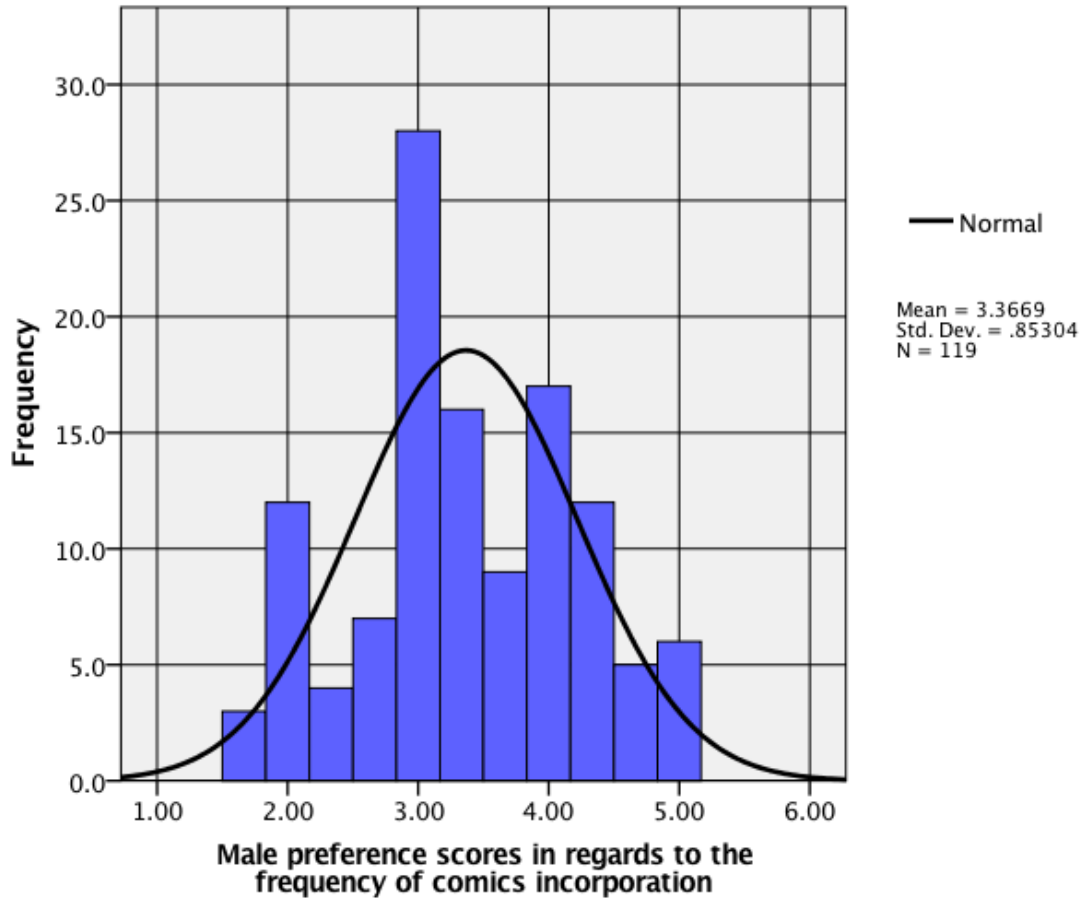


Figure 14 Histogram of Preference Scores in Regard to the Frequency of Comics Incorporation for Male Respondents

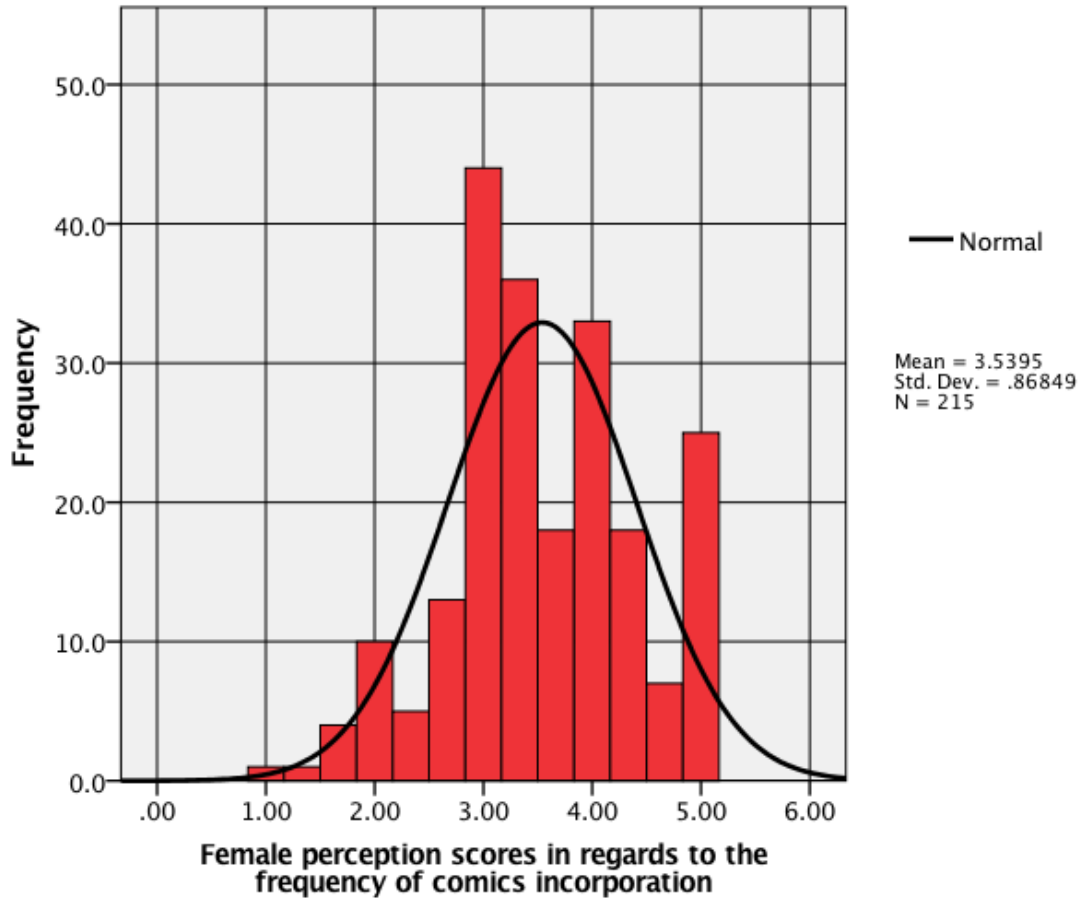


Figure 15 Histogram of Preference Scores in Regard to the Frequency of Comics Incorporation for Female Respondents

Due to the irregular distributions of data in Figure 14 and Figure 15, the researcher utilized the Mann-Whitney U test in order to discover if a statistically significant difference existed between the mean rank of preference scores for males and females. As Table 23 indicates, preference scores in regard to the frequency of comics incorporation for males and females were not significantly statistically different ( $U = 11381.5, p = .092$ ).

Table 23 Mann-Whitney U Test Comparing Mean Ranks of Respondent Preference Scores Based Upon Gender

Ranks					Test Statistics <sup>a</sup>	
	Resp. Gender	N	Mean Rank	Sum of Ranks		Pref. Score
Pref. Score	Male	119	155.64	18521.50	Mann-Whitney U	11381.500
	Female	215	174.06	37423.50	Wilcoxon W	18521.500
	Total	334			Z	-1.686
					Asymp. Sig. (2-tailed)	.092
a. Grouping Variable: Resp. Gender						

### Research Question 2, Variable D

#### Relationship Between Parents' Readership Habits (in Relation to Non-Comics Material) and Parents' Overall Preference Scores in Regard to the Frequency of Comics

##### Incorporation

The number of hours that respondents reported spending per week reading non-comics material and the descriptive statistics for this variable have been displayed above in Table 10 and Table 11. As previously noted, the mean number of hours spent per week reading non-comics material across all respondents was 5.02 with a standard deviation of 4.26. Also, the range of hours at 30 was quite large.

The distribution of hours that respondents spend reading non-comics material did not represent a normal distribution. This was indicated by the Shapiro-Wilk test for normality and by calculations with the skewness and standard deviation of the data. Attempts to transform the data to achieve a normal distribution of scores were not successful; this led the researcher to utilize Spearman's rho correlation coefficient in order to check for any statistically significant relationship between this variable and respondents' preference scores in regard to the frequency

of comics incorporation, which were also not normally distributed. The results of this nonparametric test are displayed in Table 24. As indicated in Table 24, there was a statistically significant negative correlation between the time that respondents spend reading non-comics material and respondents' preference scores in regard to the frequency of comics incorporation ( $r_s = -.124, p < .05$ ). This suggests that the more time a respondent spends reading non-comics material or traditional literature on a weekly basis, the more likely that individual to prefer sparse or infrequent incorporation of comics into his/her child's curriculum.

Table 24 Spearman rho Test Concerning the Hours Respondents Spend Reading Non-Comics Material Per Week and Respondents' Preference Score in Regard to Comics Incorporation

<b>Correlations</b>				
			Hours	Pref. Score
Spearman's rho	Hours	Correlation Coefficient	1.000	-.124*
		Sig. (2-tailed)	.	.024
		N	334	334
	Pref. Score	Correlation Coefficient	-.124*	1.000
		Sig. (2-tailed)	.024	.
		N	334	334
*. Correlation is significant at the 0.05 level (2-tailed).				

## Research Question 2, Variable E

### Relationship Between Parents' Readership Habits (in Relation to Comics Material) and Parents' Overall Preference Scores in Regard to the Frequency of Comics Incorporation

Table 13 and Table 14, which have previously been addressed above, detail the number of hours that respondents reported spending per week reading comics material and also provide the descriptive statistics for this variable. As displayed in Table 14, the mean number of hours spent per week reading comics material was .28 with a standard deviation of .66. The range of hours for this variable was 5 hours.

The distribution of hours spent reading comics did not represent a normal distribution, as indicated by the Shapiro-Wilk test for normality and calculations with the skewness and standard deviation of the data. Attempts to transform the data to achieve a normal distribution of scores were not successful, and so the researcher utilized Spearman's rho correlation coefficient to check for any statistically significant relationship between this variable and respondents' preference scores in regard to the frequency of comics incorporation, which were also not normally distributed. The results of this nonparametric test are displayed in the Table 25. As Table 25 indicates, there was a statistically significant positive correlation between respondent's hours spent reading non-comics material and respondents' overall perception scores ( $r_s = .132$ ,  $p < .05$ ). This suggests that the more time an individual spends reading comics for pleasure, the more he or she may perceive comics to be an effective tool in helping to achieve successful learning outcomes.



Table 25 Spearman rho Test Concerning the Weekly Hours Respondents Spend Reading Comics Material and Respondents' Preference Score in Regard to the Frequency of Comics Incorporation

<b>Correlations</b>				
			Hours	Pref. Score
Spearman's rho	Hours	Correlation Coefficient	1.000	.132*
		Sig. (2-tailed)	.	.016
		N	334	334
	Pref. Score	Correlation Coefficient	.132*	1.000
		Sig. (2-tailed)	.016	.
		N	334	334

\*, Correlation is significant at the 0.05 level (2-tailed).

### Summary of Research Question 2 Results

The first aspect of Research Question 2 focused upon parents' preferences in regard to the frequency of comics incorporation into their children's curriculum. By utilizing the multi-faceted Likert scale question previously discussed, the researcher was able to assign a preference score in regard to the frequency of comics incorporation for each respondent. These scores were then averaged to address the first aspect of Research Question 2 and determine the overall frequency that is most representative of parents' preferences. The mean preference score for respondents was 3.48 with a standard deviation of .866. Since the highest possible value for this first aspect of Research Question 2 is 5.0, a mean score of 3.49 is relatively high; however, a fuller discussion of the implications of this score are presented in Chapter V of this study.

The second aspect of Research Question 2 asked whether respondents' preference score in regard to the frequency of comics incorporation was related to several other variables. These variables, along with the tests and procedures used to test for possible relationships and the

results of these tests and procedures, are presented in Table 26. Also featured in Table 26 is an indication of whether the results of each statistical test or procedure were statistically significant. As Table 26 displays, only the variables related to the readership habits of parents (in relation to both comics and non-comics material) were significantly statistically related to the parents' preference scores. Despite the fact that only two out of a possible five variables were significantly statistically related to the respondents' preference scores, the results of this study may still be considered meaningful and compelling; however, the more thorough discussion of these results featured in Chapter V will address all of the study's results and their implications to a greater degree.

Table 26 Summary of the Results of the Statistical Tests and Procedures Required for Research Question 2

Variable with Possible Relationship with Preference Score in Regard to Comics Incorporation	Statistical Test or Procedure Utilized	Result of Statistical Test or Procedure	Statistical Significance of Results
Enrolled Grade of Student	Spearman rho Correlation Test	$rs = -.050$ $p > .05$	No
Gender of Student	Mann-Whitney U Test	$U = 13665$ $p = .848$	No
Gender of Parent	Mann-Whitney U Test	$U = 11381.5$ $p = .092$	No
Comics Readership Habits of Parent	Spearman rho Correlation Test	$rs = .132$ $p < .05$	Yes
Non-Comics Readership Habits of Parent	Spearman rho Correlation Test	$rs = -.124$ $p < .05$	Yes

### **Research Question 3**

The third research question for this study was descriptive and qualitative in nature and focused on collecting and reporting the respondents' general thoughts and feelings concerning the use of comics in first grade through twelfth grade education. Research Question 3 was as follows: What are parents' general thoughts and feelings about the use of comics in first through twelfth grade education? This research question was tied to an open-ended question that was included at the end of the study's instrument, which was as follows: In closing, please describe your thoughts and feelings about the use of comics in first grade through twelfth grade education. Be as specific or general as you wish. Any thoughts and feelings are welcome.

Upon the conclusion of the data collection period for this study, the researcher began the process of coding the data via this instrument item by searching for recurring sentiments that would allow the data to be organized into categories or themes (Patton, 2015; Rossman & Rallis, 2003). While Cresswell (2013) argued that qualitative researchers should typically rely upon 25-30 codes for any given data set, this study's researcher decided upon 36 codes that were divided into two major themes or categories: Positive/Supportive Comments and Negative Comments or Statements of Concern. Each major theme featured a variety of sub-themes that help to elucidate and further categorize the respondents' comments. A full list of these codes can be found in Appendix G. Due to the fact that the researcher could not identify a previously conducted study that is comparable to the current one, the researcher did not utilize any preexisting codes. The codes utilized for this study were constructed by combining the respondents' own words with original statements that described the collected data (Cresswell, 2013).

The total number of respondent answers to the final open-ended question of the study's instrument was 212. As previously stated, the first initial step in coding the data was to divide

statements into the major themes of positive/supportive statements and negative statements or statements of concern. In total, positive statements far outweighed negative statements or statements of concern. In total, 330 positive statements were identified, in comparison to a total of 86 negative statements or statements of concern. It is important to note that the total number of positive and negative statements that were coded (416) was actually greater than the total number of respondent answers to the instruments final open-ended question (212). This phenomenon occurred because many respondents offered statements that were multi-faceted or complex and that focused upon a number of positive and/or negative aspects of comics. As a result, such statements met the criteria for multiple codes. Even though a number of statements were assigned multiple codes, the researcher attempted as much as possible to create codes that were internally homogenous while also being externally heterogeneous. This helped to ensure that data were grouped appropriately and did not overlap more than necessary (Patton, 2015).

While a more full discussion of the implications of the respondents' answers to the instrument's final open-ended question appears in Chapter V of this study, the primary focus of this chapter in regard to Research Question 3 is upon the frequency of the established codes. While a focus on the frequency of codes may be thought by some to be contradictory to the traditional goals of qualitative research (Cresswell, 2013), the researcher of this study elected to use this quantitative method of data analysis since other major aspects of this study were mostly quantitative as well. In some respects, it may be difficult to present results of the coding without commentary on the meaning and importance of the codes and their frequency; however, this chapter's primary purpose was simply to report frequencies. A detailed list of the frequencies of the qualitative codes appears in Table 27.

Table 27 Qualitative Coding Guide With Frequency Results from Respondents

<b>1. Positive/Supportive comments:</b>	<b>330</b>
A. General support, praise and/or miscellaneous positive comments	68
B. Comics can add variety to curriculum (they are different, unique or a good alternative to traditional literature)	14
C. Comics are enjoyable (fun, humorous, interesting, engaging)	32
D. Comics are easy to read (generally shorter and/or less intimidating)	18
E. Comics can help develop certain skills and/or conceptual knowledge	86
a. General literary elements/various literacy skills and concepts	13
b. Reading comprehension	16
c. Vocabulary development	11
d. Themes/thematic understanding	7
e. Imagery/visualization	6
f. Understanding characterization, dialogue, and/or point of view	8
g. Writing skills	7
h. Foreign language/ESL	3
i. Symbolism/Metaphor	5
j. Scaffolding/connecting to more complicated or classical texts	10
F. Comics may be beneficial for certain ages/levels	30
a. Younger/elementary	25
b. Adolescence/middle school	3
c. Older/high school	2
G. Comics may be beneficial for certain audiences	63
a. Visual learners	14
b. Unmotivated/reluctant/struggling readers	35
c. ADD/ADHD/distracted readers	4
d. Those with learning difficulties or disabilities	5

e. Males	5
H. Parents are supportive if it “works” or if there is “interest”	26
<b>2. Negative Statements or Statements of Concern</b>	<b>86</b>
A. General lack of support and/or miscellaneous negative comments	9
B. Comics are or may not be academic enough for classroom use	5
C. Comics are difficult to read (for some or all)	4
D. Comics may be detrimental to the development of certain skills	55
a. Vocabulary development	1
b. Imagination or visualization skills	4
E. Comics may be inappropriate for or should be excluded from certain ages or grade levels	10
a. Younger/elementary	0
b. Adolescence/middle school	4
c. Older/high school	6
F. Comics should be confined to certain ages/levels	6
a. Young/elementary	6
b. Middle school/adolescence	0
c. Older/high school	0
G. Content concerns (moral/ethical/subject matter concerns)	8
H. Balance-related concerns (focus on supplementary use only, not exclusive use, limited use, etc.): 39	39

The first subtheme in each major theme focused upon generally positive statements of support or generally negative statements of concern, respectively. While each of the two major themes for the coded data featured a variety of specific subthemes, there was a wide array of positive and negative comments that fell outside of these specific codes. Most of these generally positive and negative statements did not feature any commentary on specific aspects or traits of

the comics medium as an academic tool, but merely reflected the respondent's support or lack thereof of the use of the medium in the classroom. Examples of generally positive statements included phrases such as, "I think it's a great idea," or "I think comics would be great for kids." Examples of generally negative statements included comments such as, "I would not support the use of comics in the classroom," or "I don't think it would benefit students to be reading comics at school." Once again, these statements are hypothetical examples.

It was often the case that generally supportive or generally negative comments appeared in conjunction with a more detailed description of why the respondent was or was not supportive of the use of comics in education. If the generally positive or negative statement appeared in the same sentence as the explanation or reason for the statement, the comment was taken as a whole and coded in accordance with the appropriate subtheme. However, if the general statement of support or lack thereof appeared in its own independent sentence, this standalone statement was coded separately and by itself as being generally positive or generally negative in nature. Once again, this method of coding results in a total of coded statements that was greater than the total number of respondent answers to the survey's open-ended question. Statements that were coded as being generally positive numbered 68, while there were only 9 statements revolving around a general lack of support.

In moving forward with exploring the more specific positive subthemes, the next three subthemes featured in Table 27 focused on comics adding variety to the curriculum, being fun or enjoyable to read, and being easy to read or less intimidating than other forms of literature. It is important to note that comments that focused on comics being different from traditional literature or revolved around comics as being fun or easy to read may not have been inherently positive. It is true that some individuals may view comics as being fun or easy to read but might

also view these attributes as detracting from instead of contributing to the ability of comics to serve as a viable learning tool. With this being said, all comments about comics adding variety to the curriculum or being fun or easy to read were either clearly identifiable as positive in nature or were bolstered by other additional comments, which clarified that the variety that comics adds to the curriculum or the fact that they are fun or easy to read was a positive trait of the medium.

The largest or most extensive section of the positively coded responses focused upon the potential of comics to expose students to certain concepts or help them develop certain skills, most revolving around literacy in some form or fashion. These skills and concepts included reading comprehension, vocabulary development, and general writing skills, as well as literary concepts such as symbolism, characterization, imagery, and others. This section of coding also included comments about comics' potential to be useful as a scaffolding tool to aid students in mastering more complex material. The most frequently coded item in regard to the specific skills and concepts that comics can help develop was in the area of reading comprehension with a total of 16 comments, while the least frequently mentioned specific skill or concept was in regard to the potential of comics to help students master a foreign or second language. Obviously, each coded item appeared with different frequency amongst the respondents' comments, and some skills and concepts only received a relatively small number of comments. Regardless of frequency, each of these skills and concepts was deemed important and worth coding, largely because of the treatment that each has received in the scholarly literature on the academic use of comics.

The next two subthemes within the major theme of supportive or positive comments focused on comics' potential to be beneficial for students of certain ages, grade levels, or students with particular traits or needs. As Table 27 indicates, there were five times as many



comments about comics potentially being beneficial for elementary school children in comparison to middle school children and high school children combined. There were a total of 25 comments made about comics being potentially beneficial for elementary school, while only 3 comparable comments were made about middle school children, and only 2 comparable comments were made about high school students. Given the low number of comments in regard to comics being beneficial for middle school students and high school students, the researcher considered not including these codes in the results of the study at all. However, these codes were ultimately deemed important for their stark contrast in frequency when compared to the code for elementary school children.

It was also this subtheme of comics being potentially beneficial for students at varying grade levels or at varying ages that proved the most difficult to code. While some comments were very clear and decisive, such as, “I believe comics would be great for elementary school students,” other comments were more complex. Many respondents combined praise for comics at a certain grade level with a negative or unsupportive comment about comics’ potential to be beneficial at another level. Comments such as these were both positive and negative in nature and were thus coded accordingly, with the positive aspect of the comment being coded as supportive for a certain grade level and the negative part of the overall comment being coded as unsupportive at a certain age or grade level. Comments in which respondents stated that they felt that comics should “only” be used at a certain grade level were also complex. While comments such as these seemed to endorse the use of comics on the surface, the underlying implication of many of these comments seemed marked by a concern about comics’ potential to be beneficial for certain groups and the accompanying need to restrict the usage of comics to certain ages or groups. Due to these caveat-like statements, the researcher developed separate subthemes for

support at certain grade levels, restriction to certain grade levels, and lack of support at certain grade levels. The researcher identified this creation of subthemes as the best way to select codes that were internally homogenous while also being externally heterogeneous, in order to ensure that data was grouped appropriately and not overlapping (Patton, 2015).

A variety of comments were also made about comics' potential to meet the needs of or to be beneficial for certain audiences. These audiences included the following: visual learners, students who are unmotivated/reluctant or who struggle with reading, students with ADD/ADHD or who are easily distracted, students with various learning difficulties or learning disabilities, and male students. The code within this subtheme with the highest frequency of occurrence was related to struggling or reluctant readers, while other codes such as the ones related specifically to male students experienced a much lower frequency rate. However, regardless of the specific frequency, the researcher felt that the inclusion of all of these codes was important due to the consistent discussion of many of them in the scholarly literature related to the academic use of comics.

The final subtheme of the major theme of positive or supportive comments focused on parents' acceptance or support of the comics medium if the medium "works" or if students are "interested" in it. This final positive subtheme was somewhat conditional in nature and focused on statements in which respondents noted that their support would depend upon either the ability of comics to help students achieve successful learning outcomes or students' overall interest in the medium. However, while these comments were conditional in nature, they were overtly positive and supportive. Many of these comments seemed to be made by respondents who were enthusiastic about the use of any educational tool that might reach children, but who also professed ignorance about what tools might work and to what degree. The total number of

comments meeting the criteria for this code was 26, which was a frequency of more than 10% of all responses to the final open-ended question of the survey.

In transitioning to address the results of the second major coding theme (negative statements or statements of concern), it was revealed that positive comments occurred almost four times as often as negative comments or statements of concern. The first subtheme of this major coding category simply focused on statements that indicated a general lack of support, while the second focuses upon comics not being academic enough for classroom use. While some might find these subthemes to be redundant by concluding that a general lack of support must inherently be tied to a belief that comics are not academic enough to be included in the curriculum, this is not necessarily the case. Thus these subthemes received separate codes.

The third subtheme for negative statements or statements of concern focused upon comics being difficult to read, while the fourth subtheme dealt with comics' potential to be detrimental to the development of certain skills. This subtheme was further divided to address the primary two concerns in this category: a possible detriment to vocabulary development and a possible detriment to the use or development of student imagination or ability to visualize while reading.

Some respondents also reported that comics should be confined to or excluded from certain grade levels or ages. Some might assume that a respondent saying that s/he thinks comics should be confined to elementary school students would logically equate to the respondent believing that comics should be restricted from use with middle school and high school students. On the surface, this seems like a logical assumption; however, it would be presumptuous for a researcher to equate one statement of confinement with an accompanying statement of exclusion.

As such, the researcher of this study decided to divide exclusion from certain levels and confinement to certain levels into separate subthemes.

In the subtheme related to exclusion from certain levels, four statements occurred about exclusion from middle school grades, and six statements occurred about exclusion from high school grades. No statements related to exclusion from elementary school grades occurred, but the researcher included the code for exclusion from elementary school grades in the coding guide for direct comparison purposes. In the confinement to certain ages or grade levels subtheme, a total of six statements were made in regard to confining comics to elementary school students, but no statements about confining comics to middle school or high school students were made. In many ways, these two subthemes tell similar stories through the frequency of their codes; however, as previously stated, the researcher thought it best to divide these two subthemes because it would more accurately reflect the actual statements made by respondents.

Another subtheme of the major theme of negative statements or statements of concern focused upon content-related concerns. Only eight content-related statements were made by respondents. A few of these statements were rather specific and focused on violence, sexual content, or preserving Christian values, while others simply indicated that the specific content of some comics might be an issue for concern. Several of these statements contained a supportive element as well, which communicated that the respondent would be supportive of comics in the classroom as long as the content was not inappropriate.

The final subtheme in the negative statements or statements of concern category focused on concerns related to balance. While many of these statements contained a positive element that expressed support of comics so long as instruction was well balanced with traditional texts, other responses featured more skepticism. These statements were those in which the respondents made

a deliberate effort to point out that comics should certainly not be the only or the primary method of instruction or sole teaching tool in the classroom. In total, 39 such comments were made. As previously noted, some of these comments were clearly more supportive than others; however, while all comments were not overtly negative, all statements were laced with some measure of concern.

### **Summary of Research Question 3 Results**

The 212 responses offered to the instruments optional open-ended question reveal a great deal about respondents' overall feelings towards the use of comics in first through twelfth grade education. Overall, responses were very positive, and supportive comments outweighed negative comments or statements of concern by a ratio of nearly four to one. As such, positive comments represented a much broader range of qualitative codes. Codes for positive and supportive comments focused on elements such as comics' ability to be enjoyable and fun, easy to read, well-suited for certain audiences, and capable of facilitating the teaching of a wide variety of literary skills, techniques and concepts. Negative comments or statements of concern were much fewer. Many of these comments focused on comics been excluded from or restricted to certain age groups or grade levels. Also, statements focused on the importance of a balanced curriculum, along with comments related to comics' potential to be detrimental to the acquisition of certain skills were presented by respondents. Statements of concern over possibly inappropriate content were made as well. A great number of the comments made by the respondents can be linked to the scholarly literature related to the use of comics in the classroom, but these applications are made in Chapter V of this study and are not featured here in the Results section of the study.

## **Additional Findings**

Along with the core variables of focus in this study, the researcher also collected data pertaining to a number of additional variables. These additional variables included the following: respondent age, respondent level of education, history of employment in the field of education, readership habits of the respondent's oldest child enrolled at BBS (in regard to comics material), and readership habits of the respondent's oldest child enrolled at BBS (in regard to non-comics material). While these variables were not featured in the study's primary research questions, it was decided that they may still be of interest and could possibly shed additional light upon the findings of this study.

The researcher utilized the same statistical measures used to address to the first two research questions of the study in the treatment of these additional variables. The reason these statistical measures were used was to maintain consistency in the focus of this study by searching for any relationships between parents' perception of the value of comics as a learning tool, parents' preferences in regard to the frequency of the incorporation of comics into the curriculum, and a variety of respondent attribute variables. Additionally, nonparametric measures were utilized because the collected data did not meet the necessary assumption of normality of distribution.

In the interests of conciseness, not all of the tables that display the results of these tests are featured in this chapter; however, a summary or overview of the results of the statistical measures used to analyze the additional variables and their relationship with respondent perception scores are featured in Table 28. As the table displays three statistical procedures produced statistically significant results. Respondent level of education and the comics readership habits of respondent children were both found to be significantly correlated to

respondent perception scores. Also, the Mann-Whitney U test used to compare mean ranks of respondent perception scores based upon history of employment as a K-12 or college-level teacher also produced statistically significant results. Scores for respondents with a history of employment as a K-12 or college level teacher were significantly statistically higher than scores for respondents with no history of such educational employment ( $U = 7773.500, p = .001$ ). This suggests that individuals who have been or are employed as teachers may be more likely to view comics as having more potential as a learning tool than those who are or have not been employed as a teacher.

Table 28 Summary of the Results of the Statistical Tests and Procedures Required for the Analyses of Additional Variables (in Regard to Possible Relationships With Perception Score in Regard to Comics as a Learning Tool)

Variable with Possible Relationship with Perception Score in Regard to Comics as a Learning Tool	Statistical Test or Procedure Utilized	Result of Statistical Test or Procedure	Statistical Significance of Results
Respondent Age	Spearman rho Correlation Test	$rs = -.017$ $p > .05$	No
Respondent Level of Education	Spearman rho Correlation Test	$rs = .140$ $p < .05$	Yes
History of Employment in Education	Mann-Whitney U Test	$U = 7773.5$ $p = .001$	Yes
Comics Readership Habits of Oldest Child	Spearman rho Correlation Test	$rs = .167$ $p < .01$	Yes
Non-Comics Readership Habits of Oldest Child	Spearman rho Correlation Test	$rs = -.026$ $p > .05$	No

Table 29 displays the results of the statistical tests used to search for relationships between the additional variables and respondents' preference score in regard to the frequency of comics incorporation. Only one of these statistical tests produced a result that was statistically significant. The comics readership habits of the oldest child were found to be significantly correlated to respondent preference scores. This correlation was also the strongest of any found in the study.

Table 29 Summary of the Results of the Statistical Tests and Procedures Required for the Analyses of Additional Variables (in Regard to Possible Relationships With Preference Score in Regard to the Frequency of Comics Incorporation)

Variable with Possible Relationship with Preference Score in Regard to the Frequency of Comics Incorporation	Statistical Test or Procedure Utilized	Result of Statistical Test or Procedure	Statistical Significance of Results
Respondent Age	Spearman rho Correlation Test	$rs = -.072$ $p > .05$	No
Respondent Level of Education	Spearman rho Correlation Test	$rs = .086$ $p > .05$	No
History of Employment in Education	Mann-Whitney U Test	$U = 9176.5$ $p = .187$	No
Comics Readership Habits of Oldest Child	Spearman rho Correlation Test	$rs = .246$ $p < .01$	Yes
Non-Comics Readership Habits of Oldest Child	Spearman rho Correlation Test	$rs = -.044$ $p > .05$	No

While the additional variables and accompanying statistical tests described above are not featured as primary elements of this study's central research questions, the results of these statistical tests suggested that they were worthy of inclusion here as unexpected findings. The inclusion of unexpected findings is typical in quantitative and qualitative research studies



(Driscoll & Kasztalska, 2013; Stainbeck & W., 1988) and can sometimes lead to new research in novel directions (Coolican, 2014). The implications of all tests conducted for the additional variables, whether they produced statistically significant results or not, are addressed in Chapter V of this study.

## CHAPTER V

### DISCUSSION

#### **Introduction**

Chapter V presents a discussion of the study's results and offers commentary, insights, and implications of the findings. The commentary contained herein is offered in light of the related literature. This chapter, while based upon scholarly research, contains an element of personal interpretation as the researcher endeavored to tell the story presented by the collected data and develop the implications from the findings.

This chapter first focuses on discussing and interpreting the major findings of the first two research questions without addressing any attribute variables. Next, the results of the statistical procedures involving the attribute variables and their relationships with the core variables of each research question are discussed. These discussions are bolstered as much as possible with references to scholarly literature as well as with the respondents' own words, which they provided in the final open-ended question of the survey that focused on their general thoughts and feelings about the use of comics in first through twelfth grade education. Following this is a discussion of the third research question as well as a discussion of the additional variables and their accompanying statistical analyses and results. This chapter concludes with a final discussion of the overall findings and relevant implications for teachers, as well as suggestions for further research.

## **Research Question 1**

The first research question of this study focused upon parents' perception of comics as a learning tool and was addressed by developing individual perception scores in regard to comics as a learning tool for each respondent. These scores were then averaged to create a mean score for the sample of the study. As reported in Table 17, the overall mean perception score in regard to comics as a learning tool was 3.82. The researcher made no directional hypothesis about what the average perception score might be or what might constitute a high or low average perception score; however, at the conclusion of the study, an average score of 3.82 was considered by the researcher to be relatively high. This determination was reached in light of the volatile history of the reception of comics amongst the American public throughout the 20<sup>th</sup> century and the fact that scholarly literature does report a reluctance on the part of parents to support the academic use of comics (Feiffer, 2003; Griffith, 2010; McTaggart, 2008; Monnin, 2010; Norton, 2003; Nyberg, 1998; Sabin, 1996; Van Lente & Dunlavey, 2012; Weiner, 2003).

Responses to the open question at the end of the study survey helped to shed additional light on the findings of the first research question. As displayed in Table 27, parents made more than three times as many positive or supportive comments about the use of comics in first through twelfth grade education as opposed to negative or unsupportive statements. Also, many of their statements reflect an understanding of the potential benefits of comics that are also featured in the scholarly literature related to the academic use of comics. Examples include statements ranging from the idea that comics can help students grasp specific literary concepts to the idea that they can help motivate struggling or reluctant readers or those with specific learning disabilities.

The implications of these findings for teachers should be relatively clear. First, teachers should understand that the results of this study indicate that there may not be as much of a need to proceed with caution in utilizing comics in the classroom as the literature on the subject might suggest. This is not to say that all parents whole-heartedly support the academic use of comics. The responses to the open question at the end of the survey certainly indicate that this is not the case. However, the findings of this study do report a high degree of support from parents that may make teachers feel relatively more confident in gaining parental support for the academic use of the medium.

The prospect of parental support may lessen teachers' fears and anxiety over the issue of the academic use of comics, which the literature on the subject suggests is a concern (Connors, 2012b; Fitzsimmons, 2007; Martin, 2011; Rice, 2012; Schmidt, 2011; Tabachnick, 2010; Weaver-Hightower, 2013). As teachers move forward with incorporating comics into their curricula, they should not automatically assume that the support from parents is uninformed. As indicated by the responses to the open-ended question at the end of the survey, many parental statements of support reflect the scholarly literature on the potential benefits of the medium. While it is undeniable that different parents will individually support various academic practices to varying degrees, the relatively high perception score in regard to comics as a learning tool discovered by this study, which was bolstered with a great number of supportive statements made by the parents themselves, suggest that teachers should view the parental climate in relation to the academic use of comics as one of support rather than a potential minefield. Still, teachers and future researchers who take note of this study's findings should also be aware of the study's unique population and proceed with caution in applying the results of this study to a population which may not be demographically comparable.

## **Research Question 2**

The second research question of this study focused upon parents' preferences concerning the frequency of use of comics in the classroom and was addressed by developing individual preference scores in regard to the frequency of comics incorporation for each respondent. These scores were then averaged to create a mean score for the sample of the study. As reported in Table 17, the overall mean preference score in regard to the frequency of comics incorporation was 3.48.

On the surface, the perception of comics as a learning tool and a preference in regard to the frequency of comics incorporation in the classroom may seem quite similar. However, although the two concepts may be similar or related in some ways, it is important to differentiate between them. For example, simply because an individual views comics as a valuable teaching and learning tool does not necessarily mean that the individual would desire comics to be incorporated into an academic curriculum on a daily, or even weekly, basis. Along these same lines, while the researcher did not formally hypothesize this idea, it was suspected that perception scores in regard to comics as a learning tool would be generally higher than preference scores in regard to the frequency of comics incorporation. This is because while some individuals might be willing to support the academic value of comics from a theoretical standpoint, they may be less enthusiastic about comics frequently taking center stage in their own children's instructional time and academic program.

Of special note to a discussion of parental preferences concerning the frequency of comics incorporation is the fact that 18.4% of respondents voiced some sort of concern in their answer to the open-ended question about the usage of comics being well-balanced with other types of learning material. These concerns about a well-balanced curriculum in which a variety

of works are featured with consistency seem only natural, but the very fact that respondents felt the need to comment on the idea of balance in the curriculum with such regularity does indicate that a very real concern in this regard did exist for these respondents. It is important to point out that some of these concerns seemed to be inspired from varying levels of overall concern, meaning that some respondents' comments about balance in the curriculum seemed to focus intently on restriction and limitation while others seemed to more casually mentioned as an off-handed caveat.

Even though the average preference score in regard to the frequency of comics incorporation was lower than the average perception score in regard to comics as a learning tool, the researcher still considered the score to be relatively high, since preferences certainly leaned more towards supporting the regular use of comics in the classroom as opposed to shying away from regular use. This is important because it suggests that teachers should not necessarily be as apprehensive about incorporating comics into their curriculum, as the volatile history of comics in American culture might suggest. With this being said, teachers should still proceed with caution when considering how frequently to incorporate comics into their curricula. As these results suggest, parents' theoretical support of comics as a learning tool may not be matched with an equally fervent desire to see comics incorporated into their children's education with great regularity. Also, as previously stated, teachers and researchers should proceed with caution in generalizing the results of this study to various populations, which may be very different from the one utilized in this study.

## **Student Gender**

As displayed in Table 6 and Table 20, the mean perception scores and preference for parents of male children and the mean perception scores and preference scores of parents of female children were very close for both core variables. The mean perception score in regard to comics as a learning tool for respondents with an oldest male child was 3.82, while the mean perception score for respondents with an oldest female child was 3.81. This means that the average perception score in regard to comics as a learning tool only differed by .01 between respondents with an oldest male versus oldest female child. The mean preference score in regard to the frequency of comics incorporation for respondents with an oldest male child was 3.49, while the mean preference score for respondents with an oldest female child was 3.46. Once again, this difference of .03 is exceedingly small. Also, it is highly important to note that the differences in mean rank for both of these variables were not found to be statistically significant, as shown in Table 7 and Table 21.

Even though the results of the statistical analyses of these variables were not found to be statistically significant, some may wonder why perception and preference scores for respondents with male children were slightly higher for both core variables. Any speculation in this regard is hypothetical, but it does seem that these results are consistent with the scholarly literature on the educational use of comics, much of which openly suggests that comics can be a useful tool in reaching young males (Brozo, 2012; Cooper et al., 2011; Griva et al., 2012; King, 2012; McGeown et al., 2016; Moeller, 2011; Nyberg, 1998; Rapp, 2011; Sabeti, 2012). While it does not seem likely that the majority of the sample of this study would be familiar with the literature that suggests comics are especially beneficial for males, it may be possible that the literature

simply reflects an apparent phenomenon in American culture that the respondents are aware of as well: the simple fact that comics readership is more associated with males than females.

Additionally, the slightly higher average scores for both core variable categories for respondents with male children does match well with the fact that five respondents openly stated that comics may be especially beneficial for male readers, but no respondents specifically mentioned that comics may be specifically appealing to a female audience. Additionally, perhaps a slightly related phenomenon is the fact that 35 respondents remarked in their answers to the survey's open question that struggling readers may especially benefit from the educational use of comics. This idea is strongly supported by the literature on the subject of the academic use of comics (Connors, 2012a; Decker & Castro, 2012; Lawn, 2012; Newkirk, 2006; Schmidt, 2011; Smetana et al., 2009; Wolfe et al., 2012), and much literature also suggests that male students are more likely to be struggling or reluctant readers than females (Boltz, 2007; Harrison, 2012; Newkirk, 2006; Sokal et al., 2009; White, 2007). So, while only a few respondents mentioned specifically that male students may specifically benefit from comics in the classroom, many more respondents mentioned another faction of students who may benefit from the academic use of comics, and this group is more typically male than female. Once again, this could give some insight into why the averages were slightly higher for respondents with male children; but simultaneously, it is important to understand that the differences in these averages are extremely small and were found not to be statistically significant. Due to this fact, it should be emphasized that the differences in scores between genders may very well be due to random fluctuation, and the overall differences between genders should not be overemphasized or attributed undue importance.



Based on the results of this study, it appears that teachers cannot necessarily expect more or less enthusiasm or support from parents of either gender. While the scholarly literature on the subject might suggest to some that teachers should perhaps focus on male students and, by association, male parents, the results of this study do not suggest in any way that parents of male or female students would be more or less supportive of the academic use of comics. This may be important for teachers who want to incorporate comics by encouraging them to approach all parents about the subject of comics in the classroom, not simply the sex that the scholarly literature suggests is the primary readership of the medium. Still, whether these findings and their accompanying implications would hold true for a different population is an important question to pose and is one that may deserve consideration in both applying the results of this study as well as in considering the next steps for further research. Given the relatively unique mission of Boyd Buchanan School and its equally unique student and parent population, generalizing the results of this study to other populations may be unwise, and researchers and teachers should proceed in this endeavor with caution.

### **Respondent Gender**

A primary aspect of respondent gender that calls for discussion is the fact that female respondents had higher mean scores for both perception of comics as a potential learning tool and preference in regard to the frequency of comics incorporation. As displayed in Table 8, the average female perception score in regard to comics as a learning tool was 3.90, while the average male perception score was 3.67. Also, as displayed in Table 22, the average female preference score in regard to the frequency of comics incorporation was 3.54, while the average male preference score is 3.37. With this being said, the only statistically significant difference in

mean rank scores between respondent genders was in regard to the respondents' perception score in regard to comics as a learning tool. Despite the fact that the mean ranks were only significantly statistically different in this one instance, reasoned speculation as to why female respondents' mean scores were slightly higher for both core variables may be useful.

To a certain degree, the fact that the average perception score and preference score were both higher for female respondents might actually be somewhat of a surprise since the literature suggests that male students are especially receptive to comics and that comics is a tool that has been known to work well in motivating male readers (Brozo, 2012; Cooper et al., 2011; Griva et al., 2012; King, 2012; McGeown et al., 2016; Moeller, 2011; Nyberg, 1998; Rapp, 2011; Sabeti, 2012). In other words, some might assume that since comics is often associated with male interest, male respondents to this study would naturally demonstrate a higher mean perception score and preference score; however, this was not the case. Also of note is the fact that five respondents noted that male students would benefit from comics in the open question at the end of the survey, but no respondents noted that females in particular may benefit from the educational use of comics. Once again, the fact that respondents only mentioned male students specifically benefitting from comics might leave some to assume that male respondent support for the medium would be higher.

As previously noted, despite the fact that the average female score for each core variable was slightly higher than the average male score, only the perception scores in regard to comics as a learning tool were shown to have mean ranks that are statistically significantly different. These results are featured in Table 9. The implications of these results may be relatively clear to some readers: if teachers wish to breach the subject of using comics in the classroom with the parents of their students, they may find a more receptive or tolerant audience in mothers than fathers, and

this may be where they wish to begin their communication. However, the fact that respondent scores were fairly comparable and that statistical significance was only discovered when comparing the mean ranks of one of the two variables also strongly suggests that neither male nor female parents were necessarily prone to be more or less accepting or judgmental about the educational use of comics. Even given the difference in mean scores, mothers should not necessarily be seen as more approachable on the subject of comics or more attuned to the supposed academic advantages of the medium. This may actually free teachers of potential prejudices or apprehensions as they communicate with parents about the academic practices concerning comics that they choose to adopt.

### **Enrolled Grade of Student**

Perhaps the most perplexing result of this study is the fact that the correlations between the two core variables (the perception score and preference score) and the variable of the enrolled grade of the respondent's student were very small, were not significant in either case, and were oppositely correlated for each core variable. Given the fact that the comics medium is so often associated with children or a juvenile audience (Bakis, 2012; Carter, 2013; Masuchika & Boldt, 2010; Sturm, 2005b; Ware, 2005; Weaver-Hightower, 2013), one might expect that there would be a negative correlation between the enrolled grade of the student and the respondents' perception scores in regard to comics as a learning tool and preference scores in regard to the frequency of comics incorporation. In other words, since so many people seem to associate comics with children's literature or juvenile reading material, it might be logical to assume that respondents' perception scores and preference scores would be at their highest for respondents

with young children and that these scores would drop as the enrolled grade of the respondents' children increased.

This, however, was not the case. Correlations between both core variables and the enrolled grade of the student were exceedingly low and were different for each core variable. As displayed in Table 5, perception scores in regard to comics as a learning tool were only positively correlated at .015 with the enrolled grade of the student, meaning that as the grade of the students increased, the respondents' perception scores also increased. This correlation was not statistically significant ( $rs = .015, p > .05$ ). As displayed in Table 19, preference scores in regard to the frequency of comics incorporation were only negatively correlated at .05 with the enrolled grade of students, meaning that as the grade of students increased, preference scores decreased. Once again, this correlation was not found to be statistically significant ( $rs = -.050, p > .05$ ).

These very slight correlations that were not found to be significant are also surprising in light of respondents' answers to the final open question of the survey. As noted in Table 27, respondents mentioned that comics may be beneficial to elementary school students five times more than middle school and high school students combined. Additionally, not a single respondent mentioned that comics should be excluded from elementary school, but several respondents did mention that comics should be avoided for middle school and/or high school students. Likewise, some respondents noted that comics should be confined to elementary school, but no respondents stated that they believed comics should be confined to middle school or high school use. Once again, these responses would seem to suggest that respondents' perception scores and preference scores would be at their highest for respondents with children enrolled in younger grades and that these scores would drop as the enrolled grade of the

respondents' children increased. The actual results of the statistical analyses, however, show no such relationship.

The implications of these results for teachers could potentially be quite important, even though the correlations were minor and were not found to be statistically significant. Since many individuals would probably associate comics with younger grades as the literature suggests, it is likely that teachers would feel more comfortable incorporating comics into lower grade levels and that perhaps teachers of older students might actually fear parents' reactions to what is traditionally viewed as juvenile reading material. After all, the literature does present numerous cases of pushback from students in higher grades about the incorporation of comics into the educational process (Carter, 2013; Tilley, 2013b; Weaver-Hightower, 2013; Whitt, 2013), as well as a well-documented history of parental concern over the educational value of comics (Feiffer, 2003; Jenkins & Detamore, 2008; Monnin, 2010; Nyberg, 1998; Sabin, 1996; Van Lente & Dunlavey, 2012; Ware, 2005). The results of this particular study, however, indicate that parental concerns based upon the grade level of the parents' children should not necessarily be a concern for teachers. If parents' perceptions of the academic value of comics and their preferences concerning the frequency of use of comics in the classroom are not significantly related to student grade level, teachers at all levels should feel equally comfortable utilizing the medium without more or less fear over negative parental reactions.

### **Parents' Readership Habits in Regard to Comics**

The notion that parents' attitudes towards the academic use of comics might be related to their personal readership habits was of interest in this study, especially since the scholarly literature concerning comics in the classroom does not breach this subject. Over the years, a

number of researchers have examined parents' readership habits and their relationship with various phenomena. For example, Akubuilu, Okorie, Onwuika, and Uloh-Bethels (2015) made connections between low readership skills in children and parents' literacy levels, reading habits, and exposure to reading culture. Also, Huang, Tsai, and Huang (2015) found that parents' reading habits are an important factor in promoting reading activities in elementary schools. However, as previously stated, the scholarly literature on the use of comics in educational settings does not address any possible link between parents' reading habits of comics and their perception of the academic value of the medium or their preferences concerning the frequency of use of comics in the classroom. This is largely why this research study focused upon this idea: in order to attempt to fill a gap in the available body of knowledge.

In this study, no directional hypothesis was constructed in relation to parents' readership habits in regard to comics and parents' perceptions and preferences concerning the academic value and use of comics; however, it was suspected that there would be a positive correlation between these phenomena. The researcher anticipated that the data would show that as the number of hours that parents spend reading comics increased, so would parents' perception of the academic value of comics, as well as their preferences towards the frequency of use of comics in the classroom. While this phenomenon does not appear to be discussed in the scholarly literature on comics, it seems logical that if parents spend a great deal of time reading comics for pleasure, they would probably have a high degree of appreciation for the medium and would therefore be more likely to support academic use of comics. Along these same lines, avid readers of comics might have a deeper understanding of the complexities and possible benefits of the medium and might be able to envision its value in the classroom to a greater degree than nonreaders of comics or parents who read comics less frequently.

The early assumption that positive correlations between these variables might exist was never a foregone assumption. Simply because parents enjoy interacting with a medium in their free time does not necessarily mean that they believe that the medium is worthy of academic attention. In fact, it would be plausible that as parents enjoy comics more frequently for personal entertainment use, they would separate the medium from an association with academic use. Other possibilities exist as well. For example, like any medium, works of comics may feature a wide variety of content that may or may not be acceptable in the classroom, and since it is reasonable to assume that adult readers may be more drawn to “adult” content (especially when reading for leisure purposes), some adult readers may associate the medium with material that is appropriate for adults but not appropriate for children or for the classroom. Indeed, in response to the open question at the end of the survey, a few parents did report that they had concerns about the appropriateness of the content of comics, but then again it is uncertain whether these concerns were born out of a true and accurate knowledge of the abrasive nature of some comics, or whether they were due to some preconceived notion about the content of comics and not based upon actual personal experiences.

Ultimately, the relatively small but statistically significant correlations between this attribute and the study’s core variables did exist. As displayed in Table 12, there was a statistically significant correlation of .182 between the comics readership habits of parents and parents’ perception scores in regard to comics as a learning tool ( $rs = .182, p < .05$ ). Also, as displayed in Table 25, there was a statistically significant correlation of .132 between the comics readership habits of parents and parents’ preference scores in regard to the frequency of use of the medium in the classroom ( $rs = .132, p < .05$ ).

While some parents did make remarks about their personal readership habits in their responses to the open question at the end of the survey, these responses were not coded since the open question did not focus on personal readership habits of parents or their own personal level of enjoyment of the medium. However, the fact that several parents did make comments about their personal readership habits in their answers to a question pertaining to their feelings about the use of comics in first through twelfth grade education did help to reinforce the notion that there was a relationship between these two variables. As teachers reflect upon the discovery of these significant relationships, it is important for them to realize that there does appear to be at least some connection between parental readership habits of comics and parental support of the medium in the classroom. As such, while teachers seek to meet the needs of students whose parents are invested in their education, opening dialogue with parents about their readership habits may be an important topic of discussion, especially if teachers are considering exploring the use of somewhat nontraditional reading material. Additionally, if a teacher is specifically and intentionally planning on incorporating works of comics into the classroom, encouraging parent readership of the medium might possibly be a useful tool in paving the way for a successful incorporation.

Before undertaking such an endeavor, however, teachers need to ensure that their relationship with their stakeholders is such that they feel confident and comfortable communicating with them in this regard and about such matters. Each school is a unique community with its own particular group of internal and external stakeholders. Some methods of communication about certain types of reading material may work well in one setting and fail in another. Given this fact, it is again important to point out the relatively unique community that



made up the population of this study. All teachers should consider their own population and act accordingly.

### **Parents' Readership Habits in Regard to Non-Comics Material**

Many of the same questions that might be asked about parents' readership habits of comics and their relationship with parents' feeling towards the use of comics in the classroom could also be applied to the variable of parents' readership habits in regard to non-comics material. However, additional elements exist in this regard as well. Some may speculate that parents who read more traditional literature may be generally more open-minded about new or innovative teaching practices. This may seem like a bold statement, but research has shown that story reading can be a powerful factor in improving attitudes towards those different from ourselves (Vezzali, Stathi, Giovannini, Capozza, & Trifiletti, 2014) and that there is substantial overlap in the brain networks used to understand stories and those that help us empathize with others and guide our social interactions (Mar, 2011). Also, as might be expected, a strong link exists between reading comprehension and critical thinking (Aloqaili, 2012).

Given these phenomena, some may speculate that parents who read more traditional literature might be more supportive of a teacher's desire to use a variety of media types in the classroom. Maybe they would be more sympathetic to the desires and needs of children and would be more likely to support any methods and materials that might reach children in the classroom. Perhaps parents who read greater amounts of non-comics material would have such an appreciation for literature that they would more likely to support the use of literature in all of its various forms. These speculations, however, are merely conjecture.

The idea that parents who read greater amounts of non-comics material would be less supportive of comics in the classroom is plausible as well. It seems feasible that parents who are avid readers of traditional literature might have a more narrow definition of what reading and literature really are and might only associate the idea of actual reading with the most traditional manifestation of literature. Such complexities are perhaps why the results of the statistical procedures for this variable were the most disparate. Non-comics readership habits of parents were found to have only a very small positive correlation with parents' perception scores in regard to comics as a learning tool, and this relationship was not found to be significant ( $r_s = .007, p > .05$ ). These results are featured in Table 15. However, the researcher did identify a statistically significant negative correlation between parents' non-comics readership habits and parents' preference scores in regard to the frequency of comics incorporation into the classroom ( $r_s = -.124, p < .05$ ). These results are featured in Table 24. This suggests that the more traditional literature that parents read, the less likely they are to support the use of comics in the classroom with great frequency.

While the reason for this statistically significant relationship can only be guessed at, it does seem to make sense in some previously noted ways. It is somewhat logical to assume that parents who are avid readers of traditional literature have an overt appreciation for that particular medium, and this appreciation may naturally coincide with a preference that this form of literature take center stage in the classroom and that other forms of media be used less frequently. But once again this is speculation. Regardless of the reason for the relationship, there are implications of these findings for teachers, namely the idea that parents' readership habits could be a vital area of focus as teachers seek to implement somewhat nontraditional teaching tools into the classroom. The negative correlation here should not necessarily be taken as any

indication that teachers should not incorporate comics into their classrooms because parents who are avid readers of traditional literature might disapprove. It simply suggests, if nothing else, that open communication between teachers and parents is key as teachers explore new teaching methods. Also, the more teachers can discover about the parents of their students, the more they may be able to predict certain reactions to various types of teaching material, thus allowing teachers to predict, avoid, or address possible conflict with more effectiveness.

## **Additional Variables**

### **Respondent Age**

Respondent age was only slightly negatively correlated with respondents' perception scores in regard to comics as a learning tool and preference scores in regard to the frequency of comics incorporation. These correlations were not found to be statistically significant. Some may speculate that older individuals might be more inclined to adhere to a more traditional notion of literature and may be more supportive of the use of traditional learning tools in the classroom or that younger parents may be more likely to support newer and more innovative educational tactics such as the use of comics; however, the results of this study do not indicate that this is the case, at least insofar as it relates to the academic use of comics.

While the age of an American citizen may be such that the life experiences of that individual have coincided with any number of interesting events or time periods in the popular reception of comics in American culture, the results of this study indicate that there is no reason to believe that older or younger parents would be more or less inclined to support the academic use of comics. While age is typically viewed by many as an important factor in personal identity, the lack of statistical significance identified in this study in regard to respondent age and its

relationship with the core variables indicates that other factors besides respondent age are more vital to examine in an exploration of parental perceptions of the academic use of comics.

Teachers may have any number of preconceived notions of how a parent's age may impact or be related to that parent's reaction to certain teaching practices. Some may assume that older individuals might be more entrenched in their support of traditional teaching methods and could perhaps be more resistant to change or innovation, while others might assume that as parents age, they become more open-minded as life experiences bestow wisdom and shrewdness. However, the results of this study indicate that teachers should eschew any preconceived notions about how a parent's age may shape his or her reaction to the academic use of comics.

### **Respondent Level of Education**

Respondent level of education was positively correlated with both respondent perception scores in regard to comics as a learning tool and respondent preference scores in regard to the frequency of comics incorporation. The correlation with respondent perception scores at .14 was stronger than the positive correlation of .08 with respondent preference scores. In addition, the correlation between respondent level of education and perception scores in regard to comics as a learning tool was the only of the two correlations that was found to be statistically significant below the .05 level.

The positive correlation between respondent level of education and respondent perception scores and preference scores may seem logical on the surface. As individuals continue in their educations, they are likely to encounter a greater variety (or at least a greater number) of teaching tools and tactics. It would seem to make sense that increased exposure to more teaching tactics and tools might cause individuals to be more open-minded about or supportive of

different teaching tools such as comics. While this assumption should not be a foregone conclusion, higher levels of education and increased cognitive ability have been found to correlate positively with personal traits such as tolerance and acceptance of others (Guthrie, King, & Palmer, 2000; Taylor, 1990).

While the correlations between respondent level of education and respondent perceptions scores and preference scores were small and only statistically significant in one instance, there may be implications for teachers. The first implication is that teachers may want to take an active but tactful interest in the level of education of students' parents as they experiment with new or innovative teaching tactics, such as the use of comics. Another implication is that by encouraging their own students to continue their education at increasing high levels of rigor and achievement, teachers may in turn be working towards creating future parents who are also more supportive of new and innovative teaching tactics.

### **History of Employment in Education**

Preference scores in regard to comics as a learning tool for respondents with a history of employment as a K-12 or college level teacher were significantly statistically higher than scores for respondents with no history of such educational employment ( $U = 7773.500, p = .001$ ). Also, the average perception score in regard to the frequency of comics incorporation was higher for respondents who are or have currently been employed as teachers; however, this difference was not found to be statistically significant. Still, these findings do suggest that individuals who have been or are employed as teachers may be more likely to view comics as having more potential as a learning tool than those who are not or have not been employed as a teacher.

As discussed throughout the first two chapters of this study, scholarly literature related to the use of comics in education is rife with praise for the medium. It is natural to assume that while this literature is available to the public at large, it would probably hold more interest for those employed in the field of education. In some ways, it is logical to assume that teachers would be exposed to more scholarly literature that promotes the use of comics in the classroom, in comparison to non-teachers, as teachers seek professional growth opportunities and explore the latest teaching techniques, practices, issues, etc. Also, some teachers may have had the opportunity to use the medium in the classroom themselves and observe the benefits of incorporating comics into the curriculum firsthand.

Some may also assume that current or previous teachers may be generally more open-minded to a wider variety of teaching tactics and tools because of their firsthand experience in the field. In general, there may be a tendency to associate educators with open-mindedness since the very notion of education is often associated with ideas related to wisdom, the exercising of sound judgment, exploration, and tolerance. For example, studies have found that college professors tend to be more socially and politically liberal (Gross & Simmons, 2007; Zipp & Fenwick, 2006), but the idea that social and political liberalness would carry over into tolerance of and support for various media and their usage in education would be conjecture at best. The fact remains that teachers are human and are prone to various levels of tolerance and open-mindedness, just as individuals employed in other fields are; notwithstanding, this study did find that current or previous teachers viewed comics as having more potential as a teaching tool than non-teachers.

These findings could be helpful in encouraging teachers to build a communication network with other educators who are seeking to utilize comics in their own classrooms. Since

the results of this study suggest that current or previous teachers are more likely than others to view comics as a medium worthy of academic study, these individuals could be a prime resource for teachers as they seek to incorporate the medium into their own classrooms with wisdom and prudence. This may be especially important for new or pre-service teachers since some researchers have discovered that these individuals may be especially fearful about damaging their professional credibility by incorporating comics into their curricula (Clark, 2013; Connors, 2012a).

### **Student Readership Habits of Comics**

Perhaps the most powerful finding of this study was the fact that both parents' perception scores in regard to comics as a learning tool and parents' preference scores in regard to the frequency of comics incorporation were positively correlated with parents' perception of how many hours per week their child spends reading comics. Perception scores were correlated at .167, and preference scores were correlated at .246; both of these correlations were statistically significant below the .01 level. This indicates that parents who believe their children spend more time reading comics for pleasure outside of school are more likely to support the use of comics in the classroom.

While the final open question of the survey did not ask parents to comment upon their children's readership habits in any way, several parents did mention that their children do enjoy reading comics both for pleasure and as a part of their schoolwork. Each of these comments was also mentioned in conjunction with one or more supportive statements about the use of comics in education. This lends further support to the idea that a relationship may exist between children's readership habits and parents' support of the academic use of comics.

In some ways, it is natural to assume that if parents allow their children to interact with a certain medium in their free time, they support the use of that medium in some ways or to a certain degree. It may be fallacious to assume that support of reading comics in a child's free time would translate to an accompanying support of comics in the classroom, but based upon the study results, this does seem to be the case. An important implication of this finding is that it may be in the best interest of teachers to explore or inquire about the types of reading material that students are interacting with in their free time or outside of school. Understanding what types of reading material students interact with for pleasure may offer valuable insight into the kinds of academic reading material that their parents may support, which may be instrumental in fostering successful interactions between teachers and parents as teachers seek to meet the needs of these two stakeholder groups.

Another implication of these findings for teachers may be that if teachers wish to influence the attitudes of parents towards certain types of nonconventional reading material, they may want to encourage students to read that type of material in the presence of their parents or to advertise to their parents that they enjoy reading said material for pleasure. While it would be fallacious to assume that every parent would approve of and support all media choices that their children make, it is somewhat logical to assume that parents may be more inclined to support the academic use of certain materials if they witness firsthand their child deeply interacting with that medium. If nothing else, these significant findings indicate that there is a relatively strong link between the types of material that parents see their children interacting with at home and what types of material those parents may support in the classroom. Teachers may use this relationship to their advantage as they make strategic choices about what types of literature to incorporate into their curricula.



### **Student Readership Habits of Non-Comics Material**

As displayed in Table 28 and Table 29, there were very slight negative correlations between the core variables of this study and parents' perceptions of the amount of time that their children spend reading non-comics material for pleasure. Also, these relationships were not found to be statistically significant in either case. Parents' perception score in regard to comics as a learning tool was only negatively correlated with this variable at .026, while parents' preference score in regard to the frequency of comics incorporation was only negatively correlated with this variable at .044.

These results are noteworthy when compared to the highly significant positive correlations discovered between parents' perceptions of how much time their children spend reading comics for pleasure and the core variables of this study, which have been previously discussed. The strongest implication for teachers in regard to this finding is the fact that teachers should simply be aware of this lack of relationship. As teachers seek to bridge the gap between certain educational practices or materials as they add variety to their curricula, they may seek to make connections between certain in-class and out-of-class activities in which students are engaged. However, the results of this study indicate that simply because a student spends a good deal of time reading non-comics material or traditional literature outside of the classroom does not mean that the parents of that student would be supportive of the use of other types of reading material, namely comics, inside the classroom. In fact, even though these correlations are quite small and were not found to be statistically significant in nature, there is possible reason to believe that just the opposite is true; as parents observe their children spending more time with a certain type of material outside of the classroom, those parents may be less inclined to support a different type of reading material inside the classroom. This assumption or possibility could be

based upon the negative correlations between these variables discussed above, but once again, these correlations were small and were not statistically significant.

It is true that in response to the open question at the end of the survey, some parents reported that their children did not enjoy reading comics in their free time. These same parents also reported that they did not support the use of comics in the classroom. However, these parents did not make any illuminating comments about how often or how much time their children spend reading non-comics material outside of the classroom, which may have shed some additional light on these findings.

### **Research Question 3**

The third research question asked about parents' general feelings towards the incorporation of comics into first through twelfth grade education. As might be expected, responses to the open-ended question on the survey that was tied to this research question were quite numerous and varied. The researcher coded a total of 416 statements made in response to the survey's open question, and the discussion of the results of this research question will focus on telling the story that these data hold in regards to this study's main focus (Rossman & Rallis, 2003).

The first aspect of the coded data that serves as an answer to Research Question 3 and that needs to be discussed is the fact that the responses to the open question were overwhelmingly positive. Positive remarks outweighed negative remarks by a ratio of more than three to one. This finding helped bolster the decision to consider the average perception score in regard to comics as learning tool of 3.82 as being fairly high.

Also, it is important to note that the supportive comments were closely aligned with the scholarly literature that details the potential benefits of comics. It was largely for this reason that such statements were coded and included in the results of this study. For example, amongst other elements as well, parents commented upon the following features of comics that have also been mentioned in the scholarly literature on the academic use of comics:

- Comics can add variety to curriculum: (Bakis, 2012; Decker & Castro, 2012; Fox, 2013; McVicker, 2007; Short et al., 2013)
- Comics are enjoyable, interesting, and/or engaging: (Boltz, 2007; Brozo, 2012; Decker & Castro, 2012; Fitzsimmons, 2007; Johnson & Gooliaff, 2013; McGeown et al., 2016; Moeller, 2011; Rapp, 2011; Rubin, 2013; Sanford & Madill, 2007; Schmidt, 2011)
- Comics are easier or less intimidating to read than traditional literature: (Bakis, 2012; Thalheimer, 2009)
- Comics can help build vocabulary development (Griffith, 2010; Haines, 2012; Rubin, 2013; Tilley, 2013b; Weiner, 2003)
- Comics can bolster reading comprehension acquisition (Carter, 2008; Rubin, 2013; Weiner, 2003)
- Comics can reinforce literary conventions such as symbolism, characterization, plot development, dialogue, and point of view (Hart, 2010; Martin, 2011; Smetana et al., 2009; Wolfe et al., 2012)
- Comics address complex themes and can help students acquire an understanding of thematic material: (Bakis, 2012; Evans, 2013; Haines, 2012; Hart, 2010; Marrall, 2013; Sabin, 1996; Sardone & Devlin-Scherer, 2015)

This close alignment with what the scholarly literature reports as potential benefits of comics suggests that many parents are already familiar with many of the strengths of comics and may not necessarily need encouragement from teachers in order to recognize the advantages of incorporating comics into the curriculum. Perhaps the benefits of comics are so apparent that respondents have taken note of them in their personal experiences and their experiences with their own children. Another possibility is that as the academic use of comics grows, parents have been exposed to reports of the benefits of comics in various forms, such as newspaper articles, Internet blogs, the appearance of graphic novels on best seller lists, and so on.

It is also important to note that while negative statements were made, these comments were generally less specific than statements that supported the use of comics. This suggested that those who did not support the academic use of comics may not have had evidence or data to support their opinions and may simply have been voicing an emotional reaction to the medium. This, however, is speculation; it may be the case that individuals who spoke out against the use of comics in the classroom simply chose to be less specific than those who supported the use of comics.

As previously noted, no significant correlation between student grade level and either major variable was identified. This lack of correlation may be somewhat surprising in light of the respondent answers to the open-ended question that focused on the subject of student grade level. For example, 25 respondents stated in their answer to the open-ended question that comics may be particularly beneficial for elementary school students, while only five respondents stated that comics may be beneficial for middle school or high school students. Similarly, on the negative end of the coding spectrum, six respondents stated that comics should be relegated or limited to elementary school students, while no respondents made such comments about the use of comics

in middle school or high school. Finally, four respondents stated that comics would be inappropriate for middle school students, and six respondents said that comics would be inappropriate for high school students; but no respondents stated that comics would be inappropriate for elementary school students. This phenomenon suggests that although individuals may be more vocally supportive of the use of comics with elementary school students, it should not be a foregone conclusion that parents would actually be less supportive of the use of comics throughout all grade levels.

A clear theme throughout the qualitative data was the need for a balanced approach to instruction and the incorporation of a well-balanced body of literature into the curriculum. Some respondents made such statements in a generally positive manner by noting that comics could serve as scaffolding material that would help students access and understand other types of literature, while other respondents took a more cautious approach and argued that comics should only be incorporated into first through twelfth grade education if care was taken to make sure other material was included as well. Whether supportive or cautious, all of these statements shed light on a desire amongst the respondents for a variety of reading materials to be featured in the curriculum, and it does seem logical that parents would want a well-rounded education for their children that features a healthy sample of a media exposure.

In conclusion, this final point about a balanced approach to media exposure may be one of the most important findings of this study. While respondent support for the academic use of comics was relatively high in this case, teachers should not necessarily take this as an open invitation to switch their instruction to being largely comics-based. After all, a high degree of support does not equate to exclusive support, and while the results of this study did indicate that teachers should feel confident in being able to gain parental backing their use of comics in the

classroom, teachers should also proceed with tact and wisdom. In all things, teachers should strive to prepare students for the world they will enter when they leave the classroom. Comics may be a useful tool in this regard, and this study suggests that it is a tool that parents support; however, a curriculum that only features the medium of comics may be just as dangerous, if not more dangerous, than one that does not feature them at all.

### **Suggestions for Further Research**

This study focused primarily on discovering whether potential relationships between variables existed and did not venture into the realm of causation. As such, the reasons behind why the relationships discovered in this study exist remain a mystery. However, this study has provided a preliminary groundwork for studies that seek to go beyond discovering relationships and actually venture into exploring the causes of those relationships. Even before this endeavor were to begin, though, it may prove useful for some form of this study to be replicated with either a comparable population or a population with greater potential for generalizability to the American public. This would ultimately help to illuminate whether the findings of this study have the potential to hold true over time and if they are truly generalizable to comparable populations or even different populations.

Additionally, while this study focused upon the perceptions and preferences of parents, future studies could further fill gaps in the available body of knowledge by focusing upon teacher perspectives and/or student perspectives. Such studies may provide an insightful point of comparison to this study by presenting the opportunity to examine the perspectives of other educational stakeholders alongside those of parents. Finally, any further studies could expand the groundwork laid by this study by increasing the number and type of attribute variables included.

Such studies would help to provide further insight into the complex phenomenon of personal perspectives of nontraditional reading material in the classroom.

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APPENDIX A

BOYD BUCHANAN SCHOOL DEMOGRAPHICS DATA



The information presented here was collected by the principals of each respective school on the Boyd Buchanan campus in preparation for an annual State of the School presentation for the institution's board of directors.

**Boyd Buchanan School Enrollment (2016/2017)**

**Elementary School:**

Pre-K3/4	39
Kindergarten	55
1 <sup>st</sup> grade	57
2 <sup>nd</sup> grade	47
3 <sup>rd</sup> grade	63
4 <sup>th</sup> grade	58
5 <sup>th</sup> grade	66
Total	385

**Middle School:**

6 <sup>th</sup> grade	84
7 <sup>th</sup> grade	76
8 <sup>th</sup> grade	91
Total	251

**High School:**

9 <sup>th</sup> grade	87
10 <sup>th</sup> grade	71
11 <sup>th</sup> grade	65
12 <sup>th</sup> grade	67
Total	290

**Total number of students at BBS: 926**

**Total number of families with children at BBS: 729**

### Boyd Buchanan School Gender Distribution (2016/2017)

#### Elementary School:

Male	231	60%
Female	154	40%

#### Middle School:

Male	154	61%
Female	97	39%

#### High School:

Male	153	53%
Female	136	47%

### Boyd Buchanan School Family Status Distribution (2016/2017)

#### Elementary School:

Married Parents	82%
Divorced/Separated Parents	12%
Single/Widowed Parents	5%
Other Guardians	1%

#### Middle School:

Married Parents	74%
Divorced/Separated Parents	22%
Single/Widowed Parents	4%
Other Guardians	0%

#### High School:

Married Parents	77%
Divorced/Separated Parents	17%
Single/Widowed Parents	5%
Other Guardians	1%

## Boyd Buchanan School Racial Diversity (2016/2017)

### Elementary School:

Caucasian	87%
African American	8%
Other	3%
Hispanic/Latino	1%
Hawaiian/Pacific Islands	1%

### Middle School:

Caucasian	86%
African American	10%
Asian	1%
Hispanic/Latino	1%
Indian	1%
Other	1%

### High School:

Caucasian	89%
African American	5%
Asian	4%
Hispanic/Latino	2%

## Boyd Buchanan Religious Diversity (2016/2017)

### Elementary School:

Church of Christ	30%
Christian/Non-denominational	25%
Baptist	21%
Methodist	10%
Presbyterian	5%
Catholic	2%
Other/Unknown	1%
Lutheran	1%
Episcopal	1%
Islamic	1%
7 <sup>th</sup> Day Adventist	1%
Greek Orthodox	.5%
Nazarene	.5%
Hindu	.5%
Buddhist	.5%

### Middle School:

Church of Christ	28%
Baptist	27%
Other/Unknown	13%
Christian/Non-denominational	13%
Methodist	11%
Presbyterian	5%
Catholic	2%
Hindu	1%

### High School:

Church of Christ	33.8%
Baptist	21.7%
Christian/Non-denominational	17.2%
Methodist	13.8%
Other/Unknown	3.8%
Presbyterian	2.8%
Lutheran	2.1%
Catholic	2.1%
Episcopal	1.7%
7 <sup>th</sup> Day Adventist	0.7%
Hindu	0.3%

**Boyd Buchanan School percentage of students enrolled in BBS academic support programs (2016/2017)**

**Elementary School (“Wings” program):**

Pre-K3/4	2.5%
Kindergarten	3.6%
1 <sup>st</sup> grade	3.5%
2 <sup>nd</sup> grade	4.25%
3 <sup>rd</sup> grade	14%
4 <sup>th</sup> grade	17%
5 <sup>th</sup> grade	9%
Total	8.3%

**Middle School (“Bridge” program):**

6 <sup>th</sup> grade	9%
7 <sup>th</sup> grade	9%
8 <sup>th</sup> grade	8%
Total	8.7%

**High School (“Bridge” program):**

9 <sup>th</sup> grade	13%
10 <sup>th</sup> grade	4%
11 <sup>th</sup> grade	10%
12 <sup>th</sup> grade	7.5%
Total	9%

**Boyd Buchanan Academic Testing Information (2015/2016)**

**Elementary School:**

**Percentage of students meeting or close meeting to ACT Aspire Readiness Benchmarks:**

	English		Reading		Science		Math	
	Ready	Close	Ready	Close	Ready	Close	Ready	Close
3 <sup>rd</sup> grade	47%	27%	99%	1%	65%	24%	82%	14%
4 <sup>th</sup> grade	31%	43%	86%	4%	43%	36%	50%	48%
5 <sup>th</sup> grade	39%	39%	86%	14%	67%	16%	61%	33%

**Middle School:**

**Percentage of students meeting or close meeting to ACT Aspire Readiness Benchmarks:**

	English		Reading		Science		Math	
	Ready	Close	Ready	Close	Ready	Close	Ready	Close
6 <sup>th</sup> grade	86%	8%	53%	28%	37%	17%	74%	17%
7 <sup>th</sup> grade	91%	9%	53%	32%	56%	28%	50%	44%
8 <sup>th</sup> grade	90%	7%	70%	16%	63%	21%	51%	34%

**High School:**

**ACT Composite:**

Boyd Buchanan	22.9
Hamilton County	19.1
State of TN	19.9
Nation	20.8

**Percentage of Students Meeting ACT College Readiness Benchmarks:**

	English	Math	Reading	Science	Percentage of students who met all 4 benchmarks
BBS	91%	55%	65%	48%	36%
State of TN	58%	30%	38%	30%	20%
Nation	61%	41%	44%	36%	26%

APPENDIX B  
VARIABLES ANALYSIS

	<b>Variable Label</b>	<b>Levels of the Variable</b>	<b>Scale of Measurement</b>
<b>Dependent Variables</b>	Perception of Comics' Value as a Tool to Help Students Achieve Successful Learning Outcomes	A score on a scale of 1-5 will be assigned based upon the average of the respondent's answers to five Likert scale questions	Interval
	Preference Concerning the Frequency of the Academic Use of Comics	A score on a scale of 1-5 will be assigned based upon the average of the respondent's answers to three Likert scale questions	Interval
<b>Attribute Independent Variables</b>	Grade of Respondent's Oldest Child Enrolled at BBS	Grade level of each of the respondent's children in whole numbers	Ordinal Categorical
	Gender of Respondent's Oldest Child Enrolled at BBS	1 = Male 2 = Female	Nominal Categorical
	Gender of Parent/Respondent	1 = Male 2 = Female	Nominal Categorical
	Respondent's Personal Readership Habits of Comics	Time in hours respondent spends reading comics for enjoyment each week	Interval
	Respondent's Personal Readership Habits of Non-Comics Material	Time in hours respondent spends reading non-comics for enjoyment each week	Interval
<b>Other Attribute Variables</b>	Respondent's Age	Respondent's age in whole numbers	Interval
	Respondent's Level of Education	1 = Some high school 2 = High school diploma 3 = Some undergraduate school 4 = Undergraduate degree 5 = Some graduate school 3 = Graduate degree 4 = Some post graduate school 5 = Post graduate degree	Nominal Categorical



	History of Employment in the Field of Education	1 = Former or current employment as a K-12 or college-level teacher 2 = No history of employment as a K-12 or college-level teacher	Nominal Categorical
	Child's Readership Habits of Comics	Time in hours respondent's child spends reading comics for enjoyment each week	Interval
	Child's Readership Habits of Non-comics material	Time in hours respondent's child spends reading non-comics material for enjoyment each week	Interval

APPENDIX C  
VARIABLE ALIGNMENT WITH SURVEY ITEMS

<b>Research Question</b>	<b>Accompanying Survey Item</b>	<b>Subdivisions of Survey Item</b>
<p><b>Research Question 1:</b></p> <p>To what extent do parents perceive the comics medium to be an effective tool in helping their children achieve successful learning outcomes? Is this perspective affected by the following variables?</p>	<p>To what extent do you believe that comics could be an effective teaching tool in helping students successfully achieve learning outcomes in the following areas?</p> <p>On the scale below, the number 1 represents a total lack of effectiveness, while the number 5 represents the highest possible effectiveness.</p>	<p>Vocabulary Development</p> <p>Reading Comprehension Skills</p> <p>Analysis of literary conventions such as symbolism, characterization, plot development, dialogue, and point of view</p> <p>Analysis of thematic messages and literary messages</p> <p>Fluency in interacting with a variety of media and practicing multiple literacies</p>
<p><b>Research Question 2:</b></p> <p>How often do parents feel it is appropriate for comics to be incorporated into their children’s curricula and classroom instruction? Is this preference of frequency affected by the following variables?</p>	<p>In general, how frequently do you feel that comics should be incorporated into 1st-12th educational curricula?</p> <p>On the scale below, the number 1 represents no frequency at all or never, while a score of 5 represents the highest frequency possible or incorporation on a daily basis.</p>	<p>Vocabulary Development</p> <p>Reading Comprehension Skills</p> <p>Analysis of literary conventions such as symbolism, characterization, plot development, dialogue, and point of view</p> <p>Analysis of thematic messages and literary messages</p> <p>Fluency in interacting with a variety of media and practicing multiple literacies</p>

<b>Independent Attribute Variables</b>	<b>Accompanying Survey Item</b>
The enrolled grade of student	<p>In what grade is your oldest child at BBS currently enrolled?</p> <ul style="list-style-type: none"> <li>• 1<sup>st</sup> grade</li> <li>• 2<sup>nd</sup> grade</li> <li>• 3<sup>rd</sup> grade</li> <li>• 4<sup>th</sup> grade</li> <li>• 5<sup>th</sup> grade</li> <li>• 6<sup>th</sup> grade</li> <li>• 7<sup>th</sup> grade</li> <li>• 8<sup>th</sup> grade</li> <li>• 9<sup>th</sup> grade</li> <li>• 10<sup>th</sup> grade</li> <li>• 11<sup>th</sup> grade</li> <li>• 12<sup>th</sup> grade</li> </ul>
The gender of the student	<p>What is the gender of your oldest child enrolled at BBS?</p> <ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> </ul>
The gender of the parent	<p>What is your gender?</p> <ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> </ul>
The readership habits of the parent (in relation to comics material)	<p>On average, how many hours per week do you spend reading comics for pleasure?</p> <p>Please respond in whole numbers.</p>
The readership habits of the parent (in relation to non-comics material)	<p>On average how many hours per week do you spend reading traditional literature for pleasure?</p> <p>Please respond in whole numbers.</p>

<b>Additional Attribute Variables</b>	<b>Accompanying Survey Item</b>
Respondent's Age	<p>What is your age?</p> <p>Please respond in the form of a whole number.</p>
Respondent's Level of Education	<p>What is your level of Education?</p> <ul style="list-style-type: none"> <li>• Some high school</li> <li>• High school diploma</li> <li>• Some undergraduate school</li> <li>• Undergraduate degree</li> <li>• Some graduate school</li> <li>• Graduate school degree</li> <li>• Some post graduate school</li> <li>• Post graduate school degree</li> </ul>
History of Employment in the Field of Education	<p>Have you ever been employed as a K-12 or college-level teacher in any capacity?</p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
Child's Readership Habits of Comics	<p>On average, how many hours per week does your oldest child enrolled at BBS spend reading comics for pleasure?</p> <p>Please respond in whole numbers.</p>
Child's Readership Habits of Non-comics Material	<p>On average, how many hours per week do you spend reading non-comics material and/or traditional literature for pleasure?</p> <p>Please respond in whole numbers.</p>

APPENDIX D  
STUDY INSTRUMENT

Thank you in advance for participating in this study.

This survey will collect some very basic information about you and your oldest child enrolled at BBS. Also, you will find a few questions which ask about your feelings towards the use of comics in education.

This may prompt some to ask, "What do you mean by *comics*?"

For the purposes of this study, *comics* refers to media in which words and pictures are contained within panels and arranged in a sequential order. The medium of comics mainly differs from traditional literature in comics' use of pictures. The medium of comics mainly differs from illustrated children's books in that works in the comics medium often contain multiple illustrated panels per page and regular use of word bubbles, and most illustrated children's books do not.

Most people are generally familiar with comic books. While comic books are not the only way to experience the medium of comics, they do often represent a fine example of the most traditional aspects of the comics medium.

Also, when you see the term *traditional literature* used in this questionnaire, this refers to what most would consider reading material that does not feature the conventions of comics such as panels, word bubbles, etc.

If you have any questions about what is meant by the terms *comics* and *traditional literature* in this survey, please contact me at any time.

Thanks,

Jordan Bischell  
(423) 883-2027  
jbischell@bbschool.org

#### Informed Consent Information:

The purpose of this study is to collect data concerning parental perceptions of the academic potential of comics and parental preferences concerning how frequently the medium should be incorporated into academic lessons. Additionally, this study will attempt to discover if relationships exist between these perceptions and preferences and demographic data such as the grade and gender of the respondents' children, the respondent's gender, and personal readership habits of the respondent in reference to both comics and non-comics material. The insight gained into these relationships may provide a deeper understanding of how these external educational stakeholders regard a medium that has experienced a varied social and educational reception throughout American history.

Ideally, examining these phenomena and their relationships will provide insight into a field of study that has largely been unexplored quantitatively and will provide a foundation for future

studies that seek to develop theories and practices concerning successful parent-teacher interactions. This, in turn, may aid teachers in better meeting the educational needs of their students in a number of ways.

The procedures for this research study consist of collecting information from parents through this online survey and statistically analyzing the responses in order to discover potential relationships between certain items. The survey will likely take 5 to 7 minutes to complete. Data collection will (tentatively) begin on May 1, 2017 and (tentatively) conclude on May 7, 2017.

The researcher and his team have determined that no significant risks are involved in participating in this study; however, if you decide at any time that you would prefer to discontinue your participation, you are welcome to do so. It is important to point out that your name and the names of your children are not collected and/or used in this research study. The only identifying features of this survey include your email address and your responses to the questions herein. Also, only the principal investigator (Jordan Bischell) and his research team will have access to the surveys, responses, and email addresses. Email addresses will be kept completely confidential and will not be shared with anyone outside of the immediate research team.

This study has been approved by the University of Tennessee Institutional Review Board (UTC IRB). If you have any questions or concerns about this study, you may contact Jordan Bischell, the principal investigator, or the UTC IRB chair, Amy Doolittle.

Principal Investigator:  
Jordan Bischell  
Email: [jbischell@bbschool.org](mailto:jbischell@bbschool.org)  
Phone: (423) 883-2027

UTC IRB Chair:  
Amy Doolittle  
Email: [amy-doolittle@utc.edu](mailto:amy-doolittle@utc.edu)  
Phone: (423) 425-5563

By clicking the "Next" button on this page to proceed with this survey, you are indicating your consent to the terms, conditions, and information described herein.

Q1: What is your gender?

- Male
- Female

Q2: What is your age? Please answer in the form of a whole number.



Q3: What is your level of education?

- Some high school
- High school diploma
- Some undergraduate school
- Undergraduate degree
- Some graduate school
- Graduate school degree
- Some post graduate school
- post graduate school degree

Q4: Have you ever been employed as a K-12 or college-level teacher in any capacity?

- Yes
- No

Q5: What is the gender of your oldest child enrolled at BBS?

- Male
- Female

Q6: In what grade is your oldest child enrolled at BBS?

- 1st grade
- 2nd grade
- 3rd grade
- 4th grade
- 5th grade
- 6th grade
- 7th grade
- 8th grade
- 9th grade
- 10th grade
- 11th grade
- 12th grade

Q7: To what extent do you believe that comics could be an effective teaching tool in helping students successfully achieve learning outcomes in the following areas? On the scale below, the

number 1 represents a total lack of effectiveness, while the number 5 represents the highest possible effectiveness.

	1	2	3	4	5
Vocabulary Development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading Comprehension Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to analyze literary elements such as symbolism, characterization, plot development, dialogue, and point of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to analyze literary themes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fluency in interacting with a variety of media, i.e. practicing multiple literacies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8: In general, how frequently do you feel that comics should be incorporated into the 1st grade - 12th grade educational curricula? On the scale below, the number 1 represents no frequency at all or never, while a score of 5 represents the highest frequency possible or incorporation on a daily basis.

	1	2	3	4	5
Incorporation into in-class instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorporation into required out-of-class reading assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorporation into optional free choice reading assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9: On average, how many hours per week do you spend reading comics for pleasure? Please respond in whole numbers.

Q10: On average, how many hours per week do you spend reading non-comics material and/or traditional literature for pleasure? Please respond in whole numbers.

Q11: On average, how many hours per week does your oldest child enrolled at BBS spend reading comics for pleasure? Please respond in whole numbers.

Q12: On average, how many hours per week do you spend reading non-comics material and/or traditional literature for pleasure? Please respond in whole numbers.

Q13: In closing, please describe your thoughts and feelings about the use of comics in 1<sup>st</sup> grade - 12<sup>th</sup> grade education. Be as specific or general as you wish. Any thoughts and feelings are welcome.

APPENDIX E  
LETTER OF IRB APPROVAL

**Institutional Review Board**

Dept. 4915  
615 McCallie Avenue  
Chattanooga, TN 37403-2598  
Phone: (423) 425-5867  
Fax: (423) 425-4052  
instrb@utc.edu  
<http://www.utc.edu/irb>

**MEMORANDUM**

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TO: Jordan Bischell  
Dr. Elizabeth Crawford **IRB # 17-078**

FROM: Lindsay Pardue, Director of Research Integrity  
Dr. Amy Doolittle, IRB Committee Chair

DATE: 5/5/2017

SUBJECT: IRB #17-078: Examining Parents' Perceptions of and Preferences Toward the Use of Comics in the Classroom

The IRB Committee Chair has reviewed and approved your application and assigned you the IRB number listed above. You must include the following approval statement on research materials seen by participants and used in research reports:

***The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 17-078.***

Since your project has been deemed exempt, there is no further action needed on this proposal unless there is a significant change in the project that would require a new review. Changes that affect risk to human subjects would necessitate a new application to the IRB committee immediately.

Please remember to contact the IRB Committee immediately and submit a new project proposal for review if significant changes occur in your research design or in any instruments used in conducting the study. You should also contact the IRB Committee immediately if you encounter any adverse effects during your project that pose a risk to your subjects.

For any additional information, please consult our web page <http://www.utc.edu/irb> or email [instrb@utc.edu](mailto:instrb@utc.edu)

Best wishes for a successful research project.

APPENDIX F  
EMAILS SENT TO STUDY POPULATION

**Initial Email to Parents:**

Dear BBS Parents,

As a part of my doctoral research, I am conducting a study about parents' preferences concerning certain types classroom reading material. Your participation in the brief survey below will help me complete my doctoral dissertation and will also allow you to share your opinions and ideas about the academic value of certain types of literature. The survey should only take about 5 minutes.

Since gender is an area of focus in my study, it would be great if *both* parents would complete this brief survey separately.

Survey link:

[https://utceducation.az1.qualtrics.com/jfe/form/SV\\_0cXNAArskPKJw45](https://utceducation.az1.qualtrics.com/jfe/form/SV_0cXNAArskPKJw45)

Thanks very much in advance,

Jordan Bischell  
BBS Assistant HS Principal  
[jbischell@bbschool.org](mailto:jbischell@bbschool.org)  
[\(423\) 883-2027](tel:(423)883-2027)

**Reminder Email to Parents:**

Dear BBS Parents,

Thanks so much to all of you who have participated in the survey that I distributed via email on Monday of this week. If you and your spouse have not taken part in the survey, please consider doing so at your earliest convenience. The survey will remain open until next Friday, May 26th. The original email with the link to the survey is featured below:

As a part of my doctoral research, I am conducting a study about parents' preferences concerning certain types classroom reading material. Your participation in the brief survey below will help me complete my doctoral dissertation and will also allow you to share your opinions and ideas about the academic value of certain types of literature. The survey should only take about 5 minutes.

Since gender is an area of focus in my study, it would be great if both parents would complete this brief survey separately.

Survey link:

[https://utceducation.az1.qualtrics.com/jfe/form/SV\\_0cXNAArskPKJw45](https://utceducation.az1.qualtrics.com/jfe/form/SV_0cXNAArskPKJw45)

Thanks very much in advance,

Jordan Bischell  
BBS Assistant HS Principal  
[jbischell@bbschool.org](mailto:jbischell@bbschool.org)  
[\(423\) 883-2027](tel:(423)883-2027)

**Final Email to Parents:**

Parents,

Thanks so much to all of you who have participated in the BBS reading materials survey. The results of the survey will be instrumental in my upcoming doctoral dissertation, and I truly appreciate your willingness to provide the data necessary to complete my study.

If you have yet to complete the survey, please consider doing so this weekend. The link below will remain active until 11:59 p.m. on Sunday, May 28th.

If you have questions about the survey, feel free to email or call me at any time. Also, please refer to previous emails from me for more details.

Survey link:

[https://utceducation.az1.qualtrics.com/jfe/form/SV\\_0cXNAArskPKJw45](https://utceducation.az1.qualtrics.com/jfe/form/SV_0cXNAArskPKJw45)

Many thanks,

Jordan Bischell  
Assistant High School Principal  
Boyd Buchanan School

[\(423\) 883-2027](tel:(423)883-2027)



APPENDIX G  
QUALITATIVE DATA CODING GUIDE

## **1. Positive/Supportive comments: 330**

- A. General support, praise and/or miscellaneous positive comments: 68
- B. Comics can add variety to curriculum (they are different, unique or a good alternative to traditional literature): 14
- C. Comics are enjoyable (fun, humorous, interesting, engaging): 32
- D. Comics are easy to read (generally shorter and/or less intimidating): 18
- E. Comics can help develop certain skills and/or conceptual knowledge: 86
  - a. General literary elements/various literacy skills and concepts: 13
  - b. Reading comprehension: 16
  - c. Vocabulary development: 11
  - d. Themes/thematic understanding: 7
  - e. Imagery/visualization: 6
  - f. Understanding characterization, dialogue, and/or point of view: 8
  - g. Writing skills: 7
  - h. Foreign language/ESL: 3
  - i. Symbolism/Metaphor: 5
  - j. Scaffolding/bridging/connecting to more complicated or classical texts: 10
- F. Comics may be beneficial for certain ages/levels: 30
  - a. Younger/elementary: 25
  - b. Adolescence/middle school: 3
  - c. Older/high school: 2
- G. Comics may be beneficial for certain audiences: 63
  - a. Visual learners: 14
  - b. Unmotivated/reluctant/struggling readers: 35
  - c. ADD/ADHD/distracted readers: 4
  - d. Those with learning difficulties or disabilities: 5
  - e. Males: 5
- H. Parents are supportive if it “works” or if there is “interest”: 26

## **2. Negative Statements or Statements of Concern: 86**

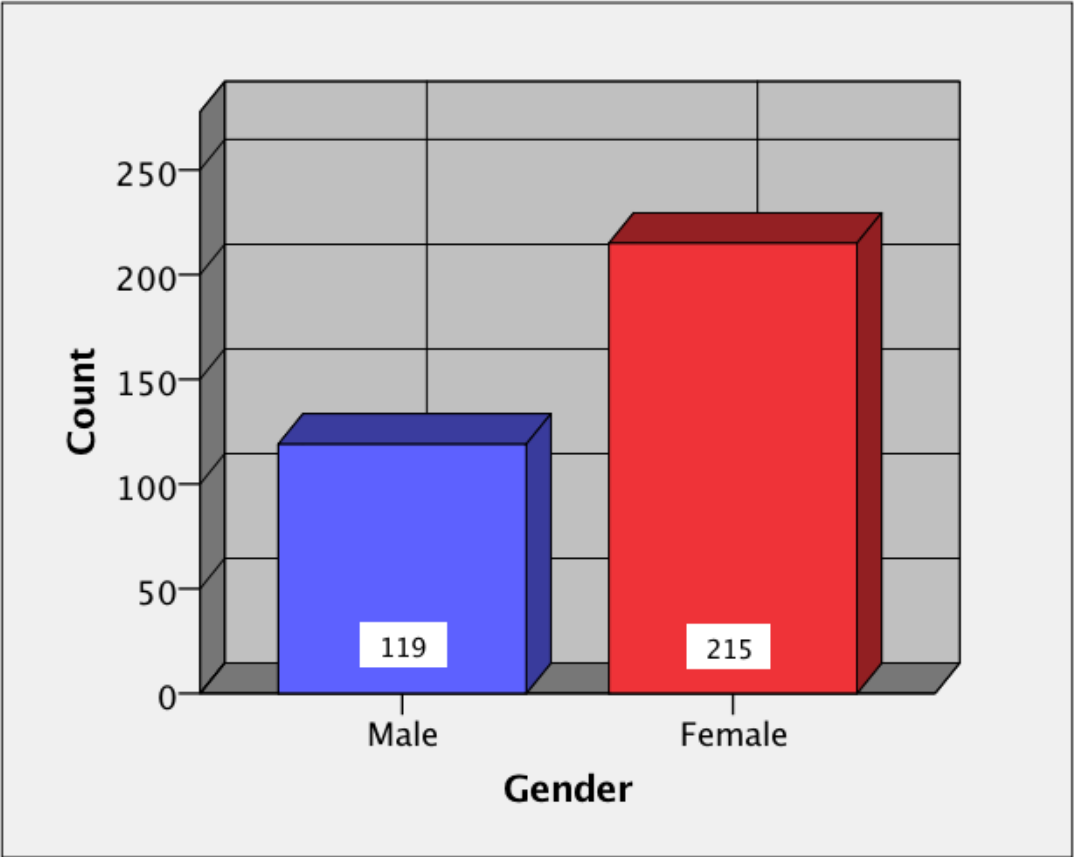
- A. General lack of support and/or miscellaneous negative comments 9
- B. Comics are or may not be academic enough for classroom use 5
- C. Comics are difficult to read (for some or all) 4

- D. Comics may be detrimental to the development of certain skills: 5
  - a. Vocabulary development 1
  - b. Imagination or visualization skills 4
  
- E. Comics may be inappropriate for or should be excluded from certain ages/levels: 10
  - a. Younger/elementary 0
  - b. Adolescence/middle school 4
  - c. Older/high school 6
  
- F. Comics should be confined to certain ages/levels 6
  - a. Young/elementary 6
  - b. Middle school/adolescence 0
  - c. Older/high school 0
  
- G. Content concerns (moral/ethical/subject matter concerns) 8
  
- H. Balance-related concerns (focus on supplementary use only, not exclusive use, limited use, etc. 39

APPENDIX H  
RESPONSES TO THE STUDY INSTRUMENT

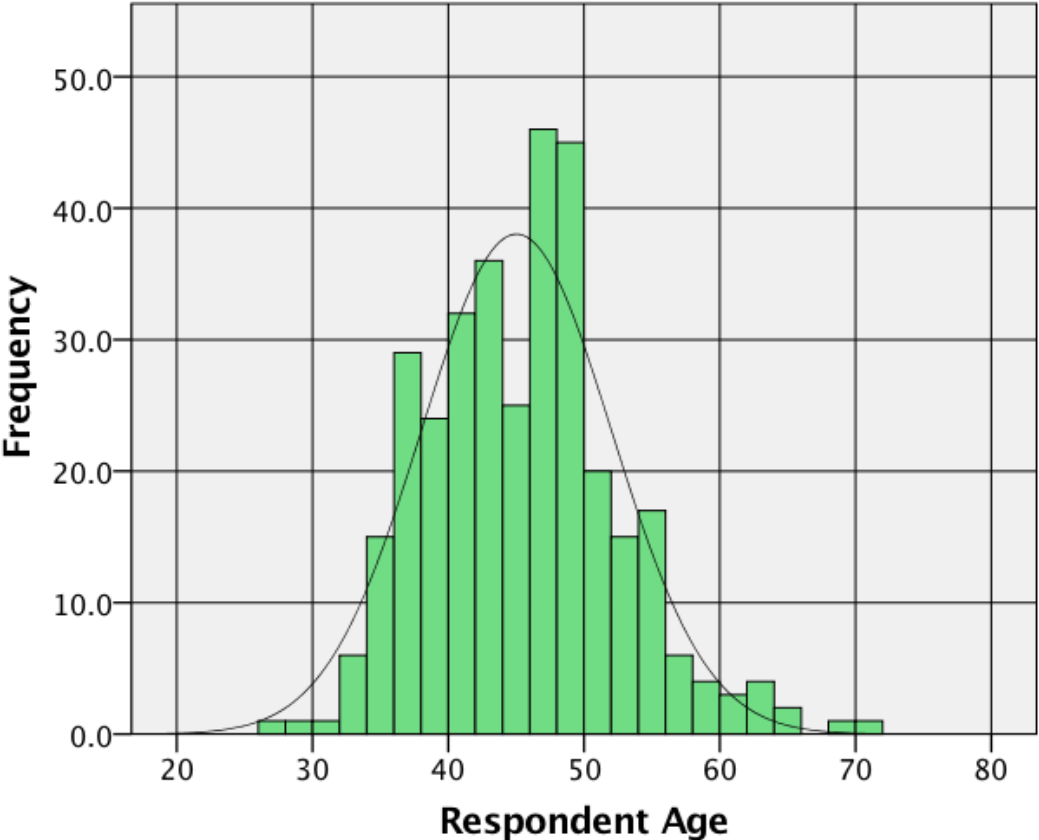
**Survey Question 1: What is your gender?**

	Frequency	Percent
Male	119	35.6
Female	215	64.4
Total	334	100.0



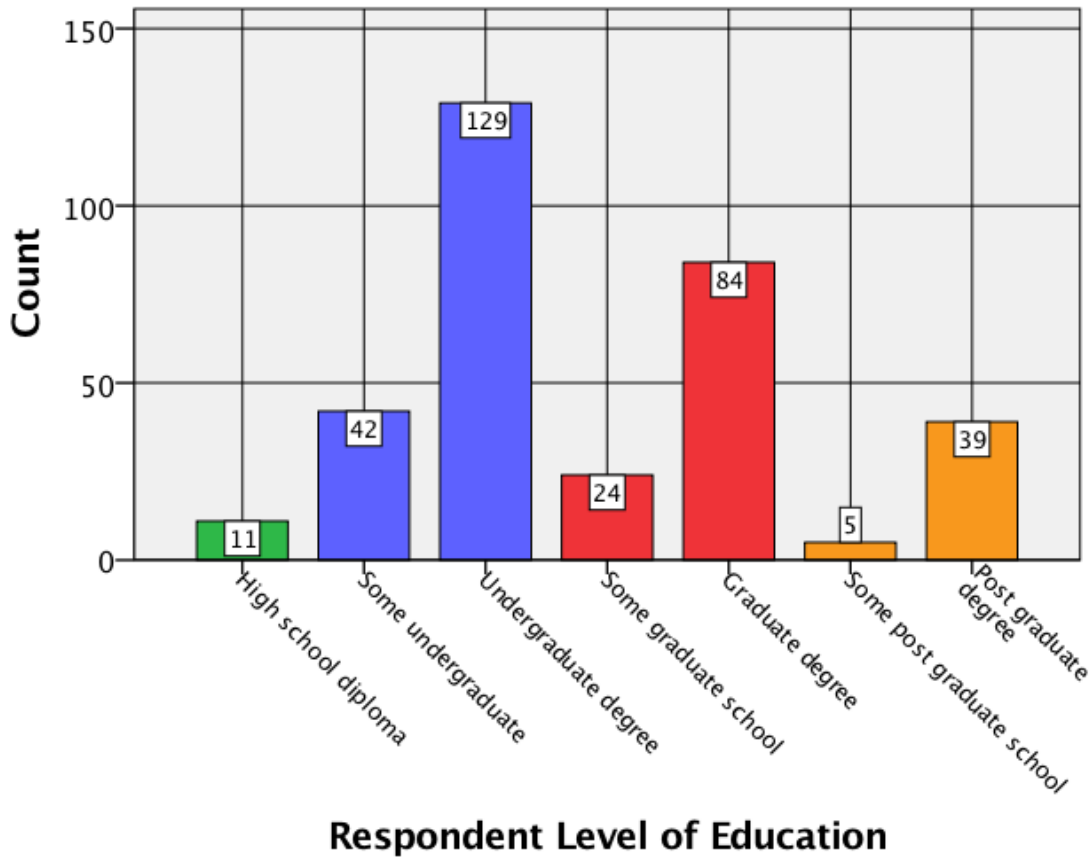
**Survey Question 2: What is your age?**

Mean	45.02
Median	45
Mode	46
Standard Deviation	7.01
Minimum	27
Maximum	71
Range	44



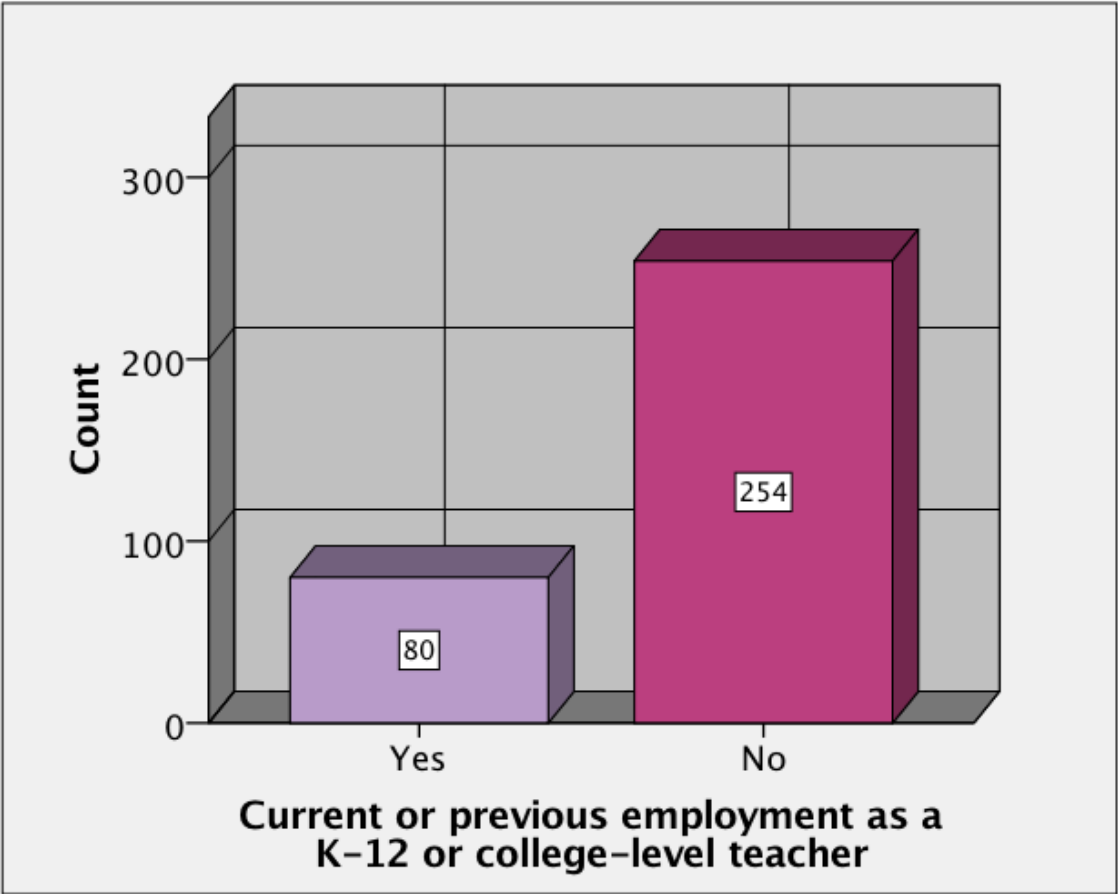
**Survey Question 3: What is your level of education?**

	Frequency	Percent	Cumulative Percent
Some High School	0	0.0	0.0
High School Diploma	11	3.3	3.3
Some Undergraduate	42	12.6	15.9
Undergraduate Degree	129	38.6	54.5
Some Graduate School	24	7.2	61.7
Graduate Degree	84	25.1	86.8
Some Post Graduate School	5	1.5	88.3
Post Graduate Degree	39	11.7	100.0
Total	334	100.0	100.0



**Survey Question 4:** Are you now or have you ever been employed as a K-12 or college-level teacher?

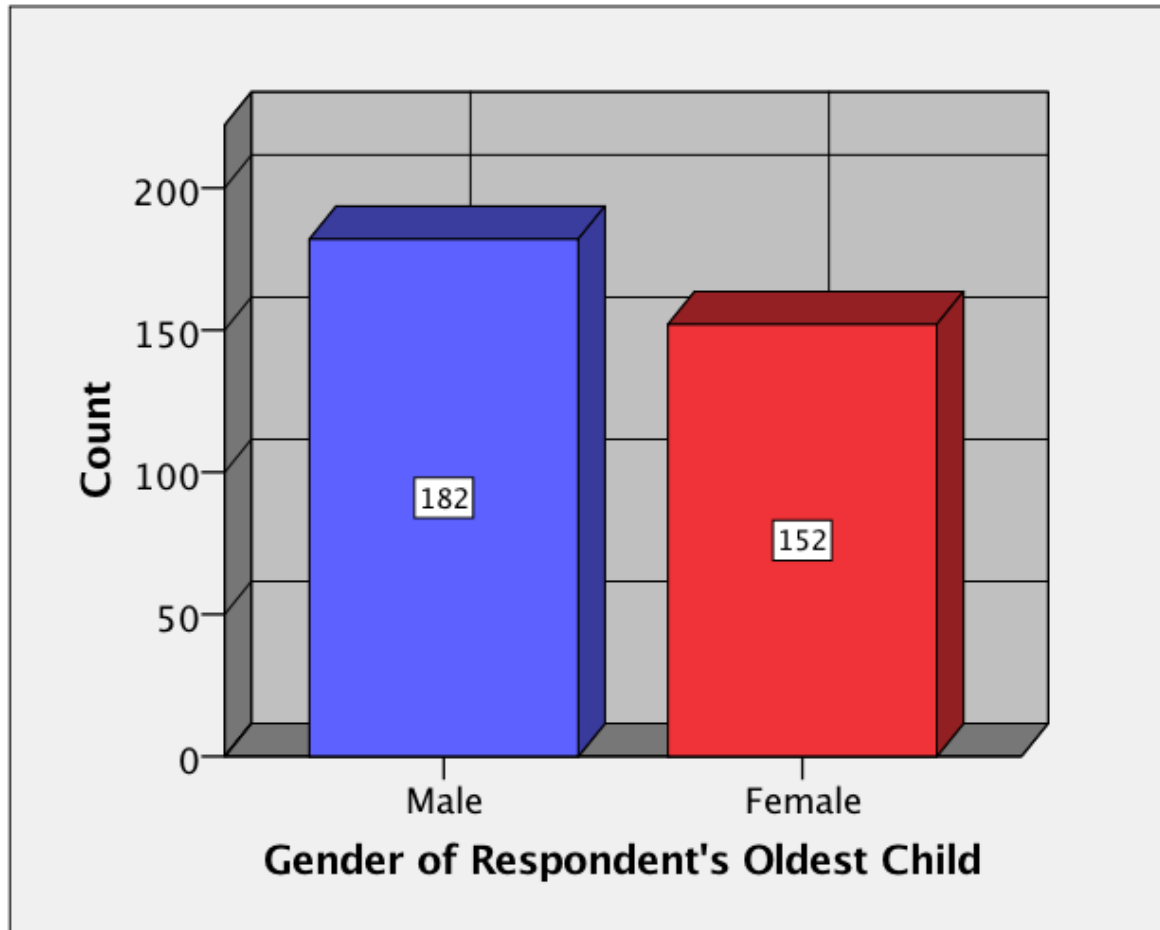
	Frequency	Percent
Yes	80	24
No	254	76
Total	334	100.0





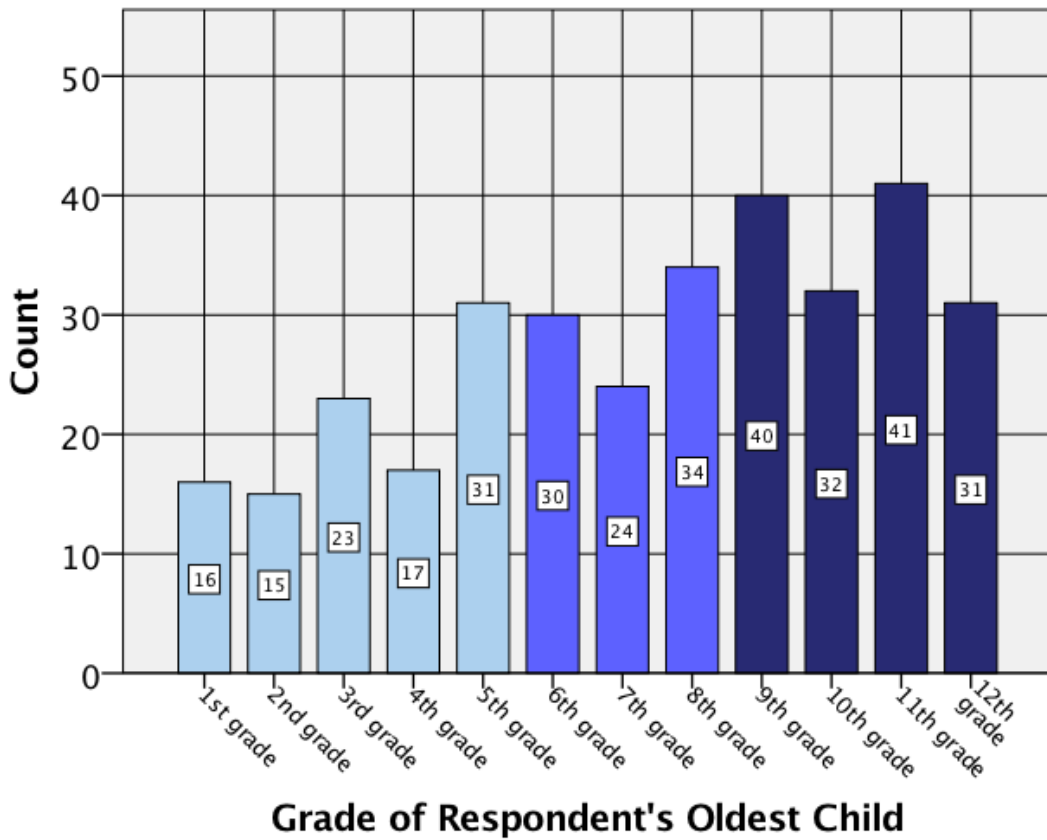
**Survey Question 5:** What is the gender of your oldest child enrolled in Boyd Buchanan (2016-2017 school year)?

	Frequency	Percent
Male	182	54.5
Female	152	45.5
Total	334	100



**Survey Question 6:** In what grade is your oldest child enrolled in Boyd Buchanan (2016-2017 school year)?

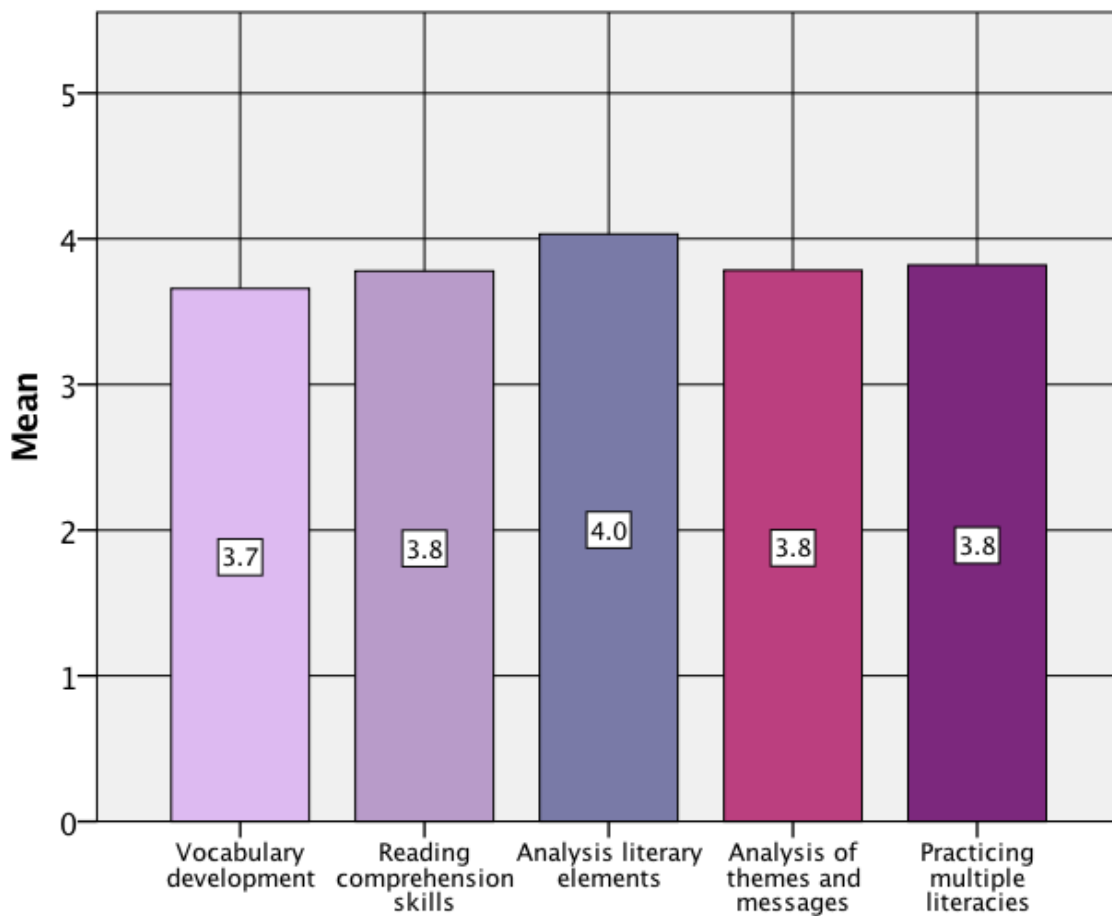
Grade	Frequency	Percent	Cumulative Percent
1 <sup>st</sup> grade	16	4.8	4.8
2 <sup>nd</sup> grade	15	4.5	9.3
3 <sup>rd</sup> grade	23	6.9	16.2
4 <sup>th</sup> grade	17	5.1	21.3
5 <sup>th</sup> grade	31	9.3	30.5
6 <sup>th</sup> grade	30	9.0	39.5
7 <sup>th</sup> grade	24	7.2	46.7
8 <sup>th</sup> grade	34	10.2	56.9
9 <sup>th</sup> grade	40	12.0	68.9
10 <sup>th</sup> grade	32	9.6	78.4
11 <sup>th</sup> grade	41	12.3	90.7
12 <sup>th</sup> grade	31	9.3	100.0
Total	334	100.0	100.0



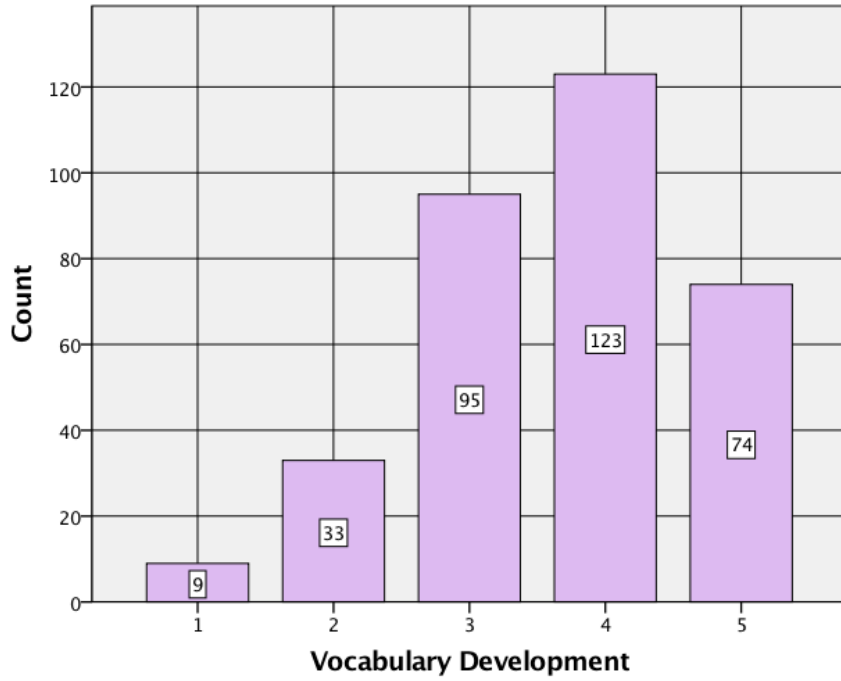
**Survey Question 7:** To what extent do you believe that comics could be an effective teaching tool in helping students successfully achieve learning outcomes in the following areas? On the scale below, the number 1 represents a total lack of effectiveness, while the number 5 represents the highest possible effectiveness.

	1	2	3	4	5
Vocabulary Development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading Comprehension Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to analyze literary elements such as symbolism, characterization, plot development, dialogue, and point of view	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to analyze literary themes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fluency in interacting with a variety of media, i.e. practicing multiple literacies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

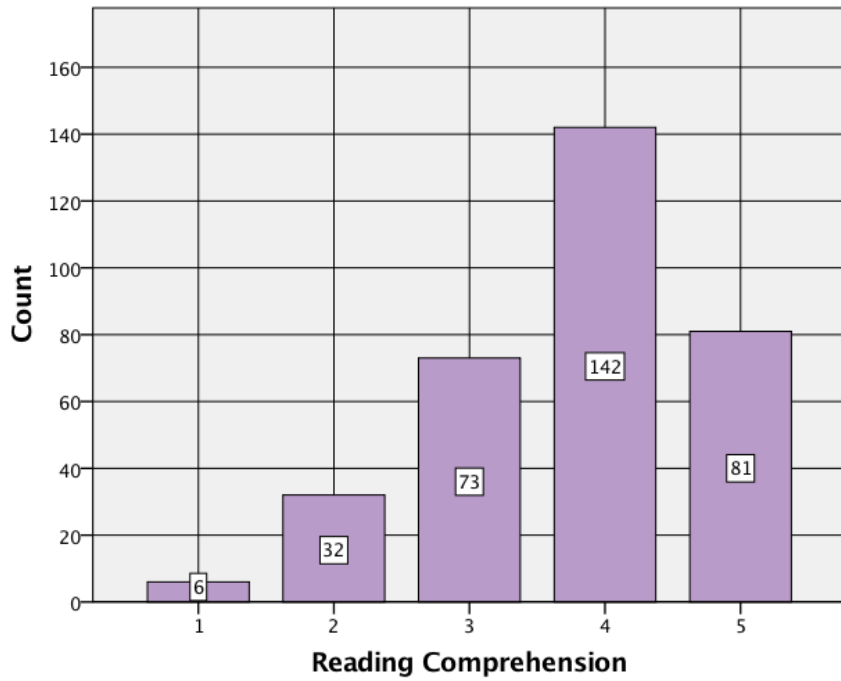
Comparison of Mean Scores for All Factors:



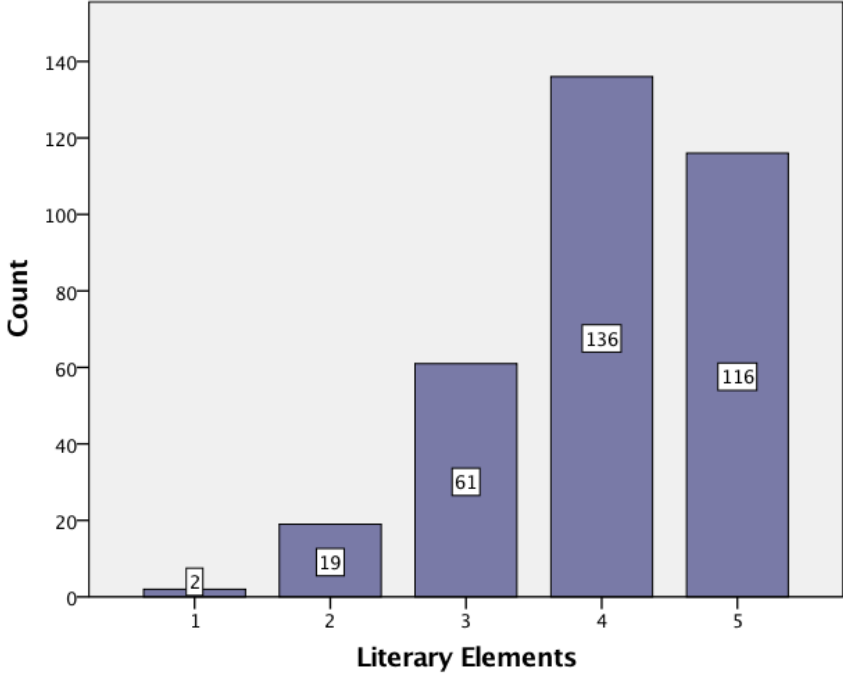
Responses to Vocabulary Development Factor:



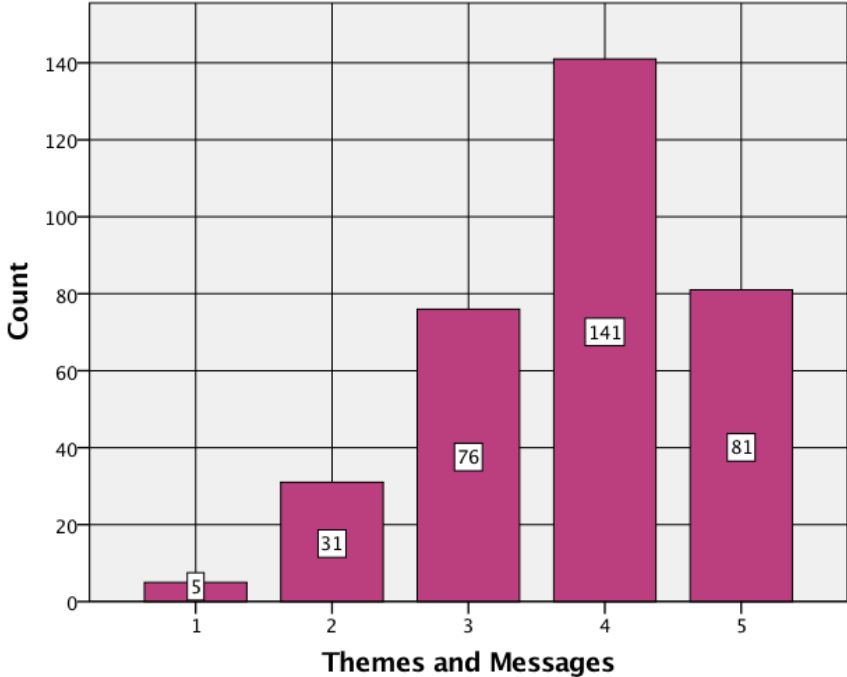
Responses to Reading Comprehension Factor:



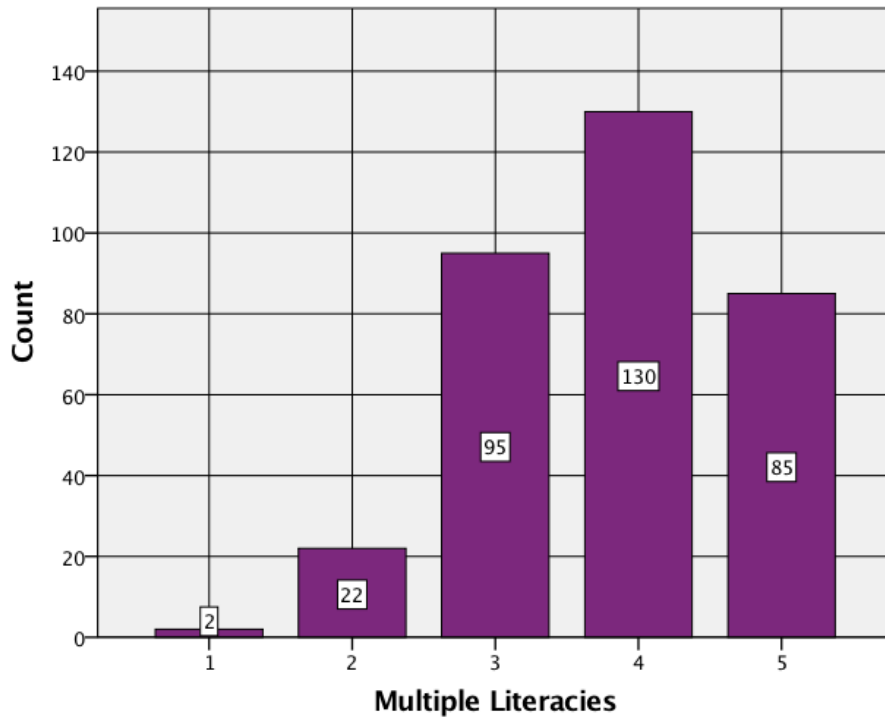
Responses to Literary Elements Factor:



Responses to Themes and Messages Factor:



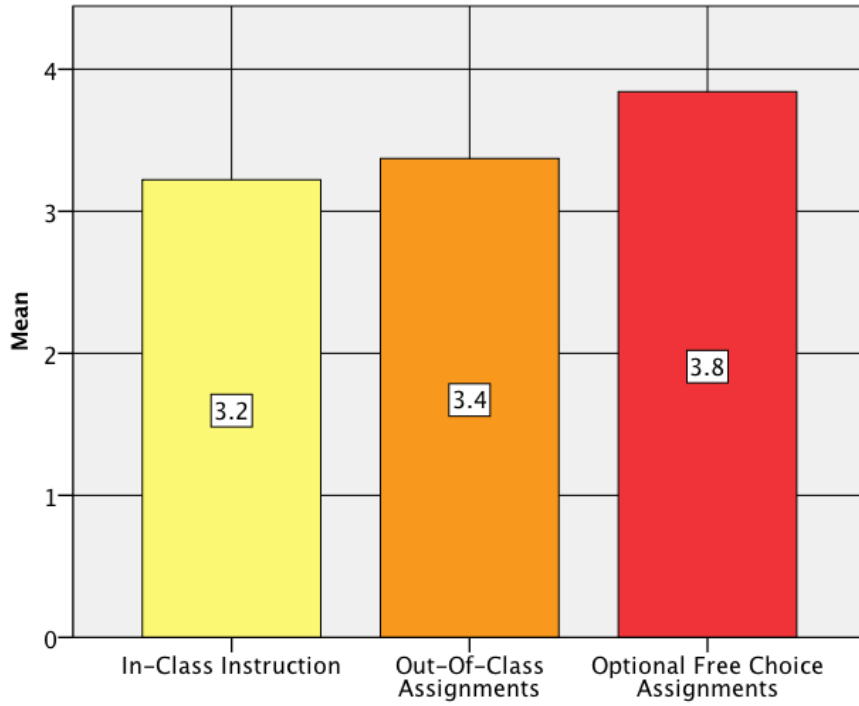
Responses to Multiple Literacies Factor:



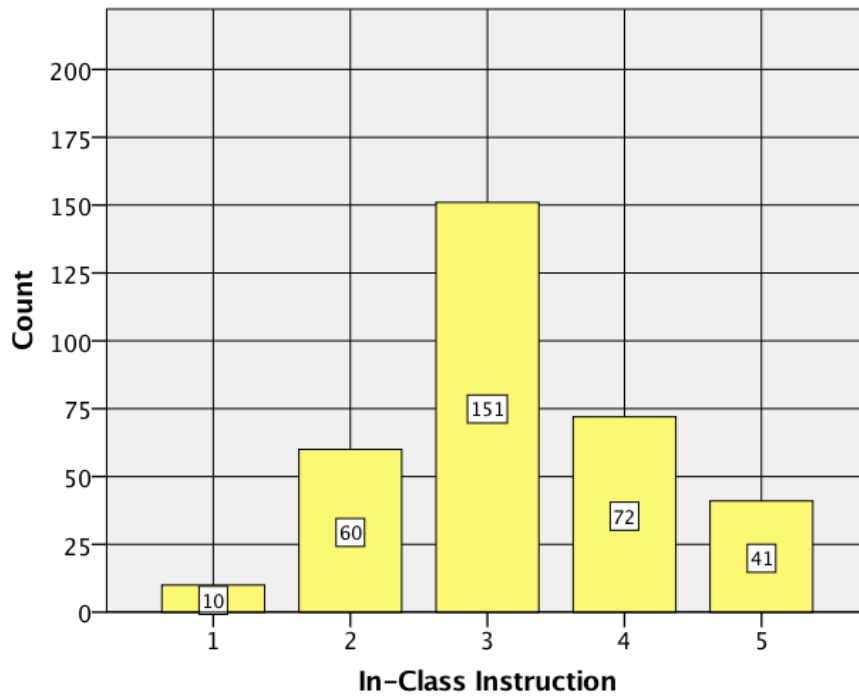
**Survey Question 8:** In general, how frequently do you feel that comics should be incorporated into the 1st grade - 12th grade educational curricula? On the scale below, the number 1 represents no frequency at all or never, while a score of 5 represents the highest frequency possible or incorporation on a daily basis.

	1	2	3	4	5
Incorporation into in-class instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorporation into required out-of-class reading assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorporation into optional free choice reading assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

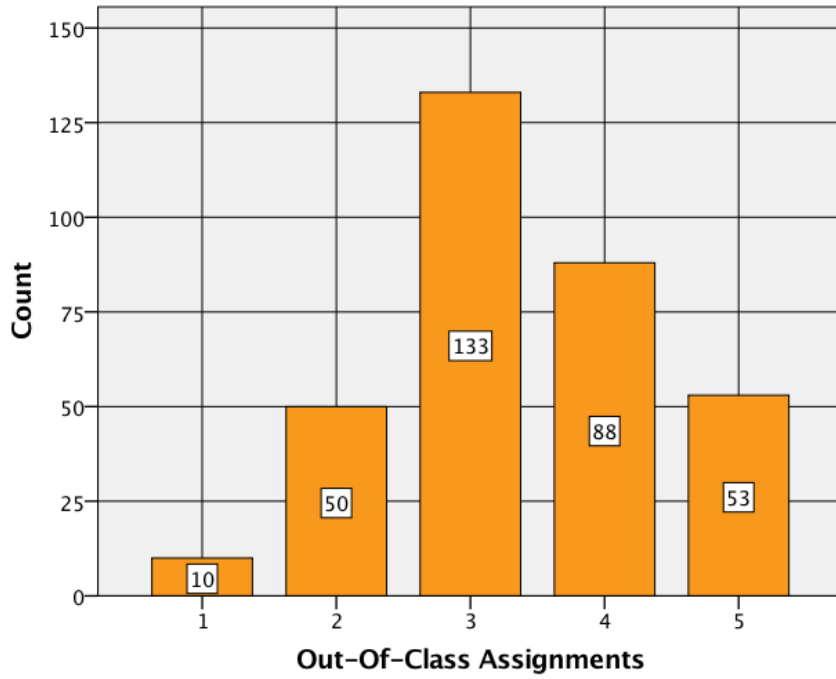
Comparison of Mean Scores for All Factors:



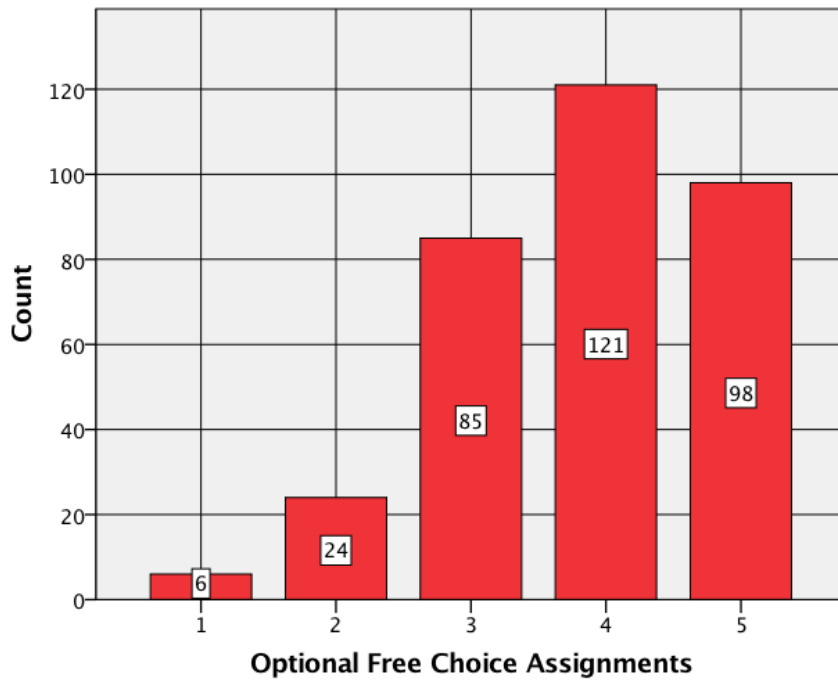
Responses to In-Class Instruction Factor:



Responses to Out-Of-Class Assignments Factor:



Responses to Optional Free Choice Assignments Factor:

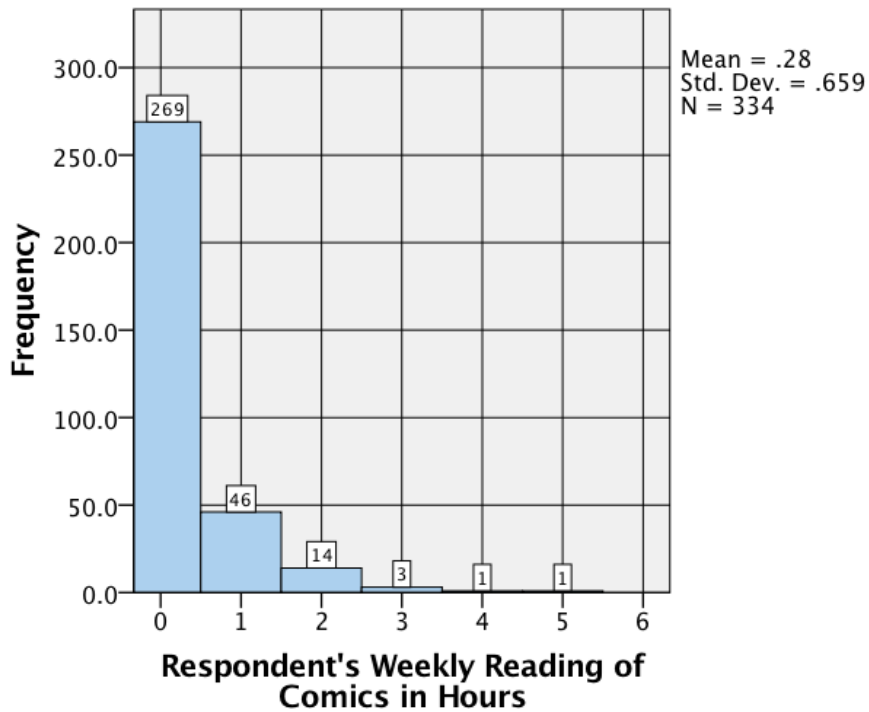




**Survey Question 9:** On average, how many hours per week do you spend reading comics for pleasure?

Mean	.28
Median	0
Mode	0
Std. Deviation	.659
Minimum	0
Maximum	5
Range	5

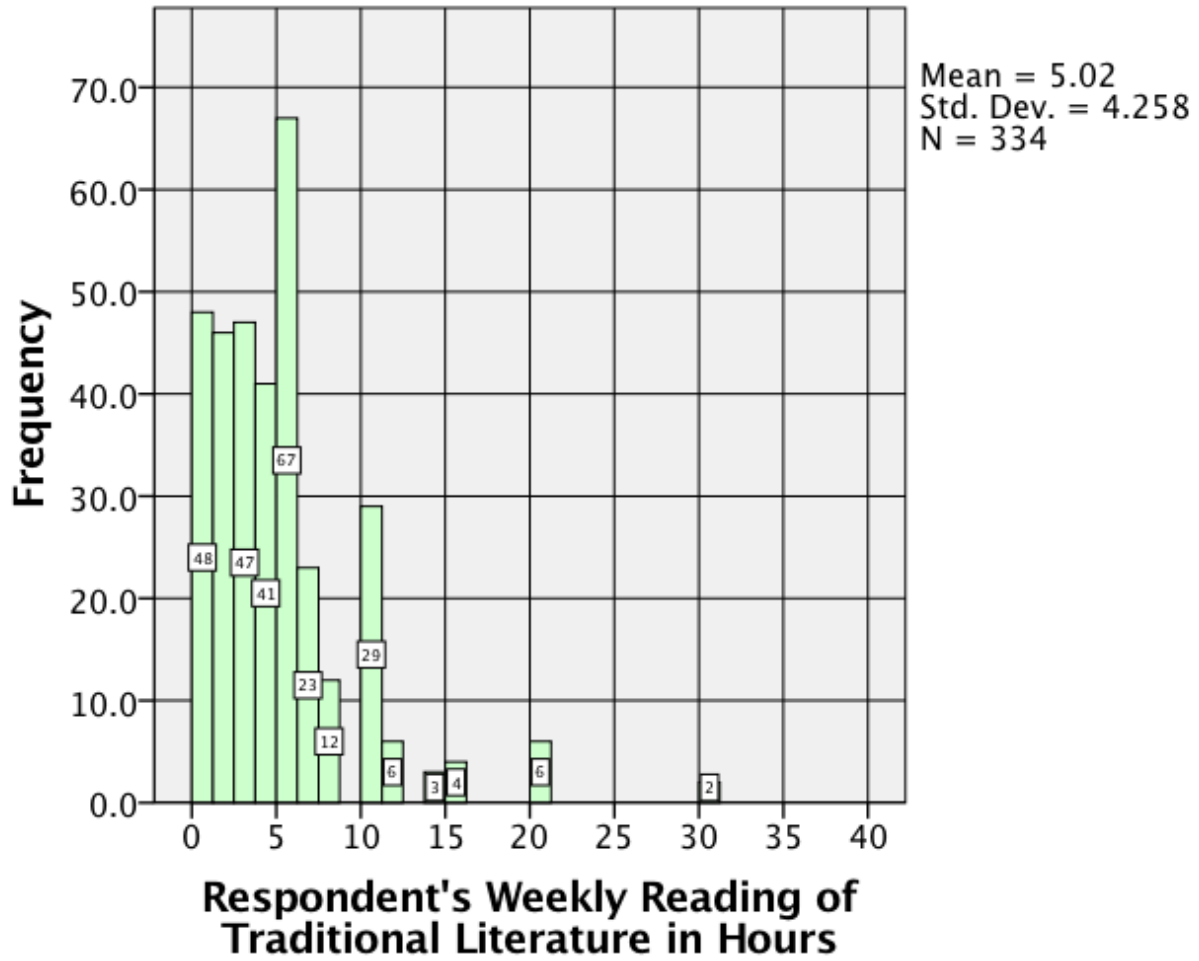
	Frequency	Percent	Cumulative Percent
0 hours	269	80.5	80.5
1 hour	46	13.8	94.3
2 hours	14	4.2	98.5
3 hours	3	.9	99.4
4 hours	1	.3	99.7
5 hours	1	.3	100.0
Total	334	100.0	100.0



**Survey Question 10:** On average, how many hours per week do you spend reading non-comics material and/or traditional literature for pleasure?

Mean	5.02
Median	4
Mode	5
Std. Deviation	4.258
Minimum	0
Maximum	30
Range	30

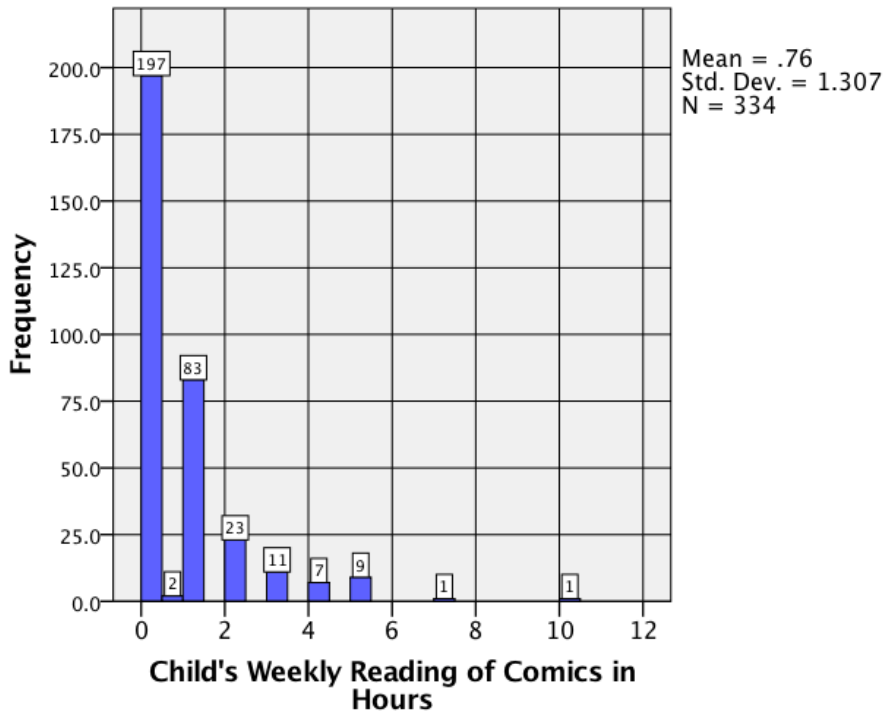
	Frequency	Percent	Cumulative Percent
0 hours	17	5.1	5.1
1 hour	31	9.3	14.4
2 hours	46	13.8	28.1
3 hours	47	14.1	48.2
4 hours	41	12.3	54.5
5 hours	55	16.5	71.0
6 hours	12	3.6	74.6
7 hours	23	6.9	81.4
8 hours	12	3.6	85.0
10 hours	29	8.7	93.7
12 hours	6	1.8	95.5
14 hours	3	.9	96.4
15 hours	4	1.2	97.6
20 hours	6	1.8	99.4
30 hours	2	.6	100.0
Total	334	100.0	100.0



**Survey Question 11:** On average, how many hours per week does your oldest child enrolled at Boyd Buchanan spend reading comics for pleasure (2016-2017 school year)?

Mean	0
Median	.76
Mode	0
Std. Deviation	1.307
Minimum	0
Maximum	10
Range	10

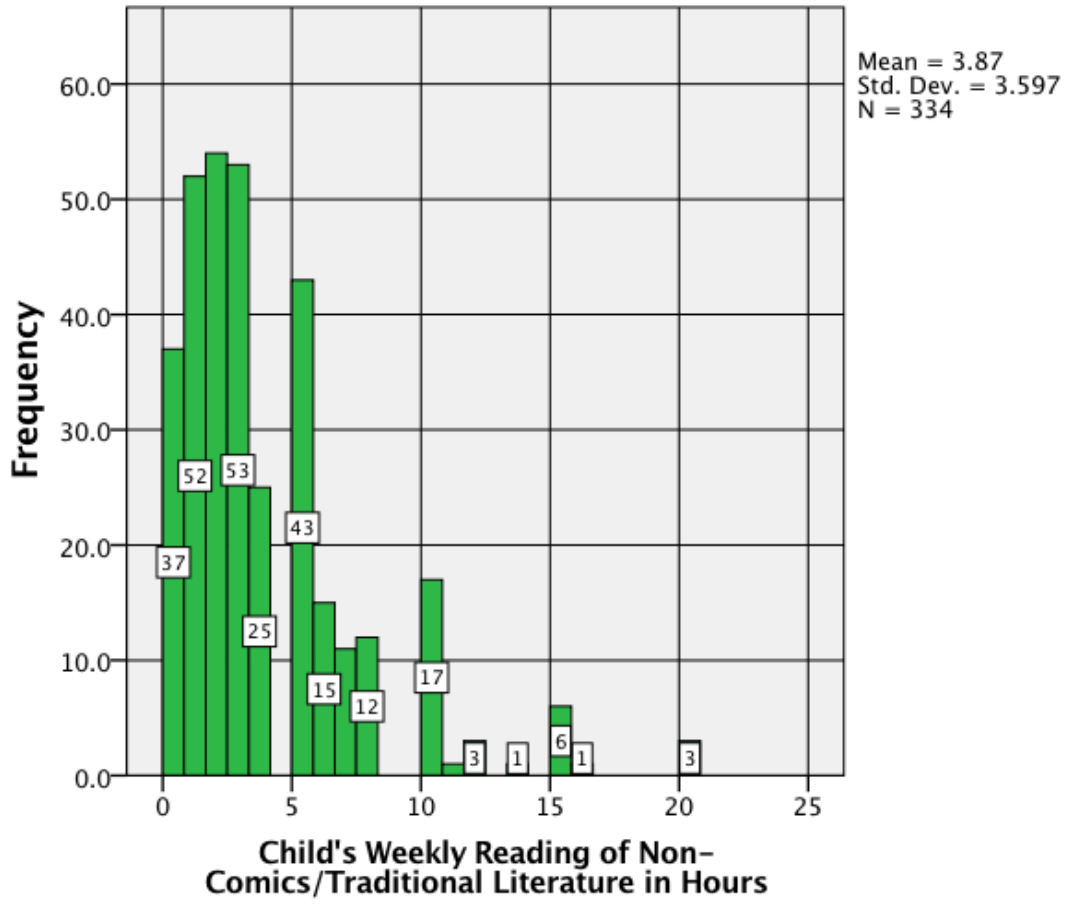
	Frequency	Percent	Cumulative Percent
0 hours	197	59.0	59.0
1 hour	85	25.4	84.4
2 hours	23	6.9	91.3
3 hours	11	3.3	94.6
4 hours	7	2.1	96.7
5 hours	9	2.7	99.4
7 hours	1	.3	99.7
10 hours	1	.3	100.0
Total	334	100.0	100.0



**Survey Question 12:** On average, how many hours per week does your oldest child enrolled at Boyd Buchanan spend reading non-comics material and/or traditional literature for pleasure (2016-2017 school year)?

Mean	3.87
Median	3
Mode	3
Std. Deviation	3.597
Minimum	0
Maximum	20
Range	20

	Frequency	Percent	Cumulative Percent
0 hours	37	11.1	11.1
1 hour	52	15.6	26.7
2 hours	54	16.2	42.9
3 hours	53	15.9	58.8
4 hours	25	7.5	66.2
5 hours	45	12.9	79.0
6 hours	15	4.5	83.5
7 hours	11	3.3	86.8
8 hours	12	3.6	90.4
10 hours	17	5.1	95.5
11 hours	1	.3	95.8
12 hours	3	.9	96.7
14 hours	1	.3	97.0
15 hours	6	1.8	98.8
16 hours	1	.3	99.1
20 hours	3	.9	100.0
Total	334	100.0	100.0



## VITA

Jordan Charles Bischell, a native of Chattanooga, Tennessee, graduated from public high school in the year 2000 and went on to pursue undergraduate degrees at the University of Tennessee at Chattanooga. In 2004 Jordan graduated from UTC, having earned a Bachelor of Arts in Communications, as well as a Bachelor of Arts in English Literature. In the fall of 2004, Jordan continued his education at UTC in the university's graduate school, earning a Master's Degree in Secondary English Education in 2006. In that same year, Jordan began his professional teaching career at Boyd Buchanan School in Chattanooga, where he is still currently employed. Jordan returned to UTC once again in 2012, enrolling in the Learning and Leadership Doctoral Program. Over the past 12 years, Jordan has taught a variety of courses in the English department at Boyd Buchanan and is currently serving as the school's secondary assistant principal; he is currently training to become the school's middle school principal in the fall of 2018.