This is to certify that the
dissertation entitled

THE IMPACT OF TELEVISION MESSAGES ABOUT
LITERACY ON YOUNG CHILDREN'S LITERACY
ATTITUDES

presented by

ANNE-MICHELLE MOSES

has been accepted towards fulfillment
of the requirements for the

___Ph.D.___ degree in ___Educational Psychology___

Major Professor's Signature

August 22, 2007

Date

PLACE IN RETURN BOX to remove this checkout from your record.
TO AVOID FINES return on or before date due.
MAY BE RECALLED with earlier due date if requested.

DATE DUE	DATE DUE	DATE DUE
JUL 2 4 2010 07 16 1 0		

6/07 p:/CIRC/DateDue.indd-p.1

THE IMPACT OF TELEVISION MESSAGES ABOUT LITERACY ON YOUNG
CHILDREN'S LITERACY ATTITUDES

By

Anne-Michelle Moses

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Educational Psychology

2007

ABSTRACT

THE IMPACT OF TELEVISION MESSAGES ABOUT LITERACY ON YOUNG CHILDREN'S LITERACY ATTITUDES

By

Anne-Michelle Moses

Different lines of research have shown important findings with respect to television, literacy development, literacy attitudes and young children including: (a) some programs for children can positively impact literacy skills development, (b) television does impact certain types of attitudes in children, and (c) literacy attitudes develop over time and have been connected to literacy achievement. Studies have also shown that programs for young children contain both positive and negative messages about literacy. Yet little has been done to bring these lines of research together to examine how television affects, or does not affect, young children's attitudes about literacy. This investigation addressed this question through two experimental studies in which 4- and 5-year-olds viewed brief television clips that contained positive or negative messages about reading, books or writing. Two measures of attitudes were employed that assessed general literacy attitudes and attitudes toward specific aspects of literacy addressed in the television clips viewed. Results from both experiments suggest that messages about literacy, whether positive or negative and as presented in this study, have little significant effect on young children's own attitudes about literacy. A number of limitations as well as directions for future research are discussed in light of these findings. The studies reported here contribute to a number of fields by addressing a previously unanswered question related to television and its impact on young children's literacy attitudes.

Findings also help to inform educators, families, and policymakers as they make critical

decisions about programming and young children's experiences with television.

ACKNOWLEDGEMENTS

PREFACE

Parents have reported that children as young as 2 to 3 years of age typically watch more than 18 hours of television each week (Jordan & Woodard, 2001). Television has become a ubiquitous piece of young children's daily lives in the U. S. When considering all that might fill a young child's days—including playing, engaging in literacy activities, spending time with family and friends—many people have wondered whether television takes up too much time in the early years. Researchers have been among those who have questioned television's role in children's development, and some have embarked on investigations to answer this pressing question.

I count myself among those researchers interested in the role of television in the lives of young children, in particular the effect of television viewing on early literacy development. Children's experiences with literacy in the years prior to formal school entry are crucial not only for their emergent literacy development but also their later literacy success. Many factors influence young children's literacy development, television included. Although there are many critics of television, it is often overlooked in the research literature related to early literacy. My overarching goal has been to conduct studies that help us to understand how television does, or does not, influence early literacy development.

Prior to this dissertation, I conducted a content analysis of the ten most popular children's programs and found positive, negative and neutral messages about literacy in these programs. Although positive messages are not too surprising in educational programs targeted for young children, the existence of negative messages about reading

and writing was worrisome in educational and entertainment programs. Yet, the content

analysis, though revealing of these messages, could not speak to whether the messages

had any influence on the young viewers who saw them. Therefore, my goal for the

dissertation was to find out whether such messages had any effect on young children's

attitudes about literacy, and if they did, how the messages impacted them. To my

knowledge, no one has attempted to answer these questions, and by doing so, I aimed to

fill a gap in the literature.

I wrote this dissertation in an alternative format (Duke & Beck, 1999), and the

format is a manuscript ready to be submitted for publication. This represents an authentic

activity for me as a researcher. In this manuscript, I report on two separate but related

experiments that I conducted to answer my research questions. After this *Preface*, the rest

of the dissertation is laid out in the American Psychological Association (APA) format

ready for submission to a journal. It begins with an introduction and literature review

that pertains to both experiments. This section highlights research related to television,

early literacy development, literacy attitudes and literacy achievement, as well as content

analyses looking at messages about literacy in children's programs. I discuss not only

what researchers have found related to these topics but also what has not yet been

explored. This leads to the purpose statement and research questions guiding this work.

Following this, I report on Experiment 1, a matched-pairs experiment investigating

whether television messages about literacy impact 4- and 5-year-olds' general attitudes

toward literacy. I then discuss Experiment 2, a within-subjects experiment that looked at

whether messages about literacy on television affect specific aspects of 4- and 5-year-

olds literacy attitudes, aspects addressed in the clips that they viewed. This experiment

also follows up on an unanswered question from Experiment 1—do young children understand the positive and negative messages in the television programs they watch. The Discussion section, *Limitations and Direction for Future Research* section as well as *Implications* of both experiments are addressed after the *Results* section for Experiment 2. The manuscript ends with the tables and figures for the experiments. The appendices at the very end of this dissertation are included here to help the readers understand the construction of the instruments I used in the two experiments and will not be included in the manuscript submitted to a journal.

Once approved, I plan to submit this manuscript to a peer-reviewed journal that accepts studies involving experimental designs (among other designs) and questions revolving around television, literacy, and/or young children's development, such as *Developmental Psychology* or the *Journal of Educational Psychology*.

References

Duke, N. K., & Beck, S. W. (1999). Education should consider alternative formats for the dissertation. *Educational Researcher, 28*, 31-36.

Jordan, A. B., & Woodard, E. H. (2001). Electronic childhood: The availability and use of household media by 2- to 2-year-olds. *Zero to Three, 22*, 4-9.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

MANUSCRIPT

THE IMPACT OF TELEVISION MESSAGES ABOUT LITERACY ON YOUNG

CHILDREN'S LITERACY ATTITUDES

Introduction

Television is an ever-present fixture in the lives of American families (Rideout,

Vandewater, & Wartella, 2003). Most young children gravitate toward watching

television and devote, on average, 2 to 3 hours to viewing a day (Federal

Communications Commission, 2005; Rideout, Vandewater, & Wartella, 2003).

Therefore, television's significant place in young children's lives cannot be denied. In

fact, families, educators, policymakers, and researchers often debate the impact of

television and what role it should or should not play in the lives of young children. On

one side of the debate are those who believe that television represents the demise of

reading and other academic-related skills. Some, such as the American Academy of

Pediatrics (1999), have advised that children under the age of 2 not watch any television

and have limited television exposure thereafter. Others have coined television the "vast

wasteland" (Minnow, 1961 as quoted in Alperowicz, 1982, p. 11) and argued that

watching television leads to passivity, transfixing young viewers by the images and

leaving them to absorb whatever they see and hear (e.g., Healy, 1990; Postman, 1994;

Winn, 2002).

On the other side of the debate are those who contend that television is not

necessarily bad (or good), but that television's influence depends on how much time

children watch it and what type of programming they view. Researchers such as Neuman

1

(1995) and Linebarger (2001) have suggested that watching a moderate amount of television does not lead to the detrimental effects some have claimed. Linebarger (2001) has argued, "An appropriate combination of television and print produces opportunities for enhancing literacy experiences and outcomes" (p. 288). In fact, empirical work on television and reading-related outcomes found a curvilinear relationship between television viewing and reading: as viewing increases, so does reading achievement, but beyond about four hours a day, viewing has been negatively associated with achievement (Neuman, 1988; Neuman & Prowda, 1982). In addition, studied have found that certain educational programs, such as *Sesame Street* and *Between the Lions*, can positively increase certain early literacy skills in young children (e.g., Fisch, 2004). Evidence such as this supports the argument that content, not just the amount of time with television, matters (e.g., Huston & Wright, 1998). Relationships between television and young children are complex and that television's influence varies depending on a number of factors.

Although researchers have examined how television affects young children's early literacy skills development, little work has been to done to investigate whether, and how, messages about literacy in children's television programming might impact the development of literacy attitudes. The two studies reported in this paper examine this question. Four separate, but related, bodies of research motivated the design and implementation of the experiments: (a) television's effect on early literacy skills, (b) television's influence on attitudes about race, gender, and violence, (c) the relationship between literacy attitudes and literacy achievement, as well as how these attitudes develop, and (d) messages about literacy that have been found in children's

programming. These four areas of research suggest the need to address a gap in our understanding of how television affects young children as they emerge as literate individuals.

Theoretical Framework

Three important frameworks guide the two studies reported here and my stance that such work is a crucial piece to understanding young children's literacy development. The first is an emergent literacy perspective. Emergent literacy refers to the notion that literacy begins to develop long before children can conventionally read and write. Children's experiences with literacy prior to formal school entry are influential for their emergent understanding of literacy as well as their later literacy development (e.g., Purcell-Gates, 1996; Sulzby & Teale, 1991; Whitehurst & Lonigan, 2001). When children are provided with literacy-rich environments (in homes and/or child care settings), they have the opportunity to learn about and explore literacy—how and why people read and write, for example. In doing so, they emerge as readers and writers themselves. For instance, they begin to write with scribbling on paper and gradually introducing letterlike forms and finally conventionally formed letters. As they emerge as readers, young children start to learn how to turn pages in a book, look at pictures, and gradually begin to learn to orient towards the print in texts. Children's early experiences with literacy build the foundation for their later literacy development and achievement; therefore, young children need such experiences with literacy in order to become successful readers and writers.

For many children, television represents one potential source of exposure to literacy skills and messages about literacy. Print appears on the screen in a variety of

forms: as titles of programs and segments, on signs and advertisements during episodes, as letters and words of the day, and when characters read print from storybooks and other texts during programs. Occasionally, characters model the uses and importance (or misuses and unimportance) of literacy for viewers (Mates & Strommen, 1995/1996; Moses & Duke, 2006; Wan, 2000; Wood & Duke, 1997). However, not all literacy events seen on television are positive, as revealed in two content analyses that found negative messages about literacy in popular children's programs (Mates & Strommen, 1995/1996; Moses & Duke, 2006). For example, one content analysis of *Sesame Street* found a negative message in which writing was portrayed as not useful:

> Telly runs an errand for Gordon. To remember what to buy at the store, Telly
>
> writes a list. We later see him making great effort to read his list to the clerk who
>
> encourages his efforts warmly and patiently. Gordon appears at the store himself,
>
> tells the clerk what he wants, rendering Telly's list superfluous and leaving him
>
> more dejected than triumphant. Reading and writing are useful and praiseworthy
>
> skills, and learning to do them is hard, but satisfying, work. Unfortunately, this
>
> message is undermined (Mates & Strommen, 1995/1996, p. 304).

Young viewers may see models of literacy as fun and useful or literacy as not fun and not useful depending on the messages in the programs they watch daily. Such a range of messages offer young children a variety of experiences with literacy during a time that has been recognized as vital for literacy development and later success (IRA/NAEYC, 1998).

The second framework guiding this project is the active viewing model. This model portrays "the child as an active processor, determined to master the images and

implicit messages of the medium and to decode its structure as well as its content" (Huston & Wright, 1998, p. 1018; see Bickham, Wright, and Huston, 2001; Bryant & Anderson, 1983; Collins, 1983). Children's cognitive engagement with programming depends on factors such as their prior knowledge and mental schemata and their ability to attend to and comprehend what they see and hear (i.e., they do not attend to and comprehend everything that they see, but they have the ability to actively do so with content that is not too simple or too complicated for them) (Huston & Wright, 1998). This model (and the research supporting it) demonstrates that children can actively engage with content in television, which counters those who believe that television absorbs passive young viewers (e.g., Winn, 2002). Since children actively engage with content, this framework also points to the importance of considering content and how it might influence young viewers.

Social Cognitive Theory (SCT), formerly known as Social Learning Theory, provides the third framework guiding this project. This theory is attributed to Albert Bandura, who has outlined key features and concepts of SCT (e.g., 2002). One such concept is "triadic reciprocal causation" (p. 121), or the idea that personal factors (including cognitive, biological, and affective factors), environmental factors, and an individual's behaviors all interrelate bi-directionally with each other. For instance, not only can environmental factors influence how a person behaves, but the opposite is true as well— the way a person behaves can shape things in their environment.

SCT also stresses the importance and prevalence of observational learning and models, and this particular aspect of SCT is most relevant to the current investigation. Observational learning can occur from watching two types of models, or displays of

5

actions, beliefs, and attitudes: live models (i.e., those seen in real life) and symbolic

models (i.e., those seen in different media including television). However, not all models

are effective in influencing an individual. Bandura (2002) argues that observational

learning is regulated by four processes: (1) attentional processes, (2) retention processes,

(3) production processes, and (4) motivational processes, each of which includes a

number of factors to consider. For example, whether a person attends to a model depends

on "the cognitive skills, preconceptions, and value preferences of the observers. Others

are related to the salience, attractiveness, and functional value of the modeled activities

themselves" (p. 127). Whether an individual attends to a model will, in part, determine

whether that person retains what s/he observed for later use (or production). Motivational

processes represent another set of processes that influence whether an individual learns or

does not learn from a model. These processes revolve around the idea of rewards and

punishment. Of importance here is whether the model is seen as being successful in

getting what s/he wants or avoiding what s/he does not want. If the observer believes that

the model is successful—and that that individual has enough in common with the model

to adopt such behavior or attitudes—then that observer is likely to repeat such behavior

or take up a similar attitude.

Children's television programs have been shown to contain messages about

literacy in which characters model aspects of reading, writing, or using print in various

ways – some in positive ways, some in negative or neutral ways (e.g., Moses & Duke,

2006). If a young viewer attends to and is motivated by what he or she sees about literacy

on television, then SCT theory suggests that television messages about literacy can

impact that young child. The two studies reported here aim to find out whether messages

about literacy in children's television programs do, in fact, impact young children's attitudes about literacy.

Extant Research on Television and Literacy

In addition to studies of the impact of television on children's literacy development in general described earlier, extant research has focused on how certain television programs impact specific early or basic literacy skills. These studies answer well the question of how television impacts specific early literacy skills in young children, as I discuss in the following section. However, skills only present part of the picture of literacy development; children's attitudes—what they think or feel about literacy—also play a role in how they develop as literate individuals. Past work does not fully address the question of how television impacts, or does not impact, young children's literacy attitudes, or the affective dimensions of literacy. Little evidence exists regarding these specific attitudes, but I drew upon research from two related issues: (1) television and (2) attitudes about gender, race and violence.

Impact on Literacy Skills Development

Previous research has addressed questions about how certain children's programs impact aspects of young children's literacy skills development. Researchers have found increases in children's vocabulary and letter recognition after watching *Sesame Street* (Ball & Bogatz, 1970; Rice, Huston, Truglio, & Wright, 1990). Watching *Between the Lions* has been found to lead to gains in word recognition, concepts of print, letter-sound correspondence and fluency (Linebarger, 2000; Linebarger, Kosanic, Greenwood, & Doku, 2004). Finally, *Barney and Friends* has been shown to increase children's vocabulary (Singer & Singer, 1994). Each of these areas represents essential skills for

literacy learning and success (IRA/NAEYC, 1998; National Reading Panel Report, 2000).

Long-term connections also have been found between watching *Sesame Street* and reading achievement and attitudes (e.g., Anderson et al., 2001; Wright et al., 2001). For example, one study found that watching *Sesame Street* during the preschool years positively and significantly related to grade point averages in high school English and reading more books in adolescence (Anderson et al., 2001). However, viewing non-educational programming in the preschool years did not relate to such positive outcomes, and instead related negatively to academic achievement and greater aggression for teenage females. This body of work: (a) supports the claim that at least some programming can positively influence early literacy development as well as help lay the foundation for later literacy achievement and habits, (b) highlights the importance of considering the content in programming, and (c) corroborates the idea that the influence of television seems to vary depending on the content that young children watch.

Television's Influence on Literacy Attitudes

Although researchers have studied the effects of television on cognitive aspects of viewers' literacy development and achievement, very little has been done to look at affective dimensions of literacy. According to two of the theoretical frameworks guiding this investigation, affective factors are important to consider. First, the active viewing model takes into account affective qualities of children's interactions with television by considering their goals or motivation to watch certain programs. Likewise, Social Cognitive Theory acknowledges the importance of individuals' affect, especially with regard to the reciprocal relationships between an individual, his or her behaviors, and the

environment (e.g., messages about literacy, and other content, in television programming).

The literature on television and viewers' attitudes about race, gender, and violence suggests that television may also affect children's affective development. Researchers have found that viewers' attitudes can be influenced by messages they see and hear on television. Depending on the message, viewers' attitudes can be swayed in positive or negative ways. For instance, survey data has found a link between White children's negative perceptions of African Americans in reality and their consumption of violent television programming (Zuckerman, Singer & Singer, 1980). Experimental studies showed similar outcomes when White students viewed stereotypical comedy skits (as opposed to neutral skits) from a commonly viewed television program (Ford, 1997). Results showed that these participants made more negative judgments of an African American student, but not a White target student, in a judiciary review case following the viewing of such clips. That is, the stereotypical portrayal of African Americans in the skit influenced the ways in which participants viewed and made judgments about the guilt (or innocence) in an unrelated situation. Although this and other studies involved participants older than the current project, it reveals the potential influence of television on viewers' attitudes and perceptions (for a review of the impact of television's portrayal of race and ethnicity on viewers' attitudes and perceptions, see Greenberg, Mastro, & Brand, 2002).

Researchers have also investigated the influence of television portrayals on attitudes and perceptions about gender. Viewing stereotypical or negative portrayals of women on television, for example, has been linked to possessing similar attitudes in relation to gender-related activities and qualities (for more about television's portrayal of

gender and its connection to viewers' attitudes and perceptions, see Morgan, 1987; Signorielli & Lears, 1992). One study demonstrated that the more often elementary-aged children watched television, the greater their tendency to believe in gender stereotypes related to affective qualities and activities such as athletics and cooking (Rothschild, 1984). Therefore, television portrayals can influence viewers' attitudes and perceptions about gender as well as race.

Finally, with regard to violence, a significant amount of research has documented associations between viewing violence on television and attitudes toward using violence (for reviews of the relationship between television viewing and aggression see Huesmann, 1982; Huesmann & Miller, 1994; Paik & Comstock, 1994; Sparks & Sparks, 2002). Now a classic study, Bandura, Ross, and Ross (1964) found that after viewing violent content children modeled aggressive behavior, particularly when they saw aggressive behavior rewarded. Decades of additional research, both in laboratories and in the field, has substantiated these findings. Therefore, many have argued that a causal link exists between viewing violence on television and having violent attitudes and displaying aggression.

Again, these studies included viewers older than those in the current investigation; however, researchers have found some evidence that television content, such as violent content, can influence even younger viewers (Singer & Singer, 1981). Although more support exists for older children—for example, Eron and Huesmann (1986) have argued for a critical period of influence between the ages of 8 and 12—television likely has the potential to influence younger viewers' attitudes and beliefs as well. Evidence that does exist regarding the connection between television and literacy attitudes is small but

informative. The Anderson et al. (2001) study mentioned earlier looked at skills as well as attitude-related outcomes. They found that viewing educational programming, such as *Sesame Street*, during the preschool years not only positively correlated with reading-related habits and behaviors, but it also positively related to higher beliefs in one's academic competency and the value of academics in high school. This was not the case for those who watched more entertainment programming in the preschool years. The idea, here, is that programs like *Sesame Street* provide pathways for long-term positive outcomes, in which young children are: "(a) learning preacademic skills, particularly related to language and literacy, (b) developing motivation and interest, and (c) acquiring behavioral patterns of attentiveness, concentration, nonaggression, and absence of restlessness or distractability"—all of which could, in turn, lead to the positive outcomes found in adolescence (Fisch, 2004, p. 29). Few studies have further investigated this early learning hypothesis, particularly beyond children's viewing of *Sesame Street*.

The literature reviewed in this section demonstrates that:

- Television is an ever-present part of young children's lives

- Certain television programs positively impact certain literacy skills of young viewers

- Television can influence viewers' attitudes and perceptions, such as those about race, gender, and violence.

These findings indicate the possibility that children's television programs may impact young children's attitudes about literacy. I aimed to address this gap in the literature in the two studies reported in this paper.

Research on Literacy Attitudes

Research suggests that literacy attitudes are an important area of development to study. Studies have looked at literacy attitudes, the relationship between literacy attitudes and literacy achievement, and the development of these attitudes over time. In the past, this literature has remained separate from research on television and young children; however, it can inform an investigation that aims to fill the gap in our understanding of how television might affect young children's attitudes about literacy.

Literacy Attitudes and Literacy Achievement

Certainly, children must acquire basic literacy skills in order to achieve success in reading and writing. Yet, skills are not enough; studies of literacy attitudes posit that affective factors also play a central role in literacy achievement. Many studies looking at literacy attitudes and literacy achievement have involved school-aged children, although a few studies have included children under the age of 6. With regard to school-aged children, researchers have found that the attitudes and motivation of readers significantly links to their reading achievement, so that readers with positive attitudes about reading tend to have higher reading achievement and those with negative attitudes tend not to achieve as well in reading (e.g., Baker & Wigfield, 1999; Elley, 1992; Gambrell & Morrow, 1996; Guthrie, Schafer, Wang, & Afflerbach, 1993; Purves & Beach, 1972; Walberg & Tsai, 1985). Thus, attitudes about literacy, as well as literacy skills, help to shape children's success, or struggles, in literacy.

A few studies have been conducted to investigate young children's attitudes about reading in the early years (no study that I could find considered writing with children younger than 6). One key finding is that reading attitudes develop and change over time. When Saracho and Dayton (1991) examined attitudes of 3- to 5-year-old children, they

asked participants questions related to their interest in reading activities in different

settings (e.g., library, school, nonschool, and general reading activities) and feelings

about reading (or being read to) in these settings. They found that reading attitudes

followed a developmental path for three of the four areas: 3-year-olds reporting lower

reading attitudes than the older children (for the general reading area, both 3- and 4-year-

olds had lower reading attitudes than the 5-year-olds). One explanation for these results is

that with each year, children gain more experience with reading, and their increased

knowledge and feelings of competence positively influence their attitudes toward

reading. Another explanation is that with each year, children develop more knowledge

about reading and the functions and purposes it can serve, which also plays into their

feelings about reading. Others have found that reading attitudes begin to decrease again

once children enter school (e.g., McKenna & Kear, 1990; Sperling & Head, 2002), with

many explanations for this phenomenon suggested (for a review of these explanations,

see Pressley, 2002).

Even with the ups and downs documented, children as young as 3 years are

constructing attitudes about literacy. As children gain experiences with literacy and

develop early literacy skills, they are also developing feelings or attitudes about literacy.

Early experiences with literacy – whether they come from interactions with adults and

peers or other sources such as the television – likely influence children's developing

attitudes about literacy as well as their developing literacy skills. Much more work is

needed in this area of research, as researchers such as Saracho (e.g., 1986) infer the

importance of early reading attitudes for later reading achievement but little empirical

work has been conducted to verify it.

The literature related to literacy attitudes and achievement reveals that (a) attitudes and other affective dimensions of literacy influence children's literacy achievement in school-aged children—suggesting the potential significance of literacy attitudes in even younger children—and (b) attitudes toward literacy develop over time and begin when children are very young. In looking across these findings, a significant gap remains in our understanding of the ways in which television influences affective dimensions of young children's literacy development and achievement (as seen in Figure 1). It represents a missing link in our understanding of the relationships between television, literacy, and young children.

Messages about Literacy on Television

One final matter to consider is the actual content of programs that children view. Both theory and research support the notion that content matters and that the influence of television depends on the content that children watch (i.e., as discussed earlier with respect to differing outcomes depending on children's viewing of educational versus entertainment programs). The research on attitudes already mentioned showed that a variation in content could mean that viewers take up different attitudes about race, gender, and violence. In the case of children's programming and how they portray literacy, often there is little literacy content to see (e.g., Moses & Duke, 2006; Neapolitan & Huston, 1994). However, within the content that does exist, researchers have found some clearly negative and clearly positive messages offered to young viewers in the programs they often watch.

Content analyses have found that *Reading Rainbow*, *Barney and Friends* and other popular children's programming include positive messages about language and

literacy (Moses & Duke, 2006; Wan, 2000; Wood & Duke, 1997). Positive messages included showing literacy (reading or writing print) as useful, important, and/or enjoyable to do. For example, Buster (a friend of the title character in *Arthur*) writes his name and address on an envelope in order to enter a contest (writing is useful), and in an episode of *Caillou*, Caillou's mother sits on a park bench and reads to herself (reading is enjoyable). In addition, these programs typically aligned with an emergent literacy perspective. For instance, *Reading Rainbow* incorporated much print in its episodes and encouraged viewers to seek out reading material outside of (and including) those in its episodes. *Barney and Friends* included many listening and speaking activities in its episodes as well as reading and writing activities for viewers to see.

However, researchers have also uncovered negative messages about literacy and missed opportunities to include print in meaningful and positive ways in programs such as *Sesame Street* (Mates & Strommen, 1995/1996) and other popular children's programs (Moses & Duke, 2006). For instance, some episodes showed reading as taking a backseat to other activities that characters seemed to prefer over reading. For instance, in an episode of *Caillou*, two children are seen sitting on a park bench reading. Two other children come up from behind them and interrupt their silent reading by brushing them with feathers and laughing. The readers eventually leave their books and join the other two children in a song and dance about laughing. None of the children return to the books, and reading takes a backseat to singing and dancing with friends.

With regard to missed opportunities to include print, Mates and Strommen (1995/1996) found very little in the way of environmental print that would typically be found in and around an urban setting, stories being read aloud, or reading or writing for

real purposes. We, too, found many instances in which print could have been included, and in meaningful ways, but was not. For example, we found segments in which print was not legible on an artifact that would typically contain readable print such (e.g., scribbles were shown on signs or in a newspaper rather than conventional print). Another example of missed opportunities involved print being absent from artifacts that would normally contain print, such as the maps that Dora uses in *Dora the Explorer* or the pages of the storybook that Emily Elizabeth reads in every episode of *Clifford the Big Red Dog* (she uses "book language" but no print appears on the pages of the book). Finally, missed opportunities included instances in which print was not used in a situation that it typically would be used, such as in *Blue's Clues* when Steve encourages viewers to record clues in their "handy-dandy" notebook, but he does not write (only draws) the clues or label the drawings of the clues.

Even with such a lack of print in programming, children who view any of the popular programs will likely witness some messages about literacy, and these messages will vary in how they portray literacy. As with messages about race, gender and violence, television has the potential to affect viewers' literacy attitudes. Therefore, there remains a need to investigate the impact of these messages on children's attitudes about literacy.

Purpose Statement and Research Question

The purpose of the two studies in this investigation was to examine the impact of negative and positive messages about literacy on children's attitudes toward literacy. Specifically, the research questions that guided this work were: Do positive and negative messages about literacy on children's television programs impact young children's attitudes about literacy and, if so, to what extent? For Experiment 1, the focus was on

whether these messages affected 4- and 5-year-olds' attitudes about literacy in general. For Experiment 2, the focus was on whether these messages affected their attitudes about specific aspects about literacy, aspects directly addressed in the clips they viewed.

Definitions

Attitude has often varied in definition depending on the particular author or research. McKenna (2001) notes that "attitudes are often viewed as affective in nature (but that they have cognitive components as well), that they are precursors of behavior (although they may not always be translated into behavior), and that they are acquired on the basis of experience" (p. 136). Children's own feelings about reading and writing may influence their literacy behaviors, and television represents a potential resource for children to gain experience with literacy. This view of attitude, particularly related to literacy, helped to frame this investigation.

A multitude of definitions exist for *literacy*. According to the International Reading Association and the National Council of Teachers of English (IRA/NCTE, 1996), literacy "includes the capacity to accomplish a wide range of reading, writing, and other language tasks associated with everyday life" and focuses not only on written language but also spoken and visual language (pp. 2-5). For the purposes of this study, I focused on print literacy, particularly the print that is read, written or heard by characters or people in children's television programs.

Experiment 1

Method

Since the main research question asks about impact, an experimental design was appropriate to address the question. The first experiment entailed manipulating the types

17

of messages about literacy that participants watched and investigating whether these messages had an effect on the children's literacy attitudes, broadly speaking. It involved a matched-pairs design in which one participant in a pair viewed three positive clips while the partner participant viewed three negative clips. The independent variable was the message clip and the dependent variable was participants' attitudes toward literacy.

Sample

I recruited 63 participants between the ages of 4 and 5 who had not yet entered kindergarten. This sample size was based on power calculations with power of .80 and a medium effect size (.15). Power analyses were conducted using the software program BWPower which provides the following guidelines for effect size: .02 is a small effect, .15 is a medium effect, and .35 is a large effect. With these numbers, the sample size was calculated as 52, so the actual sample size for Experiment 1 was slightly higher than recommended. I contacted child care centers in three different counties in a Midwestern state. Centers ranged in size from small to large, faith-based to community-based to university-based, and from serving children part-time to full-time. A parent or legal guardian for a participant reported on demographic information including race. The majority of participants were reported to be White (n = 46). The remaining children were reported to be Asian/Pacific Islander (Asian-American) (n = 3), Chicano/Mexican American (n= 3), or Other (n = 7; written in response of "African" for 3 participants, 2 as "Asian/White, non-Hispanic", 1 as "Puerto-Rican/White, non-Hispanic", and 1 as "Black."). There were 33 males and 30 females in the sample. For 3 participants, a parent or legal guardian did not complete the ethnicity item; for 1 participant, a parent or legal guardian did not return the survey. Of the 63 participants assessed, I matched 60 (of the

63 participants) by their baseline literacy attitudes score (measured on the General Literacy Attitudes Measure, or GLAM, discussed later). The other 3 participants were not included in data analyses. Partners were matched within two points on the GLAM but were not matched by gender or race (the minimum possible GLAM score was 13 and the maximum was 65).

Television viewing habits. A parent or legal guardian filled out a survey regarding their child's television and video/DVD viewing habits. I created the Parent Survey of Children's Television Viewing (PSCTV) (see Appendix A) in order to obtain demographic information (participants' date of birth and ethnicity) and details about their television viewing (time spent watching television and DVDs/videos, familiarity with popular children's programs, programs typically viewed). The survey asked about participants' viewing of 12 children's programs: *Arthur*, *Barney & Friends*, *Blue's Clues*, *Between the Lions*, *Clifford the Big Red Dog*, *Caillou*, *Dora the Explorer*, *Dragon Tales*, *Fairly Odd Parents*, *Maggie & the Ferocious Beast*, *Sesame Street*, and *SpongeBob SquarePants*. I drew clips from *Arthur*, *Barney & Friends*, *Fairly Odd Parents*, *Maggie & the Ferocious Beast*, and *Sesame Street* to show participants (I explain more about these clips and how they were used in the next section). Ten of the programs included in the survey were ranked as the most popular children's programs for viewers between the ages of 2 and 5 during the 2002-2003 viewing season. The other two programs included in the survey (not in the top 10) were *Fairly Odd Parents* and *Between the Lions*. When viewed on weekends, *Fairly Odd Parents* was ranked 18th out of 244 entries. *Between the Lions* was ranked 45th (rankings obtained through Nielsen Media Research TV Ratings, 2002-2003). *Between the Lions* includes what I believe to constitute one of the more

19

literacy-focused programs for young viewers. Therefore, even with a smaller audience, I felt it was important to include in the survey.

Table 1 includes the descriptive data about participants' viewing habits for Experiment 1, including how many hours, on average, participants watched television during the week and on the weekends. All of the participants had seen television. As the Table illustrates, the majority of participants did so an average of 1 to 2 hours on a typical weekday; just over 60% of participants watched the same amount of television on a weekend day whereas another 31% watched more television on the weekend (3-4 hours per day). These numbers coincide with a recent report that found children ages 6 and under viewed just over 1 hour of television, on average, per day and spent an average of about 38 minutes watching DVDs/video each day (Rideout, Vandewater, & Wartella, 2003). These findings do not match up with estimates from other sources that have shown that children watch an average of 3 hours each day (e.g.. Committee on Public Education. 2001). Figure 2 displays participants' familiarity with 12 popular children's programs included in the survey. and Figure 3 illustrates the percentage of participants who viewed each of these programs regularly (i.e., during a typical week).

Materials: Television Clips

When I met with participants. I showed them clips recorded from actual children's television programs. I taped and reviewed many different children's programs currently on the air for possible positive and negative messages. All of the chosen clips came from programs that have been ranked within the top 25 most watched programs by children between the ages of 2 and 5 (from the same Nielsen Media Research data).

I chose clips that showed, in my judgment, either a positive message about an aspect of literacy or a negative message about an aspect of literacy. I also selected clips so that two clips could be paired together around the same aspect of literacy (writing, books, or reading) and theme (e.g., useful versus not useful) (see Table 2). This meant that one clip in the pair contained a positive message and one clip contained a negative message. An expert in literacy previewed clips and agreed that each clip portrayed literacy in either a positive or negative light. She also concurred about the pairing of clips around each specific aspect of literacy and theme.

The first pair included a positive clip and a negative clip about writing. In the negative clip, D.W., Arthur's little sister in the educational program *Arthur*, tries to write her name so that she can get a library card; at one point, though, she finds writing legibly frustrating and states that she "can't do it." In contrast, during another episode of *Barney and Friends*, many different children are shown writing with different writing tools (a stick in the sand, magnetic letters, chalk on a chalkboard, markers on paper) and visibility enjoying writing. The lyrics include "I am learning to spell my name / Each and every letter / It's almost like a game / And each day you get better / I am learning to spell my name". Therefore, this pair of clips revolved around the theme of writing and whether it is enjoyable and something a child can do or is something that is not enjoyable and that a young child might find frustrating.

The second pair included a positive and negative clip about books, with the theme being how to handle or use them. In the negative clip (from *Fairly Odd Parents*), Timmy (an elementary-aged boy) finds different (mis)uses for books, including throwing a book and having his dad fetch and bury a book, hitting and shredding books with a slingshot,

and using two books as water skis. This clip was paired with one from an episode of *Barney and Friends* in which the cast sings about the fun involved in reading books and using books in appropriate (or conventional) ways. The lyrics include the following: "Books are fun / Books are great / Let's sit down and read a book today . . . Books are fun to read / I love the pictures, too / I love to snuggle up and read with somebody like you". In this pair, the theme revolves around whether books should be destroyed or books should be enjoyed.

In the third pair, the positive and negative clips were about the usefulness of reading. The negative clip occurred in an episode of *Maggie and the Ferocious Beast*. Maggie is seen reading a book for directions about how to play a board game. However, after a few seconds, she closes the book and says, "I give up. This game is too hard. Maybe we can learn to play it on a rainy day. Let's do something else." Neither she nor the other two characters in the scene return to the book to learn how to play the game. The message here is that reading is not useful for learning something new, such as how to play a new game. In contrast, in an episode of *Sesame Street*, Elmo and Zoë want to fly a kite but cannot find one to buy, so Gabby introduces them to a book she has used in the past that demonstrates how to make kites. With this book, they make their kites and eventually fly them. Here, a book is useful for learning something new, such as how to make something.

Participants who were assigned to view the three positive clips spent approximately 4 minutes and 30 seconds watching the set. Participants who were assigned to view the three negative clips did so for about 2 minutes. This difference is not

ideal, but it seemed that having clips match on theme was more important than having them match on time. I was unable to find matches on both.

Measures

In addition to the PSCTV to assess television viewing habits and other background information, I created the General Literacy Attitudes Measure (GLAM) to assess participants' attitudes towards literacy in general. This instrument is based on two validated instruments that I will discuss in detail later, and the instrument consisted of 13 items that asked participants about their feelings toward a variety of aspects of literacy, including reading and writing. The items did not relate to the specific messages about literacy contained in the clips that participants viewed. Since the participants likely could not read the items, I read each item to them. After reading each item, I asked participants to respond by pointing to a face that showed how they felt toward a variety of aspects of reading and writing. The response scale was a Likert scale with five different faces, varying in degree of happiness to sadness. The options from which participants could choose included: a lot happy, a little happy, okay, a little sad, and a lot sad.

The following are sample items from the GLAM:

- (Item 5) Let's say you're [at school in your classroom] and someone is reading to you. How do you feel? Do you feel a lot happy, a little happy, okay, a little sad, or a lot sad? (I selected the wording in the bracket that matched what the children or teacher used to refer to the setting in which I met them.)

- (Item 10) Let's say you're [in your classroom/at school] and you're writing or someone is helping you write. How do you feel? Do you feel a lot happy, a little happy, okay, a little sad, or a lot sad?

- (Item 3) Let's say you're reading instead of playing. How do you feel? Do you feel a lot happy, a little happy, okay, a little sad, or a lot sad?

Appendix B includes all of the 13 items used in the GLAM. I created three different versions of the GLAM, with the 13 items randomly sorted into three different orders. I randomly assigned one of the three versions to participants. They completed the same order of items at each time point.

I hypothesized that the clips would affect participants' GLAM scores differently – positive clips would lead to higher GLAM scores and negative clips would lead to lower GLAM scores. If this happened, the results would provide strong evidence that messages about literacy that children see on television do affect their literacy attitudes. It would mean that participants transferred the feelings conveyed in the clips about writing, reading and books to their attitudes about literacy in general.

The GLAM is based on two validated reading attitudes instruments: the Preschool Reading Attitudes Scale (PRAS; Saracho, 1986; 1988) and the ERAS (McKenna & Kear, 1990; McKenna, Kear & Ellsworth, 1995). The PRAS was the only reading attitudes scale that I could find that has been designed for preschool-aged children to answer themselves. It has been validated for assessing reading attitudes of 3-, 4- and 5-year-olds. Questions being with "How do you feel", and there are 12 total items. It uses three basic drawings of children's faces—a smiling face, a neutral face, and a frowning face on a 3-point scale—with which children indicate their feelings about reading. The Elementary

Reading Attitude Survey (ERAS, also know as the Garfield; McKenna & Kear, 1990) has been validated with students in Grades 1 to 6. Although used with older participants than those in the current study, this scale represented another example of a Likert-type measure of reading attitudes and helped to inform the construction of the GLAM. The ERAS contains 20 items which ask elementary-aged children to respond to questions that begin with "How do you feel" and inquire about aspects of recreational and academic reading. Children respond by selecting from four pictures of the cartoon character Garfield. For the response scale, each of the four pictures portrays a different emotion on Garfield's face and body (ranging from a Garfield who is smiling with teeth to one how is frowning with arms-crossed). Both scales used picture representations of emotions to which the participants pointed when answering each item. This ensures that even very young children can answer the questions, since it did not require them to read the item or possible responses.

Reliability and validity of the PRAS. Saracho (1986) interviewed 180 3- to 5-year olds regarding their attitudes about reading, and then she used the most common statements from these children for the items included in the PRAS. These items were placed into four categories: School Reading Activity (SRA), Nonschool Reading Activities (NRA), Library Reading Activities (LRA), and General Reading Activities (GRA). Only the items reaching a .84 coefficient or above for Pearson's product-moment correlations were included for the final version of the PRAS.

Following the piloting of this instrument, Saracho (1984; 1986) administered the PRAS to 2,232 children randomly selected from early childhood centers from across five states. This sample included an even number of boys and girls (372 each) represented in

three age groups (3-, 4-, and 5-year-olds). Mexican American, White, African American and other ethnicities were also included, as well as children from varying geographic regions and across socio-economic and ability levels.

Saracho and Dayton (1991) report that for 120 randomly selected children from the larger sample, the PRAS reached a 0.95 for test-retest reliability (with four weeks passing between the administrations) and 0.89 when analyzed with the Kuder-Richardson 20. With regard to construct validity, 12 teachers of participating children chose five boys and five girls who exhibited positive reading attitudes and the same number of boys and girls who exhibited negative reading attitudes. These children's PRAS scores resulted in significant differences; those whom teachers identified as having positive reading attitudes had higher scores on the PRAS than those whom teachers deemed as having negative reading attitudes. In addition, internal consistency split-halves reliability coefficients were reported as 0.86 for the subscale SRA, 0.85 for the NRA, 0.90 for the LRA, and 0.85 for the GRA. Finally, with respect to content validity, Saracho (1986) states that experts in reading and early childhood evaluated the instrument and gave feedback, which she took into consideration in developing the PRAS. Overall, Saracho found the PRAS to validly and reliably measure young children's attitudes about reading and that their attitudes were stable across testing periods. When basing 5 items from this instrument for the GLAM, I felt confident about the ability of these items to measure certain aspects of young children's reading attitudes.

Reliability and validity of the ERAS. The ERAS consists of two subscales, each containing 10 items: the academic reading attitude subscale and the recreational reading attitude subscale. McKenna and Kear (1990) report that Cronbach's alpha reliability

coefficients for each subscale (by grade) ranged from .74 to .89. With respect to construct validity of the recreational subscale, the authors found that having a library card (when a library was available to the student) significantly related to higher mean scores on the recreational reading attitudes portion of the ERAS. Also, they found a significant difference in the mean scores of those who checked out books (from the school library and was not a requirement) compared to those who did not.

With regard to the validity of the academic reading attitudes subscale, McKenna and Kear (1990) found that the mean scores of higher reading ability students (ranked by their teachers) were significantly greater than lower ability students. Finally, they calculated an intersubscale correlation, which was .64; this suggests that while the subscales measure related to each other, they represented different constructs. Factor analysis provided additional evidence that the subscales tapped into different dimensions of children's attitudes toward reading. Overall, then, the ERAS was reported to be a reliable and valid measure of children's reading attitudes, and for children as young as 6-years-old (first grade). Because of these results, I felt confident in the 4 items from the ERAS on which I based GLAM items.

I based the GLAM items on 5 items from the PRAS and 4 GLAM items from the ERAS. I wanted to make sure that the scale was not too long, which might frustrate or bore the participants. Therefore, after looking over both scales and considering my research question, an expert in literacy and I narrowed down the items that were most relevant for this study and did not overlap each other (e.g., some questions were very similar in nature on PRAS compared with the ERAS). For the remaining 4 items, I wrote items to assess participants' attitudes toward different aspects of writing. Writing, too,

represents an important aspect of emergent literacy, though it is not addressed in the PRAS. I wanted to include this in the measure of literacy attitudes in young children. I wrote the writing items in a manner similar to the reading items.

One concern with using the PRAS in the current study was the response scale. It only provided three possible responses; I believed that young children had the ability to choose from more options for expressing their feelings about literacy. A concern with the ERAS was that younger children nowadays may not recognize or be able to associate their own feelings with Garfield (or, more generally, a drawing of a cat). Therefore, when constructing the GLAM, I looked for Likert response formats for young children. I looked at research on measuring young children's pain levels for examples of other response scales and found the Wong-Baker FACES Pain Rating Scale (Hockenberry-Eaton, Wilson, & Winkelstein, 2005; Wong & Baker, 1991). This scale was constructed to measure young children's pain level, a construct which can be difficult to assess because of young children's communication abilities at such young ages (Mosby, 2007). The scale consists of 6 faces drawn to portray pain ranging from 0 ("No Hurt") to 5 ("Hurts Worst). The authors based the faces on pilot work in which young children filled in blank circles with their own representations of "'no pain' to the 'worst pain they could ever imagine'" (Mosby, 2007). They found a pattern in these drawings; they referenced this pattern in the creation of the Wong-Baker FACES Pain Rating Scale, and used this in research and practice. For reliability, they report a Pearson Product Moment Correlation Coefficient of 0.79 (Mosby, 2007).

I gained permission from the first author of the instrument (Wong) to modify this scale for the purpose of this study (measuring young children's attitudes about literacy). I

believed that the faces in the Wong-Baker FACES Pain Rating Scale best represented the emotions I hoped to assess and in a format that participants could understand and use. The faces are not complex and depict clearly one emotion, with no additional features that might be distracting to young children, such as parts of the body other than the face (i.e., hair, arms, leg, or a body), gender, or race. In addition, I felt more confident with the faces in this scale because the authors based it on young children's own drawings of specific feelings. I did make two modifications to the Wong-Baker FACES Pain Rating Scale: First, I omitted the "Hurts Worst" face—the drawing has a gender-neutral face with tears and a frown—because I believed that participants would not respond in such a strongly negative way to the questions about reading and writing. I also modified the response wording to reflect feelings about literacy (i.e., varying levels of sad to happy) rather than pain. The GLAM response scale, therefore, entailed 5 faces: 1 = a lot sad, 2 = a little sad, 3 = okay, 4 = a little happy, 5 = a lot happy. The minimum possible score was a 13 and the maximum possible score was a 65. I piloted the scale (see the next section for further discussion on the pilot work) with 6 children (who did not participate in the main study) to ensure that young children did indeed understand the faces and could use the scale in the way I intended.

I piloted the GLAM items with children (N = 6) who did not participate in the main study. I piloted two different versions of the questions that varied in wording of the items along with the clips that I chose to show participants. For question wording, I piloted a version with wording similar to the ERAS and PRAS (e.g., "How do you feel . . .") and a second version containing wording that set up a scenario to which participants could respond ("Let's say you're at home..."). I found the second version to be most

understandable to the children, as each item first set up a concrete situation or scenario to which children could relate and then asked them to think about how they would feel in that situation. Therefore, the final wording of the GLAM items differs slightly from the PRAS and the ERAS. That is, instead of asking, "How do you feel about reading for fun at home" (an ERAS item), the GLAM item reads, "Let's say you're at home and your mom wants to read with you. How do you feel? Do you feel a lot happy, a little happy, okay, a little sad, or a lot sad?" I aimed to make each item more concrete by having participants imagine a scenario first—e.g., "Let's say you're at home..." or "Let's say you're at the bookstore or library..."—before asking how they felt about it.

Reliability and validity of the GLAM. To assess the reliability of the GLAM, I looked at the internal consistency of its 13 items (at the first time point for the 60 participants that were matched into pairs). I found a Cronbach's alpha coefficient of .752. which is within the acceptable range for the reliability of a scale (e.g., Fields. 2005). With respect to content validity, the GLAM has been reviewed by experts in the field of literacy, cognitive development, and psychometrics to make certain the items reflected literacy broadly and were written in ways appropriate for this population. In addition. I based the GLAM's 13 items on reading attitudes measures (PRAS and ERAS) that have been deemed reliable and valid measures (see earlier discussions of both instruments). I based the response scale on a validated instrument that assesses children's pain level (the FACES Pain Rating Scale) with the belief that it would provide participants with the most clear and understandable set of answers along which they could indicate their feelings (or attitudes) about reading and writing. Finally. as noted. I pilot tested the GLAM with a small sample of children prior to its use in the current study to check that

the questions were understandable to 4- and 5-year-olds and that they could respond reasonably to the items.

Procedure

Experiment 1 entailed three administration sessions (time point 1, time point 2, and time point 3). At each child care center, I found a room or part of a room that was empty and separate from the children's classroom. I worked with participants one-on-one. At time point 1, I began the session with an introduction of who I was and a brief description of what would happen during the session. I made sure that each participant wanted to answer questions about reading and writing. After they agreed (two children refused so I discontinued the session and did not meet with them again), I read the directions for the GLAM which explained the faces. I placed a copy of the faces in front of them so they could see the faces as I pointed to each and read the corresponding emotion. After I went through the directions, I asked two practice items. The first practice item asked, "Let's say you just got a new toy and you're playing with it. How do you feel? Do you feel a lot happy, a little happy, a little sad or a lot sad when you play with the new toy?" The second practice question asked, "Let's say it's dinnertime and you're eating broccoli. How do you feel about eating broccoli?" Once I believed that a participant understood the response scale, I administered the GLAM to each participant to obtain a baseline of his or her general attitudes about literacy.

I matched participants according to their baseline score, and I matched participants as I collected data rather than waiting to gather all of the scores then matching them. Across all 63 participants assessed, the maximum score achieved on the GLAM was 65 and the minimum was 33, with a mean of 51.57 and standard deviation of

8.485. Although pairing participants with exactly the same GLAM score was the ideal, I found it was not always possible. Therefore, I matched participants within 2 points of each other on their baseline GLAM score. This meant that a participant with a very high score was matched with another participant with the same (or very close to the same) high score. I did so to make sure that groups were equal with respect to their initial literacy attitudes (before viewing any television clips that might have affected their literacy attitudes). After I paired participants (60 of the 63 assessed), I randomly assigned one partner to watch the three selected positive clips about literacy and the other partner to watch the three selected negative clips about literacy.

At time point 2 (within 1 to 3 days after time point 1), I met again with participants individually and in a separate room (or part of a room) that was quiet. I began time point 2 with an introduction about what we would do in the session. I also made sure that each participant wanted to watch some television clips and answer some questions about reading and writing. I then played 3 negative or 3 positive clips for the participant, depending on what he or she had been randomly assigned to view. The participants watched the set of clips on a portable DVD player that I positioned right in front of them. I asked each participant if they could see the screen and hear the clips. After viewing all three, the children responded to the GLAM again. This provided a measure of participants' literacy attitudes immediately after viewing one type of literacy message (positive or negative).

Once approximately one week had passed, I met with each participant and asked them to complete the GLAM for the third time and using the same procedure as at time point 1 (with just a brief reminder of what the session would entail). This provided a

measure of their literacy attitudes after a short delay from the time they viewed the clip.

At the very end of the session, I showed a positive clip and talked about the positive

message in the clip with participants who viewed three negative clips at time point 2 to

counter any effects that might have occurred from watching these messages. Although

the delay between time point 2 and 3 was brief, I hypothesized that sustained effects over

the week's time could indicate the potential for long-term effects. Also, I posited that

viewing certain messages—for example, negative messages—might influence the ways

in which children process subsequent information and interactions with literacy. A

change in a child's attitude about literacy (after viewing a television clip) could mean a

change in how they interact with reading or writing; a change in how they interact with

literacy could, in turn, influence further their attitudes about literacy and how they

perceive literacy in their environment. Such an effect connects to Social Cognitive

Theory, and the idea of the reciprocal relationships between individuals, their behaviors,

and their environments. This "snowball effect" could have consequences for literacy

attitudes in the long run and highlighted the need to have included a delay component in

the design of this experiment.

Data Analysis Procedure

Since this was an experiment and involved a matched-pairs design, I analyzed the

data to look for significant differences between the attitudes of participants who viewed

positive messages and their partners who viewed negative messages about literacy

(viewed at time point 2). Prior to running any analyses, the significance level was set at

0.05. I calculated difference scores between time points 1 and 2, 2 and 3, and 1 and 3 for

each participant. Then, I conducted a repeated measures MANOVA on the difference

scores between the partners across the time points. When running the repeated measures MANOVA, I also obtained univariate tests that looked for significant differences between time points 1 and 2, 2 and 3, and 1 and 3 (these tests provided the same results as if I had run multiple paired t-tests on the data while protecting against the inflation of a Type I error probability of 0.05). If the MANOVA was significant, the univariate tests would reveal which particular set of difference scores were significantly different.

It was also important to calculate effect sizes for any significant test statistics. I calculated partial eta-squared for the repeated measures MANOVA and univariate tests, and I calculated Cramer's V for the Pearson Chi-Square Tests. It is important to note that partial eta-squared is different from eta-squared: partial eta-squared provides an effect size for each factor while controlling for the other factors analyzed whereas eta-squared provides an overall measure of effect. While partial eta-squared does reveal how much variance in the outcome is accounted for by a factor, there is not a consensus in the literature regarding how to interpret partial eta-squared statistics (i.e., what constitutes a small, medium, or large partial eta-squared). Therefore, they will not be interpreted in this paper.

With regard to assumptions needed to run a MANOVA (Fields, 2005; Tabachnick & Fidell, 1996), for the assumption of normal distribution, I looked at the descriptive data and histograms created for each time point for the 60 participants who were placed in pairs. No outliers were found at any of the time points. I looked at the histograms of each time point and noticed a slight negative skew particularly for time point 1. However, when I checked the skewness and kurtosis for each time point and divided by the standard deviation, none of these statistics fell outside the common rule-of-thumb range

of -2 to 2. The skewness statistics for time points 1, 2, and 3 were -1.51, -.17, and .15, respectively. The kurtosis statistics for time points 1, 2, and 3 were -.99, -.97, and -1.31, respectively. The normality of the scores at each time point is one assurance of multivariate normality, an assumption of MANOVA. Another assumption for running a MANOVA is checking for linearity, which I did by looking at scatter plots of the dependent variables. All of the scatter plots appeared to show linearity for these variables.

In addition to the repeated measures MANOVA and univariate analyses, I ran Pearson Chi-Square Tests at the individual level (rather than by pairs; N = 60) to see whether there were any significant relationships between participants' baseline GLAM scores (obtained at time point 1) and their ethnicity, gender or television viewing habits (as measured by the amount of television viewing on a typical weekday and on a typical weekend day). I collapsed the GLAM baseline scores into three groups: low, medium, and high literacy attitudes. I divided participants into these categories by looking at the range of the GLAM scores: the minimum for this sample was 33 and the maximum was 65, which meant a range of 32 points. I divided the range by 3 and then assigned the scores between 33 and 44 as low (n = 11), 45 to 54 as medium (n = 22), and 55 to 65 as high (n = 27). I could then look at the associations between these GLAM categories and the other categorical variables of ethnicity, gender and television viewing habits. For each of the tests, there were cells that had expected values less than 5, so they did not meet the normality assumption (i.e., many of the cells did not have a normal distribution because the sample was not large enough). I ran the exact test for each of the chi-squares. If any

of these chi-square tests were significant, it would indicate additional important factors that I would need to consider in the interpretation of Experiment 1's results.

Results

First, chi-square tests that I conducted found only one significant relationship, which was between participants' baseline GLAM scores and the amount of television they typically watched on a weekend day (χ^2 (6) = 12.39, p = .03, Cramer's V = .324 (a medium effect; Fields, 2005). Table 3 displays the results for all of the chi-square tests. Two participants who had a low baseline literacy attitudes score watched 4 hours or more of television on a typical weekend day whereas no participant with a medium or high attitudes score watched as much television on the weekend. One participant with a high baseline literacy attitudes score watched no television on a typical weekend day whereas participants with a medium or low score watched 1 hour or more of television on the weekend. The vast majority of participants in the low, medium and high baseline attitudes groups watched 1 to 2 hours (8 participants, 13 participants, and 16 participants, respectively) or 3 to 4 hours (1 participant, 8 participants, and 10 participants, respectively) of television on a typical weekend day. The significant association between baseline scores and weekend television viewing was something to take into consideration when interpreting the results of the repeated measures MANOVA, as addressed in the *Discussion* section.

Besides the weekend viewing, none of the other variables significantly related to participants' baseline GLAM scores. Baseline attitudes did not significantly relate to ethnicity (χ^2 (6) = 11.43), gender (χ^2 (6) = 1.13), or viewing on a typical weekday (χ^2 (6) = 5.76; all exact ps > .05). Non-significant results indicated that these factors did not play

a significant role in the current study's focus on television and literacy attitudes and supported the decision to pair partners based on their baseline GLAM scores (and not by gender, ethnicity, or weekday television viewing).

The repeated measures MANOVA on the difference scores between the participants who viewed three negative clips (N = 30) and the partners who viewed three negative clips (N = 30) found a significant difference, $F(2, 28) = 3.365$, $p = .049$, with a partial eta-squared (i.e., effect size; η_p^2) of .194. According to the univariate analyses, the negative viewing groups' mean difference scores from time point 2 to time point 3 significantly differed from the positive viewing group's mean difference scores from time point 2 to time point 3, $F(1, 29) = 6.931$, $p = .013$. Here, partial eta-squared (η_p^2) was .193. Recall that time point 2 included the measure of attitudes immediately after viewing the clips and time point 3 included the measure of attitudes approximately one week later. Table 4 includes the mean difference scores and standard deviations for participants at each time point. It shows that the mean difference score (2.23) for the negative viewing group *increased* from time point 2 to 3 whereas the mean difference scores (-0.80) decreased for the positive viewing group from time point 2 to time point 3.

When looking within each viewing group, the only significant difference in the mean scores (not mean difference scores) was for the negative viewing group from time point 2 to time point 3, $t(29) = -2.184$, $p = .037$. The mean scores revealed that viewing negative clips significantly affected participants' attitudes about literacy, increasing from 49.77 (time point 2) to 52.00 (time point 3). Between the other time points for both viewing groups, the mean GLAM attitude scores changed very little. For instance, the negative viewing group's mean GLAM score at time point 3 (52.00) was very similar

to—and did not significantly differ from—their GLAM mean score at time point 1 (51.60), and the positive viewing group's mean score at time point 3 (49.60) did not significantly differ from their time point 1 mean score (51.77). This stability in the scores suggests that the clips had very little effect on participants' general literacy attitudes overall.

Discussion

The results for Experiment 1 did not correspond with my hypotheses about whether and how messages about literacy from children's television programs might affect 4- and 5-year-olds' attitudes about literacy. For the question of whether messages would have an effect, I hypothesized that literacy messages in children's programming would affect 4- and 5-year-olds' attitudes about literacy. For the question of how these messages would affect their attitudes, I believed that they would do so as follows: (a) positive messages about literacy would positively impact. or boost, participants' attitudes about literacy. and (b) negative messages about literacy would decrease participants' attitudes about literacy.

Results revealed two things: first. they showed only one significant difference in literacy attitudes. as measured by the GLAM. The significant change in general literacy attitudes occurred from time point 2 to time point 3. in which the negative viewing group's mean difference score differed significantly from the positive viewing group's mean difference score. Further analyses highlighted that participants who viewed three negative clips had a significant increase in their literacy attitudes from the time they initially viewed the clips (time point 2) to the time when I tested them again one week later (time point 3). Second. results showed that at no other time point did participants

significantly differ in their attitudes toward literacy in general—whether they viewed positive or negative clips.

With respect to the statistically significant result that I did find, I believe that this result is not meaningful—that is, that the television clips did not affect participants' literacy attitudes in a substantively significant way. This conclusion is based mainly on the mean difference scores and mean raw scores between time point 1 and time point 3. Very little change occurred for any of the participants in the ways that they felt about literacy from the beginning to the end of the experiment. In the end, seeing the three negative or three positive clips did little to change 4- and 5-year-olds' general feelings about reading and writing.

With regard to the statistically significant differences that I did *not* find between any of the other time points, one conclusion is that there might not be an effect to find and another conclusion is that I did not find the effects that might be there. In support of the first conclusion is the research on young children's attitudes about literacy. Their attitudes about literacy are generally quite positive. I found this with this first experiment's data, and more positive attitudes for younger children has been found in other work as well (e.g., Saracho, 1986). Reading attitudes, on average, decrease as children get older and advance through school (e.g., McKenna et al., 1995), but at least in earlier childhood, attitudes remain fairly positive. Perhaps influences such as television have little effect on such positive attitudes, at least when children are so young. Perhaps literacy content included in children's programs matters more for children's skills development (as seen in the positive impact of *Sesame Street*, *Barney*, and *Between the Lions* discussed earlier) than for their literacy attitudes at this age.

An alternative conclusion is that I did not uncover the effects that did exist, and there are a few possible explanations for this. First, the messages about literacy that I selected for participants to view may not have been strong enough or long enough to affect children's attitudes. In this study, watching the three positive clips took about 4 minutes and 30 seconds; watching the three negative clips took 2 minutes. It could be that looking long-term, with hours upon hours of observing literacy messages, might show stronger effects in ways I anticipated. Future research should address this question by examining the relationship between messages that young children view over a longer period of time and children's attitudes about literacy. For ethical reasons, this seems best done by more naturalistic methods, rather than exposing children to concentrated doses of negative messages in an experimental context.

Another explanation relates to the participants' weekend television viewing habits. Chi-square tests revealed that while participants' typical weekday viewing did not significantly relate to their baseline attitudes scores, their typical weekend viewing did. Viewing on the weekend may be playing a part in how young children feel about literacy in general and should be explored further in future research. For instance, researchers may want to investigate the types of programs, and messages about literacy in these programs, that children are watching on the weekend and whether the programs and/or messages within the particular programs may be influencing how they feel about literacy.

A third explanation is that participants did not understand the messages presented in the clips they viewed for this experiment but might be affected by other messages they do understand. I did not administer a comprehension measure to see whether they understood the literacy messages presented in the clips that they viewed. Experiment 2

addressed this concern by including the Specific Literacy Attitudes Measure (or SLAM),

an instrument which was designed in part to reveal whether participants understood that a

clip showed reading or writing negatively or positively. Items also assessed how the

participants themselves felt about what they saw in the clips and their feelings about

specific aspects of literacy.

Experiment 2

Similar to Experiment 1, the purpose of this experiment was to investigate

whether literacy messages from children's programs impacted 4- and 5-year-olds'

attitudes about literacy. In the second experiment, I investigated whether the messages

impacted participants' attitudes about the specific dimensions of literacy included in the

clips they viewed. Also, I wanted to see whether participants understood the different

messages about literacy that the clips contained. This experiment involved a within-

subjects design in which participants viewed one positive clip and one negative clip, with

clips paired again by a common message. The dependent variable focused on specific

aspects about literacy addressed in the clips viewed by participants, rather than literacy in

a general sense (as measured in Experiment 1).

Method

Sample

Children who did not participate in Experiment 1 were eligible to participate in

Experiment 2. I recruited 4- and 5-year-olds from child care centers in the same regions

as Experiment 1. I recruited from new centers as well as centers used in the first

experiment because a new session had begun. A total of 52 4- and 5-year-olds

participated in the second study (n = 34 boys, n = 18 girls). I based the sample size on

power calculations, in which power was set at .80 and the effect size was around a medium effect size (.15) (calculated, as in Experiment 1, using BWPower and following its guidelines for interpreting effect size). As occurred in Experiment 1's sample, most of the participants were reported (by a parent or legal guardian) to be White (n = 37); the remaining children were reported to be Asian/Pacific Islander (Asian-American) (n = 4), Chicano/Mexican American (n= 1), or Other (n = 5; written in response of "Arabic" for 1 participant, 1 as "Greek," and 3 with 2 or more ethnicities written in). One parent/guardian did not complete any part of the survey (PSCTV), and one parent/guardian did not complete the ethnicity item.

Television viewing habits. I again used the Parent Survey of Children's Television Viewing (PSCTV) to gain information about participants' television and video/DVD viewing habits. Table 5 includes the descriptive data about participants' viewing habits, including how many hours, on average, participants watched television during the week and on the weekends. As the Table shows, all of the participants (for whom a survey was completed) viewed television at some point during the week or weekend; about 71% of participants watched television 1 to 2 hours on a typical weekday and about 50% viewed as much on a typical weekend day. Figure 3 illustrates participants' familiarity with 12 popular children's television programs. Figure 4 displays participants' familiarity with the popular children's programs from which I drew the clips used in this experiment. Figure 5 illustrates the percentage of participants who view these programs on a regular basis.

Materials: Television Clip

In this experiment I used the same clips from Experiment 1. I kept the same pairings, so that the *Arthur* clip about writing was paired with the *Barney and Friends* clip about writing, and so on (as listed in Table 2). Since these came from among the top children's programs, I felt that they still would be appropriate for participants to see for Experiment 2.

Measures

In addition to the PSCTV, I constructed the SLAM to address the two foci of this experiment: (a) whether the clips affected participants' attitudes about specific aspects of literacy and (b) whether they understood the positive or negative message in each clip. One goal for creating this instrument was to construct a measure that participants did not need the ability to read conventionally to complete. Instead, I read the items aloud and asked participants to respond orally. In addition to this consideration, I wrote four types of questions for each SLAM set:

- Comprehension questions that assessed children's understanding of the message within a clip viewed, including follow-up questions that asked children why characters felt the way that they did in the clips (e.g.. "How did Maggie feel about reading a book to learn to play a new game?" and "Why did she feel [that way]?")

- Questions that assessed children's attitudes about literacy referencing the clips they saw (e.g.. "How did that part make you feel about [reading books / writing]?")

- Questions that assessed children's attitudes not referencing the clips they saw, but regarding aspects of literacy that were included in the clips (e.g..

43

"Is writing fun or not fun", "Would you use a book to learn to make something new?", and "what are some things you can do with books?")

- Follow-up questions that assessed why children (not characters in the clips) felt the way that they did with respect to specific aspects of literacy and to the clip message (e.g., "Why did you feel [happy, mad, sad]?, "Why should they try / not try [to write their names]?", and "Why would / wouldn't you use a book to learn to make something new?")

(Each item is labeled by question type in Appendix C.) Having four distinct categories of questions allowed me to consider data analyses that would compare participants' responses by question category within the clip pairs as well as across the pairs.

I wrote the SLAM items after I had selected the individual clips and paired them around a specific message for Experiment 1. This enabled me to include particular details from the selected clips, and it also allowed me to write nearly identical questions for clips within pairs. For instance, the SLAM items for the *Maggie and the Ferocious Beast* clip are almost the same as the SLAM items for its partner clip from *Sesame Street* (see Appendix C for each set of SLAM items). The only difference between the SLAM items within a pair related to using character names (e.g., Maggie as opposed to Elmo and Zoë for the *Maggie / Sesame Street* SLAM set). Writing nearly identical items within clip pairs was important for data analysis so that I could compare participants' responses after viewing a positive clip and after viewing a negative clip.

Validity of the SLAM. I pilot tested the SLAM items with the same 6 children from pilot work done for Experiment 1. Doing so allowed me to test the wording of each item as well as gauge 4- and 5-year-olds' typical responses to make certain that they

could answer these questions, many of which were open-ended. With respect to content validity, I created and intended each set of SLAM items to directly reflect the messages about literacy presented in each clip. Finally, as another way to establish validity, each SLAM set was evaluated by a literacy expert as well as experts in educational technology, child development and learning, and quantitative measurement to ensure that the items would address the questions guiding this experiment.

I hypothesized that the messages about literacy used in this experiment would affect participants' attitudes about specific aspects of literacy, as measured by the SLAM. I also believed that participants would understand the different messages entailed in each clip, that is, they would understand that the positive clips contained positive messages about reading, writing or books and that the negative clips contained negative messages about reading, writing or books. Similar to Experiment 1, I believed that the positive clips would positively impact participants' attitudes about literacy and that negative clips would negatively impact participants' literacy attitudes. Significant differences in participants' responses would mean that television can influence children's attitudes about literacy in the short-term and in specific ways—the ways portrayed in the messages viewed. These short-term effects could accumulate or set into motion different ways of taking in future literacy messages. This would suggest that there are eventual long-term impacts on literacy attitudes, or at least children's attitudes about particular features or functions of reading, books, and/or writing shown in the clips children see on television.

Procedure

This experiment involved one visit with each participant. I began each session by administering the GLAM, as this provided a baseline measure of their attitudes about

literacy (i.e., measuring literacy more broadly). Prior to the visit, I randomly assigned participants to view one of the three clip pairs. I also randomly assigned participants to view a positive clip or negative clip from the pair first. This was done so that all of the participants would not view clips in the same order, since the first message could affect participants' interpretation of the second clip's message. There was also the possibility that the SLAM items completed after the first clip could prime what the participants noticed in the second clip and how they answered the second round of SLAM items.

After answering the GLAM items, I introduced the first clip with a very brief description of what the child was about to see, and then I showed participants one clip. My introductions for each clip are included in Appendix C. I wrote the introductions to give some context to the clips; they were not designed to suggest or highlight what type of message participants were about to see or even that it was about reading, writing or books. After viewing the first clip, I asked the corresponding SLAM items. Then, I briefly introduced the second clip, showed it and asked the corresponding SLAM items. I (audio)recorded participants' responses to the SLAM, and their responses were later transcribed and coded. After data collection was complete, I showed a positive clip to participants who viewed a negative clip second to counter any potential effects the negative message might have had on their attitudes about literacy.

Data Analysis Procedure

Since each pair of clips revolved around different messages about literacy, I first coded transcripts item pair by item pair. Items were nearly the same within a pair of clips; therefore, I used the same coding categories for these items within a pair. I created coding categories in two ways: (a) based on common responses I anticipated and (b) by

examining the data and adding additional codes as suggested by the data. Finally, I

included certain codes for all items: DK = don't know, NAQ = not answer the question

asked, IR = irrelevant comment, CI = can't interpret, QN = question not asked, and OTH

= other (this "other" category was designated for any responses that seemed relevant in

response to the question but did not come up in any other transcripts).

As mentioned earlier, I included four types of questions in the SLAM. Below is

an example of the comprehension question codes for the *Fairly Odd Parents / Barney*

and Friends pairing. Item 6 asked "Why did he / they feel [the way the child said he /

they felt about books]?" as a follow up to Item 5 ("How did Timmy / Barney and the kids

feel about books?"). Some of the coding categories included:

- EN: like(s)/enjoy(s) books: books are fun

- N_EN: doesn't like/enjoy books: books aren't fun

- USF: books are useful / helpful

- N_USF: books aren't useful / helpful

- UG: appropriate usage of books

- N_UG: inappropriate usage of books

The rest of the codes are included in the complete codebook (see Appendix D).

An example of the codes for the question category that assessed children's

attitudes about literacy in reference to the clips they saw is for the *Maggie and the*

Ferocious Beast / Sesame Street pairing. Item 1 asked, "How did that part that we just

watched make you feel about reading?". I used the following codes:

- P_AF = positive feeling about reading, referring to self (the participants),
  including "good, fine, happy"

- N_AF = negative feeling about reading, referring to self, including "mad, tired, bored, sad"

- OK_AF = okay feeling about reading, referring to self

- M_AF = mixed feelings about reading, referring to self, including changing a response (e.g., from "happy" to "mad" or "sad" to "happy")

The third type of question for the SLAM assessed children's attitudes about that aspect of literacy featured in the clips but not in reference to the specific clips, and an example of coding for this type of question is from the *Arthur / Barney and Friends* pairing. Item 3 asked, "Should kids try to write their name?" and codes included:

- Y = Yes, should try

- N = No, shouldn't try

- S = should try sometimes

The final question category included the follow-up questions that assessed why children felt the way they did about an aspect of literacy. One example of the codes for this type of question is the follow up to Item 3 just mentioned ("Should kids try to write their name?"). Item 4 asked, "Why should / shouldn't kids try to write their?" and codes included:

- AB: able to/can write

- EF: easy to do, having to do with effort, practice (to learn how to), needing to try

- N_EF: hard to do, gives up, not trying (or not needing to try)

- EN: likes/enjoys writing; writing is fun

- N_EN: doesn't like/doesn't enjoy writing; writing isn't fun, boring

- USF: writing one's name is useful

- N_USF: writing one's name is not useful

The rest of the codes are included in the complete codebook. For all of the examples just

outlined, the codes listed were in addition to the set of codes I created for every item (i.e.,

DK, CI, OTH etc.). I coded all of the data by item number and code (e.g., 1_P_AF). The

complete code book is included in Appendix D.

When I entered these codes (item by item, clip by clip) into a database, I assigned

numbers to each coding category (1 = P_AF, 2 = N_AF, etc.). I also entered participants'

GLAM (baseline) score and their background and viewing habits data. I then looked at

the frequency of responses item by item within clips and across clips. These frequencies

allowed me to look at individual questions and get a sense of the data I obtained, such as

whether children seemed to understand individual clips. The frequencies also gave me a

first look at the types of responses that participants gave after viewing negative clips

versus positive clips. These patterns indicated possible differences between the types of

responses that participants gave after watching these two types of clips, differences that I

could explore further with additional analyses to see whether they were statistically

significant. After other analyses were run (e.g., Wilcoxon signed-rank test), I reexamined

the frequency of responses according to these original codes to get clearer picture of how

participants responded to the positive and negative clips, especially when I found

significant differences in their responses.

In order to run analyses to look for significant differences in participants'

responses after viewing positive and negative clips, I reconsidered the data for codes that

could capture the participants' responses but were not as specific to the clip as the first

round of codes. In looking across the items, I found that all responses generally fell under the category of positive, negative, okay, neutral/mixed, or all other responses (e.g., don't know, can't interpret, other, etc.). Therefore, I collapsed codes into the following:

- 2 = positive response

- 1 = okay / sometimes response

- 0 = mixed / neutral response

- -1 = negative response

For the comprehension items, the second round of coding (i.e., 2, 1, 0. -1) referred to the characters' (not the participant's) feelings about reading, writing or books. For instance, in response to the item "How did D. W. feel about writing?", a participant who understood the message—that it was negative with respect to writing—responded in a way that reflected D. W.'s frustration with writing (e.g., "She was mad", "She was sad", or "She was angry"). A participant who understood that the message was positive in the partner *Barney and Friends* clip gave a response that reflected the characters' positive feelings about writing ("They were happy", "They felt good", etc.).

I created a new database and entered each participant's responses according to the collapsed codes. In addition. I collapsed the GLAM baseline scores to reflect three groups pertaining to a participants' level of literacy attitudes: low. medium. and high. I divided participants into these categories by looking at the range of the GLAM scores: the minimum for this sample was 36 and the maximum was 65. which meant a range of 29 points. I then divided this range by 3: I designated the scores between 35 and 44 as low (n = 10). 45 to 54 as medium (n = 21). and 55 to 65 as high (n = 21). This allowed me to analyze the data to see whether participants' baseline scores significantly related to

the types of responses they gave. The idea here was that participants with higher attitudes about literacy may have given more positive responses overall and regardless of the clips they viewed, whereas participants with lower attitudes about literacy may have given more negative responses overall and regardless of the clip type viewed. Knowing whether this occurred would help me to interpret any significant results that I found.

The second round of coding and data entry allowed me to compare participants' answers to SLAM items after viewing one positive clip to their responses after viewing one negative clip beyond looking at frequency data. I examined the data item by item within clip pairs, item by item across clip pairs, by question category within clip pairs and by question category across clip pairs. Since not all of the participants viewed the same clips, I felt it was important to look at responses to individual items and items within question categories separated by the clip pair viewed. At the same time, since the items fell into four question categories, it was also important to consider participants' responses across pairings, item by item and by question category. In order to combine responses by question category, I averaged individuals' responses. For any case in which a participant did not answer one or more of the items for a category, the denominator of the average reflected the number of responses that they did provide. There a few cases for which a participant did not have coded data for any of the relevant items in a category, and these participants could not be included in the analyses of combined data. With item by item and combined data, I used the Wilcoxon signed-rank test to look for significant differences in participants' responses to the SLAM. The test is appropriate for within-subjects designs and nonparametric data and is comparable to a paired t-test in that way (Fields, 2005). Using this test made the most sense for this dataset, considering that it

involved ordinal data (when collapsed) and an individual participant provided two sets of responses (within-subjects).

An important first step was to examine the data to see whether participants' answers to SLAM items correlated with variables other than the clip messages that they viewed. These variables included: (a) the order in which participants viewed the positive and negative clips, (b) participants' baseline literacy attitudes score (i.e., GLAM score), and (c) whether participants were regular viewers of the program from which a clip was drawn. Using Pearson's Chi-Square Test, I could examine these relationships. Many of the expected values were less than 5 per given cell and did not meet the normality assumption (i.e., many of the cells did not have a normal distribution because the sample was not large enough). Therefore, I ran the exact test for the chi-squares. For the clip order, I looked to see whether there were any significant relationships between viewing a positive clip or a negative clip first and participants' responses to SLAM items. For baseline attitudes, I used the three categories of initial attitudes (low, medium, and high) to see whether there were any significant associations between the baseline attitudes categories and participants' responses. Finally, I ran chi-square tests to see whether regular viewing of a program significantly related to the types of responses given after viewing a clip drawn from that program.

Intercoder reliability. I trained a second coder in the coding system used on the transcribed data. First, we went through two transcripts from one child and one clip pair together. Then, the second coder practiced coding four transcripts that came from participants who watched the two other clip pairings, and we met to compare her codes with my codes for these practice transcripts. We had solid agreement with the practice

samples, and the second coder did not have any further questions about the coding

system. From the remaining transcripts not used in the practice coding (N = 96, or two

per participant), I randomly selected 32 individual samples (one-third of the remaining

transcripts). The second coder analyzed these using the original coding system; when

entered, I transformed them into the second coding system (-1, 0, 1, 2) as I did with my

own coded data. I calculated intercorder reliability on the transformed codes by using

percent agreement between my coding of the 32 samples and the transformed codes of

second coder's coding. We reached intercoder agreement of 94.9% (15 disagreements out

of 296 cells).

Results

Overall, the results showed that many of the participants understood the positive

or negative message in the clips that they viewed. However, this understanding did not

translate into participants' changing their attitudes about aspects of literacy in reference

to clips viewed, not in reference to the clips, or in the follow-up questions. In this section,

I first discuss all of the results related to the comprehension items that assessed

participants' understanding of the messages within clips. I highlight the frequency results

for the collapsed data, then I go on to discuss the results from the Wilcoxon signed-rank

tests for the comprehension items, both significant and non-significant results. Here, I

explain results when I ran the test on responses item by item within clip pairs. For the

items that yielded significant results, I include the frequency of responses for the original

codes. These frequencies entail the specific responses that participants gave and help to

illustrate the differences in their responses after viewing a positive versus a negative clip.

After this explanation, I describe the results obtained when I ran the Wilcoxon test on the

comprehension items combined by question category and separated by clip pair. Finally, I report the results for the test of all of the comprehension items analyzed across clip pairs. Frequency data as well as results from the Wilcoxon signed-rank tests support the conclusion that, more often than not, the children understood the messages in the clips that they watched.

Following the results for the comprehension items, I discuss results related to the other three question categories, none of which resulted in significant statistics for individual items or for items combined into question categories. I include frequency data, too, to highlight the types of responses that participants gave to illustrate why significant differences likely were not found.

Finally, I report the results from the Chi-square tests. I considered whether other variables might be coming into play with regard to the influence of the clips on participants' attitudes. I wondered whether baseline attitudes, regularity of viewing certain programs or the order in which participants viewed clips might play a role in how participants responded to SLAM items. Overall, the results showed that these variables did not significant relate to participants' responses. These results helped to rule out these alternate explanations for the results I found.

Children's Understanding of Positive and Negative Literacy Messages

In order to explore one of foci for this experiment—whether participants understood the positive and negative messages in the clips they viewed—I examined the data in a number of ways. First, I looked at the frequency of collapsed responses item by item to see whether participants seemed to understand the messages. For all of the positive clips, participants more often responded that the characters felt positively than

negatively about reading, books, or writing (for the items that asked "How did [character name(s)] feel about [books, reading, or writing]?"). The following provides the frequency of positive versus negative responses for each positive clip:

- For the *Barney* writing clip, 22 participants reported that Barney and the kids felt positively toward writing, whereas 1 reported that s/he felt negatively about writing (2 did not answer the question)

- For the *Barney* books clip, 15 participants reported that Barney and the kids felt positively about books and no participant reported that they felt negatively about books (1 did not know and 1 answer could not be interpreted)

- For the *Sesame Street clip*, 9 participants reported that Elmo and Zoë felt positively toward reading whereas 1 reported that s/he had mixed feelings about reading.

For the negative clips, nearly all of the participants who viewed the *Arthur* clip reported that the D.W. felt negatively towards writing (19) than positively (2; 2 did not know and 2 did not answer the question) (see Figure 6). This distinction is less clear with the *Maggie* clip for which 4 reported that Maggie felt negatively about books whereas 3 said that she felt positively about reading (3 did not know) (see Figure 6). It seems that none of the participants understood that Timmy did not like books (and therefore went about destroying them) in *Fairly Odd Parents*, since 16 participants said that Timmy felt positively toward books (1 did not answer the question) (see Figure 6).

Taking this a step further, I next analyzed the collapsed data with the Wilcoxon signed-rank test. Results from this test indicated whether participants' responses

significantly differed after watching a positive clip versus after viewing a negative clip. When I ran this test for individual items within clip pairs, I found significant differences in participants' responses for three items analyzed. All of these results related to participants' comprehension of clip messages:

- For Pair 1 (*Arthur* / *Barney and Friends*), Item 9 ("How did D. W. / Barney and the kids feel about trying to write her / their name(s)?") had a test statistic of $z = -4.123$, $p < .001$. This meant that enough participants' positive responses after viewing the *Barney* clip differed with their negative responses after viewing the *Arthur* clip to produce a significant test statistic.

- For Pair 1 (*Arthur* / *Barney and Friends*), Item 10 ("Why did she/ they feel [that way, e.g., happy, mad, sad]?") yielded a test statistic of $z = -3.357$, $p = .001$. As with Item 9 for this clip pair, participants' responses significantly differed from their positive responses after the *Barney* clip to their negative responses after the *Arthur* clip.

- For Pair 3 (*Maggie and the Ferocious Beast* / *Sesame Street*), Item 10 ("Why did she / they feel [that way]?") had a test statistic of $z = -2.236$, $p = .025$. Here, too, participants' responses significantly differed from positive to negative after viewing the positive *Sesame Street* clip versus negative *Maggie* clip.

The result for one item neared significance, which was for Pair 3, Item 9 ($z = -1.890$, $p = .059$). In response to the question of how Maggie felt about reading as opposed to how Zoë and Elmo felt about reading, participants' positive responses after the *Sesame Street*

clip differed from their negative responses after the *Maggie* clip almost to the point of significance.

After finding these significant results, I looked back to the original codes of participants' responses to each SLAM item. In general, the participants' responses aligned with how I interpreted the messages with each clip—as positive or negative. Tables 6, 7, and 8 illustrate the frequency of responses given by participants for each comprehension items that involved a significant difference. As each Table shows, more participants gave positive responses after watching the positive clips than after watching the negative clips. Also, more participants gave negative responses after watching the negative clips than after watching the positive clips. Table 6 contains the responses for Pair 1 (*Arthur / Barney and Friends*) for Item 9, and it shows that participants gave 22 positive and 1 negative responses after viewing the positive *Barney* clip, but they gave only 2 positive and 19 negative responses after watching the negative *Arthur* clip. Table 7 illustrates the responses given after viewing that same pair for Item 10. Participants responded with 16 positive and 1 negative comments after watching the *Barney* clip as opposed to only 1 positive and 17 negative comments after watching the *Arthur* clip. Finally, Table 8 shows the responses Item 10 for Pair 3 (*Maggie / Sesame Street*). After watching the *Maggie* clip, participants provided 1 positive and 6 negative responses, whereas after watching the *Sesame Street* clip, they provided 8 positive and no negative responses. These highlight where the significant changes in responses occurred.

As already mentioned, three comprehension items for two of the clip pairs were statistically significant. However, there were a few comprehension items that did not yield statistically significant results when I analyzed them item by item and within a clip

pair. For Pair 2 (*Fairly Odd Parents* / *Barney*), none of the comprehension items (Items 5, 6, 7 or 8) yielded significant differences in participants' responses. Their responses about how Timmy felt about books in the *Fairly Odd Parents* clip showed that many of the participants who viewed the pairing did not understand the negative message—that is, books are for destroying. In looking at the original codes, 16 participants gave positive responses to Item 5 ("How did Timmy feel about books?"; 1 participant did not answer the question). Many of the follow-up responses were also positive: 6 participants said that he liked, or enjoyed, books and 3 gave other positive comments (e.g., "He was having fun"). Only 1 participant commented that he was "breaking" the books. Because nearly all of the participants who viewed this clip had such positive comments for Item 5, their responses did not significantly differ with the comments to Item 5 after viewing the *Barney* clip (15 participants gave positive comments; 1 did not know and 1's comments were not interpretable). After viewing the *Barney* clip, 10 participants gave positive comments about why the characters felt the way that they did, so these responses did not significantly differ with the 9 positive comments given for the same *Fairly Odd Parents* item (Item 6). So while they did understand the positive message in the *Barney* clip, participants did not seem to understand the negative message in the *Fairly Odd Parents* clip.

As mentioned earlier, for the third pair (*Maggie* / *Sesame Street*), participants' responses neared significance for Item 9 (How did [Maggie / Elmo and Zoë] feel about reading a book to learn to [play a new game / make a kite]?"). The follow-up item (i.e., the prompts) that asked why the characters felt the way they did did significantly differ. For the *Maggie* clip, it appears that not enough of the participants who viewed this clip

attributed negative feelings to Maggie not learning to play the game after reading the directions (assessed by Item 9), but many of them did understand that she did not actually learn to play the new game (assessed by Item 10). Overall, then, the significant and non-significant Wilcoxon signed-rank tests' results revealed that the young children understood the messages in the *Arthur / Barney* pair, the positive *Sesame Street* and positive *Barney* clip as I understood the messages. Their comprehension of the message in the *Maggie* clip did not completely align with my interpretation of the clip; they did seem to understand part of the message (i.e., that Maggie did not learn to play the game), though. Finally, their understanding of the *Fairly Odd Parents* clip did not align with my understanding of these clips' messages.

I conducted one final set of analyses which entailed examining the responses that I combined into question categories, and I did so with responses separated by clip pair as well as across pairs. With respect to results separated by clip pair, I found significant statistics for the Wilcoxon test for the *Sesame Street / Maggie* and *Arthur / Barney* pairs. In fact, only the comprehension questions category had a significant Wilcoxon signed-rank test statistic ($z = -2.46$, $p = .014$ and $z = -4.491$, $p < .001$, respectively) for these clip pairs. For the *Fairly Odd Parents / Barney* pair, the comprehension category did not result in a significant difference in responses. Other than the comprehension category, I did not find any significant differences within any of the clip pairs for the three other question categories. These results reinforce the results found for the item by item analyses conducted on data separated by clip pair. Participants understood the messages for the *Arthur / Barney* pair and the two positive clips from Pairs 1 and 2 in the same way that I understood the messages, since the comprehension category for these pairs yielded

statistically significant results. However, they did not seem to pick up on the negative

message in *Fairly Odd Parents*, and therefore, their responses after viewing this clip did

not significantly differ from their responses after viewing the positive message in the

Barney clip.

Finally, I investigated the difference in responses across clip pairs to see whether

the messages had an effect regardless of the particular program from which clips came. I

ran the Wilcoxon signed-rank tests on participants' responses combined according to

question category. Again, only the comprehension category yielded a statistically

significant result, $z = -5.15$, $p < .001$.

The Impact of Messages on Children's Attitudes about Literacy

Results that I have discussed so far relate to participants' comprehension of what

they saw when I showed them positive and negative messages about literacy included in

children's television programs. These results do not show, however, whether the

messages impacted their own attitudes about literacy. The SLAM included questions that

specifically assessed their attitudes in reference to the clips they viewed and not in

reference to the clips they viewed as well as items that follow-up these questions. As

already mentioned, the results that followed revealed that participants' attitudes did not

significantly differ after watching a positive clip than after watching a negative clip for

any of these three question categories.

For many of the questions that asked about children's attitudes referencing and

not referencing the clips, frequency data showed that the participants more often than not

gave positive responses after viewing both the positive and the negative clips. An

example of positive responses to questions that assess children's attitudes in reference to

a clip is for Item 1 of the SLAM for the *Maggie / Sesame Street* pair. This item asked, "How did that part that we just watched make you feel about reading?". Figure 6 displays the responses that participants gave. It shows that even though they had just watched a clip that contained a negative message about reading, participants more often answered positively (7) about how they felt about reading than negatively (2) or mixed (1). With respect to items that assessed children's attitudes not referencing a clip, one example is Item 5 of the SLAM for the *Arthur / Barney* pair. Item 5 asked, "Is it hard or easy to write?". Most participants (19) responded that it is easy to write whereas only 4 said that it is hard to write after watching the *Arthur* clip (see Figure 7). Also, even after watching D. W. struggle with writing her name, more participants still responded that writing is fun (18) versus not fun (7) to Item 7 of the SLAM ("Is writing fun or not fun?") (see Figure 7). By looking at the frequency of responses given to the items that assessed children's attitudes, both in reference to the clips and not in reference to the clip, these results revealed that the messages seemed to do little to sway many participants' positive feelings about certain aspects of literacy.

When I analyzed the collapsed data using the Wilcoxon signed-rank test, I found that no significant differences in responses were found for the individual items analyzed within clip pairs. When I analyzed the data by question category and separated by clip pair, I found that none of the items for the three remaining categories yielded significant results. Finally, when I analyzed the data by question category across the clip pairs, I found no significant differences in participants' responses after they viewed a positive and a negative clip. Even with more participants, and thus more power, the other categories did not produce significant test statistics. These results contrast with the results

found for the comprehension items analyzed individually and together, within clip pairs as well as across pairs. Overall, the results demonstrate that participants comprehended the negative and positive messages in at least four of the clips—that characters felt a certain way about reading and writing—but that these messages did not impact participants' own feelings about reading, writing or books.

Other Variables to Consider: Clip Order, Initial Literacy Attitudes, and Regularity of Viewing Programs

The results paint a clear picture: based on the clips that I showed participants, the messages about literacy in children's television programs did not influence their attitudes about literacy. Yet, participants did understand the messages that they were shown, for the most part. Before concluding this for certain, I checked to see whether some other variables might have come into play. These variables included the order in which participants viewed the positive and negative clips, participants' initial attitudes about literacy, and whether they were regular or not regular viewers of certain programs.

For the question of whether seeing a positive clip first or a negative clip first influenced participants' responses to the SLAM items. I did not find any significant chi-square statistics. This meant that the order in which participants viewed the clips—positive first or negative first—did not significant correlate with the type of responses they gave (positive, negative, neutral, etc.). Therefore, the order likely did not play a factor in any significant differences in responses that I did find.

With respect to participants' baseline GLAM scores and their responses, I did not find any significant chi-square statistics to individual items. I did run chi-squares on similar items across clips. I did so to see whether there were significant associations

between baseline attitudes and participants' responses to the two types of literacy

messages, regardless of the specific clip they viewed. The items I ran in this way

included: Item 1 for all of the pairings, Item 2 for all of the pairs, Item 9 (pairs 1 and 3)

analyzed with Item 5 (pair 2), and Item 10 (pair 1 and 3) analyzed with Item 6 (pair 2).

The only difference between Item 1 in the three pairs was the specific aspect of literacy

addressed (reading, writing, or books), but all of them asked how a participant felt about

a certain dimension of literacy. For Item 9 (pair 1 and 3) and Item 5 (pair 2), the only

difference in wording was the character's name used and the specific aspect of literacy

addressed (e.g., "How did [character(s) name] feel about [reading / writing / books]).

Only one item, Item 1 for each pair, yielded a significant test statistic. In this case,

the types of responses given to Item 1 significantly related to participants' baseline

attitudes (χ^2 (6) = 13.29, p = .029). Participants with a high level of literacy attitudes gave

the most number of positive responses (38) and the fewest number of negative responses

(1). Participants with a medium level provided 32 positive responses and 4 negative

responses. Participants with low literacy attitudes gave the fewest positive responses (15)

and 3 negative responses. There were a few in each category who gave mixed / neutral

responses (2 for the low level and 2 for the high level) or okay responses (4 for the

medium level). Although this one test statistic was significant, the vast majority of the

results showed that participants' initial general attitudes toward literacy did not

significantly relate to the responses they gave to all of the other items, whether analyzed

separately or together. Children who had lower attitudes about literacy, generally

speaking, did not provide mostly negative responses. Therefore, I did not have to take

into account baseline attitudes when interpreting any significant changes in their

responses that I found, except for Item 1. For this item, I had to consider the influence that participants' baseline attitudes may have had on the responses they gave if I had found a significant Wilcoxon signed-rank test statistic.

The final set of chi-square tests that I ran looked for significant associations between participants' responses and whether they were regular or not regular viewers of particular programs—the programs from which clips that they viewed were drawn. I found only one significant relationship, which was for Item 1 ("How did that part make you feel about writing?") for the *Arthur* clip (χ^2 (3) = 14.70, p = .036). In this case, participants who did not regularly view the program gave 16 positive. 2 neutral and 2 okay responses whereas the 3 participants who regularly viewed the program gave 2 negative and 1 positive responses. It appears that the two regular viewers' attitudes in reference to the clip were more influenced by the negative message in the *Arthur* clip than the non-regular viewers. Because of this significant association, I would have needed to take into account the regularity of viewing if any significant differences were found for this item by the Wilcoxon signed-rank test.

Discussion

Although no study has addressed the question of whether. and how. messages about literacy in children's programs affect young children's literacy attitudes. a number of different bodies of research suggest the potential for this impact. First. certain television programs have been shown to positively affect young children's early literacy skills. Second, television has been shown to impact children's and young adults' attitudes about race. gender. and violence. Third. studies suggest not only that literacy attitudes are important when considering how children develop as literate individuals. but that literacy

attitudes develop over time and begin to do so when children are quite young. Finally, a small body of work has found that children's television programs contain a variety of messages about literacy and that not all messages about literacy are positive. When looking at the major findings across these separate bodies of research, it suggests that messages about literacy in popular children's television programs might have an impact on young children's attitudes about literacy.

Results from the first experiment showed little evidence that different messages about literacy have an impact on 4- and 5-year-olds' attitudes about literacy generally conceived. Likewise, results from Experiment 2 provided little support for the idea that these messages changed 4- and 5-year-olds' own attitudes about specific aspects of literacy, aspects directly addressed in the clips that they viewed. What the results from Experiment 2 did indicate was that participants did understand differences in characters' feelings about literacy, at least in some of the clips they viewed. Their responses to comprehension questions varied depending on the message (positive or negative) in those clips. For instance, participants' responses demonstrated that they understood that D. W. was frustrated with writing her name but that Barney and the kids were enjoying (i.e., were not frustrated with) trying to write their names. I believe that these significant differences in attitudes can be attributed to the differing messages in the clips. Support for this conclusion comes not only from the significant Wilcoxon tests but also from the chi-square tests that I ran. Responses to the comprehension items did not significantly relate to the order in which participants viewed the positive and negative clips, their baseline literacy attitudes score or whether they were regular or not regular viewers of

certain television programs (those programs from which the clips that they viewers were drawn).

Results from Experiment 2 also indicated that the messages about literacy in the selected clips did not seem to influence participants' own feelings, or attitudes, about literacy—for instance, how they felt about specific aspects of literacy (e.g., reading, writing, or books; whether writing is fun or not; whether reading can help people learn something new, etc.). The items that tapped into the participants' own feelings were intended to get to the heart of the research question. Thus, based on these findings, I have to conclude that literacy messages in popular children's programs as presented in this study did not affect 4- and 5-year-olds' attitudes about literacy. The messages seemed only to affect, to some extent, children's perceptions, or understanding, of characters' feeling about certain dimensions of literacy.

Many of the results do not correspond with my predictions for this study. Although I had anticipated that participants would understand the different messages in the positive and negative clips, I hypothesized that these messages would affect participants' attitudes about literacy. However, significant differences in participants' responses were seen for only the comprehension items and not for the items that assessed to participants' own feelings about literacy.

My hypotheses were based on extant research already highlighted. In addition, the theoretical frames guiding this study suggest that television (and the messages about literacy within programs) has the potential to influence young viewers' attitudes about literacy. For instance, Social Cognitive Theory would propose that television has the potential for impacting young viewers by offering models by which children can learn

through observation. The fact that messages about literacy in this experiment and Experiment 1 did not seem to influence participants implies that: (a) participants did not attend to the models sufficiently, (b) they did not process the models sufficiently, or (c) they did not connect with the models (e.g., they may not have believed themselves to be similar to the models in the clips or they may not have found enough incentive to take on the attitudes themselves). The first two explanations—that they did not attend to or process the models sufficiently—seem unlikely, since participants appeared to "get" the messages presented in two of the three clip pairs. Results from the second experiment showed that participants comprehended characters' feelings about literacy, whether those feelings were positive or negative. What results cannot show is whether the participants felt that they connected with the characters and/or the message about literacy included in the clips they saw. Although children may encounter many different messages about literacy—on television and in other areas of their lives—Social Cognitive Theory posits that not every model will influence children who observe such messages. In the next section, I discuss possible explanations for why the messages included in this study did not have the expected impact on participants' literacy attitudes.

Limitations and Directions for Future Research

In the two experiments reported here, I aimed to investigate whether messages about literacy in popular children's television programming affected 4- and 5-year-olds' attitudes about literacy. I did so by showing participants brief clips that contained positive and/or negative messages about reading, writing, or books. I measured their attitudes about literacy prior to and following the viewing of these clips. This approach to studying the question of impact is certainly not the only way in which the question can be

addressed. While it allowed me to isolate the particular variable of interest, it involved a number of limitations which should be considered.

One of the main limitations of the two experiments relates to the clips themselves. I recorded small segments from programs currently available on television. The clips were quite brief, and such a short amount of exposure to the positive and negative messages may not have been sufficient to change the young children's attitudes, even temporarily and specific to that clip. Past research often has considered how prolonged exposure to messages, such as aggressive or stereotypical messages, affects viewers. I chose to use such short clips for a few reasons. First, I believed that having short, concentrated exposures to messages about literacy would best show whether these messages had an impact. Within the context of a full episode, a literacy message is only a small part that may not be as apparent to the viewer. It may take viewing many episodes with literacy message in them to reach the "dosage" achieved with the short clips used in this study. Also, with regard to pragmatics, I did not believe that I could pull children out of their child care settings to watch hours of television. Yet, the length of the clips remains a limitation and one that researchers who continue this line of work should consider. In future work, researchers might show entire episodes that contain particular literacy messages and investigate whether this type of viewing impacts children's attitudes about literacy. A more authentic viewing of televised literacy messages would also include having children view programs at home or during a regular routine in child care, rather than isolated from these settings, as occurred in these experiments.

Another limitation is also related to the clips I used in the two experiments. The clip I drew from *Fairly Odd Parents*, in particular, seems problematic. Results from

addressed. While it allowed me to isolate the particular variable of interest, it involved a number of limitations which should be considered.

One of the main limitations of the two experiments relates to the clips themselves. I recorded small segments from programs currently available on television. The clips were quite brief, and such a short amount of exposure to the positive and negative messages may not have been sufficient to change the young children's attitudes, even temporarily and specific to that clip. Past research often has considered how prolonged exposure to messages, such as aggressive or stereotypical messages, affects viewers. I chose to use such short clips for a few reasons. First, I believed that having short, concentrated exposures to messages about literacy would best show whether these messages had an impact. Within the context of a full episode, a literacy message is only a small part that may not be as apparent to the viewer. It may take viewing many episodes with literacy message in them to reach the "dosage" achieved with the short clips used in this study. Also, with regard to pragmatics, I did not believe that I could pull children out of their child care settings to watch hours of television. Yet, the length of the clips remains a limitation and one that researchers who continue this line of work should consider. In future work, researchers might show entire episodes that contain particular literacy messages and investigate whether this type of viewing impacts children's attitudes about literacy. A more authentic viewing of televised literacy messages would also include having children view programs at home or during a regular routine in child care, rather than isolated from these settings, as occurred in these experiments.

Another limitation is also related to the clips I used in the two experiments. The clip I drew from *Fairly Odd Parents*, in particular, seems problematic. Results from

Experiment 2 showed that participants "got" the negative and messages for the most part in the two other pairs of clips, but their responses to the *Fairly Odd Parents* items highlighted that they did not seem to understand the negative message within this clip as I understood it. I attribute this to the fact that Timmy is smiling and appears to be enjoying himself throughout the clip as he damages books in different ways. Therefore, if the participants were focusing on his affect, it appeared quite positive, and they may have misinterpreted it to believe that he enjoyed or liked the books, even though he was not using them in conventional or positive ways (i.e., he never reads the books, he never turns the pages of a book but rather destroyed them in the clip).

The next set of limitations to these studies involve the factors that I did not account for that may play a role in whether, and how, television message about literacy affect young children's literacy attitudes. One factor is young children's emergent literacy skills. Perhaps children who have strong emergent literacy skills are not as influenced by different messages about literacy. For example, young children who already know how to handle books, that writing does not have to be fully conventional in order to mean something or understand the purposes for why we read books may not be unfavorably affected by negative messages about literacy, since they already have a solid understanding of different aspects of literacy. They also may not be favorably affected by positive messages since they already have a grasp of these ideas (i.e., the messages do not boost them even higher than they already are). I did not include a measure of emergent literacy skills; thus, future researchers should consider children's level of emergent literacy as they attempt to sort out whether messages affect young children's literacy attitudes.

Another factor not directly considered in the current work is the literacy environment—both physical as well as affective—in children's homes and child care settings. Perhaps being surrounded by print and having positive feedback about literacy buffer young children from the kinds of negative messages that they see in television programs. Positive environments may also mute the effects of positive messages about literacy in programs, since these are likely less powerful (and less sustained) compared to the tangible and live models and messages observed in homes and child care settings. On the flip side, children who lack literacy-rich environments—physically and affectively— may not understand or be able to incorporate messages about literacy when they see them on television, or these messages may not be strong enough to counter the negative or absence of positive messages received at home or in child care settings. I could not account for these possibilities since I did not include measures of participants' literacy environments at home or in the child care settings I visited. Future work should address this by looking at whether children's environments play a role in any connection between television and children's literacy attitudes.

In addition, I did not have a direct assessment of participants' likes or dislikes related to the clips they viewed, beyond whether they had ever seen the program and whether they typically watched the program. Especially during Experiment 2, participants often spontaneously commented, "I like this show" or "I like Barney" or "I watch *Fairly Odd Parents*." However, I did not systematically measure their reactions to the clips themselves, the characters in the clips, or the programs from which the clips came. If participants really liked a program or character, this feeling may explain why children often responded positively to the first item in each SLAM set ("How did that part that we

just watched make you feel about [reading/writing/books]?"). Even if the message in the clip was negative, the children may still have enjoyed watching it because it was from a favorite program or involved a favorite character. Likewise, if a child did not particularly like a program or character within it, a clip may have had little affect positively or negatively—they may not have attended to the clip or tried to process the message within it. One could infer that regular viewing of a program meant that a child did like the program and the characters within it. For the majority of the cases, regularly watching a program or not regularly watching a program did not significantly relate to the types of answers that participants gave. However, future research should consider this issue more in detail since I did not systematically ask participants about their likes or dislikes of the program and characters represented in the clips.

Although I concluded that messages about literacy in children's programming as presented in this study did not seem to affect children's attitudes about literacy, I cannot conclude that the messages did not affect their literacy-related behaviors. For young children, their attitudes about something may not necessarily connect with their behaviors. Televised models that show different ways to interact with print may influence children's own engagement with print without necessarily affecting or changing their attitudes about literacy. Research in the future should address this question by investigating children's interactions with literacy before and after viewing different messages about literacy. For instance, similar to the Bobo doll study (Bandura, Ross & Ross, 1963), researchers could provide materials shown in different clips to children and see whether they imitate the behaviors modeled on screen. Researchers could also study this more naturalistically by observing in children's homes and child care settings and

looking to see whether there are connections between the models and messages about literacy that children see in the daily television viewing and their encounters with literacy. Dyson's ethnographic work in first grade classrooms (e.g., 2003) illustrates the ways in which children integrate media content into their writing. Future researchers should consider how even younger children incorporate literacy messages and content into various aspects of their emergent literacy.

With regard to the measurements that I utilized in the experiments, the GLAM was based on two other validated reading attitudes instruments. Yet, measurement error could explain the significant and non-significant results found in Experiment 1. For Experiment 2, the SLAM was created for the purpose of that experiment. I did establish content validity and pilot tested the measure to ensure that it measured what I intended to measure. I did not run tests to establish reliability on the SLAM, though. Work that follows this should consider the instruments used to measure literacy attitudes and whether the GLAM and SLAM were appropriate measures. There might be current or future assessments that are more accurate in assessing young children's attitudes about literacy.

One final consideration relates to the analysis of the data in Experiment 2. The Wilcoxon signed-rank test is not a particularly powerful test (Fields, 2005), and it may not have detected significant changes in participants' responses as well as another test could have— particularly if the data were parametric. However, the nature of the data and how it was coded prompted the use of this test. Future researchers should explore alternative ways to code data, such as to have continuous rather than categorical data and

utilizing more powerful analyses (e.g., using parametric rather than nonparametric analyses).

Implications

Young children devote much time to watching television, and they do so during a time in their development when they need many rich and meaningful experiences with literacy. Certainly, families, educators, and others are legitimately concerned about time spent with television and what that means for children's literacy growth and learning, as well as other aspects of their development. When researchers have looked at television and how it influences young children, they have found that it depends on what children see (i.e., its content) in addition to how much time they spend watching television. Past work has demonstrated that some educational programs can boost young children's early literacy skills, but such results do not alleviate concerns about the potential harmful effects of television. In addition, extant research has not addressed whether programs— educational or not—affect children's literacy attitudes, attitudes that have been shown to be a critical piece to literacy development and achievement.

In this project, I aimed to fill the gap in the existing research related to television, young children, and literacy development. Results from the two experiments showed very little evidence that these messages significantly influenced 4- and 5-year-olds' attitudes about literacy. While television may influence children positively in some ways (e.g., literacy skills development) and negatively in other ways (e.g., attitudes about race, gender, or violence), I cannot conclude, based on my findings, that television has much of a meaningful impact on their literacy attitudes, at least the attitudes as measured by the GLAM and the SLAM.

This represents good news and bad news for different audiences. For families who struggle with balancing young children's media exposure, they may find one less thing about which to worry. Although the findings do not suggest that television has no impact on literacy at all, they do suggest that families might not have to agonize about how messages in some of their children's favorite programs may be affecting their feelings about literacy. However, families should keep in mind the ages of the participants in these studies—I worked with only 4- and 5-year-olds. The findings and conclusions cannot be generalized to children younger or older than these ages.

For educators who may feel that television is an enemy to doing well in literacy, the findings from this project suggests that, at least for literacy attitudes, some of the most popular children's programs do little harm, at least as viewed in this study. Particularly in thinking about the possible benefits to children's literacy skills development, educators may consider accepting and even incorporating what children see on television into children's school lives. They may do so with less fear about harming children's attitudes about literacy by integrating certain television programs that have been shown to positively impact early literacy skills, for example.

When thinking about implications for the creators and producers of children's programs, these findings may relieve them to know that the positive and negative messages about literacy (in the clips used in this work) do not appear to damage young children's attitudes about literacy. However, these findings do not necessarily mean that they do not have to worry about the content and messages they include in their program(s). We do not yet know whether exposures longer than in this study have an impact. In any case, even if negative messages do not have a significant impact on

children's literacy attitudes, such messages are hard to justify, particularly in programs deemed educational.

The findings also show that positive messages do not seem to boost children's attitudes about literacy, and creators and producers may wonder why that was the case. Perhaps including more positive messages (in number and duration) would have a noticeable impact on children's literacy attitudes. Creators and producers should also bear in mind that this study was conducted only with 4- and 5-year-olds. The positive and negative messages shown to these participants may impact even younger children (under the age of 4) and older children (over the age of 5) and in ways not seen with the participants reported here.

For researchers interested in the impact of television on children's attitudes, the studies I have reported on help to address previously unanswered questions. Young children between the ages of 4 and 5 comprehend at least some of the positive and negative messages presented in popular children's television programs. Yet, even with this understanding, the messages do not seem to affect their own feelings about literacy. Even non-significant results have a story to tell, particularly for researchers and theorists interested in early literacy development and television. Certainly, the limitations and future directions for research that I discussed earlier will help to further the work in this area, as many questions remain unanswered. As researchers try to understand all of the different factors that play a role in children's literacy skills and attitudes development, television must continue to be considered. There is still a great deal of work yet to be done to investigate the impact of a medium that so many children use.

Table 1

Number and percentage of participants watching television on a typical weekday and weekend day in Experiment 1 (N = 59)

Hours Spent Watching Television	On a typical weekday (# of participants)	On a typical weekday (%)	On a typical weekend day (# of participants)	On a typical weekend day (%)
Never	7	11.7	1	1.7
1 - 2	48	80.0	37	61.7
3 - 4	3	5.0	19	31.7
More than 4	1	1.7	2	3.3

Table 2

*Television clips selected to show participants, paired by theme and aspect of literacy
shown*

Pair	Program Name	Message Type	Aspect of Literacy	Message
1	*Arthur*	Negative	Writing	Writing is frustrating, not enjoyable
1	*Barney & Friends*	Positive	Writing	Writing is enjoyable, not frustrating
2	*Fairly Odd Parents*	Negative	Books	Books should be destroyed
2	*Barney & Friends*	Positive	Books	Books should be enjoyed
3	*Maggie & the Ferocious Beast*	Negative	Reading	Reading is useful, helpful for learning something new
3	*Sesame Street*	Positive	Reading	Reading is not useful, not helpful for learning something new

Table 3

Experiment 1 participants' baseline GLAM scores in relation to demographic variables and television viewing variables

Variable 1	Variable 2	df	χ^2	Exact *p*-value
Baseline GLAM Score	Ethnicity	6	11.43	.06
	Gender	2	1.13	.59
	Weekday Viewing	6	5.76	.49
	Weekend Viewing	6	12.39	.03*

*p < .05, Cramer's V = .324

Table 4

Experiment 1 participants' mean difference scores and standard deviations

Time Points	Clip Type	Mean Difference Score	SD
1 to 2	Positive	-1.37	7.13
1 to 2	Negative	-1.83	9.36
2 to 3	Positive	-0.80*	5.82
2 to 3	Negative	2.23*	5.60
1 to 3	Positive	-2.17	9.08
1 to 3	Negative	0.40	8.07

$*p < .05$, $\eta_p^2 = .193$

Table 5

Number and percentage of participants watching television on a typical weekday and weekend day in Experiment 2 (N = 51)

Hours Spent Watching Television	On a typical weekday (# of participants)	On a typical weekday (%)	On a typical weekend day (# of participants)	On a typical weekend day (%)
Never	1	1.9	0	0
1 – 2	37	71.2	26	50
3 – 4	13	25	20	38.5
More than 4	0	0	5	9.6

Table 6

Types and frequency of responses to the question "How did [D.W. / Barney and the kids] feel about trying to write [her / their] name(s)?" for a positive and negative clip about writing

Pair	Clip	Code	Example Response	Frequency (%)
1	Negative (Arthur)	Positive	"Happy"	2 (8%)
1	Negative (Arthur)	Negative	"Bad"; "Angry"	19 (76%)
1	Negative (Arthur)	Don't Know; Didn't answer the question		4 (16%)
1	Positive (Barney)	Positive	"Happy"	22 (88%)
1	Positive (Barney)	Negative	"They're madder"	1 (4%)
1	Positive (Barney)	Not Answer the Question		2 (8%)

81

Table 7

Types and frequency of responses to the question "Why did [she / they] feel [that way,

e.g., happy, mad, sad]?" for a positive and negative clip about writing

Pair	Clip	First Code (second code)	Example Response	Frequency (%)
1	Negative (*Arthur*)	Need to (positive)	"She needed to do that"	1 (4%)
1	Negative (*Arthur*)	Don't Know (negative)	"She didn't know how to spell her name"	2 (8%)
1	Negative (*Arthur*)	Not able to (negative)	"She couldn't do it"	13 (52%)
1	Negative (*Arthur*)	Try (negative)	"She trying and trying" (after a negative response to Item 9)	2 (8%)
1	Negative (*Arthur*)	Don't know, Can't interpret, or Other		7 (28%)
1	Positive (*Barney*)	Know how (positive)	"They know how to write their name"	3 (12%)
1	Positive (*Barney*)	Able to (positive)	"They were doing it all by theirself"	5 (20%)
1	Positive (*Barney*)	Enjoy / likes (positive)	"They really like to draw their name"	3 (12%)

con't table 7

1	Positive (Barney)	Try (positive)	"They're trying" (after a positive response to Item 9)	2 (8%)
1	Positive (Barney)	Learn (positive)	"They're learning how to write their names"	2 (8%)
1	Positive (Barney)	Need to (positive)	"They need to"	1 (4%)
1	Positive (Barney)	Not know (negative)	"They don't know how to"	1 (4%)
1	Positive (Barney)	Don't know, Not answer the question, Redundant, or Other		8 (32%)

Table 8

Types and frequency of responses to the question "Why did [she / they] feel [that way, e.g., happy, mad, sad]?" for a positive and negative clip about reading

Pair	Clip	First Code (second code)	Example Response	Frequency (%)
3	Negative (Maggie)	Enjoy / likes (positive)	"She likes reading books"	1 (10%)
3	Negative (Maggie)	Not know (negative)	"She didn't know how to play the game"	1 (10%)
3	Negative (Maggie)	Too long (negative)	"It was taking too long"	1 (10%)
3	Negative (Maggie)	Gives up (negative)	"She decided to give up"	3 (30%)
3	Negative (Maggie)	Did not / could not play the game (negative)	"She didn't get to play the game"	1 (10%)
3	Negative (Maggie)	Don't know. Not answer the question. Question not asked	"I don't know"; Not answer the question; Question not asked	3 (30%)
3	Positive	Useful (positive)	"Helped them	2 (20%)

84

Con't table 8

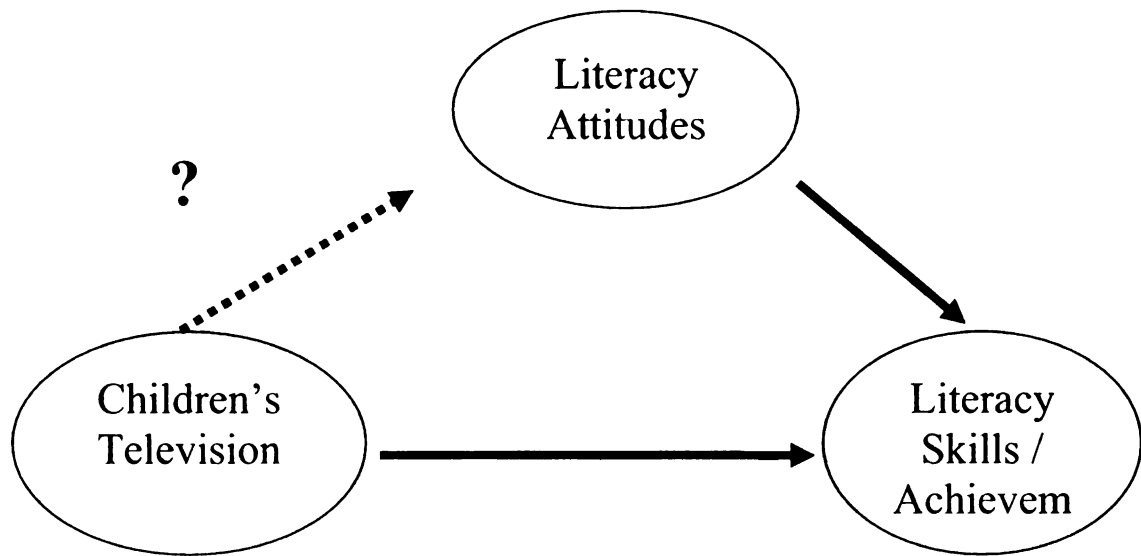|				
	(Sesame Street)		make...something they couldn't"	
3	Positive *(Sesame Street)*	Means to an end (positive)	"they wanted to fly a kite" (Reading was the means to making and flying it)	5 (50%)
3	Positive *(Sesame Street)*	Enjoy / likes (positive)	"They liked reading books"	1 (10%)
3	Positive *(Sesame Street)*	Don't know. Redundant	"I don't' know"; Redundant response (repeat response given for Item 9)	2 (20%)

Figure 1: The relationships between television, literacy attitudes, and literacy
achievement
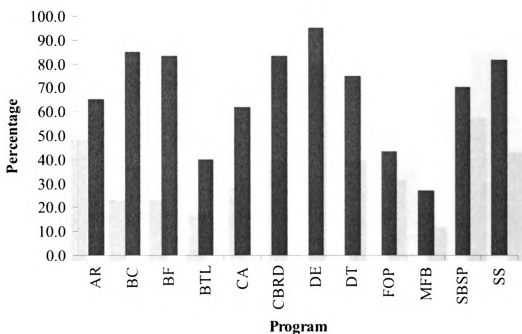
Note. AR = *Arthur*; BC = *Blue's Clues*; BF = *Barney and Friends*; BTL = *Between the Lions*; CA = *Caillou*; CBRD = *Clifford and the Big Red Dog*; DE = *Dora the Explorer*; DT= *Dragon Tales*; FOP = *Fairly Odd Parents*; MFB = *Maggie and the Ferocious Beast*; SBSP = *SpongeBob SquarePants*; and SS = *Sesame Street*

Figure 2: Percentage of participants in Experiment 1 who have ever seen 12 popular children's programs for viewers between the ages of 2 and 5
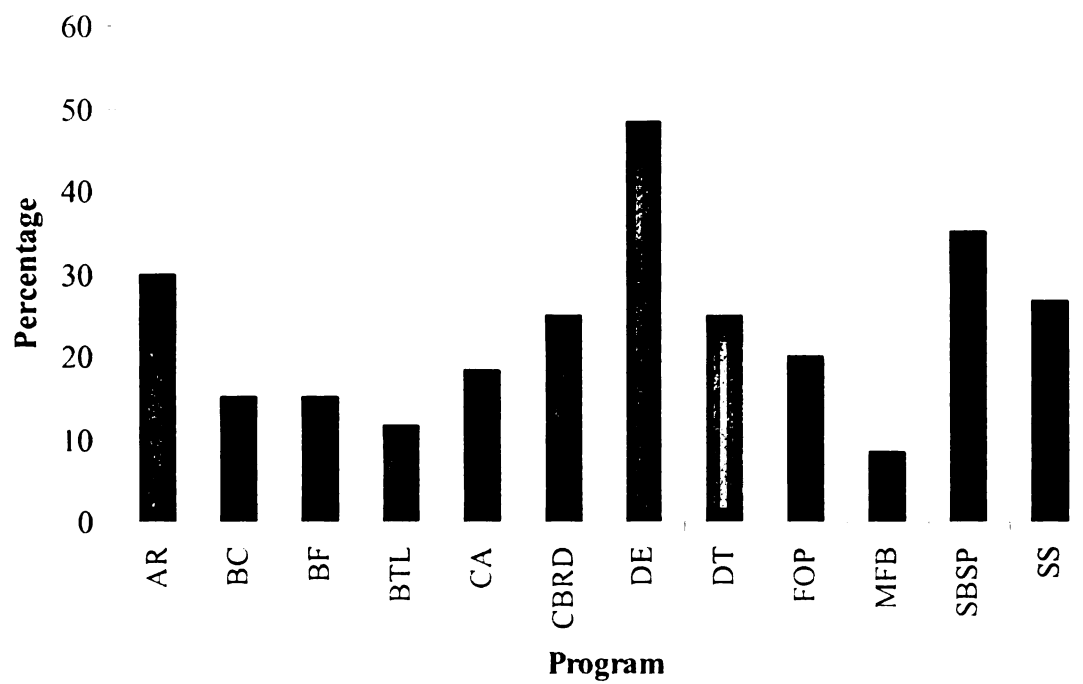
Figure 3: Percentage of participants in Experiment 1 who watch 12 popular children's
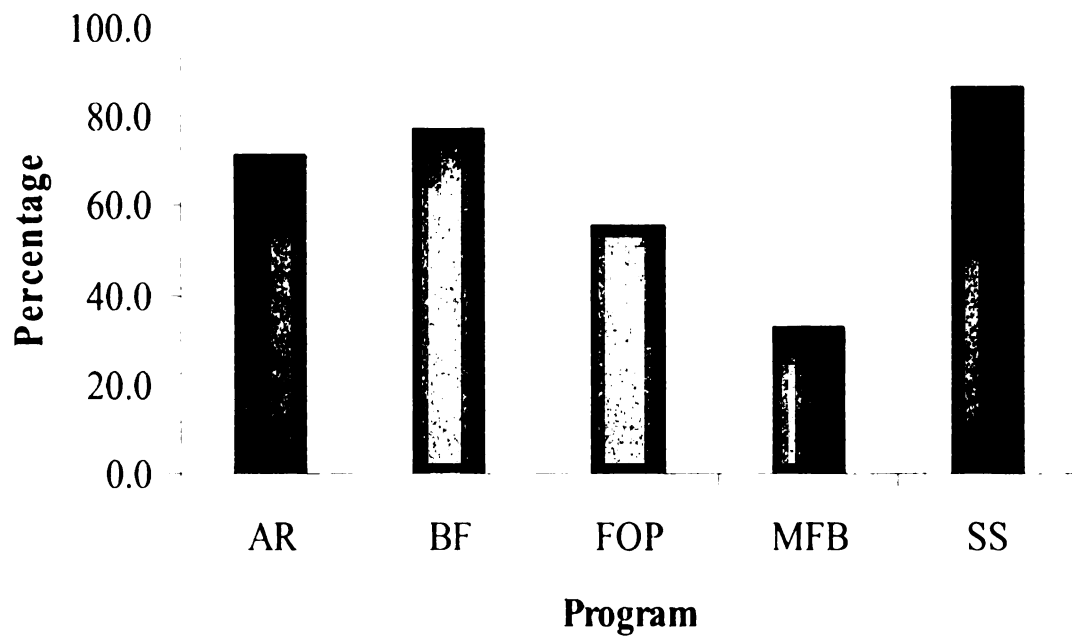programs during a typical week

Figure 4: Percentage of participants in Experiment 2 who have ever seen the popular children's programs from which clips were drawn
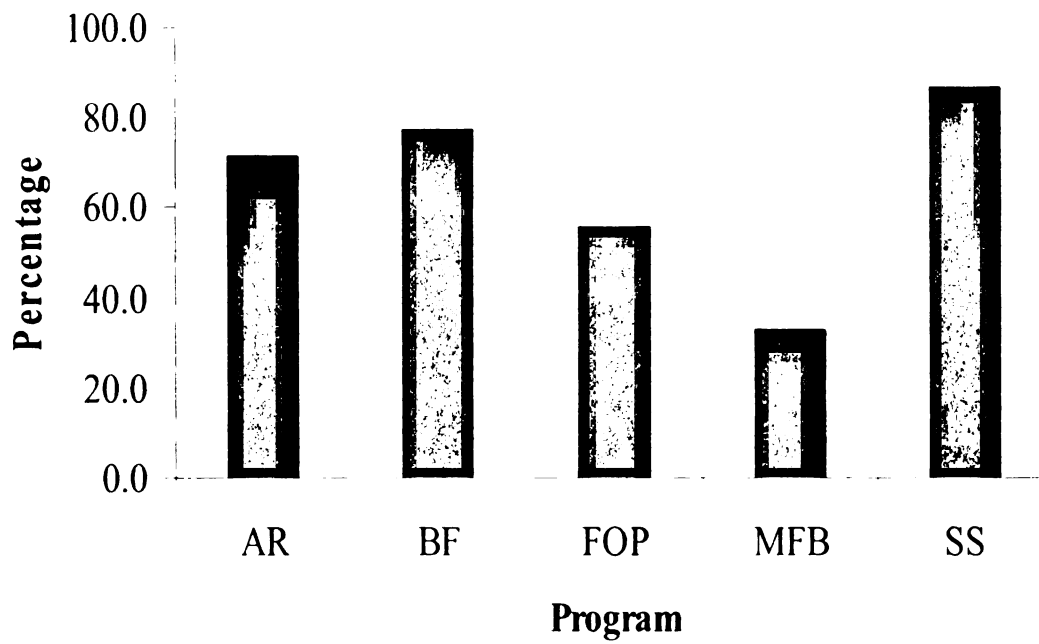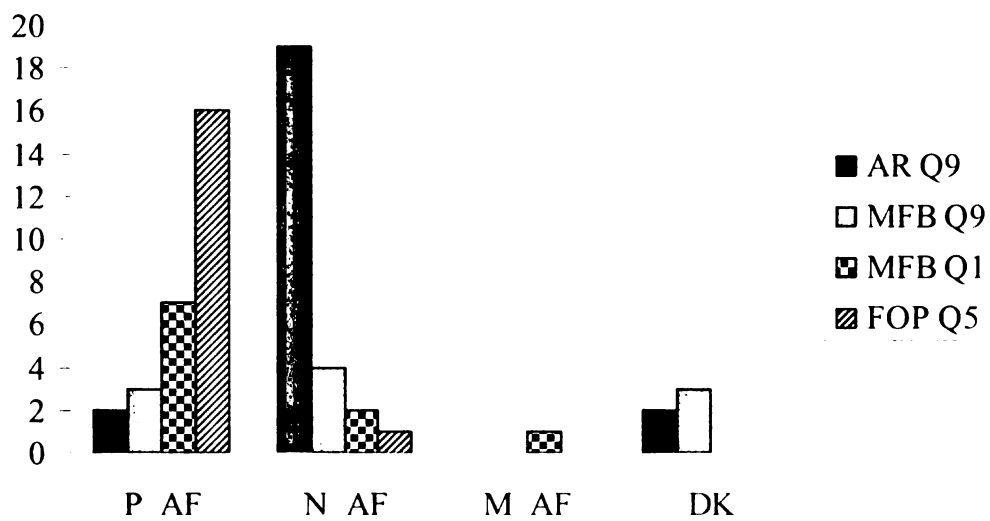
Figure 5: Percentage of participants in Experiment 2 who typically watch the popular children's programs from which clips were drawn (during a typical week)

Figure 6: Frequency of participants' responses to the questions "How did [Maggie /
Arthur/ Timmy] feel about [reading / writing / books]?" (Item 9. Maggie and Arthur and
Item 5, Fairly Odd Parents) and "How did that part make you feel about reading?" (Item
1, Maggie)

Note. P_AF = positive feelings about reading or writing: N_AF = negative feelings about

reading or writing: M_AF = mixed feelings (positive and negative) about reading or

writing: DK = don't know
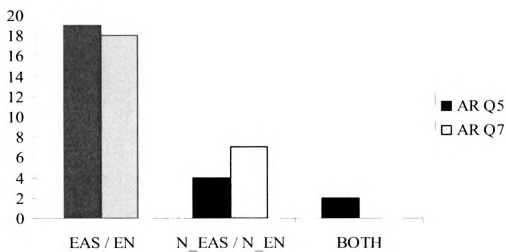
Note. EAS = writing is easy; EN = writing is fun; N_EAS = writing is hard / not easy;

N_EN = writing is not fun; BOTH = writing is easy and hard

Figure 7: Frequency of participants' responses to the questions "Is it hard or easy to write?" and "Is it fun or not fun to write?" for the *Arthur* clip

APPENDICES

Parent Survey of Children's Television Viewing (PSCTV)

Your name: _____

Your child's name: _____

*Please note that your child will receive a sticker regardless of whether all of the following questions are answered.

1. Does your child watch TV and videotapes/DVDs? _____ yes _____ no

If yes to Question 1, please continue:

2. On a **typical weekday**, how much time does your child spend watching TV and videotapes/DVDs?
(*Choose one*)

____ Never   ____ 1-2 hours a day   ____ 3-4 hours a day

____ More than 4 hours a day

3. On a **typical weekend**, how much time does your child watching TV and videotapes/DVDs?
(*Choose one*)

____ Never   ____ 1-2 hours a day   ____ 3-4 hours a day

____ more than 4 hours a day

4. To your knowledge, has your child **ever** seen any of the following programs?
(*Check all that apply*)

____ Arthur   ____ Barney & Friends

____ Blue's Clues   ____ Between the Lions

____ Caillou   ____ Clifford the Big Red Dog

____ Dora the Explorer   ____ Dragon Tales

____ Fairly Odd Parents   ____ Maggie & the Ferocious Beast

____ Sesame Street   ____ SpongeBob SquarePants

5. **During a typical week**, does your child watch any of the following programs?
(*Check all that apply*)

____ Arthur   ____ Barney & Friends

____ Blue's Clues   ____ Between the Lions

____ Caillou   ____ Clifford the Big Red Dog

____ Dora the Explorer   ____ Dragon Tales

____ Fairly Odd Parents   ____ Maggie & the Ferocious Beast

____ Sesame Street   ____ SpongeBob SquarePants

6. What other programs does your child regularly watch?
(*list titles*)

_____

_____

_____

_____

7. What is your child's date of birth? (mm/dd/yyyy)

_____

8. What is your child's ethnicity?

_____ Asian/Pacific Islander (Asian American)   _____ African American non-Hispanic

_____ American Indian/Alaskan Native   _____ Chicano/Mexican-American

_____ Hispanic   _____ White non-Hispanic

_____ Other (Please specify: _____)

____ Dora the Explorer   ____ Dragon Tales

____ Fairly Odd Parents   ____ Maggie & the Ferocious Beast

____ Sesame Street   ____ SpongeBob SquarePants

5. During a typical week, does your child watch any of the following programs?
(*Check all that apply*)

____ Arthur   ____ Barney & Friends

____ Blue's Clues   ____ Between the Lions

____ Caillou   ____ Clifford the Big Red Dog

____ Dora the Explorer   ____ Dragon Tales

____ Fairly Odd Parents   ____ Maggie & the Ferocious Beast

____ Sesame Street   ____ SpongeBob SquarePants

6. What other programs does your child regularly watch?
(*list titles*)

_____

_____

_____

_____

7. What is your child's date of birth? (mm/dd/yyyy)

_____

8. What is your child's ethnicity?

_____ Asian/Pacific Islander (Asian American)   _____ African American non-Hispanic

_____ American Indian/Alaskan Native   _____ Chicano/Mexican-American

_____ Hispanic   _____ White non-Hispanic

_____ Other (Please specify: _____)

The General Literacy Attitudes Measure (GLAM)

1. Let's say you're at home, and your mom wants to read with you. Do you feel a lot happy, a little happy, okay, a little sad, or a lot sad?

2. Let's say it's your birthday and you get a book for a present. How do you feel? [Repeat face options after each question as necessary]

3. Let's say you're reading instead of playing. How do you feel? [Repeat face options after each question as necessary]

4. Let's say your mom wants to take you to the bookstore or the library. How do you feel?

5. Let's say you're [at school/in your classroom] and someone is reading to you. How do you feel? Do you feel a lot happy, a little happy, okay, a little sad, or a lot sad?

6. Let's say you're at the library or bookstore, and you're reading or looking at books on your own. How do you feel?

7. Let's say you're at the library or the bookstore and you're reading or looking at books with someone. How do you feel?

8. Do you have a library area in your classroom? [If don't know, describe what it looks like—usually has bookshelf/shelves, books, book bins, a spot to read, etc.]. Okay, let's say you're [at school/in your classroom] and you go to the library area. How do you feel?

9. Let's say you're talking about books with a friend. How do you feel?

10. Let's say you're [in your classroom/at school] and you're writing or someone is helping you write. How do you feel?

11. Let's say you've finished writing something and you are sharing it with someone else. How do you feel?

12. Let's say you're at home, and you're writing or someone is helping you write. How do you feel?

13. Let's say you're writing or someone is helping you write instead of playing. How do you feel?

The Specific Literacy Attitudes Measure (SLAM)

Pair 1:

Arthur (Negative Message)

Introduction: In this part, D.W. is trying to get a library card but has to do something first. You will see what she has to do.

1. How did that part that we just watched make you feel about writing? [Children's attitudes about literacy referencing the clip]
2. [Prompt] Why did you feel [that way, e.g., happy, sad, mad]? [Follow-up]
3. Should kids try to write their name? [Children's attitudes not referencing the clip]
4. [Prompt] Why should they try / Why should they not try? [Follow-up]
5. Is it hard or easy to write? [Children's attitudes not referencing the clip]
6. [Prompt] Why is it hard / easy? [Follow-up]
7. Is it fun or not fun to write? [Children's attitudes not referencing the clip]
8. [Prompt] Why is it fun / not fun? [Follow-up]
9. How did D. W. feel about trying to write her name? [Comprehension]
10. [Prompt] Why did she feel [that way, e.g., happy, mad, sad]? [Comprehension]

Barney & Friends (Positive Message)

Introduction: In this part, Barney and his friends are playing with sand, blocks, and other things. You will see what they are doing.

1. How did that part that we just watched make you feel about writing? [Children's attitudes about literacy referencing the clip]
2. [Prompt] Why did you feel [that way, e.g., happy, sad, mad]? [Follow-up]
3. Should kids try to write their name? [Children's attitudes not referencing the clip]
4. [Prompt] Why should they try / Why should they not try? [Follow-up]
5. Is it hard or easy write? [Children's attitudes not referencing the clip]
6. [Prompt] Why is it hard / easy? [Follow-up]
7. Is it fun or not fun to write? [Children's attitudes not referencing the clip]
8. [Prompt] Why is it fun / not fun? [Follow-up]
9. How did the kids in the clip feel about trying to write their names? [Comprehension]
10. [Prompt] Why did they feel [that way, e.g., happy, mad, sad]? [Comprehension]

Pair 2:

Fairly Odd Parents (Negative Message)

Introduction: In this part, Timmy is doing a lot of different things. You will see what he's doing.

1. How did that part that we just watched make you feel about books? [Children's attitudes about literacy referencing the clip]
2. [Prompt] Why did you feel [that way, e.g., happy, sad, mad]? [Follow-up]
3. What are some things you can do with books? [Children's attitudes not referencing the clip]
4. What do you use a book for? [Children's attitudes not referencing the clip]
5. How did Timmy feel about books? [Comprehension]
6. [Prompt]: Why did he feel [that way, e.g., happy, mad, sad]? [Comprehension]
7. What did Timmy think about books? [Comprehension]
8. [Prompt] Why did he think that about books? [Comprehension]

Barney & Friends (Positive Message)
Introduction: In this part, Barney and his friends are singing a song. You will hear what they're singing about.

1. How did that part that we just watched make you feel about books? [Children's attitudes about literacy referencing the clip]
2. [Prompt] Why did you feel [that way, e.g., happy, sad, mad]? [Follow-up]
3. What are some things you can do with books? [Children's attitudes not referencing the clip]
4. What do you use a book for? [Children's attitudes not referencing the clip]
5. How did Barney and the kids feel about books? [Comprehension]
6. [Prompt] Why did they feel [that way, e.g., happy, mad, sad]? [Comprehension]
7. What did the Barney and the kids think about books? [Comprehension]
8. [Prompt] Why did they think that about books? [Comprehension]

Pair 3:
Maggie and the Ferocious Beast (Negative Message)
Introduction: In this part. Maggie wants to learn how to play a new game. You will see how she tries to learn to play a new game.

1. How did that part that we just watched make you feel about reading? [Children's attitudes about literacy referencing the clip]
2. [Prompt] Why did you feel [that way, e.g., happy, sad, mad]? [Follow-up]
3. How would you feel about reading a book to learn to play a new game? [Children's attitudes not referencing the clip]
4. [Prompt] Why do you feel [that way about reading a book to learn to play a new game]? [Follow-up]
5. Would you use a book to learn a new game? [Children's attitudes not referencing the clip]
6. [Prompt] Why / why wouldn't you use a book to learn to play a new game? [Follow-up]
7. Can books help people to learn to play something new? [Children's attitudes not referencing the clip]

8. [Prompt] Why can / can't books help people to learn to play a new game?
   [Follow-up]
9. How did Maggie feel about reading a book to learn to play a new game?
   [Comprehension]
10. [Prompt] Why did she feel [that way]? [Comprehension]

Sesame Street (Positive Message)

Introduction: In this part, Zoë and Elmo want to fly a kite but they can't buy one. You will see how Gabby helps them learn to make a kite.

1. How did that part that we just watched make you feel about reading? [Children's attitudes about literacy referencing the clip]
2. [Prompt] Why did you feel [that way, e.g., happy, sad, mad]? [Follow-up]
3. How would you feel about reading a book to learn to make something? [Children's attitudes not referencing the clip]
4. [Prompt] Why do you feel [that way about reading a book to learn to learn to make something]? [Follow-up]
5. Would you use a book to learn to make something? [Children's attitudes not referencing the clip]
6. [Prompt] Why / why wouldn't you use a book to learn to make something? [Follow-up]
7. Can books help people to learn to make something new? [Children's attitudes not referencing the clip]
8. [Prompt] Why can / can't books help people to learn to make something new? [Follow-up]
9. How did Elmo and Zoë feel about reading a book to learn to make a kite? [Comprehension]
10. [Prompt] Why they feel [that way]? [Comprehension]

Pair 1:

Arthur

1) How did this clip make you feel about writing?

1 P_AF: Positive feeling about writing, refer to self ("good, fine, happy")

2 N_AF: Negative feeling about writing, refer to self ("mad, tired, bored, sad, grumpy")

3 OK_AF: Okay feeling about writing, refer to self ("Okay")

4 M_AF: mixed feelings about writing, refer to self ("good and bad; happy and sad")

5 DK: don't know, not sure, can't remember

7 IR: irrelevant comment

6 NAQ: not answer the question asked

8 CI: can't interpret
NA: not applicable question (didn't see this clip)

9 QN: question not asked

10 OTH: other

2) [Prompt: Why did you feel . . .]

1 EN: likes/enjoys writing; writing is fun

2 N_EN: doesn't like/doesn't enjoy writing; writing isn't fun, boring

3 KNOW: knows how to write

4 N_KNOW: Doesn't know how to write

5 VAL: value of reading; reading for readings sake; reading is good (for you)

6 N_VAL: reading not valuable; not good for you

7 CHAR_N_WR: character couldn't write

8 SAW: saw character writing

9 AB: Able to write, refer to self

10 N_AB: not able to write, refer to self

11 CHAR: likes the character and/or program ("I like Maggie Barney Fairly Odd Parents), television

12 N_CHAR: not like the character and/or program ("I don't like Barney...)

13 BOR: bored

14 DK: don't know, not sure, can't remember

15 IR: irrelevant comment

16 NAQ: not answer the question asked

17 RED: Redundant

18 CI: can't interpret
NA: not applicable question (didn't see this clip)

19 QN: question not asked

20 OTH: other (e.g.. because I'm writing)

3) Should kids try to write their name?

1. Y: Yes, should try
2. N: No, shouldn't try
3. S: Sometimes
4. DK: don't know, not sure, can't remember
5. IR: irrelevant comment
6. NAQ: not answer the question asked
7. CI: can't interpret
   NA: not applicable question (didn't see this clip)
8. QN: question not asked
9. OTH: other

4) [Prompt: Why or why not?]

1. AB: able to/can write
2. EF: easy to do, having to do with effort, practice (to learn how to), needing to try
3. N_EF: hard to do, gives up, not trying (or not needing to try)
4. EN: likes/enjoys writing; writing is fun
5. N_EN: doesn't like/doesn't enjoy writing; writing isn't fun, boring
6. USF: writing one's name is useful
7. N_USF: writing one's name is not useful
8. LEARN: learning (to write); have to learn to write
9. KNOW: know how to write
10. N_KNOW: don't know how to write
11. AD: refers to adult help (mom, dad, teacher help you, teach you)
12. DK: don't know, not sure, can't remember
13. IR: irrelevant comment
14. NAQ: not answer the question asked
15. RED: Redundant
16. CI: can't interpret
    NA: not applicable question (didn't see this clip)
17. QN: question not asked
18. OTH: other

5) Is it hard or easy to write?

1. EAS: easy to write (also includes a little easy)
2. N_EAS: hard to write (also includes a little hard)
3. BOTH: both hard and easy
4. DK: don't know, not sure, can't remember
5. IR: irrelevant comment
6. NAQ: not answer the question asked
7. CI: can't interpret
   NA: not applicable question (didn't see this clip)
8. QN: question not asked
9. OTH: other

6) **[Prompt: Why is it . . .]**

1. AB: able to write/can write (write one's name, certain letters)
2. N_AB: not able to write/can't write
3. EN: enjoy/like writing
4. N_EN: not enjoy/not like writing
5. USF: writing is useful
6. N_USF: Writing is not useful
7. SPEED: write fast
8. VAL: writing is valuable; good to write
9. N_VAL: writing isn't valuable; not good to write
10. KNOW: know how to write
11. N_KNOW: Don't know how to write
12. WANT: what want to do; can write what you want to write
13. AD: refers to adult (parent, teacher)
14. DK: don't know, not sure, can't remember
15. IR: irrelevant comment
16. NAQ: not answer the question asked
17. RED: redundant
18. CI: can't interpret
    NA: not applicable question (didn't see this clip)
19. N: question not asked
20. OTH: other

7) **Is it fun or not fun to write?**

1. EN: fun to write
2. N_EN: not fun to write
3. DK: don't know, not sure, can't remember
4. IR: irrelevant comment
5. NAQ: not answer the question asked
6. CI: can't interpret
   NA: not applicable question (didn't see this clip)
7. QN: question not asked
8. OTH: other

8) **[Prompt: Why is it . . .]**

1. AB: able to write (write one's name, certain letters)
2. N_AB: not able to write
3. EF: easy to do, having to do with effort, practice (to learn how to), trying, makes you better
4. N_EF: hard to do, gives up, not trying
5. HAP: makes others (e.g., mom) happy
6. BOR: Boring
7. TIRED: makes me tired
8. SPEED: write fast (e.g., you can write fast)
9. EN: enjoy/like writing
10. N_EN: not enjoy/not like writing

11 USF: writing is useful
12 N_USF: Writing is not useful
13 DK: don't know, not sure, can't remember
14 IR: irrelevant comment
15 NAQ: not answer the question asked
16 RED: redundant
17 CI: can't interpret
   NA: not applicable question (didn't see this clip)
18 QN: question not asked
19 OTH: other

9) How did D. W. feel about trying to write her name?
1 P_AF: feel good, happy, fine about writing her name, refers to character
2 N_AF: feel bad, mad/upset/angry, sad about writing, refers to character
3 OK_AF: feel okay about writing, refers to character
4 M_AF: mixed feelings about writing, refers to character
5 DK: don't know, not sure, can't remember
6 IR: irrelevant comment
7 NAQ: not answer the question asked
8 CI: can't interpret
   NA: not applicable question (didn't see this clip)
9 QN: question not asked
10 OTH: other

10) [Prompt: Why did she feel ...?]
1 KNOW: knows how to write, refers to character
2 N_KNOW: doesn't know how to write, refers to character
3 AB: character able to write/ can write
4 N_AB: character not able to write/ can't write
5 EN: character enjoys/likes writing
6 N_EN: character not enjoy/like writing
7 EF: easy to do
8 N_EF: hard to do
9 TRY: trying to write
10 TIME: clock was ticking (away); taking long time
11 LEARN: learning to write; have to learn to write
12 PROUD: felt proud about their writing
13 N_PROUD: not feel proud about their writing
14 NEED: need to write (name)
15 DK: don't know, not sure, can't remember
16 IR: irrelevant comment
17 NAQ: not answer the question asked
18 RED: redundant
19 CI: can't interpret
   NA: not applicable question (didn't see this clip)
20 QN: question not asked

21 OTH: other

<center>Barney & Friends (Spell)</center>

1) How did this clip make you feel about writing?
    1   P_AF: Positive feeling about reading, refer to self ("good, fine, happy")
    2   N_AF: Negative feeling about reading, refer to self ("mad, tired, bored, sad, grumpy")
    3   OK_AF: Okay feeling about reading, refer to self ("Okay")
    4   M_AF: mixed feelings about reading, refer to self ("good and bad; happy and sad")
    5   DK: don't know, not sure, can't remember
    6   IR: irrelevant comment
    7   NAQ: not answer the question asked
    8   CI: can't interpret
         NA: not applicable question (didn't see this clip)
    9   QN: question not asked
  10 OTH: other

2) [Prompt: Why did you feel . . .]
    1   EN: likes/enjoys writing; writing is fun
    2   N_EN: doesn't like/doesn't enjoy writing; writing isn't fun, boring
    3   KNOW: knows how to write
    4   N_KNOW: Doesn't know how to write
    5   AB: Able to write, refer to self
    6   N_AB: not able to write, refer to self
    7   CHAR: likes the character and/or program ("I like Maggie/Barney/Fairly Odd Parents), television
    8   N_CHAR: not like the character and/or program ("I don't like Barney...)
    9   CHAR_N_WR: character can't write
  10 CHAR_KNOW: character knows how to write
  11 BOR: bored
  12 VAL: good to write; okay to write, writing for writing's sake
  13 N_VAL: not good to write, not okay to write
  14 SAW: saw character writing
  15 TRY: try(ing) to write
  16 DK: don't know, not sure, can't remember
  17 IR: irrelevant comment
  18 NAQ: not answer the question asked
  19 RED: Redundant
  20 CI: can't interpret
         NA: not applicable question (didn't see this clip)
  21 QN: question not asked
  22 OTH: other

3) Should kids try to write their name?

1 Y: Yes, should try
2 N: No, shouldn't try
3 S: sometimes
4 DK: don't know, not sure, can't remember
5 IR: irrelevant comment
6 NAQ: not answer the question asked
7 CI: can't interpret
8 NA: not applicable question (didn't see this clip)
9 QN: question not asked
10 OTH: other

4) [Prompt: Why or why not?

1 EF: easy to do, having to do with effort, practice (to learn how to), trying
2 N_EF: hard to do, gives up, not trying
3 EN: likes/enjoys writing; writing is fun
4 N_EN: doesn't like/doesn't enjoy writing; writing isn't fun, boring
5 USF: writing one's name is useful
6 N_USF: writing one's name is not useful
7 KNOW: know how to write
8 LEARN: learning to write; have to learn to write
9 AD: refers to adult help (mom, dad, teacher help you, teach you)
10 DK: don't know, not sure, can't remember
11 IR: irrelevant comment
12 NAQ: not answer the question asked
13 RED: Redundant
14 CI: can't interpret
15 NA: not applicable question (didn't see this clip)
16 QN: question not asked
17 OTH: other

5) Is it hard or easy write?

1 EAS: easy to write
2 N_EAS: hard to write
3 BOTH: both hard and easy to write
4 DK: don't know, not sure, can't remember
5 IR: irrelevant comment
6 NAQ: not answer the question asked
7 CI: can't interpret
  NA: not applicable question (didn't see this clip)
8 QN: question not asked
9 OTH: other

6) [Prompt: Why is it . . .]

1 AB: able to write (write one's name, certain letters)
2 N_AB: not able to write
3 EN: enjoy/like writing

1 Y: Yes, should try
2 N: No, shouldn't try
3 S: sometimes
4 DK: don't know, not sure, can't remember
5 IR: irrelevant comment
6 NAQ: not answer the question asked
7 CI: can't interpret
8 NA: not applicable question (didn't see this clip)
9 QN: question not asked
10 OTH: other

4) |Prompt: Why or why not?
1 EF: easy to do, having to do with effort, practice (to learn how to), trying
2 N_EF: hard to do, gives up, not trying
3 EN: likes/enjoys writing; writing is fun
4 N_EN: doesn't like/doesn't enjoy writing; writing isn't fun, boring
5 USF: writing one's name is useful
6 N_USF: writing one's name is not useful
7 KNOW: know how to write
8 LEARN: learning to write; have to learn to write
9 AD: refers to adult help (mom, dad, teacher help you, teach you)
10 DK: don't know, not sure, can't remember
11 IR: irrelevant comment
12 NAQ: not answer the question asked
13 RED: Redundant
14 CI: can't interpret
15 NA: not applicable question (didn't see this clip)
16 QN: question not asked
17 OTH: other

5) Is it hard or easy write?
1 EAS: easy to write
2 N_EAS: hard to write
3 BOTH: both hard and easy to write
4 DK: don't know, not sure, can't remember
5 IR: irrelevant comment
6 NAQ: not answer the question asked
7 CI: can't interpret
   NA: not applicable question (didn't see this clip)
8 QN: question not asked
9 OTH: other

6) |Prompt: Why is it . . .|
1 AB: able to write (write one's name, certain letters)
2 N_AB: not able to write
3 EN: enjoy/like writing

4 N_EN: not enjoy/not like writing
5 USF: writing is useful
6 N_USF: Writing is not useful
7 SPEED: write fast
8 VAL: writing is valuable; writing is good for you; writing for writing's sake
9 N_VAL: writing not valuable; not good for you
10 WANT: want to write; get to write what want to
11 KNOW: Knows how to write
12 N_KNOW: not know how to write
13 TRY: try(ing) to write
14 AD: refers to adult (parent, teacher)
15 DK: don't know, not sure, can't remember
16 IR: irrelevant comment
17 NAQ: not answer the question asked
18 RED: redundant
19 CI: can't interpret
20 NA: not applicable question (didn't see this clip)
21 QN: question not asked
22 OTH: other

7) **Is it fun or not fun to write?**
10 EN: fun to write
10 N_EN: not fun to write
10 DK: don't know, not sure, can't remember
10 IR: irrelevant comment
10 NAQ: not answer the question asked
10 CI: can't interpret
   NA: not applicable question (didn't see this clip)
10 QN: question not asked
10 OTH: other

8) **[Prompt: Why is it . . .]**
1 AB: able to write (write one's name, certain letters)
2 N_AB: not able to write
3 EF: easy to do, having to do with effort, practice (to learn how to), trying
4 N_EF: hard to do, gives up, not trying
5 EN: enjoy/like writing
6 N_EN: not enjoy/not like writing
7 USF: writing is useful
8 N_USF: Writing is not useful
9 HAP: makes other (e.g., mom) happy
10 BOR: boring
11 SPEED: get to write fast
12 N_WANT: not want to (write)

13 DK: don't know, not sure, can't remember
14 IR: irrelevant comment
15 NAQ: not answer the question asked
16 RED: redundant
17 CI: can't interpret
   NA: not applicable question (didn't see this clip)
18 QN: question not asked
19 OTH: other

9) How did the kids in the clip feel about trying to write their names?

1 P_AF: feel good, happy, fine about writing her name, refers to character
2 N_AF: feel bad, mad/upset/angry, sad about writing, refers to character
3 OK_AF: feel okay about writing, refers to character
4 M_AF: mixed feelings about writing, refers to character
5 DK: don't know, not sure, can't remember
7   IR: irrelevant comment
6   NAQ: not answer the question asked
8   CI: can't interpret
   NA: not applicable question (didn't see this clip)
10 QN: question not asked
10 OTH: other

10 [Prompt: Why did Barney and the kids feel...?]

1 KNOW: knows how to write, refers to character
2 N_KNOW: doesn't know how to write, refers to character
3 AB: character able to write
4 N_AB: character not able to write
5 EN: character enjoys/likes writing
6 N_EN: character not enjoy/like writing
7 EF: easy to do
8 N_EF: hard to do
9 TRY: trying to write
10 TIME: taking long time
11 LEARN: learning to write; have to learn to write
12 WANT: want to write; get to write what want
13 PROUD: felt proud about their writing
14 N_PROUD: not feel proud about their writing
15 NEED: need to write
16 DK: don't know, not sure, can't remember
17 IR: irrelevant comment
18 NAQ: not answer the question asked
19 RED: redundant
20 CI: can't interpret
   NA: not applicable question (didn't see this clip)

21 QN: question not asked
22 OTH: other

Pair 2:

Fairly Odd Parents

1) **How did this clip make you feel about books?**
    1. P_AF: Positive feeling about books, refer to self ("good, fine, happy")
    2. N_AF: Negative feeling about books, refer to self ("mad, tired, bored, sad, grumpy")
    3. OK_AF: Okay feeling about books, refer to self ("Okay")
    4. M_AF: mixed feelings about books, refer to self ("good and bad; happy and sad")
    5. DK: don't know, not sure, can't remember
    6. IR: irrelevant comment
    7. NAQ: Not answer the question asked
    8. CI: can't interpret
        NA: not applicable question (didn't see this clip)
    9. QN: question not asked .
    10. OTH: other

2) **[Prompt: Why did you feel . . .]**
    1. EN: likes/enjoys books; books are fun (also if refer to reading as something like to do/enjoys/fun)
    2. N_EN: doesn't like/doesn't enjoy books; books aren't fun (also if refer to reading as something not like to do/not enjoy/not fun)
    3. USF: books useful / helpful
    4. N_USF: books not useful / not helpful
    5. UG: appropriate usage of book in clip
    6. N_UG: not appropriate usage of book (the character was damaging the book)
    7. WANT: want to read/look at books
    8. N_WANT: not want to read/look at books
    9. CHAR: likes the character and/or program ("I like Maggie/Barney/Fairly Odd Parents), television
    10. N_CHAR: not like the character and/or program ("I don't like Barney...")
    11. DK: don't know, not sure, can't remember
    12. IR: irrelevant comment
    13. NAQ: Not answer the question asked
    14. RED: redundant
    15. CI: can't interpret
        NA: not applicable question (didn't see this clip)
    16. QN: question not asked
    17. OTH: other

3) **What are some things you can do with books?**
    1. UG: appropriate usage of books – read them, look at pictures
    2. N_UG: not appropriate usage of books – anything that might damage, break, harm books

3　NOTH: nothing
4　DK: don't know, not sure, can't remember
5　IR: irrelevant comment
6　NAQ: Not answer the question asked
7　CI: can't interpret
　　NA: not applicable question (didn't see this clip)
8　QN: question not asked
9　OTH: other

4)　What do you use a book for?
1　UG: appropriate usage of books – read them, look at pictures
2　N_UG: not appropriate usage of books – anything that might damage, break, harm books
3　NOTH: nothing
4　DK: don't know, not sure, can't remember
5　IR: irrelevant comment
6　NAQ: Not answer the question asked .
7　CI: can't interpret
　　NA: not applicable question (didn't see this)
8　QN: question not asked
9　OTH: other

5)　How did Timmy feel about books?
1　P_AF: Positive feeling about books, refer to character ("good, fine, happy")
2　N_AF: Negative feeling about books, refer to character ("mad, tired, bored, sad, grumpy")
3　OK_AF: Okay feeling about books, refer to character ("Okay")
4　M_AF: mixed feelings about books, refer to character ("good and bad; happy and sad")
5　DK: don't know, not sure, can't remember
6　IR: irrelevant comment
7　NAQ: Not answer the question asked
8　CI: can't interpret
　　NA: not applicable question (didn't see this clip)
9　QN: question not asked
10　OTH: other

6)　[Prompt: Why did he feel ...?]
1　EN: likes/enjoys books; books are fun (also if refer to reading as something like to do/enjoys/fun)
2　N_EN: doesn't like/doesn't enjoy books; books aren't fun (also if refer to reading as something not like to do/not enjoy/not fun)
3　USF: books useful / helpful
4　N_USF: books not useful / not helpful
5　UG: appropriate usage of book in clip
6　N_UG: not appropriate usage of book (the character was damaging the book)

110

7   WANT: want to read/look at books
8   N_WANT: not want to read/look at books
9   FUN: he's having fun (but response not specific to reading/books, e.g., "because he's having so much fun)
10 N_FUN: he's not having fun (response not specific to reading/books
11 PLAY: he was playing (a lot)
12 READ: because he was reading
13 BREAK: wanted to break/damage books, likes to break/damage books
14 KNOW: knows about books
15 DK: don't know, not sure, can't remember
16 IR: irrelevant comment
17 NAQ: Not answer the question asked
18 RED: Redundant
19 CI: can't interpret
    NA: not applicable question (didn't see this clip)
20 QN: question not asked
21 OTH: other

7) What did Timmy think about books?
1   EN: thinks books are great, enjoyable, fun
2   N_EN: thinks books aren't great, not enjoyable, not fun
3   USF: thinks books are useful /helpful
4   N_USF: thinks books aren't useful / helpful
5   UG: thinks books are for reading or mentions other appropriate uses of books (for reading, looking at pictures, etc.)
6   DK: don't know, not sure, can't remember
7   IR: irrelevant comment
8   NAQ: Not answer the question asked
9   CI: can't interpret
    NA: not applicable question (didn't see this clip)
10 QN: question not asked
11 OTH: other

8) [Prompt: Why did he think books are ...?]
1   EN: thinks books are great, good, enjoyable, fun (refers to the character)
2   N_EN: thinks books aren't great, not good, not enjoyable, not fun (refers to the character)
3   WANT: he wanted to read them
4   N_WANT: He didn't want to read them
5   READ: because he was reading them (books)
6   DK: don't know, not sure, can't remember
7   IR: irrelevant comment
8   NAQ: Not answer the question asked
9   RED: redundant
10 CI: can't interpret
    NA: not applicable question (didn't see this clip)

11 QN: question not asked

12 OTH: other

Barney & Friends (books)

1) How did this clip make you feel about books?
1. P_AF: Positive feeling about books, refer to self ("good, fine, happy")
2. N_AF: Negative feeling about books, refer to self ("mad, tired, bored, sad, grumpy")
3. OK_AF: Okay feeling about books, refer to self ("Okay")
4. M_AF: mixed feelings about books, refer to self ("good and bad; happy and sad")
5. DK: don't know, not sure, can't remember
6. IR: irrelevant comment
7. NAQ: Not answer the question asked
8. CI: can't interpret
   NA: not applicable question (didn't see this clip)
9. QN: question not asked
10. OTH: other

2) [Prompt: Why did you feel . . .]
18. EN: likes/enjoys books; books are fun (also if refer to reading as something like to do/enjoys/fun)
19. N_EN: doesn't like/doesn't enjoy books; books aren't fun (also if refer to reading as something not like to do/not enjoy/not fun)
20. USF: books useful / helpful
21. N_USF: books not useful / not helpful
22. UG: appropriate usage of book in clip
23. N_UG: not appropriate usage of book (the character was damaging the book)
24. WANT: want to read/look at books
25. N_WANT: not want to read/look at books
26. CHAR: likes the character and/or program ("I like Maggie/Barney/Fairly Odd Parents), television
27. N_CHAR: not like the character and/or program ("I don't like Barney...)
28. READ: because the characters were reading
29. DK: don't know, not sure, can't remember
30. IR: irrelevant comment
31. NAQ: Not answer the question asked
32. RED: redundant
33. CI: can't interpret
    NA: not applicable question (didn't see this clip)
34. QN: question not asked
35. OTH: other

3) What are some things you can do with books?
1. UG: appropriate usage of books – read them, look at pictures

112

2   N_UG: not appropriate usage of books – anything that might damage. break. harm books
3   NOTH: nothing
4   DK: don't know, not sure, can't remember
5   IR: irrelevant comment
6   NAQ: Not answer the question asked
7   CI: can't interpret
     NA: not applicable question (didn't see this clip)
8   QN: question not asked
9   OTH: other

4) What do you use a book for?

1   UG: appropriate usage of books – read them, look at pictures
2   N_UG: not appropriate usage of books – anything that might damage. break. harm books
3   NOTH: Nothing
4   DK: don't know, not sure, can't remember
5   IR: irrelevant comment
6   NAQ: Not answer the question asked
7   CI: can't interpret
     NA: not applicable question (didn't see this)
8   QN: question not asked
9   OTH: other

5) How did Barney and the kids in the clip feel about books?

1   P_AF: Positive feeling about books, refer to characters ("good, fine. happy")
2   N_AF: Negative feeling about books, refer to characters ("mad, tired, bored. sad, grumpy")
3   OK_AF: Okay feeling about books. refer to characters ("Okay")
4   M_AF: mixed feelings about books. refer to characters ("good and bad; happy and sad")
5   DK: don't know, not sure, can't remember
6   IR: irrelevant comment
7   NAQ: Not answer the question asked
8   CI: can't interpret
     NA: not applicable question (didn't see this clip)
9   QN: question not asked
10   OTH: other

6) [Prompt: Why did they feel . . . ?]

1   EN: like/enjoy books; books are fun (also if refer to reading as something like to do/enjoys/fun)
2   N_EN: doesn't like/doesn't enjoy books; books aren't fun (also if refer to reading as something not like to do/not enjoy not fun)
3   USF: books useful / helpful
4   N_USF: books not useful / not helpful

5   UG: appropriate usage of book in clip
6   N_UG: not appropriate usage of book (the character was damaging the book)
7   WANT: want to read/look at books
8   N_WANT: not want to read/look at books
9   FUN: they're having fun (but response not specific to reading/books, e.g., "because he's having so much fun)
10 N_FUN: they're not having fun (response not specific to reading/books
11 PLAY: they were playing (a lot)
12 READ: because they were reading
13 KNOW: they know about books
14 DK: don't know, not sure, can't remember
15 IR: irrelevant comment
16 NAQ: Not answer the question asked
17 RED: redundant
18 CI: can't interpret
    NA: not applicable question (didn't see this clip)
19 QN: question not asked
20 OTH: other

7) **What did the Barney and the kids in the clip think about books?**
1   EN: think books are great, enjoyable, fun, good
2   N_EN: think books aren't great, not enjoyable, not fun
3   USF: think books are useful /helpful
4   N_USF: think books aren't useful / helpful
5   UG: books are for reading, or other appropriate uses of books (looking at pictures, etc.)
6   DK: don't know, not sure, can't remember
7   IR: irrelevant comment
8   NAQ: Not answer the question asked
9   CI: can't interpret
    NA: not applicable question (didn't see this clip)
10 QN: question not asked
11 OTH: other

8) **[Prompt: Why did they think books are ...]**
1   EN: think books are great, good, enjoyable, fun (refers to the character), likes books
2   N_EN: think books aren't great, not good, not enjoyable, not fun (refers to the character)
3   WANT: they wanted to read them
4   N_WANT: they didn't want to read them
5   READ: because they were reading them (books)
6   DK: don't know, not sure, can't remember
7   IR: irrelevant comment
8   NAQ: Not answer the question asked
9   RED: redundant

10 CI: can't interpret
   NA: not applicable question (didn't see this clip)
11 QN: question not asked
12 OTH: other

Pair 3

Maggie and the Ferocious Beast

1) How did that part [that we just watched] make you feel about reading?

1 P_AF: Positive feeling about reading, refer to self ("good, fine, happy")
2 N_AF: Negative feeling about reading, refer to self ("mad, tired, bored, sad, grumpy")
3 OK_AF: Okay feeling about reading, refer to self ("Okay")
4 M_AF: mixed feelings about reading, refer to self ("good and bad; happy and sad")
5 DK: don't know, not sure, can't remember
6 NAQ: not answer the question asked
7 IR: irrelevant comment
8 CI: can't interpret
   NA: not applicable question (didn't see this clip)
9 QN: question not asked
10 OTH: other

2) [Prompt: Why did you feel . . .]

1 EN: likes/enjoys reading; reading is fun
2 N_EN: doesn't like/doesn't enjoy reading; reading isn't fun
3 USF: reading useful for learning something; reading helpful for learning /making something
4 N_USF: reading not useful for learning something; reading not helpful for learning/making something
5 CHAR: likes the character and/or program ("I like Maggie/Barney/Fairly Odd Parents), television
6 N_CHAR: not like the character and/or program ("I don't like Barney...)
7 PRACT: practice
8 N_PLAY: couldn't play the game (the character)
9 DK: don't know, not sure, can't remember
10 IR: irrelevant comment
11 RED: redundant
12 NAQ: not answer the question asked
13 CI: can't interpret
   NA: not applicable question (didn't see this clip)
14 QN: question not asked
15 OTH: other

3) How would you feel about reading a book to learn to play a new game?

1   P_AF: feel good, happy, fine about reading a book
2   N_AF: feel not good, bad, sad, bored, grumpy about reading a book
3   OK_AF: feel okay about reading
4   M_AF: mixed feelings about reading
5   DK: don't know, not sure, can't remember
7   IR: irrelevant comment
8   CI: can't interpret
6   NAQ: not answer the question asked
    NA: not applicable question (didn't see this clip)
9   QN: question not asked
10 OTH: other

4) [Prompt: Why do you feel...?]

1   N_LONG: too long (to read)
2   EN: likes/enjoys reading; reading is fun
3   N_EN: doesn't like/doesn't enjoy reading; reading isn't fun
4   USF: reading useful for learning something; reading helpful for learning /making something
5   N_USF: reading not useful for learning something; reading not helpful for learning/making something
6   DK: don't know, not sure, can't remember
7   IR: irrelevant comment
8   CI: can't interpret
9   RED: redundant
10 NAQ: not answer the question asked
    NA: not applicable question (didn't see this clip)
11 QN: question not asked
12 OTH: other

5) Would you use a book to learn a new game?

1   Y: Yes, would use a book
2   N: No, wouldn't use a book
3   M: Maybe would use a book
4   BOTH: both yes and no
5   DK: don't know, not sure, can't remember
6   IR: irrelevant comment
7   CI: can't interpret
8   NAQ: not answer the question asked
    NA: not applicable question (didn't see this clip)
9   QN: question not asked
10 OTH: other

6) [Prompt: Why or why not?]

1   USF: reading useful for learning something; reading helpful for learning making something (tells you how to play the game)

2   N_USF: reading not useful for learning something; reading not helpful for learning/making something
3   EN: likes/enjoys reading; reading is fun
4   N_EN: doesn't like/doesn't enjoy reading; reading isn't fun
5   WANT: something want to do
6   N_WANT: something don't want to do
7   DK: don't know, not sure, can't remember
8   IR: irrelevant comment
9   NAQ: not answer the question asked
10 RED: redundant
11 CI: can't interpret
    NA: not applicable question (didn't see this clip)
12 QN: question not asked
13 OTH: other

7) Can books help people to learn to play something new?
1   Y: Yes, books can help
2   N: No, books can't help
3   S: sometimes
4   DK: don't know, not sure, can't remember
5   IR: irrelevant comment
6   CI: can't interpret
7   NAQ: not answer the question asked
    NA: not applicable question (didn't see this clip)
8   QN: question not asked
9   OTH: other

8) [Prompt: Why or why not?]
1   USF: reading useful for learning something; reading helpful for learning /making something (tells you how to play the game)
2   N_USF: reading not useful for learning something; reading not helpful for learning/making something
3   VAL: reading itself is valuable; reading for reading's sake; reading is good for you
4   N_VAL: reading is not valuable; reading is not good for you
5   KNOW: know how to play/make
6   N_KNOW: don't know how to play/make
7   DK: don't know, not sure, can't remember
8   IR: irrelevant comment
9   NAQ: not answer the question asked
10 RED: redundant
11 CI: can't interpret
    NA: not applicable question (didn't see this clip)
12 QN: question not asked
13 OTH: other

9) How did Maggie feel about reading a book to learn to play a new game?

    1 P_AF: feel good, happy, fine about reading a book, refers to character

    2 N_AF: feel not good, bad, sad, bored, grumpy about reading a book, refers to character

    3 OK_AF: feel okay about reading, refers to character

    4 M_AF: mixed feelings about reading, refers to character

    5 DK: don't know, not sure, can't remember

    7 IR: irrelevant comment

    6 NAQ: not answer the question asked

    8 CI: can't interpret

       NA: not applicable question (didn't see this clip)

    9 QN: question not asked

  10 OTH: other

10) [Prompt: Why did she feel...?]

    1 KNOW: knows (or will know how after reading) how to play the game

    2 N_KNOW: Doesn't know how to play the game (she gives up, doesn't play the game)

    3 USF: reading useful for learning something; reading helpful for learning /making something (tells her how to play the game)

    4 N_USF: reading not useful for learning something; reading not helpful for learning/making something

    5 MEANS: reading is a means to an end (he liked making kites...so had to read in order to get to that end)

    6 EN: Character likes/enjoys reading; reading is fun

    7 N_EN: character doesn't like/doesn't enjoy reading; reading isn't fun

    8 N_LONG: too long (to read)

    9 HARD: hard to do (learn to play a game)

  10 GIVE: gives up

  11 N_PLAY: character couldn't play the game

  12 N_BK: not a good book

  13 DK: don't know, not sure. can't remember

  14 IR: irrelevant comment

  15 NAQ: not answer the question asked

  16 RED: redundant

  17 CI: can't interpret

       NA: not applicable question (didn't see this clip)

  18 QN: question not asked

  19 OTH: other

<u>Sesame Street</u>

1) How did this clip make you feel about reading?

    1 P_AF: Positive feeling about reading. refer to self ("good. fine. happy")

    2 N_AF: Negative feeling about reading. refer to self ("mad. tired. bored. sad. grumpy")

3   OK_AF: Okay feeling about reading, refer to self ("Okay")
4   M_AF: mixed feelings about reading, refer to self ("good and bad; happy and sad")
5   DK: don't know, not sure, can't remember
7   IR: irrelevant comment
6   NAQ: not answer the question asked
8   CI: can't interpret
    NA: not applicable question (didn't see this clip)
9   QN: question not asked
10 OTH: other

2) [Prompt: Why did you feel . . .]
1   EN: likes/enjoys reading; reading is fun
2   N_EN: doesn't like/doesn't enjoy reading; reading isn't fun
3   BOTH_EN: likes and doesn't like reading; enjoys/doesn't enjoy reading
4   USF: reading useful for learning something; reading helpful for learning /making something
5   N_USF: reading not useful for learning something; reading not helpful for learning/making something
6   CHAR: likes the character and/or program ("I like Maggie/Barney/Fairly Odd Parents), television
7   N_CHAR: not like the character and/or program ("I don't like Barney...)
8   PRACT: practice
9   DK: don't know, not sure, can't remember
10 IR: irrelevant comment
11 NAQ: not answer the question asked
12 RED: redundant
13 CI: can't interpret
    NA: not applicable question (didn't see this clip)
14 QN: question not asked
15 OTH: other

3) How would you feel about reading a book to learn to make something?
1   P_AF: feel good, happy, fine about reading a book
2   N_AF: feel not good, bad, sad, bored, grumpy about reading a book
3   OK_AF: feel okay about reading
4   M_AF: mixed feelings about reading
5   DK: don't know, not sure, can't remember
7   IR: irrelevant comment
6   NAQ: not answer the question asked
8   CI: can't interpret
    NA: not applicable question (didn't see this clip)
9   QN: question not asked
10 OTH: other

4) [Prompt: Why do you feel...?]
  1 N_LONG: too long (to read)
  2 EN: likes/enjoys reading; reading is fun
  3 N_EN: doesn't like/doesn't enjoy reading; reading isn't fun
  4 USF: reading useful for learning something; reading helpful for learning /making something
  5 N_USF: reading not useful for learning something; reading not helpful for learning/making something
  6 DK: don't know, not sure, can't remember
  7 IR: irrelevant comment
  8 NAQ: not answer the question asked
  9 RED: redundant
  10 CI: can't interpret
     NA: not applicable question (didn't see this clip)
  11 QN: question not asked
  12 OTH: other

5) Would you use a book to learn to make something?
  1 Y: Yes, would use a book
  2 N: No, wouldn't use a book
  3 M: Maybe would use a book
  4 BOTH: Both yes and no
  5 DK: don't know, not sure, can't remember
  6 IR: irrelevant comment
  7 NAQ: not answer the question asked
  8 CI: can't interpret
     NA: not applicable question (didn't see this clip)
  9 QN: question not asked
  10 OTH: other

6) [Prompt: Why or why not?]
  1 USF: reading useful for learning something; reading helpful for learning /making something (tells you how to play the game)
  2 N_USF: reading not useful for learning something; reading not helpful for learning/making something
  3 EN: likes/enjoys reading; reading is fun
  4 N_EN: doesn't like/doesn't enjoy reading; reading isn't fun
  5 WANT: something want to do
  6 N_WANT: something don't want to do
  7 DK: don't know, not sure, can't remember
  8 IR: irrelevant comment
  9 NAQ: not answer the question asked
  10 RED: redundant
  11 CI: can't interpret
     NA: not applicable question (didn't see this clip)
  12 QN: question not asked

13 OTH: other

7) Can books help people to learn to make something new?
1   Y: Yes, books can help
2   N: No, books can't help
3   S: Sometimes
4   DK: don't know, not sure, can't remember
5   IR: irrelevant comment
6   NAQ: not answer the question asked
7   CI: can't interpret
   NA: not applicable question (didn't see this clip)
8   QN: question not asked
9   OTH: other

8) [Prompt: Why or why not?]
1   USF: reading useful for learning something; reading helpful for learning /making something (tells you how to play the game)
2   N_USF: reading not useful for learning something; reading not helpful for learning/making something
3   VAL: reading itself is valuable; reading for reading's sake; reading is good for you
4   N_VAL: reading is not valuable; reading is not good for you
5   KNOW: know how to make/play
6   N_KNOW: don't know how to make/play
7   DK: don't know, not sure, can't remember
8   IR: irrelevant comment
9   NAQ: not answer the question asked
10 RED: redundant
11 CI: can't interpret
   NA: not applicable question (didn't see this clip)
12 QN: question not asked
13 OTH: other

9) How did Elmo and Zoë feel about reading a book to learn to make a kite?
1   P_AF: feel good, happy, fine about reading a book, refers to characters
2   N_AF: feel not good, bad, sad, bored, grumpy about reading a book, refers to characters
3   OK_AF: feel okay about reading, refers to characters
4   M_AF: mixed feelings about reading, refers to characters
5   DK: don't know, not sure, can't remember
6   IR: irrelevant comment
7   NAQ: not answer the question asked
8   CI: can't interpret
   NA: not applicable question (didn't see this clip)
9   QN: question not asked
10 OTH: other

10) [Prompt: Why did they feel ... ?]

1 KNOW: knows (or after reading will know) how to make kite

2 N_KNOW: Doesn't know how to play the game (they gives up, doesn't know how to make kite)

3 USF: reading useful for learning something; reading helpful for learning /making something (tells them how to make kite)

4 N_USF: reading not useful for learning something; reading not helpful for learning/making something

5 MEANS: reading is a means to an end (they liked making kites...so had to read in order to get to that end); they want to make a kite

6 EN: Characters like/enjoy reading; reading is fun

7 N_EN: characters don't like/don't enjoy reading; reading isn't fun

8 N_LONG: too long (to read)

9 HARD: hard to do (learn to make a kite)

10 GIVES: gives up

11 DK: don't know, not sure, can't remember

12 IR: irrelevant comment

13 NAQ: not answer the question asked

14 RED: redundant

15 CI: can't interpret

16 NA: not applicable question (didn't see this clip)

17 QN: question not asked

18 OTH: other

References

Alperowicz, C. (1982). *Arts for young audiences: An ACT handbook.* Newton, MA: Action for Children's Television.

American Academy of Pediatrics. (1999). Media education. *Pediatrics, 104,* 341-343.

Anderson, D. R., Huston, A. C., Schmitt, K., Linebarger, D. L., & Wright, J. C. (2001). Early childhood television viewing and adolescent behavior: The recontact study. *Monographs of the Society for Research in Child Development, 66* (1, Serial No. 264).

Baker, L., & Wigfield, A. (1999). Dimensions of children's motivation for reading and their relations to reading activity and reading achievement. *Reading Research Quarterly, 34,* 452-77.

Ball, S., & Bogatz, G. A. (1970). *The first year of "Sesame Street": An evaluation.* Princeton, NJ: Educational Testing Service.

Bandura, A. (2002). Social cognitive theory of mass communication. In J. Bryant & D. Zillman (Eds.), *Media effects: Advances in theory and research* (pp. 121-153). Mahwah, NJ: Lawrence Erlbaum Associates.

Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. *Journal of Abnormal and Social Psychology, 66,* 3-11.

Bickham, D. S., Wright, J. C., & Huston, A. C. (2001). Attention, comprehension, and the educational influence of television. In D. G. Singer & J. L. Singer (Eds.), *Handbook of children and media* (pp. 101-119). Thousand Oaks, CA: Sage Publications.

Bryant, J., & Anderson, D. R. (1983). *Children's understanding of television: Research on attention and comprehension.* New York: Academic Press.

Collins, W. A. (1983). Interpretation and inference in children's television viewing. In J. Bryant & D. R. Anderson (Eds.), *Children's understanding of television: Research on attention and comprehension* (pp. 125-150). New York: Academic Press.

Committee on Public Education. (2001). Children, adolescents, and television. *Pediatrics, 107,* 423-426

Dyson, A.H. (2003) *The brothers and sisters learn to write: Popular literacies in childhood and school cultures.* New York: Teachers College Press.

Elley, W. B. (1992). *How in the world do students read?* Hamburg, Germany: International Association for the Evaluation of Educational Achievement.

Eron, L. D., & Huesmann, L. R. (1986). The role of television in the development of prosocial and antisocial behavior. In. D. Olweus, J. Block, & M. Radke-Yarrow (eds.), *The development of prosocial and antisocial behavior: Research, theories, and issues* (pp. 285-314) New York: Academic Press.

Federal Communications Commission. (2005). *Children's educational television.* Retrieved August 22, 2005, from Federal Communications Commission Web site: http://www.fcc.gov/mb/policy/kidstv.html

Fields, A. (2005). *Discovering statistics using SPSS.* Thousand Oaks: Sage Publications.

Fisch, S. M. (2004). *Children's learning from educational television:* Sesame Street *and beyond.* Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Ford. T. (1997). Effects of stereotypical television portrayals of African-Americans on person perception. *Social Psychology Quarterly, 60,* 266-278.

Gambrell, L. B., & Morrow, L. M. (1996). Creating motivating contexts for literacy learning. In L. Baker, P. Afflerbach, & D. Reinking (Eds.), *Developing engaged readers in home and school communities.* Mahwah, NJ: Lawrence Erlbaum.

Greenberg, B. S., Mastro, D., & Brand, J. E. (2002). Minorities and the mass media: Television into the 21st century. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 333-351). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Guthrie, J. T., Schafer, W., Wang, Y., & Afflerbach, P. (1993). Influences of instruction on reading engagement: An empirical exploration of a social-cognitive framework of reading activity (Research Report No. 3). Athens, GA: National Reading Research Center.

Healy, J. M. (1990). *Endangered minds: Why our children don't think.* New York: Simon & Schuster.

Hockenberry-Eaton, M., Wilson, D., & Winkelstein, M. L. (2005). *Wong's essentials of pediatric nursing.* 7th ed. St. Louis, MO: Mosby.

Huesmann, L. R. (1982). Television violence and aggressive behavior. In D. Pearl, L. Bouthilet, & J. Lazar (Eds.), *Television and behavior: Ten years of scientific progress and implications for the eighties: Vol. 2, Technical reviews* (pp. 126-137). Washington, DC: U.S. Government Printing Office.

Huesmann, L. R., & Miller, L. S. (1994). Long-term effects of repeated exposure to media violence in childhood. In L. R. Huesmann (Ed.), *Aggressive behavior: Current perspectives* (pp. 153-186). New York: Plenum Press.

Huston, A. C., & Wright, J. C. (1998). Mass media and children's development. In W. Damon (Series Ed.) & I. Sigel, & K. A. Renninger (Vol. Eds.), Handbook of child psychology: Vol. 4. *Child psychology in practice* (5th ed., pp. 999-1058). New York: Wiley.

International Reading Association/National Association for the Education of Young Children. (1998). *Learning to read and write: Developmentally appropriate practices for young children: A joint position statement*. Washington, DC, and Newark, DE: Authors.

International Reading Association/National Council of Teachers of English. (1996). *Standards for the English language arts*. Newark, DE and Urbana, IL: Authors.

Linebarger, D. L. (2000, July 21). *Summative evaluation of Between the Lions: A final report to WGBH Educational Foundation*. Retrieved March 1, 2003, from http://pbskids.org/lions/about/pdf/BTL-Summative.pdf

Linebarger, D. L. (2001). Learning to read from television: The effects of using captions and narration. *Journal of Educational Psychology, 93*, 288-298.

Linebarger, D. L., Kosanic, A. Z., Greenwood, C. R., & Doku, N. S. (2004). Effects of viewing the television program *Between the Lions* on the emergent literacy skills of young children. *Journal of Educational Psychology, 96*, 297-308.

Mates, B. F., & Strommen, L. (1995/1996). Why Ernie can't read: *Sesame Street* and literacy. *The Reading Teacher, 49*, 300-306.

McKenna, M. C. (2001). Development of reading attitudes. In L. Verhoeven & C. Snow (Eds.), *Literacy and motivation: Reading engagement in individuals and groups* (pp. 135-158). Mahwah, NJ: Lawrence Erlbaum Associates.

McKenna, M. C., & Kear, D. J. (1990). Measuring attitude toward reading: A new tool for teachers. *The Reading Teacher, 43*, 626-639.

McKenna, M. C., Kear, D. J., & Ellsworth, R. A. (1995). Children's attitudes toward reading: A national survey. *Reading Research Quarterly, 30*, 934-956.

Morgan, M. (1987). Television, sex-role attitudes, and sex role behavior. *Journal of Early Adolescence, 7*, 269-282.

Mosby. (2007). *Wong on Web*. Retrieved October 1, 2006 from http://www.mosbysdrugconsult.com/WOW

Moses, A. M., & Duke, N. K. (2006). *Two weeks of television: Portraits of print literacy on children's programming.* Unpublished manuscript, Michigan State University.

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.* Washington, DC: National Institutes of Health, National Institute of Child Health and Human Development

Neapolitan, D.M., & Huston, A. C. (1994). *Educational content of children's programs on public and commercial television* (Report to the Public Broadcasting System). Lawrence KS: CRITC.

Neuman, S. B. (1988). The displacement effect: assessing the relation between television viewing and reading performance. *Reading Research Quarterly, 23,* 414-440.

Neuman, S. B. (1995). *Literacy in the television age: The myth of the TV effect.* Norwood, NJ: Ablex Publishing Corporation.

Neuman, S.B., & Prowda, P. (1982). Television viewing and reading achievement. *Journal of Reading, 25,* 666-670.

Paik, H., & Comstock, G. A. (1994). The effects of television violence on antisocial behavior: A meta-analysis. *Communication Research, 21,* 516-546.

Postman, N. (1994). *The disappearance of childhood.* New York: Vintage.

Pressley, M. (2002). *Reading instruction that works: The case for balanced instruction.* New York: Guilford Press.

Purcell-Gates, V. (1996). Stories, coupons, and the "TV Guide": Relationships between home literacy experience and emergent literacy knowledge. *Reading Research Quarterly, 31,* 406-428.

Purves, A. C., & Beach, R. (1972). *Literature and the reader: research in response to literature, reading interests, and the teaching of literature.* Urbana, IL: National Council of Teachers of English.

Rice, M. L., Huston, A. C., Truglio, R., & Wright, J. (1990). Words from *Sesame Street*: Learning vocabulary while viewing television. *Developmental Psychology, 26,* 421-428.

Rideout, V. J., Vandewater, E. A., & Wartella, E. A. (2003). *Zero to six: Electronic media in the lives of infants, toddlers and preschoolers.* Menlo Park, CA: The Henry J. Kaiser Family Foundation.

Rothschild, N. (1984). Small group affiliation as a mediating factor in the cultivation process. In G. Melischck, K. E. Rosengren, & J. Stappers (Eds.), *Cultural indicators: An international symposium* (pp. 377-387). Vienna: Verlag der Osterreichischen Akademie der Wissenschaften.

Saracho, O. N. (1984). Using observation to assess young children's reading attitudes. *Reading Horizons, 25*, 68-71.

Saracho, O. N. (1986). The development of the Preschool Reading Attitudes Scale. *Child Study, 16*, 113-124.

Saracho, O. N. (1988). Preschool Reading Attitudes Scale. *Early Child Development and Care, 37*, 93-108.

Saracho, O. N., & Dayton, C. M. (1991). Age-related changes in reading attitudes of young children: A cross-cultural study. *Journal of Research in Reading, 14*, 33-45.

Signorielli, N., & Lears, M. (1992). Children, television and conceptions about chores: Attitudes and behaviors. *Sex Roles, 27*, 157-170.

Singer, J. L., & Singer, D. G. (1981). *Television, imagination and aggression: A study of preschoolers*. Hillsdale. NJ: Lawrence Erlbaum.

Singer, J. L., & Singer, D. G. (1994). Barney and Friends *as education and entertainment: Phase2—Can children learn through preschool exposure to* Barney and Friends? New Have, CT: Yale University Family Television Research and Consultation Center.

Sparks, G. G., & Sparks, C. W. (2002). Effects of media violence. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 269-285). Mahwah, NJ: Lawrence Erlbaum.

Sperling, R. A., & Head, D. M. (2002). Reading attitudes and literacy skills in prekindergarten and kindergarten children. *Early Childhood Education Journal, 29*, 233-236.

Sulzby, E., & Teale, W. (1991). Emergent literacy. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 727-758). New York: Longman.

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (3rd ed.). New York: Harper Collins.

Walberg, H. J., & Tsai, S. (1985). Correlates of reading achievement and attitudes: A national assessment study. *Journal of Educational Research, 78*, 159-167.

Wan, G. (2000). *Barney & Friends: An evaluation of the literacy learning environment created by the TV series for children*. Early version of the paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Quebec, Canada (1999, April). (ERIC Document Reproduction Service No. 438900)

Whitehurst, G. J., & Lonigan, C. J. (2001). Emergent literacy: Development from prereaders to readers. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of Early Literacy Research* (pp. 11-29). New York: Guilford Press.

Winn, M. (2002). *The plug-in drug: Television, computers, and family life*. New York: Penguin Books.

Wong, D. L., & Baker, C. M. (1991). *FACES Pain Rating Scale*. Retrieved October 1, 2006, from http://www.mosbysdrugconsult.com/WOW/faces.html

Wood, J. M., & Duke, N. K. (1997). Inside *Reading Rainbow*: A spectrum of strategies for promoting literacy. *Language Arts, 74,* 95-106.

Wright, J. C., Huston, A. C., Murphy, K. C., St. Peters, M., Pinon, M., Scantlin, R., & Kotler, J. (2001). The relations of early television viewing to school readiness and vocabulary of children from low-income families: The early window project. *Child Development, 72,* 1347-1366.

Zuckerman, D. M., Singer, D. G., & Singer, J. L. (1980). Children's television viewing, race, and sex-role attitudes. *Journal of Applied Social Psychology, 10,* 281-294.